UNITED STATES DEPARTMENT OF AGRICULTURE

+ + + + +

NATIONAL ORGANIC STANDARDS BOARD

+ + + + +

MEETING

+ + + + +

TUESDAY, NOVEMBER 18, 2008

+ + + + +

The board meeting was held at the Savoy Suites Hotel, 2505 Wisconsin Avenue, NW,

Washington, DC, 20007, at 8:00 a.m., Rigoberto Delgado, Chairperson, presiding.

PRESENT:

RIGOBERTO I. DELGADO, Chair JEFFREY W. MOYER, Vice Chair GERALD DAVIS

STEVE DEMURI
KRISTINE ELLOR
KEVIN ENGELBERT
BARRY FLAMM
DANIEL G. GIACOMINI
JENNIFER M. HALL
BEA E. JAMES

HUBERT J. KARREMAN TRACY MIEDEMA JOSEPH SMILLIE JULIE S. WEISMAN

STAFF PRESENT:

KATHERINE BENHAM

VALERIE FRANCES

ANDREW REGALADO

BARBARA ROBINSON

JUDITH RAGONESI

MARK BRADLEY

RICHARD MATTHEWS

ROBERT POOLER

SHANNON NALLY

RUIHONG GUO

VALERIE SCHMALE

TAMMIE WILLBURN

BABAK RASTGOUFARD

ZAHA LOMAX

SHAUNTA NEWBY

C O N T E N T S

_	Development Committee Barry Flam, Chairperson	4
) (1	Materials and Policy Development Committee	. 28
	als Committee	. 37
_ (ance, Accreditation and Certification Committee	.101
Cer	Crops & Compliance, Accreditation, and tification Committee	.150
_	Committee	.184
	ock Committee	.230
Handli	ng Committee	.251
ı	Julie Weisman, Chairperson	
	Comment on NOSB Action & Discussion Items	.315
Adjour	n	

1	P-R-O-C-E-E-D-I-N-G-S
2	MR. DELGADO: Good morning. We
3	are starting this day two of our meeting. And
4	first of all, we have Ms. Weisman, and I would
5	like to thank whoever is responsible for these
6	wonderful and extended tables. It's Al.
7	Thank you.
8	(Applause.)
9	Welcome to all of you to day two.
10	We have also a busy schedule today, and we're
11	going to start with a discussion on the
12	recommendations on the part of all the
13	committees.
14	With nothing else to say, and
15	let's get back on schedule and start
16	immediately with our Policy Development
17	Committee chair, Dr. Barry Flamm, please.
18	POLICY DEVELOPMENT COMMITTEE
19	MR. FLAMM: The Policy Development
20	Committee has 10 recommendations for new
21	language in the policy development manual, the
22	policy procedure manual and in the new member

1 guide.

8

9

10

11

All this is a team effort of the

Policy Development Committee, so following

that concept, each of the members of the

committee will present. In most cases they

took the lead on it, but like I said, all this

was a team effort.

An important part of that team is our esteemed chairperson, and he is not available to make presentations, but he was a major part in the development of all this.

So to lead off, Hugh, will you present the technical directions, please.

MR. KARREMAN: Yes. Thank you very much.

Okay. The first item we are going
to discuss in policy development is the
technical corrections. Basically technical
corrections are those actions needed to
slightly change some of the wording that
perhaps happened or were placed in the Federal
Register from a recommendation by the NOSB,

1 and then accepted by the Secretary. And those 2 changes sometimes -- for example, like with the livestock medicines, the withholding times 3 came in through a little bit differently than 5 the NOSB recommended, and due to external reasons -- nothing the NOSB could have really 7 done, because the FDA weighed in, but the recommendation came through differently in the 8 9 Federal Register, and then was voted on by the 10 NOSB.

11

12

13

14

15

16

17

18

19

20

21

22

As well as -- so that would be like one example. Something perhaps needing a technical correction or we need to be aware of sooner than later as a board.

A second example would be unforeseen consequences of a recommendation voted on by the board that might require more annotations to fit the needs of the industry. The example given is the absence of an explicit description of what methods of extraction are allowed for specific materials, and if it's not annotated correctly, it could

result in the unwanted use of materials

extracted using prohibited extraction such as

hexane with the colors on 606, using hexane

and ethanol. They were not reviewed, but

water and oil extraction were.

So basically, you know, the recommendation needs maybe some tweaking, but it's already gone into the Federal Register.

So what we recommend is -- it's an internal NOSB thing within the policy and procedures manual, and so what we are recommending is to minimize the confusion in the organic community, the board needs to monitor and correct discrepancies between items which have been voted on and their subsequent insertion in the Register. When -- some examples I just mentioned.

So here are the three steps that we would like to recommend. The secretary of the board, with the assistance of the National Organic Standards Board executive director, shall review all additions to the Federal

Register and report to the board any
discrepancies between board recommendations

Two, when the program incorporates changes to recommendations voted and presented by the board, the program is expected to communicate these changes prior to final action by the program to the board chair, vice chair, and secretary.

and those published in the Federal Register.

The board chair, vice chair, and secretary will report such activities to the board and then work with the program in order to assist the program in stating the exact reasons for such deviations in the preamble to the rule for changes posted.

And then three, in the cases of unintended consequences, with a published recommendation, the chair of the board, with the approval of the executive committee, will assign an appropriate committee to resolve the issue.

The Policy Development Committee

22

The recommendation takes a current

1	NOSB policy for public comment at NOSB
2	meetings and it strengthens it by further
3	defining public comment into eight points. I
4	won't go into all of those eight points, but
5	just talk mostly about the changes that are
6	highlighted in the recommendation.
7	Point one remains the same.
8	Point two states that presenters
9	are encouraged to submit public comment in
10	advance so that the NOSB can review
11	recommendations electronically and we can save
12	on the paper distribution at meetings.
13	Point three states that all
14	persons called upon who are absent from the
15	room could miss their opportunity to speak.
16	Point four includes the addition
17	of the discretion of the chair to extend time
18	past five minutes of sign-up.
19	Point five requests presenters to
20	state their name and affiliation at the
21	beginning of their public comment.
22	Point six stays the same.

Point seven states that presenters
should not speak for more than 10 minutes
unless otherwise indicated by the chair. The
main thing there was "unless otherwise
indicated by the chair" was added.

And point eight stays the same.

There's also -- we also added additional suggestions from the board into three different bullet points, and to summarize those:

attempt to accommodate all persons requesting public comment. However, if people sign up at the last minute or that -- okay. Persons who have signed up to address the NOSB for their five-minute slot and have also served as a proxy for another person will be placed on a waiting list if they wish to speak for a third time on the same topic and will be considered at the discretion of the chair, depending on the availability of the time. And this should allow more members of the public time to

present, and the main point there is really

just to make sure that we're allowing all

people, particularly people who haven't signed

up to speak, the opportunity to speak.

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

And then the next bullet is that members of the public are asked to define clearly and succinctly the issues that they are trying to address so that we are -- at the beginning so that we are really clear on what it is that you are lobbying for.

And the third one is members of the public should be considerate about speaking more than one time on the same topic to allow more members of the public the opportunity to speak.

And those last three bullets that
I just read are really in consideration. The
board would like you to consider it. It's not
something that is required.

20 That pretty much concludes the 21 public comment recommendation.

MR. FLAMM: And next we continue

with the election of officers? 1 2. MS. JAMES: Yes. Okay, 3 recommendation for guidelines for developing -- let's see here -- for further process for 5 the election of officers. The main point of this 7 recommendation is that during the election of officers, it's usually at the very end of our 8 9 meetings, and we developed this so that we can 10 actually get out of here to catch our flights. 11 So that's the main point of that recommendation. 12 13 The first part of the recommendation adds the election of officers 14 15 as part of the officers' duties. That was never clearly defined in the policy and 16 procedure manual. 17 18 The second part of the 19 recommendation outlines a process for the 20 election of officers, including defining

21

22

exactly what those steps will be. We divided

it up into point A, B, C, and D, which include

- 1 nominations.
- 2 Point A is nominations.
- Point B, the voting schedule.
- 4 Point C, eligibility of the vote.
- 5 And Point D, counting procedures
- for the vote.
- 7 And there's further explanation of
- 8 exactly what those points involve.
- 9 And unless there's questions
- 10 later, that summarizes that recommendation.
- MR. FLAMM: And finally the
- 12 committee work plans.
- MS. JAMES: Okay. The last
- 14 recommendation is for the guidelines for
- developing committee work plans. This
- 16 recommendation outlines that the committee
- 17 chair, working with the committee, should
- 18 follow three general steps in producing a work
- 19 plan.
- 20 One, list all the issues before
- 21 the committee.
- 22 Prioritize the issues.

Three, set a calendar or timeline
to complete your plan.
And four, obtain feedback from the
executive committee as well as the program.
And then further action points to
assist these steps are also outlined on the
recommendation.
MR. FLAMM: Thank you.
MR. KARREMAN: The next
recommendations on sunset. I found when I
came on the board earlier this year in reading
the manual of both manuals that I found I
was totally lost at what sunset was about.
There was not sufficient
background, and the charts were confusing and
so forth.
So we took on during this round to
try to provide a clarification for the policy
and procedure manual through outline of what
has been done and present it in a simplifed
fashion, giving background and so forth.
One of the keys, I think, of a

beautiful flow chart that Rigo developed that
if you follow it closely and line it up with
the steps in the narrative, it pretty much
outlines what happens in the sunset.

5

6

7

8

17

18

19

20

Sunset is described and the sunset procedure is required under the act. There never was regulations actually issued on this, so the procedures have evolved over time.

9 I think as you see -- and I won't 10 go into all the details, but what is outlined 11 here is I think a balanced process of 12 considering all the evidence from the previous 13 -- from the initial petition, TAPS, whatever was available at that time, plus new 14 15 information, comments from the public, and the expertise of the assigned committees. 16

So in summary this outlines the process in ways that hopefully it's clear to the public and clear to the members of the board.

The next is recommendations.

Hugh, would you present that, please.

1	MR. KARREMAN: The next
2	recommendation is it's to formulate. It's
3	basically the structure of how to formulate a
4	committee recommendation to provide
5	consistency in the content of all NOSB
6	recommendations.
7	Essentially there's six parts.
8	The introduction basically is a brief summary
9	of the recommendation.
10	Then a background section that
11	should present the issues that justify the
12	development of the recommendation, any
13	relevant task work.
14	Third part would be relevant areas
15	in the rules that the recommendation hinges
16	upon or in OFPA.
17	And then a discussion which could
18	expand on the intent of the recommendation,
19	showing its strengths, weaknesses,
20	opportunities, and threats.
21	And the fifth part is the
22	recommendation itself, is the core or

deliverable of the recommendation. 1 2 And then the sixth part would show the committee vote, and then if there's a 3 minority opinion, that would be attached after 5 where the committee vote is shown. 6 MR. FLAMM: And now we move to 7 recommendations. We have a couple of 8 recommendations with the new member guide. 9 Bea, would you discuss the recommendation on 10 training? 11 This is very MS. JAMES: Yes. 12 simple. With the new member guide, we just 13 added the addition of new members making sure that they read the FACA training PowerPoint 14 15 that Valerie has put together, which is located on the nationalegglosscenter.org Web 16 17 site. That's it. 18 19 Actually a fifth MR. FLAMM: 20 member of our team -- we always treat her like 21 a member of the team -- is Valerie Frances,

and she works with us on all these

22

1 recommendations and makes the link, helps us, 2 certainly helps me continuously.

The last item for the new member 3 4 guide is a database update, and Valerie, would you present that, please?

5

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

MS. FRANCES: Barbara alluded to this yesterday. It's certainly in her report in response to Tracy's questions to what happens to all the recommendations. And this has been an ongoing project since I began, and back -- I archived, you know, to the best of my ability on every recommendation made by the board. I still find some as I go, and I incorporated that into an Excel spreadsheet, although I've had to go through the process now of updating every link there because we redid our entire Web site. So all my links were how the Web site used to be set up.

I'm also now beginning a process of creating worksheets within that that then archive the history of specific issues, and so anytime anybody asks me a question, I research the issue and lay it all out on each
worksheet, the whole history of that issue.

So working towards, really, a more workable -- I think of it as a Rubik's cube, you know, in how data works, and would like to get us to a place where we can utilize this and even put on the Web site somehow, but begin to look at those recommendations that are out there that were either guidances or rule changes that we just haven't gotten to, how to triage them, and what more work needs to be done or, you know, give us some sort of status, will work ever be done on it. Just try to bring everything up to date. And so that's an ongoing project that I'm working on. So that's where that's at.

MR. FLAMM: Thank you. Before I ask if there's any comments or questions from the board, I neglected to mention on sunset that we did receive a couple of public comments, two of which dealt with the question of annotations and the language in the

recommendation on annotations has been in the 1 2 new member guide all along, which is that the material is evaluated in sunset as it was 3 listed in the annotations. 5 I'm not sure whether the way we had this written confused the commenters or 7 not, but in any case, we did have two questions that raised it, asking why didn't 8 9 NOSB look at annotations after sunset, and in 10 fact I think we do. 11 So I just wanted to add that to my 12 previous comments. 13 So now I guess we'll entertain questions and comments, and you can direct 14 15 your question to the -- at least initially to the person who made the report. 16 Is that 17 right, Mr. Chairman? MR. DELGADO: That's fine. 18 19 questions --20 MR. FLAMM: How much time do we 21 have for questions? 22 MR. DELGADO: Not very much, but

- we're in discussion mode. So are there any questions for the Policy Development team?

 Any clarifications? Yes. Tracy.
- MS. MIEDEMA: I had one on just
 developing committee work plans. This has
 been something that's been a little bit
 confusing to me all along. It's sort of what
 seems to percolate to the surface, and I
 really am pleased to see more rigor to how we
 build our work plan.

11

12

13

14

15

16

17

18

19

20

21

22

But I don't see anything in here that talks about the NOP asking us to take up issues, and from what I heard yesterday, that those recommendations are actually the ones most likely to get acted upon.

I want to make sure that we are prioritizing that work. So if you could just help me understand. In the section it talks about identifying all issues, where that falls, what the program, or what the Secretary of Agriculture would like us to work on.

MS. JAMES: Tracy, it's the third

1 point down, special petitions from the 2 National Organic Program, such as clarifications on a particular issue or 3 4 guidance, but maybe we used the wrong word by 5 saying special petitions. MS. MIEDEMA: Because normally the 7 way the NOP requests come to us is in a much 8 less formal manner. It's usually on a 9 conference call. It's in this room. And 10 we're only talking about building our work 11 plan, and the special petition goes from us to 12 the team, the highest priority work landing on 13 the work plan. Maybe it should say 14 MS. JAMES: 15 request or suggestions from? I think we had MR. FLAMM: 16 discussions at our executive committee on how 17 some of this will be sorted out, in 18 19 discussions with her, and maybe that didn't 20 come across as clear as we intended. 21 MR. DELGADO: Very good. 22 Wonderful question.

Any other -- Tracy, any others?

2 Dan?

3 MR. GIACOMINI: Thank you, Mr.

4 Chairman.

5 I think there's just a few things on a couple of these that I think might do 6 7 with some constructive tweaking. In the election of officers, under the voting 8 9 schedule, we say new officers resume the 10 position after the fall board meeting. 11 believe historically it has been after the 12 election, at the conclusion of the meeting, 13 and the new officers actually are the ones who close the meeting, if I have that -- if I 14 15 remember that correctly.

Also down in the counting of
votes, where we're dealing with ties and
revotes, I think it would be good to have an
allowance in there for a person to be able to
withdraw, which is not there now. But that
would help, be something that would help
clarify.

1 On the sunset document, one of the 2. things that I've noticed in the policy and procedure manual that I think is an overall 3 4 view of something that we need to look at 5 working on and clarifying is that it tends to say "approved" or "prohibited." Really, 7 everything, as we're listing things on the national list, is what we approve, and it's 8 9 whether we're allowing it or prohibiting it. 10 It depends on what kind of a substance it is. 11 That's in the background on the sunset review. 12 I would suggest something along 13 the lines of continued listing of an exempted material already listed on the national list, 14 15 rather than talking about approved or prohibited. 16 17 Also, I think it would be very 18 constructive in the sunset process, since one 19 of the aspects of the sunset process is what 20 is new, is to include a review of the original recommendation. 21 22 And I would suggest that -- I

1 would recommend adding that to the document.

2 MR. FLAMM: That would definitely

3 be in there, Dan. Maybe our language wasn't

4 clear enough.

5 MR. DELGADO: Anything else, Dan?

6 Hugh?

7 MR. KARREMAN: It's kind of

8 wordsmithing, just wondering on the discussion

9 that as far as when we look at things for

10 sunset and we re-review, you know, what was

11 the original petition, Dan, what if at the

time of the original petition, due to need for

a particular product, whatever it is, you

14 know, we look at the checklist and we look at

15 all the information, and I think I'd be honest

16 to say that sometimes things -- let's say

17 there's like potential harm to the people in

18 the factory that make a particular material,

19 I think that is one of the checklist items,

20 you know, and that's manufactured, that not

all the checklist items seem to always be

22 given equal weight, depending on what the

1	material is and what might be needed. And so
2	that in the future at sunset, it may be
3	it's going to be a different sitting board
4	that, you know, that that item may mean
5	something different, you know, harmful to the
6	people in the manufacturing of material, than
7	it did to the original board, and I think it
8	would be okay to look at that differently by
9	people on the future board, even though it's
10	the same literally the same information,
11	but it was just viewed differently previously.
12	MR. DELGADO: Dan?
13	MR. GIACOMINI: That's always a
14	possibility, but we can't get there unless we
15	include in the process of sunset the review of
16	the original document. So I mean that's
17	you know, this is what we're looking at here,
18	is what do we put in this document, and I
19	think we need to include that we should
20	recommend that we go back and we get that
21	original recommendation.
22	MR. KARREMAN: Agreed.

1	MR. DELGADO: Any other comments?
2	Does that conclude your
3	presentation? Thank you very much, and I
4	congratulate you on your wonderful work this
5	year as chair of the Policy Committee. In
6	spite of the fact that you're the newest
7	member of the board, you had the courage to
8	step up and take over the committee. I
9	congratulate you for that.
10	Moving on then to the next point,
11	we have a Joint Materials and Policy
12	Development Committee work, and the chair of
13	the Materials Committee will give us their
14	presentation. Dan.
15	MR. GIACOMINI: Thank you, Mr.
16	Chairman.
17	JOINT MATERIALS AND POLICY DEVELOPMENT
18	COMMITTEE
19	MR. GIACOMINI: The evolution as
20	the program and the industry has grown, we've
21	had a number of inputs into that along the
22	lines of lawsuits and changes in viewing of

how things and what things go on the national list and how they are required to be there,

has forced the -- sort of the reevaluation of handling this process. It significantly came to the fore in the review of the 606 items on the question of whether they had been properly TAP'd as required by OFPA.

The program in consultation with general counsel, as Richard said yesterday, reviewed that and the determination has been that the board can serve, and members of the board, committees of the board, can serve as the TAP review, but at the same time we all recognize the need for additional expertise, and additional knowledge and outside of the board, and in some situations the workload would just be unbearable for the board to handle, even when we do have the expertise.

So this is a clarification of that development of the process. We do need to do some tweaking in this along the lines of who convenes the technical review, actually.

1 So -- and that is the process 2 we're clarifying here, is that the -- in a sense the board is serving as a TAP when 3 necessary, when possible. There are certain 5 things in the 606, raw ingredient items and agriculture, that do not need generally the 7 outside additional review. But the -- so there's a 8 9 clarification that the outside third party 10 review is now being -- has been reviewed 11 according to the program as the technical 12 review to supplement the TAP when necessary. 13 That's the essence. We also go into and review the process of developing 14 15 questions, specific questions within the

into and review the process of developing questions, specific questions within the committee, to ask for the technical review and to ask for that technical review to be done, and we further list things to evaluate those reviews when they are completed.

20 That's the essence of the
21 document. There are a few things that need to
22 be tweaked from public comment, a few other

16

17

18

19

items that need to be worked on, but that is 1 2 the essence of it, and I think as extensive a document as it is, if anyone has specific 3 4 questions, we can deal with those. 5 MR. DELGADO: Okay. Thank you. And I also have to remind the board that we 7 are in the process of presenting 8 recommendations. We are not done with public 9 input yet, so there is opportunity to update 10 those, make any changes to your 11 recommendations, just as the chair of the 12 Materials Committee will be doing. 13 At this point are there any questions for the chair of the Materials 14 Committee? 15 Bea. 16 MS. JAMES: Dan, yesterday we 17 heard some people talk a little bit about their concern that the NOSB would actually 18 19 perform a TAP, and I was wondering if you 20 could give me your, you know, perspective on 21 that. 22 MR. GIACOMINI: Well, we have been

1 told that we are able to perform the TAP, but 2 that is not the say -- that is not the end of the process, necessarily, if there's not the 3 time, not the expertise, and I think most 5 members of the board would generally prefer in 6 a technical item, in most of the synthetics, 7 most of the things that would go on everything except 606, and include some of the things 8 9 that will be coming up on 606, that an outside 10 technical review, external technical review, 11 will be requested.

There's no effort within this document and no intent of the document to in any way decrease the external technical review process. It's merely a way of handling the requirement of OFPA to have these reviews within the change of 606, was the main emphasis to this.

19 MR. DELGADO: Julie?

12

13

14

15

16

17

18

MS. WEISMAN: Yes, I actually

21 wanted to just add a comment that maybe would

22 put things in a little perspective because I

have heard a lot of the fear in many people on 1 2. the board and in the room about this issue, which is that before we started actively 3 needing and having to add materials onto 606, 5 there was no even possibility -- like every 6 material that was petitioned was going to need 7 an outside third-party technical review. when we first were presented with the 8 9 situation where we were now going to be 10 reviewing agricultural products, it only then 11 occurred to us that it's possible that some things -- petition materials -- maybe don't 12 13 need third-party technical reviews, if they're something very, you know, simple or raw or 14 15 whatever. And we have also on the board gone 16 through a learning curve in realizing that 17 just because it's an agricultural product 18 19 doesn't mean that it's simple. 20 So there is no thought that just 21 because something is being petitioned for 606, 22 it will not get a third-party technical

1 review. It's only really that there is now 2 the possibility that sometimes there are materials that will come along that perhaps 3 can be reviewed appropriately by the expertise 5 that's on the board if we have time to do it. 6 And so this is really only to open 7 up that possibility, not to propose some radical change in how things have always been 8 9 done. 10 Is that fair? 11 MR. DELGADO: Any other questions, 12 comments? Dan. 13 I'd just like to, MR. GIACOMINI: you know, if there's no questions, I'd like to 14 include that in addition to the issues brought 15 in public comment, the statement that I made 16 17 regarding the documents in -- other documents in the policy and procedure manual is we will 18 19 try to go through this and clean up the 20 addition or removal, clarification that I 21 talked about, and also we are looking at on --22 I can't tell you what page it is, because I

don't have -- Valerie, if you could go to the page after procedure for handling technical reviews. Next page.

We are looking at the C and E. We are very interested -- the board is very interested in knowing the effective interactions in light of what has affectionately been known as the Applegate decision.

So -- and what that says is that anything on the list, anything that interacts with it, that -- yes, if you combine and you create a new material, that new material is also considered on the list.

So we are very interested in including in the technical review what new substances we may be allowing, as much as possible, when any interactions and creation of new materials come -- arise from what else is on the national list.

But C and E is asking the question of what interactions come from everything else

in the universe. And that's a little 1 2 burdensome, I think, in the technical review. 3 So we will be looking to modify 4 that to include a request for the result of 5 combinations of items already on the national list in the same section. There's also no 7 value in knowing what interaction there is from an item on 605 with 601. 8 9 So we will try and keep it 10 relevant. We will try and not over -- make it 11 overburdensome, but we believe that it's very 12 important that we know what those potential 13 things are moving forward. MR. DELGADO: Any other questions? 14 Kevin. 15 Just one quick one 16 MR. ENGELBERT: as a reminder point, and maybe under 17 definitions, under technical advisory panel 18 19 you start out with a group of third-party 20 experts, and then under technical review, you 21 say a report prepared by a third-party expert,

singular. Maybe those two should be

22

- coordinated to avoid confusion, that the 1 2. technical review could also be done by a group 3 of experts. 4 MR. GIACOMINI: One of the changes 5 we need -- additional changes we need to make 6 is deleting third party from the definition of 7 technical of the TAP, because that -- what we are saying in this document is that the TAP 8 9 can be the board. 10 MR. DELGADO: Any other questions? 11 All right. Thank you, Mr. Chairman. Now we 12 are moving on to the next point, also handled 13 by the Materials Committee, and specific recommendations. Back to you. 14
- 15 MATERIALS COMMITTEE
- MR. GIACOMINI: Thank you, Mr.
- 17 Chairman.
- This is the discussion on the

 document to take items from the table. This

 is purely a parliamentary procedure to try and

 get things right. We have been requested in

 public comment numerous of times -- numerous

times over the years to find out and to

satisfy and take care of all these old

petitions that have in one way or another gone

by the wayside and have never received full

final action.

In the process of that -- we are working to do that, and we appreciate in the public comment the lists that various individuals have provided us of petitions that have not seen the end light of day.

We are working with the program on clarifying those, finding, figuring -- trying to establish the status of those, and when possible, if the interest is still within the petitioner, of moving ahead with those.

One of the things that we found in that process is that petitions were put aside in various ways, and in dealing with that, parliamentary -- within parliamentary procedure a very typical way of shelving something is to table it. It puts it up there and you don't act on it again until you take

it off the table. Legislatively that's the
way a lot of things get killed, is to table
because you cannot take action on them again
legally within the rules of parliamentary
procedure without taking them from the table.

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

In the process of evaluating and reviewing old petitions, we came across what we believe are items that were tabled at the board level. Therefore, they require action at the board level to take them off the table so that they can be reconsidered. That is not to say that we are immediately going to go into action on them; they will go back to the program, the program will, if they are multiple item petitions, be rejected. If they are -- if they are individual items, they will be -- the petitioner will be contacted to find out if they still want to continue. If they are very old petitions, the program may even request that a new petition be submitted.

But -- and likewise, if that

22 action was taken at the committee level, then

it is the committee that can take the action to take from the table.

But in this case, we believe that
these are -- it was not -- we tried to be as
inclusive and do as good a job as we could,
but we're not claiming in any way for anyone
think, and we certainly do not believe, that
this was an exhaustive process. We have not
reviewed the transcripts of every public
meeting of the NOSB since its inception, but
these seem to be items that we have found that
were tabled at the board level, and we are
merely trying to take the proper action to
bring them back into play.

Any questions?

MR. DELGADO: Questions? Gerry.

MR. DAVIS: In referencing some of the public comment, one that specifically lists several materials, that -- a couple of them seem to be ones that it was actually in the NOSB court when it was -- I don't know if it was officially tabled, but using that

verbiage, but they seemed to have been in the

NOSB court, and now they are waiting for the

synthetic, nonsynthetic issue to be resolved.

The two materials I reference, for example, would be phosphoric acid use in -- for pH adjustment in aquatic plant extracts, ammonium bicarbonate.

Were those ones that would or should be included on that list there, or is that something different? Different status, you think, than what you tried to list?

MR. GIACOMINI: I don't -- I was not able to go through and track -- we were not able to go through and track each of those items to a particular meeting, to a particular transcript.

But with the historical memory
that we were able to communicate with, a
number of these items, when they reached the
board level, are pulled back by the committee.
It's not the full formal vote of tabling at
the board level that is what we need to deal

1	with here. If it was tabled within the
2	committee, the committee can take it off.
3	MR. DAVIS: No, I understand. The
4	list that you made was stuff that was
5	officially tabled by the full board?
6	MR. GIACOMINI: At the full board
7	level. Technically it requires full board
8	action to bring back into play.
9	MR. DAVIS: Okay.
10	MR. GIACOMINI: And again, one of
11	the questions that was asked yesterday, well,
12	where did this come from? It came from the
13	request that we've had at almost probably
14	every meeting since I've been on the board to
15	try and deal with these old petitions. That's
16	what we're trying to do.
17	MR. DELGADO: Any other questions?
18	Just to follow up, Dan, do you
19	have an idea of how many materials we have
20	tabled at the committee level? And if so,
21	what would be the action item on that? Are
22	you planning on contacting the committee

1	chairs to try to get those moving? Give us a
2	status.
3	MR. GIACOMINI: Well, a number of
4	those old petitions that are on those lists
5	are still in the process. A few of those are
б	coming up for a vote at this meeting, and we
7	will be continuing to work with the program in
8	cooperation with the program. It's
9	challenging enough to go through the
10	transcript records, much less going through
11	all of the old committee report records.
12	We may just need to allow the
13	committees to deal with those as we identify
14	them and find them and reestablish what the
15	status is.
16	As far as the number, I have no
17	idea.
18	MR. DELGADO: Okay. Thank you.
19	Any other questions for the
20	committee?
21	Thank you.
22	Well, thank you, Dan. That was

- very good, and I applaud your efforts of trying to clean up the list of pending items.
- And we are on schedule, I'm
 reminded by my vice chair. We're ahead of
 schedule, and we're moving on to the next
 topic. You're actually not done, Dan. We're
 moving on to the the clarification of the
 definition of the national list, so back to
- MR. GIACOMINI: Thank you, Mr.
- 11 Chairman.

you.

9

We're not done, but this is not my
part, a big part of my -- the big part of this
is not my job right now.

Another issue that the board has 15 been dealing with extensively over the years, 16 the ag/non-ag question, the synthetic, 17 nonsynthetic question, the concept of 18 19 agricultural synthetics which could require 20 that it's both on 606 and 605 at the same 21 time, and the fact of resolving the issue of 22 is it the substance or is it the process that got that particular version of the substance that is the primary factor.

This came to -- in the efforts to resolve these issues, I believe a year ago at this meeting, we, in cooperation with a number of people from the public and the organic industry, former NOSB members, it was decided to convene a working group on this matter. It is open to everyone that wants to participate. It has been -- it's coordinated through the conference call system, and graciously provided by the Organic Trade Association, to allow these phone calls to occur, and that committee, that working group, has been on a very regular basis trying to deal with these issues.

They have now worked on the ag/non-ag issue for approximately a year, and they will be looking at the synthetic-nonsynthetic hopefully within this next six months before the spring meeting.

But right now what we are looking

1	at, what we are looking for, what we're going
2	to be doing, is a presentation by the cochairs
3	of that group, Kim Dietz and Gwendolyn Wyard,
4	to give us a presentation of where the
5	evolution and where we have ended up and where
6	they are in that process at this time.
7	MS. DIETZ: Good morning. There's
8	been a little bit of change of plans here.
9	Gwendolyn ate a bad piece of canteloupe this
10	morning, so she's in the back, and I just cut
11	her off so she can go back to her room. So
12	we're going to meet in a little bit.
13	So we're going to kind of split up
14	the slides, and I'll do the introduction, and
15	then Emily and Rich will help me as well.
16	That's what a working group is all about,
17	right?
18	Okay. My name is Kim Dietz, and
19	I'm one of the original founders of the
20	Materials Working Group.
21	The Materials Working Group is an
22	ad hoc committee that represents a broad

spectrum of backgrounds in segments in the organic industry. Participation in the group is open to anyone who is interested.

The Materials Working Group was formed following a November 2007 NOSB meeting to work on clarifying issues surrounding the definitions of nonagricultural, nonsynthetic, synthetic and nonsynthetic, and to assist the NOSB in developing recommendations and guidance documents relating to those definitions.

Meetings were held weekly during the time leading up to the main meeting, and a discussion paper was presented at that meeting by myself and Gwendolyn.

In 2008, the group reconvened our weekly conference calls with a goal to bring forward more detailed discussion documents regarding issues surrounding nonagricultural.

We'd like to thank the Organic

Trade Association for allowing the Materials

Working Group to use their teleconference

line.

16

17

18

19

20

21

22

Additionally, special thanks go to
the hard work and dedication of the
participants, and I'm going to read their
names, because I think it is important for you
all to know who was involved in this
committee.

8 Andrea Caroe, past chair of the 9 NOSB; Brian Baker; Craig Weakley; Emily Brown 10 Rosen; Grace Marroquin; Grace Gershuny; Jessica Walden; Julie Weisman; Katrina Heinze; 11 12 Kelly Shea; Kevin Engelbert; Kevin O'Rell; Pat 13 Pearson; Dan Giacomini; Rose Koenig; Richard Theuer; Sue Biard; Susan Ulery; Tom Hutcheson; 14 Victoria Saavedra; and Zea Sonnebend. 15

We submitted 54 pages of documents, and you can tell by the list of the people on the committee, very technical group, and leading that group was very interesting, but we're doing it. So that's really my role, is to set the calls, set the agendas, work with Dan, try to figure out what timelines we

- 1 need, and get it done.
- 2 Couple of comments about the
- group. We are an independent group. We were
- formed that way, whether it's right, wrong, or
- 5 indifferent. We're not necessarily an
- 6 affiliate of the NOSB. We're here to assist
- freely. And we're not an affiliate of OTA,
- 8 although OTA graciously allows us their staff
- 9 time and conference calls.
- 10 And it's really the involvement,
- 11 the work that we've done, and the involvement
- is what is the outcome.
- I read a couple of comments, and
- they said there were some biased opinions.
- 15 Well, you know, we've done the best we can,
- and my only response to that would be you have
- 17 to participate and make sure you're engaged,
- and this is the outcome of it.
- 19 We will continue with the NOSB.
- Okay. So let's go through the
- 21 slides.
- 22 We're going to talk about status

quo, we're going to talk about our different options, we're going to talk about a survey that the group did.

In a nutshell, even with that wide list of people that you saw there, the names, we still can't even come up with a conclusion on the definition of ag/non-ag.

So what you have before you is a task, but we have narrowed it down one more time, so here is the status quo definition of nonagricultural.

Okay, the definition of nonagricultural is ambiguous. Not a product of agriculture, such as a mineral or bacteria culture, that is used as an ingredient in an agricultural product.

For the purpose of this part, it also includes any substance such as gums, citric acid, or peptin that is extracted from, isolated from, or a fraction of an ingredient product so that the identity of the agricultural product is unrecognizable in the

- 1 extract isolate refraction.
- 2 So that is what is currently being
- 3 used as the definition of nonagricultural.
- 4 What you see up in the pictures up
- 5 there are soybeans and then soy lecithin, so
- 6 an example of something that's gone from
- 7 agricultural to nonagricultural. And then we
- 8 have gums up in the upper right corner.
- 9 Okay. Next.
- 10 Status quo. The rule states that
- 11 agricultural products can be organic.
- 12 Presumptions that nonagricultural is
- 13 nonorganic only.
- So a lot of even members of our
- group feel that if it's nonagricultural, then
- it means nonorganic.
- 17 Status quo determines one
- 18 placement for material on the national list,
- 19 whether it's eligible for certification,
- whether it's subject to commerciabl
- 21 availability.
- 22 Current 205605 substances are

available as organic, consistent with -- so 1 2 long as they're consistent with 95 percent organic agricultural ingredients or 3 4 formulation, such as yeast flavors, dairy 5 cultures. Extracted isolated derives from organic agricultural material, such as 6 7 flavors, bleach lecithin, and glycerin. And that is again the status quo. 8 9 Next slide. 10 Some of our primary issues that 11 the group discussed and really again couldn't come up with a definite conclusion was on 12 13 agricultural origin. Where does it begin. And this is probably the work of the board 14 where you're going to take it from here. 15 A lot of discussion and 16 controversy over whether or not agricultural 17 has to be land-based. A wide variety of 18 19 opinions there. Land-based activity related 20 to plants, soil, and livestock in a 21 traditional farm setting. Other issue, broad range of 22

- activities that include any living organism

 intentionally raised or gathered by humans for

 our own use.
- And subpart (c) is divided into crops, livestock, and handling. That's the rule.
- And then the definition of
 livestock, however, includes other nonplant
 life.
- So there's really the four areas
 that need to get resolved so the industry can
 move forward.
- The pictures on the bottom -- I

 don't know if Gwendolyn is still in the back

 of the room -- she's right next to me. Would

 you like to chime in? Because these are

 interesting.
- MS. WYARD: Try to bear with me.
- 19 I'm kind of in and out of the bathroom here.
- Okay. So what we've going on in the pictures up at the top there that, you
- 22 know, most people look at those and they say,

well, that is an agricultural system, those are traditional farms.

Down in the bottom, just to get

3

17

18

19

20

21

the old noggin rolling, we've got a picture of
chlorella, and that's the far left picture.

And then right next to it, that's chlorella
production. So controlled environments,
controlled tanks, where the chlorella is being
grown. And we picked that as an example
because chlorella was one that is being
petitioned for 606.

And, you know, noted in the
recommendation, the board did say, well, it's
a photosynthesizing plant, so that seemed to
be part of the criteria that we used in
deciding it was agricultural.

If you keep going over, you have a yeast cell, and then right next to it, that is yeast production. In fact, that's the lady that's making the organic yeast in Germany.

Sourdough started there.

22 And that production -- a lot of

1 the conversations that have come up is that, 2 you know, an agricultural product is soil 3 based, it's connected to the land, and if you are growing an organism in a facility, in a 5 tank, in a controlled environment, 6 temperature-regulated, pH-regulated, that is 7 not a farm, so to speak. 8 So if that's where your production 9 is starting, that's where something is 10 growing, that would be considered 11 agricultural. So these are the discussions and 12 13 this really becomes very apparent, it's a very philosophical divide as to what is 14 agricultural and what is not. 15 So the primary issues, this first 16 one, where does it start. And this is really 17 where the work has been hung up over the 18

19

20

21

22

years.

Neal R. Gross and Co., Inc. 202-234-4433

When OTCO submitted our proposal in

2004, for clarification on this issue, we

submitted a flow chart in that first box, and

said is it a plant, is it an animal, is it a

fungus. We really have never gotten past that
first box. That's the discussions and about
very much focused on yeast.

So we really need to look at the world of living organisms, and keeping in mind that we've got a regulation that talks about crops, livestock, and handling. Is that our world of agricultural? But then you have to look into those -- into the definition of crop, and when you go into livestock you see nonplant life, and so that really opens the door to, you know, a whole host of living organisms and what was intended by that.

Go on to the next slide, please.

So once you figure out where it starts, then you have to figure out if and when it stops. So does something lose its agricultural status? And if so, how? Is it because of a chemical change? Does it match up with the definition of synthetic? If that chemical change occurs, what if it's because of a biological process? What if it's

enzymatic? What if it's a mechnical method? 1 2. What if something is heated? What if bread is baked and chemical changes occur, does that 3 4 make it nonagricultural? 5 The definition of agricultural 6 product in OFPA and in our regulation, it 7 really doesn't define itself, because it says 8 agricultural is an agricultural product, 9 either raw or processed. 10 So we know -- and this is very 11 important -- that it includes processed, and 12 we do have a definition of processing. 13 So if you take something that starts out agricultural and you look at that 14 15 long, you know, eviscerating, cutting, chopping, slicing, that definition, are all of 16 those methods okay, whatever that agricultural 17 18 product undergoes? Is that processing? Or 19 does that, even if a chemical change occurs, 20 does that make it synthetic and therefore 21 nonagricultural? 22 That's been a huge part of the

1 discussion, is does synthetic equal 2. nonagricultural? 3 Go on to the next slide, please. 4 Okay, things are heating up a 5 little bit. So one of the big hang-ups we've 6 7 had when we start talking about changing the definitions of nonagricultural, providing 8 9 clarity, we start looking at items that are 10 listed on 605, and we say, well, okay, yeast. 11 It is a living organism. It can be grown up 12 on organic agricultural substrate. Maybe that 13 is more appropriately listed on 606. Maybe glycerin. Glycerin is 14 derived from oil. It started out as 15 agricultural. Goes through maybe high 16 pressure, high heat, chemical changes occur. 17 You have a split between the glycerin backbone 18 19 and the fatty acids. It started out as olive 20 oil or some sort of vegetable oil. Did those 21 processes turn it into something that's nonagricultural? 22

1 You move things on to 606, and 2. really the heart of this discussion has been 3 about yeast. In the livestock world, commercial availability doesn't exist. 5 you deem something agricultural, processors 6 will have the ability to say, well, it's not 7 available in the quality, quantity, or form that I need. However, the livestock producer 8 9 will have to use organic. It doesn't have 10 that commercial availability option. 11 So I think the community was ready 12 to move yeast on to 606, but we saw a real 13 inequity and looked at the burden that that would place on the livestock industry. 14 15 So we have in our paper, I believe on page 4, we explored some options, some 16 potential regulatory changes where the main 17 18 one is that you would make an exception, 19 basically, for items that are on 606. 20 Agricultural items on 606 could be fed to 21 livestock, nonorganic, up to 5 percent. 22 It was an option that was

explored. It's something that, you know, we encourage you to look at as well, what would be the implications of that, is it even possible. But we were looking for a way to somehow put the livestock sector and processors on a level playing field.

Okay. So I don't want to spend too much time on this, but I do want to demonstrate a little exercise that we went through where we started out -- and actually I'm just going to focus on the 11 materials.

We took the group and we picked 11 familiar materials that are on the national list, and we played with different definitions to see how that would affect our answers, namely that the consistency or lack thereof consistency.

So the first definition -- go

ahead, please -- we took the whole second part

of the nonagricultural definition that is so

ambiguous and contradicting, and we just cut

it out, and we said let's see what happens if

- we just say it's not a product of agriculture,
- leave those two examples in there, mineral or
- 3 bacterial culture. So that was the first
- 4 revised definition.
- 5 The second one, we removed those
- 6 examples of mineral and bacterial culture.
- 7 Nobody -- so far we haven't found any
- 8 disagreement on mineral. We haven't heard
- 9 anybody argue that mineral is agricultural.
- 10 Bacterial culture, on the other
- 11 hand, that's been a problem. So we said,
- well, let's just remove those examples and say
- it's not a product of agriculture. And let's
- also provide a new definition of an
- 15 agricultural system, and let's tie it to the
- land. Let's say that it has to be soil based,
- 17 soil-producing crops, livestock, or poulty.
- Okay, that's the next definition.
- 19 Now we've included those examples
- 20 -- well, the example of mineral. Another
- 21 example that has gone undisputed is
- 22 atmospheric gas. So mineral, atmospheric gas,

1 nonagricultural. Everybody was on the same
2 page.

And then we took that agricultural system and we said, okay, this one is not connected to land or soil. This one is going to be any living organism, more or less, that anything that's managed by humans. And then we qualified managed -- intentional gathering, producing, raising, growing, domestically or in designated wild harvest areas, by persons for human or livestock consumption.

So another definition that we played with.

14 Go ahead.

3

4

5

6

7

8

9

10

11

15

16

17

18

19

20

21

And so this is the survey results, and so the first column, everybody looked at each one of those materials and just read the existing definition of agricultural product.

And most people said yes. Lactose is agricultural. Egg white lysozymes.

In all cases, there was agreement.

For the most part, you can see where it kind

1 of separates out once you get down to 2 fermented products, citric acid, fermented 3 products, fermentation is a really important one to focus on. Kelp. 5 And there, with our existing 6 definition, when you get into kelp, then 7 people are saying, well, soil, water, agricultural. 8 9 Then you put the nonagricultural 10 definition out there, and again, now there a lot of people are saying, well, it's also 11 12 nonagricultural. 13 First, revision No. 1, is it nonagricultural. Several people said no. 14 all cases for the first three. But you can 15 see it still jumps around. 16 Revision No. 2, it's jumping 17 around, it's very inconsistent. 18 19 The third definition, that was --20 we had the most consistency on that third one. 21 Go on to the next slide.

The exercise was somewhat

22

It really deserved more attention 1 inclusive. 2 and more discussion, which we didn't get to, 3 but a few things that definitely came out of 4 it is that you can, with our definitions, 5 depending on which one you're reading, it can 6 go to agricultural and nonagricultural. 7 And better definitions do yield more consistent differentiation, and of course 8 9 we really had no consensus amongst our group. 10 So go ahead. 11 So we took those exercises and we said, well, we really do need to try to come 12 13 up with definitions that have more examples, and more detail to it. 14 15 So what we are providing you -and this -- change it on this slide, too. 16 That's actually supposed to be A and B. 17 18 couldn't figure it out. When it's on my 19 computer, it says A and B. When you put it on 20 anybody else's computer, to goes to A and A. 21 (Laughter.) 22 Everybody kept saying, Gwen, you

- got to change it. I have changed it.
- 2 MR. DELGADO: Gwen, I suggest A
- 3 and non-A.
- 4 (Laughter.)
- 5 MS. WYARD: All right. Okay, so
- 6 we're offering you two definitions to work
- 7 with. Definition A, we've stuck the examples
- 8 of mineral and atmospheric gas.
- 9 Noncontroversial examples, we think, so far.
- We have said for the purpose of
- 11 this part, agricultural refers to the
- 12 production or handling of crops or livestock.
- 13 We are including that second part
- 14 to say let's exist within the context of OFPA
- and the regulation. Let's use existing terms.
- 16 Let's focus on crops and parse that out and
- 17 say, well, is -- crop is defined as a plant in
- our regulation, so there's going to be a need
- 19 to look at the term crop, plant, and does that
- include -- is that chlorella, is it kelp, or
- 21 livestock.
- 22 And then once you go into the

livestock definition, you have to address
nonplant life.

The second definition, non-A, we have stuck with the examples of mineral and atmospheric gas, and lopped off that whole confusing section part, and said it doesn't originate from agricultural system, and then we have provided this definition of agricultural system which is all-encompassing of all living organisms that are raised by humans.

We are not qualifying, defining where that happens, whether that be soil or air, water. We recognize that there are insects and lots of little critters that are extremely important food sources throughout the world, and the second definition is really embracing that. It could be any living organism.

You could essentially get there with definition A as well because of nonplant life, but definition non-A is more committal as

1	far as saying if you're a living organism
2	that's being managed by humans for human or
3	livestock consumption, it can be agricultural.
4	Okay, next slide, please.
5	I just went through this without -
6	- you can go on to the next slide, too. That
7	was just the explanation that I provided.
8	And again, that's the explanation
9	that I provided, so you can go on to the next
10	slide.
11	Okay, I'm going to pause, and I
12	want to since I am one voice representing
13	many others, I just want to make sure I
14	haven't missed anything, or if there's anybody
15	how many people on the group are out in the
16	crowd? Would you raise your hands?
17	(Show of hands.)
18	Okay. Is there any are you
19	sitting out just antsy, going she forgot to
20	say something, she really needs to bring
21	something up? Richard? Would you
22	MR. THEUER: One point that we

- concluded -- I'm Rich Theuer, North Carolina,
 former board member.
- One of the points that we came to

 was that with certain definitions, something

 can be neither agricultural nor

 nonagricultural.

7 (Laughter.)

So you had some where it was both
with some definitions, and with other
definitions, it was neither because the
definitions are not mutually exclusive.

MS. WYARD: And you have something
that I -- it's not in our paper, and I don't
know that anybody -- there are some things
that are agish --

16 (Laughter.)

17

18

19

20

21

22

They are composed of agricultural and nonagricultural ingredients together, you know. I mean that's what we're looking at with yeast, and why is there organic yeast on the market. Because at formulation 95 percent of it is organic. So you have a combination.

1 So I'm going to run through the 2 options. The first option is a very 3 4 important one to consider. Don't change 5 anything. Oh, well, I guess we're not biased on this. 6 7 But it's very possible to provide 8 clarity using guidance documents. The scope 9 of agricultural, that certainly could be 10 clarified with guidance documents. 11 The second part of the definition, 12 if you feel that something does lose its 13 agricultural status, then spend time on the second part of that definition, and you could 14 15 provide guidance to clarify when does something lose its identity. How does 16 something -- how do you lose the identity of 17 the agricultural product. 18 19 So you -- those examples are 20 problematic because you've got gums on 605 and 21 606, pectin on 605 and 606, and perhaps you

just cut out the examples and provide guidance

22

- 1 that would further clarify that second part,
- and then rely on the petition process to get
- 3 materials to where they need to go.
- 4 So, you know, considering keeping
- 5 things as is and not making regulatory changes
- 6 is number one to look at.
- 7 Number two. Okay. Okay, so
- 8 option two, we are going to retain the current
- 9 headings for 605 and 606. We are going to
- 10 revise the definition of nonagricultural.
- 11 Now you get to choose door A or
- door B. For this option, A or B can fit. It
- will change things, but that's something the
- NOSB needs to look at, and then relist the
- items to correspond with the chosen
- definition.
- 17 And then we have also provided
- 18 suggested criteria for adding items onto
- 19 205606. Number one, that it comes from
- 20 agricultural origin. And if processed, it's
- 21 done so using methods defined under 205.2. So
- 22 the definition of processing.

1 An item that goes onto 606 does 2. not contain a synthetic component unless allowed under 205605, and then for use in 3 4 organic products, the clarification -- and 5 this is something that we put out there for a while and we think it's really important that 7 we get clarification from the program because it will help us in our determination of 8 9 agricultural and nonagricultural, because we 10 find that there are certain criteria or --11 certain criteria for using agricultural 12 ingredients in organic products that will 13 sometimes get tied into or -- tied into a definition of agricultural when it really has 14 more to do with what is allowed in an organic 15 product than it does whether or not it's 16 agricultural or nonagricultural. 17 So 606 items, can they be produced 18 19 using synthetic solvents and synthetic processing aids? Can they contain synthetic 20 21 components that aren't on the national list. 22 We have requested -- I know Oregon Tilth from PCO has been requesting

clarification on this for two years, so with

that clarification, we feel like that should

be criteria that gets included on adding

things to 606.

And then I just want to point out that you have an appendix B, and so for all of our suggested options, we've gone through and we've made -- we've demonstrated all the places in the regulation that would need to be revised if you go with this option. We've detailed it out. We've looked at every section in the rule, and crossed out, et cetera, et cetera.

Valerie, you can go on through this.

Option No. 3, in this one we are dropping the term nonagricultural from 605 and leaving reference to nonorganic -- really it should say nonorganic substances only. The ingredients can be problematic since we have more than just ingredients under 605, but the

1 point is to remove the term nonagricultural 2. from the heading, so that you will have a list of nonorganic substances. These could be ones 3 that are nonagricultural. They could be ones 4 5 that are agish, such as yeast, microorganisms, 6 recognizing that, well, they may not be the 7 traditional farm-grown type of product, but they do -- their production does really on 8 9 agricultural product, most of it. So it 10 definitely has agricultural and environmental 11 implications, and according to the composition standards of an organic product, it could be 12 13 organic.

14

15

16

17

18

19

20

21

22

yeast or microorganisms definitely under agricultural, and this is thinking of the livestock dilemma, but recognizing that they are agish, and apply commercial availability to 605, recognizing that you apply commercial availability to that list because of items such as yeast that have both -- are produced using both ag/non-ag components.

1 Suggested criteria for 606 remains 2. the same, and again, in appendix B we have 3 gone through and looked at every place in the regulation where the term nonagricultural is 4 5 used in reference to 605 and crossed all that out, so you can see and really get a feel for 6 7 the amount of rule change it would take to go with this option. 8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

And then we have -- with this option we've plugged in definition A, which is the one that refers to crops and livestock.

So recognizing again that 605 could contain agricultural, agish, and nonagricultural, and I say agricultural as well. I think what's not up there, under the criteria that I believe is in the document, is that 605 would also be a place where you part substances that can't be organic because no standards exist. We feel like 606 should be reserved for ones that are clearly agricultural, meet that criteria, and standards exist for it.

1 We put the requirement for 2 somebody to search for a commercially available organic ingredient, if there are no 3 standards, they don't really -- there's no 5 business for them to be on 606. So that's 6 what this option is embracing. 7 Okay. Then option No. 4 -- and 8 keeping in mind, too, these are in order of no 9 change to the most change. 10 Option No. 4 combines 605 and 606, 11 and it removes reference to ag and non-al 12 altogether. You just have a list of allowed 13 nonorganic substances that are either synthetic or nonsynthetic. We've removed the 14 15 distinction of ag and non-ag because OFPA doesn't make that distinction. OFPA only 16 makes the distinction between synthetic and 17 nonsynthetic. 18 We have retained the definition of 19 20 nonagricultural to further define agricultural 21 product. So again you have, you know, option A or B, or definition A or B, that could be 22

1 plugged in here.

2. We have also separated out 3 cleaners and sanitizers, so we -- again in 4 option, or appendix B, we've completely 5 rearranged the list. Basically we took everything under 606, assumed that that was 6 7 nonsynthetic, but it's interesting. If you go through and look at how that list is now set 8 9 up in appendix B, you do see some items that 10 are listed as nonsynthetic and other items 11 listed as synthetic. It's an interesting 12 placement just to look at it that way and see 13 where everything is set up.

Okay, let's go ahead and move on.

MS. FRANCES: We have sanitizers

16 on 606?

MS. WYARD: Oh, yes. Thank you.

So we are using now 605 as the combined 205

and 606, and now 606 is its own list for

cleaners and sanitizers. So we separated them

out so it's clear which items are being used

as either ingredients or processing aids, and

1 then we pulled out cleaners and sanitizers, and we feel like this -- the discussion here 2. 3 plays into the conversation about 100 percent 4 organic, and having a place to put substances 5 that are used in handling operations but not 6 as ingredients or processing aids. 7 Thank you for asking that. Go ahead. 8 9 Oh, yes, the lovely flow chart. 10 So this, down at this -- I'm not going to take 11 you through this in detail because I think

One, this could be the guidance.

an example.

12

13

14

15

16

17

18

19

20

This in addition to a narrative, this could be guidance that would maybe go in status quo.

we're running short on time, but this is just

You could adopt concepts in a particular option and then explore whether or not you could provide clarification without rule change.

You know, obviously the -- we feel like there's going to need to be some rule

- change. We really -- some of us.
- 2 (Laughter.)
- I'll be very careful on that.
- 4 There was no consensus. We never reached full
- 5 agreement.
- 6 But here what we have done is we
- 7 have brought together option 3 and definition
- A, and it brings together the questions.
- 9 We've taken the parts of the definitions and
- 10 turned them into questions. Is it a proper
- 11 livestock derivative intended for human or
- 12 livestock consumption. Is it processed. If
- it's processed, has there been a chemical
- 14 change. And if so, is that change a result of
- the processes described under 278.
- 16 So we are now saying, okay,
- 17 there's been a chemical change, but it's a
- result of processing, and if it's in our
- 19 definition of processing, then you could have
- an organic product that would undergo a
- 21 chemical change. So we wanted to align
- 22 chemical change with what is allowed under the

definition of processing.

5

6

7

8

9

10

18

19

20

21

And then the question about have

any synthetic solvents, synthetic processing

aids, that ties back into the criteria in 606.

So I think a flow chart along with a narrative, you know, along with rule change, we think that there's going to need to be a guidance document in addition to rule change, and this would be an example of how that would look.

11 Okay. Next slide, please.

agricultural.

MS. DIETZ: Okay. This is what
the group feels the NOSB needs to clarify.

The NOSB needs to clarify whether an
agricultural product -- example, vegetable oil
-- that undergoes a chemical change via
mechanical or biological methods can still be

Does an extract derived from an agricultural product, via hexane or synthetic solvent, become nonagricultural.

These are issues that the industry

has not been able to deal with for 20-1 2 something years. 3 Does an agricultural product combined or reacted with a nonagricultural 4 5 substance become nonagricultural. That's been an issue that hasn't been resolved in many 7 years. What if the nonagricultural 8 9 substance is on the national list. 10 Is a product of fermentation 11 agricultural or nonagricultural. 12 These are some of the things the NOSB needs to decide, if agricultural extends 13

17 Next slide.

14

15

16

In summary, clarification is

crucial and the national list needs to be

cleaned up accordingly. This has been an

ongoing -- I think it's time, we've got some

of the meat on the bones, and we're ready to

That's another land-based issue.

to any living organism cultivated or gathered

by humans for humans or livestock consumption.

deal with these issues.

5

7

8

9

10

11

12

13

14

15

16

17

20

21

22

Definitions and list requirements

should encourage the development of organic

food, ingredients, and feed.

Changes to the regulation should be minimized, and the resolution must be consistent with OFPA, so we've tried to look at that in all of our definitions.

And the work on agricultural versus nonagricultural cannot completed until synthetic and nonsynthetic is completed.

And this goes back to Dan when we talked about trying to look at it as a whole. That's something you guys are going to have to decide. Can you move forward with the ag/nonag as we move forward with the synthetic, nonsynthetic, as an industry.

I think that's it. That's all the slides.

Thank you. We appreciate the effort devoted by the NOSB in moving forward, moving toward a resolution of these complex

1	issues, and offer this discussion document as
2	background to further work on the subject. We
3	will continue to offer our support.
4	I don't know if we have time of
5	questions or how you want to handle it from
6	this point.
7	MR. GIACOMINI: Do we have time
8	for a few? Yes, we do. Just before I open it
9	to the floor, two things very briefly,
10	hopefully. Just to clarify the status of the
11	situation, I think probably one of the most
12	shocking things I've ever heard since I was on
13	this board was when we presented the document
14	with the new paradigm and the possibility of
15	considering continuing a year ago is that this
16	is easy and it's all been done before, and you
17	just have to compile all the old NOSB
18	documents.
19	Is this easy?
20	(Laughter.)
21	Okay. Thank you.
22	Number two, Gwendolyn, the

- statement I'm going to make now may have a lot
 of people heading for the door. You said that
 you have never had an issue of a mineral not
 being non-ag.

 MS. WYARD: Never.
- 6 MR. GIACOMINI: We are considering 7 at this meeting calcium from seaweed. This is technically -- the closest thing chemically to 8 9 it would be a limestone carbonate. It is the 10 structural part of the seaweed. The seaweed 11 dies, falls to the floor, they pick it up off 12 the floor, they grind it up, wash it, and send 13 it out.
- I can very easily imagine the
 interpretation of this limestone carbonate
 product being considered agricultural.
- MS. WYARD: Well, if seaweed is agricultural and it's derived from seaweed --
- MR. GIACOMINI: It's the
 structural part of the seaweed and there's no
 chemical change involved.
- 22 MS. WYARD: So it's a different

- 1 mineral than the mineral that went undisputed,
- 2 ones that are mined from the --
- 3 MR. GIACOMINI: Yes.
- 4 MS. WYARD: Just when you think
- 5 you --
- 6 (Laughter.)
- 7 MR. GIACOMINI: Not to have to go
- 8 into a big discussion about it, but the
- 9 possibilities do exist.
- MS. ROSEN: Well, I would just add
- 11 the natural source of the mineral. It doesn't
- matter if it's agricultural. It's -- there's
- no -- it came from seaweed, it's natural.
- 14 It's for crop, livestock, whatever use you
- 15 want to put it to. Or human use. But it's --
- 16 you know, we could have a whole separate
- 17 debate on the certifiability of seaweed and
- 18 kelp, too. I mean that's something could use
- 19 a little bit of discussion.
- MR. GIACOMINI: So opening up to
- 21 the floor. Joe.
- 22 MR. SMILLIE: Well, first of all,

I want to thank the blue ribbon panel of the
working group. You've done a fabulous job on
an obviously difficult topic. And this is the
kind of public participation that this board
absolutely relies on to get its work done. So
once again, our immense thanks.

7

8

9

10

11

12

Now we're down to five or six options. It's going to be tough and, you know, it's going to be tough to come to a decision, but I think we do -- I think this board does have to come to a decision because we've got to cut the knot on this one.

13 Two comments. One is I just don't feel that we really -- and I could be wrong on 14 15 this -- have to decide the synthetic, nonsynthetic. I think if we go with this one 16 first -- and I believe that since organic is 17 about agricultural, we should make our 18 19 decision on ag/non-ag, and let that lead us 20 into our decision on synthetic, nonsynthetic, 21 rather than trying to do both at the same time. 22

1	The second thing is a comment was
2	made that you can't certify something unless
3	there's a standard. And that's become pretty
4	controversial these days.
5	(Laughter.)
6	And one thing I'd like to point
7	out is we do have something that Tina is
8	actually sitting here representing, and that's
9	mushrooms. And, you know, we're certifying
10	mushrooms
11	MS. ELLOR: Under the crops
12	standard.
13	MR. SMILLIE: Under the crops
14	standard.
15	MS. ELLOR: Because they are a
16	crop.
17	MR. SMILLIE: Because they are a
18	crop. And they come from a compost pile, not
19	necessarily from a co-ge chamber, and we don't
20	have a specific mushroom standard.
21	So, Gwendolyn, did you want to
22	follow up on that?

1	MS. WYARD: Right. Well, but some
2	standards being used like so we're talking
3	about say fish oil. There are no aquaculture
4	standards. So that would be an example of
5	fish oil, if you were to take the option where
6	you remove the distinctions and you would put
7	fish oil on the 605 without the non-ag
8	distinction because there are no standards
9	yet. So you don't put it on a list where
10	people are supposed to go out and source it
11	when it's not out there because there are no
12	standards. That was the idea.
13	MR. SMILLIE: I don't want to drag
14	it out, but if you go well, take a look at
15	two of your favorites, yeast and kelp. You
16	know, kelp does not come from the soil, so
17	some of the definitions don't work, but yet we
18	certified that.
19	MS. WYARD: Well, and we question
20	how it's being certified.
21	MR. SMILLIE: Wild crop section.
22	MS. WYARD: Right, but we're still

questioning how contaminatin prevention can 1 2. happen. But with yeast we have -- we are 3 using standards. Again, we're using the 4 processing standards. 5 But when you go through the 6 regulations and you try to certify fish, you 7 can't find a standard to plug it into. MR. DELGADO: 8 Barry? MR. FLAMM: 9 Yes. For a newcomer, 10 this has been an extremely interesting topic 11 of discussion for me. But I have a question 12 which will probably show my ignorance, but 13 I'll ask it, anyway. I don't quite get why gathering --14 15 and it may not have any consequence in what you come out with, but why is gathering 16 17 considered agriculture? I always thought of a hunting-gathering society, and even today, 18 19 as being preagriculture. 20 And like I say, it may not have 21 any consequence, but almost everywhere I see, gatherer is part of a definition of

22

- agriculture. And you can write this off if
- it's not of consequence.
- MS. WYARD: Well, we have wild
- 4 harvest in our regulation, so --
- 5 MR. FLAMM: But is it --
- 6 MS. WYARD: I understand, yes.
- Well, and we were looking at the intentional
- 8 act of -- because you are intentionally
- 9 gathering food for consumption. I mean I get
- 10 what you're saying, because when you look at
- 11 history and how people collected their food,
- agricultural came after hunting and gathering
- and breeding.
- 14 MR. FLAMM: And without raising
- 15 it.
- MS. WYARD: No, we're gathering
- it. We're -- you know, we're finding an area
- and gathering it for food.
- Julie, do you want to -- or
- anybody else?
- MR. DELGADO: Julie.
- 22 MS. WEISMAN: Yes. I just think

1	it might be helpful for us to remember that
2	the statute that brings us here is the Organic
3	Food Production Act, and gathering as it's
4	practiced today is producing food, and I agree
5	I understand what you're getting at in
6	terms of hunter-gatherers, but that's a
7	sociology issue.
8	(Laughter.)
9	MR. FLAMM: Well, I mean today
10	there's a lot of gathering societies still
11	exist in the world and in our own country.
12	MS. WEISMAN: I'm not saying that
13	it's not a modern issue, but that's a
14	sociology construct, not an OFPA I'm asking
15	you to stick to the OFPA paradigm and not take
16	on all of the social sciences.
17	(Laughter.)
18	MR. DELGADO: We have a comment.
19	MR. GIACOMINI: Yes, in responding
20	to Joe's statement, the materials and working
21	with anyone else certainly on the board that
22	wants to work with us, we will take this and

consider what we can move forward on before 1 2 the working group reaches a completion. One of the difficulties that we 3 4 have envisioned is if we decide that something 5 can be considered agriculturally synthetic, we have a hard time seeing that we would move 7 ahead with one half without the other. I mean there's implications there. 8 9 We have cellulose on 605(b) as a synthetic. 10 If we are going to say that that is an 11 agricultural synthetic, technically we may 12 need to put trees on 606. 13 So there are implications there that we would need to look at which make it 14 15 difficult to move with only part of it. MR. THEUER: Could I have just a 16 quick response? Some of the group also had 17 the same -- this is Rich Theuer -- had the 18 19 same objection to kelp as being agricultural, 20 for the same reasons that you raised. 21 MR. DELGADO: Hugh. 22 MR. KARREMAN: Just two things.

As part of the gathering, I don't know a thing 1 2. about this, but at least it's kind of you're 3 managing it in a circumstance, you're watching 4 over it. It's not like you're just freely 5 running around and you gather whatever you 6 happen to find. I mean it's in a defined area 7 that you're gathering from, so it's kind of managed, which is what organics is all about. 8 9 But I also -- I just hope that --10 it was brought up briefly earlier in the 11 presentation about using, I think it's items 12 on 605, for livestock production. 13 MS. WYARD: It's on 606. Yes, and that's 14 MR. KARREMAN: 15 been an ongoing issue as far as, you know, the

16

17

18

19

20

21

22

been an ongoing issue as far as, you know, the yeast with the livestock and all that. So I would like to explore that a lot more, because, you know, with a 100 claim for human retail product, you know, the livestock kind of have it tougher than, you know -- it's got to be a 100 percent ag, and yet people can buy organic, USDA organic things on the shelf that

are not 100 percent ag and yet it still has a seal.

And I really think that livestock should have that same benefit.

5 MR. DELGADO: Dan.

MR. GIACOMINI: Onee of the things that we will hopefully see where the program stands on when I ask Barbara how to find the status of recommendations was that document -- and Kim may know the data on this document better than I do -- where the NOSB recommended that items on 605 be considered as allowed for livestock feed.

is, number one, that was a pre-Harvey recommendation, which changes the whole structure of 605, 606.

The other thing is the consideration of there's a tremendous amount of byproduct flow through the food chain that could be used tremendously as livestock feed, which would be a tremendous reintroducing of

1 nutrients.

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

So a possibility would be whether

you can utilize those things as raw

ingredients, or whether you use them as part

of that byproduct stream, one way or the

other.

7 MR. DELGADO: Bea.

MS. JAMES: I want to thank you guys for this document. I was so, you know, impressed and actually when I -- I saved it for last of all my reading materials because I was intimidated, and I thought, well, okay, here comes another complicated subject matter in a document that's probably just going to confuse me even more. But I felt like you guys really looked at a lot of the different options and that I have my own opinion about what option I think would serve the industry best, and I want to ask what your guys' opinion is on the different options that you - you know, if you as a group ever said, okay, well, where do we stand as a group, what

- option takes the majority?
- MS. WYARD: That's why you have
- 3 four.
- 4 MS. JAMES: But there's more than
- four people in your group, so there must be --
- 6 MS. WYARD: So that's a concern,
- 7 which we put together, and we had all the
- 8 definitions. We were more looking at what's
- 9 more -- what's going to be more consistent,
- and that's really the answer.
- 11 We couldn't come to any conclusion
- as a group. We all have our own personal
- opinions on what we think would work as well.
- 14 So I can't really answer that as a group. We
- don't have a consensus.
- 16 MS. JAMES: The main reason I ask
- 17 is that some of those options look grueling as
- far as, wow, this is just going to take so
- 19 much time and rule change, and -- but if it's
- the best possible option, I think that that's
- 21 really --
- 22 MS. DIETZ: And that's what we

1 attempted to do with that chart, to see what 2 is the best option. And so we may have to go -- I mean we think that there should be some 3 4 rulemaking. That's me as the chair, but some 5 of the other members don't feel that. 6 status quo is just as good. So that's really 7 where you guys have to -- and I think really 8 this has to go out to the public. We need 9 public comment, and this is just some work to 10 get some guidance to get some ideas out there 11 so the public can take it and you can take it from there. 12

13

14

15

16

17

18

19

20

21

22

MS. JAMES: Just in closing, I want to thank you again and all the people that worked on this document. I remember back when we first started and Rose Koenig and, you know, the whole conversation and how complex it was, and I really appreciate your work on this.

MS. DIETZ: And it's been a good marriage of industry and board, and I think that it's worked very well, even though it's

1	not official or anything, but it's worked.
2	MR. DELGADO: Richard.
3	MR. MATTHEWS: Yes. I want to
4	answer Dan's question with regard to whether
5	or not we've acted on the recommendation
6	relative to all materials in 605 being
7	accepted in livestock. That recommendation
8	was vetted with the FDA, and it is not
9	accepted. And I believe that it was addressed
10	in the proposed rule to the final rule on
11	livestock materials that was published last
12	design certification. The final rule was
13	published then, but I believe that the
14	preamble to that addressed that particular
15	issue.
16	But it has been addressed in a
17	rulemaking someplace, and it was rejected
18	after consultations with FDA.
19	MR. DELGADO: Thank you. Any more
20	questions? Hugh.
21	MR. KARREMAN: Maybe I should have
22	known that, but that comes as a surprise. I

1	think that would be like where you could let
2	the board know, if possible, beforehand or
3	write when that has happened, like this is
4	what the FDA said, because I wouldn't have
5	asked my question. So thank you.
6	MR. DELGADO: Julie.
7	MS. WEISMAN: Just real quick. I
8	participated in this group, and I just want to
9	say to Kim and Gwendolyn that what's here is
10	impressive, even for someone who was involved
11	in the process; maybe more so, because there
12	were so there was so much material, so many
13	possibilities, so many permutations, and it is
14	even having participated in the process
15	especially having participated in the process,
16	it's really helpful to see it all up here in
17	black and white. Thank you.
18	MR. DELGADO: Any other questions?

MR. ENGELBERT: Just for the
public record, if you don't mind the work on
synthetic and nonsynthetic, if anyone would

19

Kevin.

1 want to join the group at this point, would 2 they be welcome? Would you consider it closed 3 right now? 4 MS. DIETZ: Yes, the question was 5 if anybody wanted to join the group to work on 6 the synthetic-nonsynthetic, the answer is yes. 7 Just contact me. I'll be here all day today 8 and tomorrow, or Gwendolyn, and we'll get your 9 e-mail address and add you to the list. 10 We have calls every week. So just 11 contact us. 12 MR. DELGADO: Dan? 13 MR. GIACOMINI: And I would like to extend that special part of that request. 14 15 The working group is industrywide, and there are people that are affiliated with all parts 16 of it, but it is definitely certified and 17 processing weighted. Any people with a more 18 19 extensive background in crops or livestock 20 would certainly be welcome on the group. 21 MR. DELGADO: And I have one question. 22 I just want to join the choir here

1 and let you know that we're very grateful. 2 appreciate your work, both to the leadership of the group and to the members of the group 3 4 that were part of this wonderful example of 5 leveraging the popular know-how, if you will, and helping the board. 6 7 So thanks again. 8 (Applause.) 9 MR. DELGADO: On that note, we're 10 going to have a well-deserved 10-minute break. 11 We'll see you here at 10 o'clock. 12 (Recess.) 13 MR. DELGADO: Welcome back after this break. We are about to start our 14 nonbreak session. And we'll start with --15 Joe, are you ready? It is the turn of the 16 17 Compliance, Accreditation, and Certification Committee to talk about their proposals, and 18 19 I will yield to the chair, Joe Smillie. 20 MR. SMILLIE: Thank you, Mr. 21 Chair. We -- it's Certification,

22

- 1 Accreditation, and Compliance, just to be 2. We like to start with compliance, 3 right. CERTIFICATION, ACCREDITATION, AND 5 COMPLIANCE COMMITTEE MR. SMILLIE: Thank you, Mr. 7 Chair. 8 Our committee has been working 9 pretty hard on a number of issues. We have 10 two recommendations for this meeting, the 11 multisite recommendation and the 100 percent recommendation. 12 13 We're going to start off with the multisite recommendation. As a lot of you 14 15 know and a lot of you have participated, this has been an important issue that is 16 17 desperately needed by the industry to move 18 forward with, and we've gone through a couple 19 of iterations, and we are pretty happy with 20 what we're presenting now.
- We have been very happy with the public comment on it, and one of the things I

1 would like to point out -- or two things I'd 2. like to point out about the document before 3 Tracy leads us through a detailed analysis, is that the appendices are important. A lot of 5 people -- the recommendation itself is pretty long and technical, but the appendices are a 7 very important part of it, and I urge all of you with interest in the document and in its 8 9 implementation, hopefully through the NOP, 10 that these appendices are regarded as an integral part of the document. Because a lot 11 of the details, which a number of people are 12 13 worried about and concerned about, are contained in some of the selections we made as 14 15 far as the appendix material, including the title and the multisite, which is an 16 isoterminology, and we want to stay on that 17 iso base and work it into the organic world as 18 19 much as possible. 20 The second item I want to point 21 out is that there is a minority report on this 22 document, but as the minority report itself

- says, the minority is in favor of the document in all but one instance.
- The minority report reflects the

 opinion that there was one particular item out

 of maybe 100 items or less, but that they just

 couldn't agree with.
- So, please, when you read the
 minority report, it is a minority report, but
 it is in favor of the entire document with one
 small change.
- So with those two items, I'd like to ask Tracy Miedema to walk us through the document.
- MS. MIEDEMA: Thank you, Mr.
- 15 Chairman, and good morning, everyone.
- This is the third time our

 committee has presented on what we call

 certifying multisite operations, and this

 topic is also known as community grower

 groups, it's known as certifying smallholders,
- and it's known as various other terms out
- there in the industry.

Nevertheless, it's a topic that 1 2. has -- it's a means of certification that has 3 been very well established in practice, but we discovered a problem. And the program really 5 discovered a problem with what was happening in reality and with our regulation. 6 7 The reason we are here is because 8 of a directive from the program, so I want to 9

10

11

12

13

14

15

16

17

18

19

20

21

22

of a directive from the program, so I want to state right up front that based on what we heard yesterday from Deputy Administrator Robinson, this would be a priority recommendation that the program would be acting upon.

So the problem part of the regulation is section 205.403(a)(1), which states that a certifying agent must conduct an initial on-site inspection of each production unit, facility, and site.

Hence, our designation of grower groups as multisites. And we are just really trying to have our language fit with the regulation.

1 So, you know, therein lies the 2 problem. This implies that every smallest divisible bit must get looked at by a boots-3 4 on-the-ground outside accredited certifying 5 agent. Well, that's not what was really 6 7 happening. And so a year-and-a-half ago, we 8 proposed a legal framework where in groups or 9 multi-fed operations could continue to exist. 10 And that requires a rule change. 11 requires, at the very least, some new 12 definitions that are firmly acted upon through 13 a guidance document. Yesterday one of the commenters 14 mentioned, well, this word "site" with its 15 definition leaves a gaping loophole for very 16 little inspection to occur, for inspection to 17 only happen at the centralized managed 18 facilities. 19 20 Well, in order for these groups to go forward, we need to define site as the 21 centrally managed unit. 22

1 However, we go on for dozens of 2. pages on what the inspection protocol should actually look like, and drilling down into 3 4 each site, drilling into what can be called 5 subunits or members and all of the risk 6 analysis that needs to occur to the site --7 who gets looked at, with what frequency. 8 We also go into great detail about 9 how these members should be clustered in the 10 production units. 11 So our first recommendation -- I'm 12 sorry, our first guidance document a year-and-13 a-half ago provided a legal framework to deal head on with 205.403 in the fact that the 14 15 reality didn't match the regulation. We took a varied 30,000-foot view 16 17 of an internal control system as a viable construct for doing organic certification, and 18 we didn't look at it as a method of 19 20 certification that was somehow subpar. 21 Rather, what we tried to do was look at how 22 can we ensure that it is never subpar.

1 We didn't take a biased approach 2 and say, only impoverished Third World smallholders should have access to the 3 construct. And, in fact, I have yet to hear 5 a convincing argument for how the exclusion of 6 others from using this construct actually 7 helps smallholders. However, this was the hot button 8 9 issue, and what I'm referring here to is this

10

11

12

13

14

15

16

17

18

19

20

21

22

However, this was the hot button issue, and what I'm referring here to is this idea that an internal control system being used as a means of inspection could get extended beyond the smallholder group.

It continues to get raised in this meeting, even though we went mute on the topic in this final recommendation that we're putting forth.

Now just, you know, moving into the timeline here of the last 18 months, what we did in one year or -- let's see, I guess that would be six months ago, we put forth detailed guidance. That was what you all are calling for here on the board and the public

1 asked us for it.

14

15

16

17

18

19

20

21

22

2. We said, okay, you've laid out the 3 legal framework, now, you know, put some flesh 4 on those bones. Tell us what these things 5 really look like, how they should work. program asked us for that information as well. 7 Give us some guidance so we can train 8 certifiers in how to go in, put these organic 9 system plans to work together to build an 10 organic system plan with groups and have 11 something that's rigorous and valid in every 12 instance. 13

So we also received an enormous amount of public comment that wanted to limit internal control systems and the notion of group certification very narrowly to farmers.

Yesterday Jim Pierce referred to this elephant in the room. We didn't intend this recommendation to have an elephant in the room marching around.

In fact, we are quite explicitly mute on the topic of producers and retailers

being able to use this construct in the future
because we still think it's very possible,

probable, it's happening right now, and
there's many retailers that are certified in
this manner that are scrambling trying to
figure out what to do because of an item

posted on the NOP Web site in May that quite
unequivocally said that grower group model

does not apply to retailers.

Unfortunately, retailers have not

-- and, you know, any type of processor group
is not going -- has not been granted the

luxury of time that seems to be being granted
to smallholder farming operations.

I also wanted to respond to one item yesterday that was raised during public comment that said, well, you know, we've got a situation here that's going to look really kind of -- it's going to look kind of sexy in the media if we have some imported organic product and there's fraud and, you know, here's a gaping area where problems -- let's --

- we need not to conflate these two issues of

2 imported product and multisite operations.

3 These are completely -- completely independent

4 of one another.

If there's fraud from imported product or fraud on domestic product, that's an enforcement issue. Fraud can happen as surely in a single-producer operation as it could in a multisite, so implying that, you know, multisite is inherently a greater risk to consumer perception is -- I don't think it's true.

beyond the guidance document stage. We put forth a couple of guidance documents. We had a minority opinion, as Joe mentioned, that stated every new entry, every new member who comes onboard should be looked at by an outside member. Keeping in mind there's a clear difference here between surveillance and review, that an internal control system does, and an outside inspector does.

What the minority opinion suggests
is that every new member should get looked at
by an outside inspector.

recommendation with this minority opinion.

Procedurally I believe we can vote on a recommendation in its entirety, including a minority opinion, and frankly let the program suss out which way they want to go on that.

So we would like to put forth the

But there's going to be some decisions made at the program level. We are not -- you know, we have not dotted every single "i" and crossed every single "t" on this issue, but we need to act. We need to move this forward.

There's a lot of stake, and we have seen that the program can move swiftly with groups that are using this construct that they have with retailers. If they were to move swiftly with smallholders, we could have, you know, tremendous upheaval for not just us organic coffee drinkers, but, you know,

1 vulnerable farmers around the world.

2 That's all I have.

3 MR. SMILLIE: Thanks, Tracy.

4 I'm just adding one thing.

There's a key component in this, and we originally proposed that it be a new scope of accreditation, that multisites certification be part of the -- be separate from crops, processing, livestock.

That was rejected at that time by the NOP, but we would like, as hopefully we get a positive vote on this recommendation, we would like the NOP, you know, to take it really seriously, that not every certification organization is going to be equipped or ready to take on this type of certification; that the training component that Barbara talked about yesterday, the training modules, are going to have to be very clear, because a risk analysis approach, which this is a lot based on, is a very, you know, highly technical domain that certifiers will have to get up to

speed on before, I think, they can start
getting into the business of multisite
certification.

So the scope of training and the fact that not necessarily all certifiers will be able to do this until they are up to speed on it I think is very important, and we will rely on the NOP that hopefully once this recommendation is adopted by the board and moved to the NOP, the NOP will, you know, make that particular training available.

Because, as I said, in the appendices, there's a lot of technical detail on how this is going to happen.

Second item, second recommendation that we have brought to the table is the 100 percent, and again I just want to clarify that what this recommendation is about is the label claim of 100 percent. We are not addressing the issue of calculating components of a multi-ingredient product in this recommendation. Even though it may or may not

impact that calculations issue, that's not the
purpose of this recommendation, and we'll try
to make that clear as we move forward.

4 This was a response. This is the 5 kind of thing that the NOSB does when we hear from the community there's an issue out there, 7 there's some problem, will you address it. 8 took it up, we got into it, and we had all the 9 best intentions getting into it, and luckily 10 we have a wonderful community out there that 11 lets us know when we're on track and off 12 track, and we heard some excellent comments 13 yesterday in public comment on our recommendation. 14

15

16

17

18

19

20

21

22

We listened very carefully, and we will react, and I will ask Julie to give us the update.

MS. WEISMAN: Well, as you know, this committee did make a recommendation. It was published. At the risk of repeating Joe's comments, we were fortunate to receive very thoughtful and valuable public comments about

1 it, and through that process it has become 2. obvious that the CAC, maybe because of our 3 composition or maybe for other reasons, 4 approached the issue very narrowly with an eye 5 only towards the 100 percent labeling category of the products that are packaged for retail, 6 7 and without really considering what other impacts this -- what other issues, important 8 9 issues, could be impacted by this 10 recommendation.

11

12

13

14

15

16

17

18

19

20

21

22

What public comment has brought to light are very critical issues which I think narrow down to two things. One is the issue of materials that are used post-harvest versus materials that are used during processing.

The recommendation we have -- as we have proposed it would have very drastic consequences, obviously, now if post-harvest materials were considered ingredients -- considered as processing ingredients. And it would possibly, it sounds like, set up a very strong disincentive for using basic food

safety practices, and this is of grave concern to the committee now that we have realized that this is one possible outcome.

4 The other issue that is impacted, 5 which Joe alluded to, and I'll keep comment about it brief, was that this recommendation 7 would have an impact on how organic percentage is calculated, because if growers were to 8 9 continue using the food safety practices that 10 they have been using, it would knock a lot of 11 the products that are currently listed on 12 their organic certificates in the 100 percent 13 category out of the 100 percent category and 14 create mayhem in the rest of the industry in 15 terms of how organic percentages are calculated. 16

That has already been a problematic issue that is still, you know, troublesome to sort out. So we do not want -- we are very concerned about adding to that difficulty.

22 So in light of these very valid

17

18

19

20

21

concerns, the committee, although we haven't 1 2 met as a whole group, in just conversations 3 since yesterday, I think that we want an opportunity to meet and decide whether we 5 should move this recommendation forward as is, 6 whether we should try and do like a midnight 7 amendment process -- I hate those, but sometimes we've got to do them -- or to even 8 9 discuss perhaps maybe whether this should be 10 pulled back. But that's a question right now 11 because the committee hasn't met yet. 12

13

14

15

16

17

18

19

20

21

22

So I think that it was the thought of the chair and myself, perhaps, that in the interest of time at this meeting today, because this recommendation may be substantially altered, not to present it as it is because it is has a lot of sort of very indepth information that takes a lot of time to explain, and that maybe we should not present it at this time and pending our committee meeting later sometime today to decide what we do, how we do want to proceed with it.

1	Is that a fair summary?
2	MR. SMILLIE: Yes. And that
3	concludes our presentation.
4	MR. DELGADO: Any questions from
5	the board? Jennifer.
6	MS. HALL: For the benefit of the
7	board and for the community, I would like to
8	take the opportunity to share a little bit
9	more about the spirit and intent of the
10	minority opinion.
11	As Joe mentioned, I definitely
12	feel very solid about the integrity of using
13	a good strong internal control system as a
14	management tool, but also as a manager of many
	emanifections to me the long term suggests of
15	organizations, to me, the long-term success of
15 16	the organization or group, as it is described
16	the organization or group, as it is described
16 17	the organization or group, as it is described here, also rests on a really strong foundation
16 17 18	the organization or group, as it is described here, also rests on a really strong foundation of training up front.

really is more about the second half of the

22

1	paragraph that talks about it, and that it
2	really is about trying to establish a more
3	solid up-front training and foundation and
4	particularly given the fact that these smaller
5	locations can be independently held, that it's
6	an opportunity up front to get them all on the
7	same page.
8	MR. DELGADO: Any comments?
9	MR. SMILLIE: Thanks, Jennifer.
10	We do want to make one
11	clarification in the document. I wanted to,
12	you know, see if there were any other
13	questions from the board first, but once
14	that's cleared, then what we would like to do
15	is do a little red-lining, which is little a
16	clarification of one of the sections that's
17	had the most confusion.
18	MR. DELGADO: Let's do that
19	clarification now for the board.
20	MR. SMILLIE: Okay. So unless

there's any other questions, we'll move to the

21

22

clarification.

1 Tracy. 2 MS. MIEDEMA: Thank you. 3 Valerie, would you please go to page 7. 4 5 We wanted, in discussing sampling protocols, to make sure there was an element 6 7 of random sampling. And when you start 8 talking about percentages of percentages, it 9 just can get confusing if you aren't crystal 10 clear. 11 So what we went ahead and did --12 and this was after the document was published, 13 so for the benefit of the public and probably for the board, we wanted to show you that we 14 15 have inserted a couple of examples of what we mean when we line out the sampling protocol. 16 17 So if you could scroll down a little bit. The page numbers may have shifted 18 Okay. 19 a bit. 20 So what we have said that was

21

22

identified and inspected. Twenty-five percent

confusing was the high-risk sample of

of the remaining subunits to be inspected should be inspected -- should be selected randomly and so on.

So if you all would just turn your attention to the board. The way we have clarified this is to say once the annual sampling percentage rate is determined by the ACA -- so, you know, let's go -- let's just be clear right there -- the ACA determines the sampling rate based on a long list of risk criteria. The highest then, the highest risk subunits are identified and inspected.

Of the remaining samples to be inspected annually, at least 25 percent of these subunits should be selected at random.

You know, the reasoning behind that is that this helps to prevent the complacency that might be inadvertently encouraged by a certifier focusing only on higher risk members of the multisite operations.

Then we go through a couple of

- 1 examples to just do the math for you all and
- for the program. And that's the only edit we
- 3 made to the document post-publishing to
- 4 regulations.gov.
- 5 MR. DELGADO: Does that conclude
- 6 that item?
- 7 MR. SMILLIE: Yes.
- 8 MR. DELGADO: So we'll open it up
- 9 to questions. Dan.
- MR. GIACOMINI: Thank you, Mr.
- 11 Chairman. Thanks, Joe and Tracy.
- I agree with the philosophy of
- where we're going here, but as I go through
- 14 the document and I listen to public comments
- and I hear -- you know, look at other
- 16 situations, there are some things in this that
- 17 I still have some problems with.
- 18 First of all, I think the
- 19 justification for this, that is how
- inspections are being conducted currently, is
- 21 a very weak argument; that if the problem is
- incomplete inspections being done, we need to

- fix the inspection process rather than to create a document to justify it.
- So I disagree with that comment as being partly behind where this is coming from.

Number two, on the specifics, I
really object on page 2 to -- there's two
places where it refers to the possibility of
the "may reduce or eliminate the need for a
direct inspection or observation."

10

11

12

13

14

15

16

17

18

19

20

21

22

I have a hard time going along with this document where we say -- where we are allowing a consideration that we may reach a point that the need for an inspection would be eliminated. That's in the first paragraph on page 2 right above the OSP at the end of the paragraph. Up at the top, Valerie. "May reduce or eliminate the need of a direct observation by inspection."

I don't -- I have a problem with that "eliminate," and it's duplicated down in the last paragraph right above the footnotes, "internal control systems that reduce or

1	eliminate the need for a direct observation."
2	I don't I can't I have a
3	hard time agreeing with that direction, that
4	implication of where that could go.
5	MS. MIEDEMA: May I respond.
6	MR. DELGADO: Tracy.
7	MS. MIEDEMA: I think that's an
8	excellent catch, actually. And what we need
9	to do there that could, I believe, allay your
10	concerns, which are very valid, is where it
11	says the word "subunit" and take out the word
12	"or site." Because that's what we're talking
13	about here. And that was an oversight on my
14	editorial process. And that would then
15	comport with the rest of the document.
16	MR. GIACOMINI: Personally I would
17	prefer we add "eliminated" or "eliminate."
18	MS. MIEDEMA: Sure.
19	MR. GIACOMINI: The second point
20	is in a question on page 8, at the bottom of
21	page 8, "all noncompliances detected," go down
22	through the sentence, "are required to be

1 reported to the certifier."

11

12

13

14

15

16

17

18

19

20

21

22

2. I don't see here when that 3 reporting is required to occur. Is it at the detection of the noncompliance? 4 Is it just 5 within the annual inspection? Because I can 6 see some situations developing where, okay, we 7 won't report this. If they find it in the 8 inspection, then we'll report it, because I 9 think there's some different teeth that can be involved in those implications. 10

MS. MIEDEMA: I'd like to respond to that one as well. This is actually enshrined in all organic that noncompliances should always be reported, and I think we are starting to get into an enforcement issue where, you know, this is really -- a noncompliance spotted here is no different than on a single, you know, production unit type operation. If it's wrong, it's wrong, and it needs to be pointed out in the same manner.

So getting as prescriptive as, you

- know, reported within 24 hours or something
 like that, is more prescriptive than anything
 else that we line out for certifiers.
- 4 MR. GIACOMINI: Okay. Well, that 5 brings me to my next point. When you say it's no different, I have a hard time looking at 7 this document and not seeing a concession being made. There are concessions -- we have 8 9 requirements, you know, that -- you know, if 10 you're a small grower in the United States, at 11 \$5,001 you have to have an inspection. 12 allowing certain ones, because of the 13 structure of their organization, not to be inspected. 14

Now they do have the internal

control unit, and that review, and I

understand all that. But it is a -- there are

concessions being made. And what I don't see

in the document is really -- and I'm sorry if

I'm being unfair here -- I don't see where

we're getting anything back.

I think the consideration -- I

22

like the consideration of -- I like the -- I 1 2. agree with the minority report of requiring 3 that all new people must be done. I do not 4 see a contradiction in requiring that all 5 growers' subunits in a production system that 6 earned more than \$5,000 in the previous 12 7 months would have to be inspected, and part of 8 the inspection outside the high-risk group.

9

10

11

12

13

14

15

16

17

18

19

20

21

22

I don't see any problem with requiring -- and this may be in there, I may have missed this, but just as I was making notes, requiring that every subunit that had a noncompliance has to be inspected in the next inspection period.

I don't see -- I like the addition you made at 25 percent. I think maybe we could -- you know, what I was thinking along the lines is a percentage of acres or a percentage of value of the production unit has to be included in that inspection sample.

Finally, I just wanted -- there's a couple of places where you deal with random

- selection, and I agree with random selection,
 and it is a factor that would minimize the
 number of repeat inspections within the same
 subunit.
- However, I'm not comfortable on a 5 6 random basis, just by random chance. 7 could go 10 years without seeing a particular subunit. I think we need a maximum number of 8 9 years between actual inspections of each 10 subunit within a production system -- five 11 years, six years, whatever, but I'm uncomfortable with the randomness allowing it 12 13 -- random could be they're just never seen.

So if we're not going to require new ones and we don't have a maximum between inspections, you've got subunits in there that have never been inspected, seen by an inspector, and I have a hard time going along with that. Maybe it's too much.

MR. DELGADO: Response, Tracy?

14

15

16

17

18

19

MS. MIEDEMA: Thank you, Dan. You

22 know, I think we start out from a little bit

of a different philosophical perspective on this, and then the chasm starts to widen as we get down into the details.

What I have seen is that, you know, if you look at the public comments submitted this time, 19 of 20 were generally supportive, and we're going to have -- you know, there is going to be some devil in the details, but, you know, all in all we had to -- we had to make a decision on one side or the other.

And all of the items that you pointed out are areas that we took public comment and took account very carefully. It's an issue of do we believe these are feasible, do we believe it's right, do we believe smallholders should have a role in organic? And if our general tilt at the beginning of that conversation is yes, then a lot of details fall out of that. And if the general philosophical bent is no, then the details sort of all in the other direction.

1	Then we can't quite bridge the
2	divide if we start out from a you know,
3	philosophical difference.
4	We started out believing that this
5	can and should carry on as a viable
6	certification if, and only if, a rigorous set
7	of criteria were developed, and we believe
8	that this set of criteria provide that rigor.
9	MR. DELGADO: Joe.
10	MR. SMILLIE: Yes. I think Tracy
11	summed it up really well. You know, you can
12	go both ways on this.
13	My personal belief is that if you
14	look at the list of risk analysis, all the
15	points you make could be added to that. I
16	think that if ACA is doing their job, they
17	will do those.
18	For example, anyone with a
19	noncompliance in the past that corrected it
20	would be a high risk and they would be
21	inspected again.
22	But the idea eventually we get

to the point are we going to try and write a prescriptive regulation in this document, or are we setting forth a series of criteria by which people are going to be judged?

2.

We believe we have gone really deep on a lot of these issues, and I think in some cases too far. I think that basically what our job is to do is to be clear in our intent to the program, and not to get so prescriptive as to tie the ACA.

For example, why I disagreed with the minority opinion -- it sounds good that every new member should be inspected and welcomed into the group and have the visit of the, you know, the third-party inspector.

But when you start to work that in detail, it means that you're pulling away a whole group of people. You know, some of them, you know, don't need to be inspected, if you look at a risk analysis benefit. And if you include all of them, your sample gets big, so the tendency then, from a certifier point

1 of view, well, we're doing all these new 2 people, so you cut back on some of the -- you 3 know, the guy high in the mountains, in the low corner, or the guy near the border. 5 cut back. And I think the risk analysis, the 6 importance of the risk analysis approach, is 7 that you really want to identify risk. And if 8 new members are risks, by all means, you know, 9 they need to be checked. They need to have 10 that inspection. 11 But if they are not, if there's 12 eight of them, all side by each, as we saw in 13 Kennebec, you know, that you don't really need to do all eight. 14 15 So where you are going I'm not disagreeing with, but I'm saying it becomes 16 17

disagreeing with, but I'm saying it becomes very prescriptive, and I believe it's the training of the ACA and the criteria that needs to be put forward, and not to go down the overly prescriptive route on this route.

21 But that's the way I -- we 22 approached it.

18

19

20

1	I also once again want to
2	reiterate if you go to the appendices and
3	I mean not that you'd want to, but there's a
4	lot of detail there that we intend the program
5	to go into.
6	So that's about as best as we can
7	answer it at this point.
8	MS. FRANCES: Can I clarify
9	something? In the appendices, there's
10	actually a reference there.
11	MR. SMILLIE: Thank you.
12	MR. DELGADO: We have Bea,
13	followed by Jeff.
14	MS. JAMES: Dan, I was wondering
15	if you could elaborate a little bit more on
16	the comment that if there's a current practice
17	going on, and that we are trying to create a
18	document to justify, maybe you could be more
19	specific.
20	MR. DELGADO: Dan.
21	MR. GIACOMINI: Maybe I misheard
22	part of Tracy's introduction to the document,

- but I believe that's what -- the essence -
 some of the essence of what she explained.
- 3 MS. JAMES: For this particular 4 recommendation?
- 5 MR. GIACOMINI: Yes. Just now.
- 6 MS. MIEDEMA: I believe you were 7 referring to 205.403, and it states that every 8 production unit site and facility must be 9 inspected. That's not what was happening in 10 reality, if we look at site being a small 11 divisible unit. There were not and are not 12 today boots on the ground at every small 13 divisible unit. And it totally addressed head

14

15

on 205.403. Every grower group in the world

So that's what I was talking about
making the language match the reality, not -lots of integrity, but simply disallowing
another lawsuit because this went all the way
to appeal, and so, you know, we've got a
problem here, and that's why we decided to
address that head on.

is out of compliance.

1 MR. DELGADO: Jeff.

inspections.

10

11

12

13

14

15

16

17

18

19

2 MR. MOYER: Yes. Joe and Tracy, I

3 got some basic problems with this document

4 that Dan really touched on very clearly.

One of the stringent arguments
that we continuously use in the organic
marketing program is that when we talk to
consumers, we tell them that every farm is
inspected all the time, so we have

I understand the internal control system steps in and takes over part of that role. However, talking with growers who are involved with internal control system inspections, they all have said -- not the inspectors, but the growers -- have said you don't really pay as much attenetion when it's the internal inspector as we do when it's the external inspector.

I've seen that -- my wife works in a microbiology lab, and they have internal control systems. But it's the same thing there. When it's the internal inspector who
you just had lunch with, it's a little bit
different than when the outside inspector
comes from ANSI or somebody else.

So I have concerns over the fact that, you know, as Dan pointed out earlier, you pointed out in your example, a random sampling of when you have 100 growers, two? Two are selected as random testing? Your chance of getting picked is almost as good as winning the lottery. I mean you're just -- you're not really not going to get selected that guickly.

And so Dan's suggestion of having a maximum number of years between inspections, while it does change this document and force us to have more boots on the field in terms of inspectors, I think when you're talking to consumers and you're trying to alleviate their fears that product is inspected -- when you're talking about -- you know, as you pointed out, Tracy, a lot of product that's coming from

1 overseas where there's already serious 2 concerns, I think that we are asleep at the switch if we pass this regulation the way it's 3 Representing the consumer. 5 MR. DELGADO: Any response? 6 Tracy. 7 Well, a comment on MS. MIEDEMA: 8 your metaphors there. Your wife's company. 9 You would need to extend that metaphor and say 10 that she has a lab that has an internal 11 inspection, and her lab has a whole bunch of 12 other labs they work with. And so the 13 pressure she has is not just from this gal she had lunch with who's going to come look, but 14 15 if she falls down, she jeopardizes all the other labs. 16 17 There's an enormous amount of 18 pressure within these systems to comport with 19 the law and keep the entire organization's 20 products organic.

21

22

Neal R. Gross and Co., Inc. 202-234-4433

one to one, your metaphor there, I would

So there's -- you know, it's not a

1 argue.

2. I also am concerned with this 3 notion that you're looking at inspection as 4 some sort of lottery system. 5 accredited certifiers, agents of the government, that are in charge of these 7 organic system plans. And what you're inferring is that they are unqualified to do 8 9 their job, and that the entire system is 10 flawed.

11 What I would, I guess, ask you to 12 do is point within these criteria what is 13 missing, rather than sort of blithely referring to it as a lottery system that 14 15 confuses consumers. Because all inspection is I work at a farm that is about 16 sampling. 17 5,000 acres. There are not boots marching over all 5,000 acres. All inspection is 18 19 sampling. And if consumers believe that a 20 pair of boots have trod over all 5,000 acres, that's a misperception out there, same as 21 organic means no pesticides, something we 22

- contend with, something we know there's an
- 2 inherent risk when there's those
- 3 misperceptions. But all inspection is
- 4 sampling.
- 5 And that's not wrong, that's just
- 6 what inspection has to be.
- 7 MR. DELGADO: No response to that?
- 8 We have Hugh, followed by Dan.
- 9 MR. KARREMAN: Just a brief
- 10 remark. I mean Dan had a lot of very exact
- points, but they're -- from random sampling
- 12 you may never visit a subunit or a unit and
- 13 you have to. I mean for me to like this
- document and go for it, you have to have some
- 15 minimum that every single unit -- not all in
- the same year, but maybe in a rolling kind of
- 17 fashion -- gets inspected, at least every five
- 18 years or something. And they have their ICS
- 19 happening, but you could really have some
- 20 units falling through the cracks. Just --
- that's got to change in the document.
- 22 MR. DELGADO: Dan.

I realize I ran 1 MR. GIACOMINI: 2. through a number of things, but one thing that 3 I would like, you know, the committee to 4 address -- and Joe, if you would -- I 5 certainly do not agree with the concept that I tended to hear or I think I heard in some 7 public comment that anyone -- any unit grower over \$5,000 can't belong to a grower group. 8 9 I don't necessarily agree with 10 that, but could you address the issue, and if 11 I can frame it this way, can you possibly discuss the situation that every grower in the 12 13 United States with \$5,001 has to be inspected on the ground by an NOP inspector annually, 14 15 whereas someone who is part of a grower group in Venezuela or China or -- and makes twice 16 that amount but since they're a part of the 17 grower group, they would not have to be 18 19 inspected annually? 20 I can see that as an absolute 21 media nightmare that will blow up in Barbara's 22 face far more than hops ever did.

1 MR. SMILLIE: Well, I go back to
2 the same basic thing. If you've got -- and
3 again, there are so many different examples.
4 People have to understand the wide range of
5 different types of grower groups there are on
6 that.

Certainly if you've got the classic situation which everybody imagines when we talk about grower groups, which is, let's say, the Central American coffee group, you've got people who farm exactly the same way and have roughly the same hectarage.

Okay, they all have smallholding plots.

If there's a large group -- and also because of the social construct or something like that, there are some growers in there who have larger plots, they would show up as in the risk analysis. That's my belief, that they would show up, that if you looked on that list, which is right there, you go through that list, and, you know, there could be even more things added possibly to it that

1	are contained in the references. That's how
2	you spot that. That's how you know, so
3	there's like five big growers and like 800
4	little growers. Those five are, in my
5	analysis, if the ACA is doing their job, they
6	would be inspected every year because they're
7	larger, because they stand out, because
8	there's something different about them.
9	Now they have to have the same
10	OSP. Remember, all of these subunits are
11	operating from the same OSP. If that big unit
12	has a different OSP, they don't fit the
13	criteria. They can't be part of the group,
14	and they would be like, sorry, guys, you can't
15	be part of this group; you're different.
16	You've got a spraying machine; nobody else has
17	a sprayer. So, therefore, you're out.
18	Remember, you've got to go back to
19	the real basics of this. The legal entity.
20	Somebody said, well, we can't like this
21	document because it has to be defined in
22	public comment as a legal entity. That's a

- given. You have to be a legal entity. You

 have to operate from a single OSP, you have to

 have a functioning ICS with all the

 restrictions we place on it.
- So in that sense I would believe
 that they would be pointed out by -- through
 the, you know, that list of risk analysis, of
 why they would stand out as different.
- 9 MR. GIACOMINI: What if all the 10 subunits within a group were over 5,000? Then 11 only a part of them would.
- MS. MIEDEMA: No, actually there's
 no floors. It's quite possible that a third
 party is going to come in and say, you know,
 I'm looking at this organic system plan. One
 hundred percent of the small statistical units
 must be looked at every single year.
- We don't say that, you know, it

 has to be a small number. In fact, you know,

 it's very likely that as this gets

 implemented, the range is going to be very

 broad. You know, maybe it's going to range

- from 10 to 70 percent get looked at.
- But, you know, that's this
- 3 snowflake thing of the organic system plan.
- 4 They look very different here in the U.S.
- 5 Every organic farm's organic system plan looks
- 6 different from every other organic system
- 7 plan. We don't have a checklist system here
- 8 with USDA organic, we have a system that
- 9 actually conforms to geography, to crops, to
- 10 individual circumstances.
- 11 Yet, like a snowflake, it has
- 12 structure and logic to it. Every one of these
- organic system plans is going to look
- different and so are the inspection protocols
- and rates.
- 16 MR. DELGADO: We have a comment
- 17 from Richard.
- 18 MR. MATTHEWS: Yes. I'm sitting
- here and I'm listening to this, and everybody
- is talking about the Third World countries.
- 21 And Dan spoke to it specifically, about
- 22 outside the United States.

1 Unfortunately, ladies and 2. gentlemen, it is my understanding that there 3 are certifying agents here in the United States that since this policy or 5 recommendation was accepted by the Department, you now have grower groups certified in the 6 7 United States. 8 And I guess I could use Steve as 9 an example, in Campbell's Soup. He has lots 10 of contracts, and unfortunately there's no 11 definition of geographical proximity, so 12 Steve, as Campbell's, could say, okay, 13 everybody that we contracted with in North America is now a grower group. Campbell's 14 15 forms a grower group. Is that what you want? That's what this document does. 16 17 MR. DELGADO: Response from Joe. 18 MR. SMILLIE: I respectfully 19 disagree. If you look at the document, it 20 will say "are located within geographic 21 proximity is defined by access to the same 22 collection or post-harvest handing facility in

- 1 common soils, water source, slope, topography,
- or other physical features."
- 3 That's just one of the guidelines.
- 4 Steve would also have to put together an
- 5 internal control system. Steve would also
- 6 have to ensure that each tomato grower
- 7 followed exactly the same OSP.
- 8 You cannot herd cats, and I doubt
- 9 very much whether -- if I came and looked at
- 10 Steve's system, I would find so many holes in
- it right off the bat, I believe that he
- 12 wouldn't qualify.
- MR. MATTHEWS: So -- but it's
- happening.
- 15 MR. SMILLIE: That's why we would
- 16 like the NOP to adopt our recommendation and
- 17 enforce a regulation which, in your wisdom,
- 18 you will take our intent and come up with
- something that doesn't allow it to happen.
- MR. DELGADO: Any other questions?
- 21 Bea.
- 22 MS. JAMES: Okay, now I can't

1 leave this conversation without just giving 2 another plug for the pink elephant in the 3 room, and I don't mean to beat the pink elephant, you know, to death here, but I know that the CAC heard loud and clear from public 5 comment around retailers and processors being 7 a part of this recommendation and that was It wasn't removed with the idea that 8 9 it would not ever be considered as a separate 10 recommendation that potentially the CACC would 11 look at.

12

13

14

15

16

17

18

19

20

21

22

I think one of the things that I find interesting is that risk criteria have not been developed for retailers at all, and yet there's been this blanket decision that 100 percent inspection should happen at the retail level. And to me, that just seems unfair, and I think that retailers who have voluntarily taken it upon themselves to become certified so that they can help with education at the consumer level have done so not because they're trying to take a shortcut with

becoming certified, but because they want to
be able to articulate what the USDA organic
seal means in a way that has value and
meaning.

5

6

7

8

9

10

11

12

13

14

15

16

17

18

And so I just want to pose that I think it's very important that the certifiers that we heard from in public comment and also some of the ones that spoke yesterday, who pointed out that they think retailers and processors should definitely not be a part of this recommendation, I think that that's already been addressed, but I also see the need for us to address it on a separate level so that we can develop risk criteria specifically for that sector and go forward with determining whether or not it's an opportunity for retailers and processors to use the construct of multisite.

MR. DELGADO: Comments?

MS. MIEDEMA: I'd like to just

21 make one final comment addressing Mr.

22 Matthews' scenario he described.

He described all the rewards and 1 2 none of the risk, and these folks who decide to bind together share an enormous amount of 3 And it's a perverse logic to say that 5 a bunch of production facilities are going to 6 bind together when they don't have to, to save 7 a few bucks on inspection. It's a perverse 8 logic. 9 We can't look at this construct 10 without looking at both the risks and the 11 rewards, and what you laid out was only the reward side. 12 13 The risk applies an enormous amount of pressure to each individual player. 14 MR. DELGADO: Good. 15 I think we're 16 ready to move on to the next point. Thank you for a wonderful debate on both parts. 17 Let's move on then to our next 18 We are about 29 minutes behind 19 point. schedule, so hopefully we'll make it up soon. 20 21 Our next topic will be our Joint 22 Crops & Compliance. I'm thinking that

1	involves commercial availability and
2	biodiversity, and I understand that Mr. Davis
3	will be in charge of leading the discussion.
4	MR. DAVIS: Yes.
5	JOINT CROPS & COMPLIANCE, ACCREDITATION,
6	AND CERTIFICATION COMMITTEE
7	MR. DAVIS: This joint committee,
8	there are two items that we'll be going over
9	right now. The first one would be the
10	commercial availability guidance regarding the
11	sourcing of organic seed.
12	The second would be the
13	biodiversity discussion and the initial work
14	working on a guidance document concerning
15	biodiversity and ongoing work that will be
16	going forward from here.
17	I will do the presentation on the
18	seed, with a little help from Joe Smillie, and
19	just a heads-up to you, Barry, the
20	biodiversity, you'll be doing that one.
21	Okay. On the commercial
22	availability of organic seed, we are working

on, have been working on revisions and
hopefully improvements to a previous document
that was a recommendation from 2005 from the
board. So we have a -- do we have that up
there, Valerie?

Okay. And the changes that we have made, the new changes, are highlighted in blue. Do they show up on that screen that way? Sort of. It's hard to see it as real clear.

But before we go to the changes specifically, I wanted to go to the overall overview of why we are working on this. A lot of public comment is received, that you get the feeling that people, certifiers and growers, would just prefer that this topic go away and just leave us alone and let us do what we're doing.

And then others say, no, no, this is very important. We need to address some issues here. And in discussions with the committee, particularly in the Crops

Committee, but also when we worked in Joint 1 2 Committee calls, was that we are attempting to 3 encourage more usage of organic seed and in 4 doing that we want to -- we do not want to 5 single out any one group, meaning certifiers or growers or even the NOP, as all the work 6 7 that would be required to implement these 8 changes would be concentrated in any one area. 9 We want to spread the responsibility and the 10 workload out of accomplishing these 11 recommendations. 12 I think it needs to be highlighted

13

14

15

16

17

18

19

20

21

22

I think it needs to be highlighted again why this is important. I'll just read a statement from the discussion part of the document.

The board highlights that further development of the organic seed industry is the key to increasing commercial availability of organically grown seeds and subsequent increased usage by growers. Again, the goal is to promote the continued growth and improvement in organic seed production and

subsequent usage by organic growers without hurting or putting undue burdens on growers.

3

4

5

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

It is not the committee's intention to have major noncompliances handed down to farmers trying to abide by the seed commercial availability section of the rule. Achieving the goal of a healthy, viable organic seed industry is important, especially when considering the pathway the conventional seed industry is taking toward increasing inclusion of biotechnology, i.e., genetic modification of seeds, which would all be excluded methods in the organic rule. organically grown movement will not benefit from allowing the organic seed production industry to stagnate. The status quo would be a big problem for the organic movement down the road if we do not address this at this time, in my opinion.

If we allow that industry, the organic seed production sector, to stagnate while the conventional seed production sector

moves on to the likely future situation in 1 2 which traditionally bred and produced seed is only an afterthought, a relic of bygone days, 3 4 the organic seed and the organic producers, 5 these are the ones who can maintain and support viable varieties that work in organic 7 and the production of the seed to support organic production. 8 9 Many people have made statements 10 that -- well, I won't go there. Never mind. 11 We're behind. Too long. 12 But, anyway, it is important, and 13 I, as a spokesman for this group, hope that I haven't belabored this issue too much. 14 15 Moving on to the document itself, I wanted to go to the new changes, which is 16 17 page 3 right there. Okay. We separated in sections of the 18 NOP rule the new role that we want to 19 20 encourage, and I'll just read it quickly. 21 Emphasize protocols for determining commercial availability of organic 22

seeds during the accredited certifying agency training programs.

Currently we are told that it's not being emphasized and so certifiers don't see it as that important.

Number two, emphasize to ACAs that organic seed usage by clients must be monitored and improvement in percentage usage is expected and must also be monitored.

Documentation of the levels of organic seed usage and evidence of improvement in their percentage versus total seed usage by the ACA's clientele should be audited as part of the NOP accreditation reviews.

Number three, inform ACAs during training sessions that the issuance of both minor and major noncompliance statements to growers on this issue is the tool to be considered in all audits as a method to incentivize growers to use more organic seed in their operations.

Now moving on to the ACA's role,

1 section B, number one. Continue to enforce 2. requirements for use of organic seeds applying 3 NOP guidance on commercial availability of Document the organic seed usage status 5 of their clients and be prepared to present the information to the NOP as part of the 7 ACA's accreditation audits. Two, emphasize that seed price 8 9 differentials between organically grown and 10 conventionally grown seed are not a factor in 11 determining commercial availability. 12 Three, verify that organic farmers 13 are making a sincere and ongoing effort to find organic seed varieties suitable for their 14 15 farm.

Four, impress upon growers and clients that if known sources of organic seed are available, they must be sought out and utilized or face the possibility of having individual crops decertified.

This possibly could occur

following the issuance of noncompliance

16

17

18

19

statements over a period of no less than two yearly audit cycles.

3 It is recognized that production 4 of seed takes multiple years. You could make 5 the decision one year to inform your organic 6 seed supplier or other seed supplier that you 7 want this particular organic seed. It would take -- it probably wouldn't be until the 8 9 third year before you would actually get seed, 10 even if you requested it, in many cases, 11 because of the development time it takes to 12 bring that seed through the production 13 process.

14

15

16

17

18

19

20

21

22

The next change in the ACA section is not -- it's within an existing section, number five. We did make a couple of insertions on point B, the new part is -- I'll read it.

As part of the validation process, copies of the applicant's documentation from previous years should be consulted to determine if they are making any progress in

1 their search methods and results.

2.

So that would be a new thing where the ACAs would need to consider previous inspections relevant to their organic seed acquisition and availability to determine if the current year's situation with the grower and their amount of organic seed usage is an improvement from previous years.

And then point D, we recommended a strikethrough on -- where it says maintain and submit upon request to the National Organic Program, and the strikethrough would be crop varieties permitted by each agency, and inserted instead the wording documentation -- maintain and submit documentation of the organic seed usage status, current percentage levels as compared to historic levels of uses by acres of each certified operator.

And I know I'm getting bogged down here with too many details. I'll get through this.

Moving on to the grower section,

- section C. The certified growers' role in increasing organic seed use.
- Number one, document annually all seed usage to determine the percentage of organic seed usage versus total seed usage on an acreage basis.
- Number two, search for and request organic seed for all crops grown.

9

10

11

12

13

- Three, document a diligent search for organic seed by listing and legitimately working with a minimum of three seed vendors that are known within the industry as organic seed suppliers.
- So there's three different
 sections of responsibility, starting with the
 NOP program, moving to certifiers, and then to
 growers.

In public comment it was mentioned
that perhaps buyers and/or processors who call
the shots on what organic growers are -- what
varieties are growing need to be brought into
the loop and maybe delineated in that area of

the document and not be left to a reference at the end of the document.

The Joint Committee will discuss that possibility and see if we want to make an amendment at this meeting.

One more addition to the 2005 document was on page 4 -- or is it 5. Yes, on page 5. In reference to the database.

Further, the NOSB recommends and encourages the establishment of -- and we inserted new information of a two-way national database by an independent party. This database should provide public access to current information on the availability of organic seed varieties, and the new wording also would be and allow for the posting of requested varieties and quantities of organic seeds from growers in a manner that protects private company business information.

In other words, not just what seed is available by the different organic seed producers, which those databases already

- 1 exist, but also what is being requested that 2 is not available at this time. Again, just a 3 suggestion and a recommendation, not anything we can really do much about as far as what the 5 NOP and NOSB can do. 6 That's the gist of the changes. 7 And I wanted to turn it over to Joe to discuss 8 the ACA's part of this. Most of the public 9 comment we have been receiving is coming from
- the ACA's part of this. Most of the public

 comment we have been receiving is coming from

 the certifier saying mostly their objection to

 a lot of this, so I thought I'd let Joe see if
- MR. SMILLIE: All of a sudden, the seat seems to get hotter here.
- 15 (Laughter.)

12

he can deal with that.

- Yes, I represent the

 Certification, Accreditation and Compliance

 Committee, and these are certification,

 accreditation, and compliance issues we are

 talking about.
- Number one, the overview is that seed is really important. Seed is like

critical and essential to the survival of the
organic industry. And as we all know, organic
is an agricultural methodology. You know, it
may be looked at as a labeling claim, but what
it's about is about agriculture, and
agriculture is about seed.

If we don't protect our future and protect organic seed, we are going to be very limited as to what we can do to affect agriculture around the world.

That's why even though this is an extremely complex and complicated issue, we must address it, and we have to be really firm about it.

It's going to cause a fair bit of pain, and what we're saying as the Joint Committee is we want everyone to share the pain. We are not trying to -- we don't want to have what so often occurs is, you know, called the circular firing squad, where the seed companies blame the growers, the growers blame this, the certification blames that,

1 everybody blames each other. You're not doing 2 enough, and sort of a "not in my backyard" 3 approach. Don't put the burden on me. I'm 4 the poor grower. Don't put the burden on me. 5 I'm just the seed company trying to survive. 6 And so what we have to do is bite 7 the bullet and all agree that we have to address this issue. We had a public comment 8 9 the other day that just rocked me, and I don't 10 usually get rocked too often by public 11 comments. But the guy said, yeah, we can put 12 -- you know, we'll advertise, we'll put it in 13 a letter to a grower that says how they can, you know, beat the certification analysis of 14 15 did you search for organic seed. We'll even write the letter for you, so you can buy our 16 conventional seed and get this letter that, 17 you know, will suffice for the certification 18 19 agent.

I mean, you know, it's got to stop. We've got to move forward on organic seed, and that's the principle which our

20

21

1 committee took, is that everybody has to share

in the burden of doing it. Nobody wants to.

It's going to be burdensome, but we have to do

4 it. There's no choice on this issue.

So as far as the certifications, which I represent, which I'm sure they're not going to be happy with me, even though we're - you know, certification organizations do have already, you know, a pretty large role in it, I think everything in this recommendation is doable.

Now, again, when you get to recommendation -- you know, this recommendation, you know, it has words like "verify" and "should" and, you know, it's a guidance document.

So what the NOP will be doing and what the certifiers will be doing will depend on I think a series of negotiations between the sectors. And what we're pointing out, I think, more than anything else is that there has to be negotiation on this. Nobody can

- 1 hide their head in the sand on this issue.
- 2 It's in the regulation. We have a regulation
- 3 that's clear. It's clearer, I think, than
- 4 401(c). It says you should use organic seed,
- 5 period.
- 6 MR. DAVIS: Must.
- 7 MR. SMILLIE: Must use organic
- 8 seed. Thank you, Gerry.
- 9 You must use organic seed, and yet
- 10 we're not. And we have to. And what we have
- 11 to do is figure out the best way to leverage
- it bit by bit. Somebody does a little bit,
- then somebody else does a little bit more, and
- we leverage it all up.
- 15 The NOP has to dance with the
- 16 partners on this one. This is going to
- 17 require careful coordination. We don't want
- to see, you know, people coming and hitting
- the certification writer and saying you didn't
- 20 enforce it. It says in the regulation you
- 21 have to do this, you didn't do it, you know,
- 22 you're going to lose your accreditation. We

- don't want to see that happen to the grower,
 we don't want to see that happen to the seed
 companies. Everybody has to work together to
 make this work.
- 5 I think this recommendation, even 6 though there's all sorts of issues with it, 7 and we did hear a lot of good public comment 8 on it, I think nonetheless as a guidance 9 document, we want to move this one forward at 10 this meeting and really start to tackle what I think is a big problem in the organic 11 industry, and everybody has to share in the 12 13 work to get it done.
- MR. DELGADO: Any questions? Jim, followed by Kevin and Jennifer.
- MR. MOYER: Thank you, Mr.
- 17 Chairman.
- I just wanted to follow up on what

 Joe said in that as we were working on this

 document, the whole idea of shared pain was

 really, really important, and this idea that

 we do need to work together, particularly that

the program include this as part of their

auditing of the ACAs, as we look at what

they're doing and what their inspectors are

doing with the boots on the ground, as we

heard, they are the folks that are out there

and can help collect this information.

7 At the same time, the ACAs need to 8 enforce or need to impress upon their growers 9 that this is something that's being taken 10 seriously now, and that they do risk at some 11 point decertification of a particular crop if they have shown repeatedly that they are not 12 13 interested in finding seed that is known to be available. 14

So I think everybody shares in the burden this way, everybody has a little bit of extra work to do, but the outcome should be well worth the work.

19 MR. DELGADO: Kevin, followed by 20 Jennifer.

15

16

17

18

MR. ENGELBERT: Briefly, I just
wanted to add, there's no additional burden

1	for growers large or small that use organic
2	seed. The situation continues to present
3	itself where the intent of the rule in OFPA is
4	clear. And we don't know how much farther we
5	can go, how much more prescriptive we can be,
6	and if we may eventually get to the point
7	where we just recommend that organic seed must
8	be used, period.
9	We don't think we're at that
10	point, but we hope that the industry, the
11	community of farmers, certifiers, realize that
12	this is a serious issue because, like Joe
13	said, organic agriculture begins with organic
14	seed, and this industry has to move forward.
15	MR. DELGADO: Jennifer.
16	MS. HALL: I have three things.
1 🖪	

One is just a correction on some language. On the last page, where it starts, "Further, the NOSB recommends and encourages," number one, just after the inserted language, where it stops, "private company business

I'll start with the easiest one first.

17

18

19

20

21

information," I think due to the insertion 1 2 into a prior document that there's a little bit lost in translation. It continues that 3 "producers using nonorganic varieties not 5 appearing on the database, " which is a little bit incorrect in the sense that the way the 7 database is described in the document, it would actually only list organic varieties 8 9 available, so nonorganic would never appear on 10 the database. So it just kind of needs to be 11 finessed. 12 I think we get the intent, but the 13 language is off. The second point is that as I 14 listened to the comment and I listened to --15 reread from Gerry of the overriding goal of 16 continuous improvement in the use of organic 17 seed, that perhaps there is a way to keep all 18

inspections, if the inspector could first look

the components and put them in a little bit

different order and really emphasize the

improvement end of it, and that in

19

20

21

1 to demonstrated improvement. And since we've 2. inserted "looking at the last year's inspection," if there is a percentage 3 4 improvement in the amount that that is 5 obviously displaying the intent of the grower 6 and the progress of the grower to go the right 7 direction, but only if there isn't some -maybe there's some level of percentage you're 8 9 looking for before you would then go looking 10 for the documentation and kind of do the 11 deeper dive on all of the letters and all 12 those things, that would then supplement why 13 that person was not able to go and improve their process. So opportunity there. 14 And then the third one is in 15 looking at this, as we also spotlight at this 16 meeting a little bit the conversation about 17 18 biodiversity, I think it is important to 19 remember that biodiversity is not just about 20 wildlife, but it is also about the 21 biodiversity in the crops that are grown, and 22 that not all of the crops that enhance that

1	fundamental equation right now are available
2	in organic form, and I think it is a little
3	bit dangerous to go marching too far and head-
4	long into demanding organic seed, and then
5	discriminate where heirlooms are not available
6	organically right now, and where that
7	biodiversity could then be diminished over
8	time, and that right now organic certainly
9	shares the halo that heirlooms convey with
10	flavor, and it's great. In the public eye,
11	it's a lot of consumer candy, if you will, to
12	still want to go this direction. And I would
13	hate to see that get decreased as a means of
14	people wanting to support organic because it
15	excludes some other really great things.
16	MR. DELGADO: Comments from the
17	chairs?
18	Okay, any other questions? Dan.
19	MR. GIACOMINI: You know, based on
20	the intent and what we're looking at here, I
21	support the document. There's one little bit
22	in it that I am concerned actually could slow

development of the usage, and that is

expressed in A(2) and in 5(b) where we talk

about the monitored improvement and

calculating percentages.

going from five to 10 to 15 to 20, that's one thing. If improvement -- but that's not the way everybody buys seed. If you're a livestock producer and you have your pasture ground with your pasture crops and then you have, say, corn silage, that corn silage that year may take you from 20 to 80 percent, or 20 to 100 percent.

But even with field trials, or even on farm field trials with variations from year to year, with variations in germination rates, variations in contamination from weeds and other things, you may run a small trial that worked, and the next year you put all your corn in there, and it's a disaster.

The way we're describing the sort of requirement to constant improvement, that

1 guy took a huge risk in improvement, and it 2 may be that the only thing -- the best thing he can do to survive -- he can't live with 3 4 another year like that corn crop. He may need 5 to go back to 20 percent next year. And I'm 6 concerned that when we're monitoring these 7 numbers and we're just looking at that 8 percentage and saying, okay, it has to stay 9 the same or it has to grow, well, then, the 10 only way we're going to -- farmers is going to 11 do that is by taking it in very small bites. 12 If you were not -- if we're going 13 to punish them for trying to take the big risk, I think there's a potential that we're 14 15 actually going to be slowing the progress and the implementation of utilizing organic seed. 16 17 MR. DELGADO: Comments from the chairs? 18 19 Dan, you make a good MR. DAVIS: 20 point. In certain situations where the grower 21 only grows one item, you know, silage corn, 22 for example, and he does take that big jump

1 and he says I like this variety, I'm going to 2 buy all this organic seed -- I don't know how 3 to answer that. That is a potential risk. 4 MR. GIACOMINI: Even though --5 even from a case of somebody who grows 10 different crops at 10 percent each, I mean you 7 make the commitment of trying an organic variety on one of those, it didn't work, you 8 9 pull back and you go looking again over the 10 next couple of years. 11 I can see it even in the case of 12 other crops. 13 MR. DAVIS: Yes, and it can You can have crop failures where a 14 happen. 15 100 percent of one crop one year could be all organic seed, and there's a crop failure and 16 17 there's no seed of that available in the next 18 year, then it makes you look bad if you only 19 have one crop. 20 This is -- you know, it's an 21

overall picture. So I guess -- me,

22

personally, I didn't think of the more one-

1 dimensional grower that only has one thing and 2. what that would mean to -- you're right, he 3 would probably choose the more cautious course of saying, okay, Mr. Seed Supplier, I want a 5 little more organic seed, give me this 6 variety, and they'll just slowly work up 7 rather than take the big jump. MR. DELGADO: 8 Jim. 9 Well, Dan, I think MR. MOYER: 10 we've tried to make some allowances within 11 this document for that -- not that we were considering that very thing, because I mean it 12 13 could happen. But if you read -- if you listened to what Gerry said initially when he 14

If you look at the certified grower's role in increasing organic seed under C(4)(a), it does allow for the justification of the use of farmers under that circumstance

said it's not the committee's intention to

have major, minor, or noncompliances handed

intention is not to do that.

down or decertification of a crop, that is the

15

16

17

18

19

20

21

could justify why they changed their 1 2. percentage, and again it's not the intention to file a major or a minor noncompliance. 3 That's the relationship you have with the ACA 5 and the inspector on the ground, and you work that out. That's the dance that I think Joe 7 was talking about, and the program is going to recognize that when they do an audit of that 8 9 ACA. 10 You know, if that particular item 11 was selected and viewed during the audit, 12 there would be a justification for it. 13 MR. GIACOMINI: I just felt that there was a need to sort of get that concept 14 15 and that idea on the record so that those considerations would be made during the 16 evaluation processes, that it wouldn't be a 17 required of holding or increasing every year. 18 19 MR. DELGADO: Joe. 20 MR. SMILLIE: We agree, and it's a 21 case by case, as Jeff pointed out. The key --

I think the key component is that we want to

1 see the ACAs have a monitoring tool. 2 know, in other words, that there's some -- if the crop is from 80 to 20, and you go out and 3 4 he's got pictures of the crop fallen down or 5 whatever, well, that's justified, and it's not an issue. 7 But we want to see the tool, the 8 monitoring tool, being used. 9 MR. DELGADO: Comments from the 10 program? 11 Well, I think, Dan, DR. ROBINSON: 12 your point is more about results and not 13 intent or effort, and I think this recommendation, and I think the question being 14 15 asked and Joe's point about what the program would do or not do, is to look at effort and 16 intent by the producer, and then by the ACA, 17 and then of course by us, in order to get this 18 19 thing going and ratchet it up. 20 There's certainly in crop production -- nobody can predict. You are 21 never going to be able to predict the results. 22

I mean that's the nature of crop production.

2 That's just what happens in agriculture. You

3 can plant and, you know, there's always going

4 to be crop failures, and that will happen.

5

14

15

16

17

18

19

20

21

22

That is the nature of the risk of agriculture.

So you can't penalize somebody for 6 7 taking a risk. You can penalize them for not 8 taking the risk in perpetuity or after a 9 certain number of years, and that's what the 10 recommendation is saying, you know. If your SOP demonstrates or fails to demonstrate that 11 12 you do not make the attempt to source organic 13 seed, then after, you know, a period of two

years, first the ACA should take enforcement action, and then if the ACA fails to take the enforcement action, the program should step in and take the enforcement action.

At least that's the way I'm reading this. And I think that's what you're trying to communicate. But if you take the action and, you know, the results fail, well, the results fail. At least you tried.

1 MR. DELGADO: Any other questions?

2 Julie.

MS. WEISMAN: I just wanted to make an observation as someone who has been involved in this process but not as a crops person, that -- and not -- and to pull the focus over to the issue of availability of seed for farmers to used, as opposed to what we were talking about just now, what happens after it's been available, that this issue of commercial availability of seed is -- but it is very similar to the issue of commercial availability when we are considering whether items should or shouldn't go on 606.

Basically it's the same problem of how can we encourage the -- the problem is encouraging, I'm going to just say cultivating, but that might confuse things.

So the problem with encouraging the development of more and more varieties of organic seed is identical to the problem of encouraging processors to make organic minor

- 1 ingredients.
- I think that -- I guess I'm
- 3 encouraging everyone to keep that in mind, the
- 4 crops people to keep that in mind as we start
- 5 to continue to address the issues of
- 6 commercial availability, not only with regard
- 7 to putting things on the list but also with
- 8 regard to taking things off the list.
- 9 Also I think that as that
- 10 situation unfolds, there will also be tools,
- 11 maybe, or lessons or things that will help
- inform the continued progress on this issue
- with seed.
- 14 That's it.
- 15 MR. DELGADO: Any other questions
- or comments?
- Okay. Let's move on then to the
- next topic, Gerry, and I'll just remind the
- 19 board that we are running late, and this is
- it. So if you can summarize it for us,
- 21 please. Barry.
- 22 MR. FLAMM: I'll make it short.

1 This is a discussion document implementing 2. biodiversity consummation to move forward 3 requirements in the regulations, move forward guidance that the NOSB has already issued. think the discussion document has worked to an 5 6 extent, but we received about 60 public 7 comments, and I've got to give special credit to the Wild Farm Alliance for all the work 8 9 they've done on this. They have done some 10 really excellent work.

11

12

13

14

15

16

17

18

19

20

21

22

I see some parallels to seed discussion we've had. For example, the regulation does state that we must consider biodiversity. This is, I think, not a conflict for the concepts of organic farming and, in fact, I think probably about everybody in this room agrees with the need to consider biodiversity, not for a larger human society but also the value it presents to their own farm.

So the discussion document gives the background and outlines four potential

1 avenues to pursue a recommendation this coming 2. spring. And again it's sort of like the seed 3 It's divided up so everybody is document. I won't say pain, I'll say gain in involved. 5 this case. But in this case, it will be because of our material involvement has a 6 7 particularly important role in something that in 2004 the board had issued guidance 8 9 documents, but there's been sort of a gap in 10 the follow-through because of our checklist on 11 materials does not specifically address NOSB. You have probably all read this, 12 13 and I think one of the emphases is on training at every level, but another emphasis is a 14 15 follow-through by certainly a certifier, and there has already been for the OSP some great 16 work done that can and should be used. 17 18 many inspectors and many certifiers are

19

20

21

22

Neal R. Gross and Co., Inc. 202-234-4433

already using it, but it's not uniform, and I

recommendation coming out of this is how to

get more uniformity and further compliance.

think part of what I would see the

1 So to accomplish that, there is a 2 role spelled out for NOP, and also specifically on the audit policies. 3 4 So from the comments, most people 5 must have read the document, so I don't think 6 I have to go into any more detail on it at 7 this time. We will be working on it with the 8 intent of presenting recommendations at the 9 spring meeting. 10 MR. DELGADO: Very good. Any 11 questions from the board? Bea. 12 MS. JAMES: Just one suggestion. 13 During your deliberation of the recommendation, I would recommend that you 14 15 look at the possibility of adding biodiversity under 205.2, terms defined, so that we can 16 eliminate that confusion that often comes out 17 when we are talking about the word "it." 18 It's -- we'll look at 19 MR. FLAMM: 20 But the regulations themselves, 21 biodiversity is addressed in several places 22 already in the regulation, so it's my feeling

1 the regulation does not need any additions or 2 -- it's strong enough. I think to me the emphasis is on looking forward and 3 4 implementing what we already have. 5 We'll look at everything, and I'll 6 call on you. 7 MR. DELGADO: Any other questions? She's included now. 8 MR. FLAMM: 9 (Laughter.) 10 MR. DELGADO: Any other questions? 11 Let's move on then. That concludes, Gerry, 12 with your Joint Committee work. I appreciate 13 both of you for that, and we will continue on to the next point, always conscious of the 14 15 time budget we have here, so we appreciate your briefness on this. 16 17 Gerry, we are going on to the Crops Committee, and back to you, sir. 18 19 CROPS COMMITTEE 20 MR. DAVIS: The Crops Committee has four items, four petition materials, that 21 22 is, on the agenda.

The first one would be 1 2. tetracycline hydrochloride. The petition is 3 for adding tetracycline, oxytetracycline hydrochloride, in particular, for control on 5 the national list under section 205.601, I 6 think that says. 7 Currently there is a tetracycline, a different formulation of tetracycline, on 8 9 the list, so that the petitioner was quick to 10 point out that this could be looked at as 11 adding new material or actually just changing 12 the specific annotation on the original 13 material to not just oxytetracycline calcium as it currently lists, but all forms of 14 15 oxytetracycline. The committee considered it, and 16

The committee considered it, and

felt -- and went through the evaluation

criteria, and felt that it maybe marginally

satisfied criteria one. There was

disagreement on that within the committee, but

we, through consensus, agreed that, okay, it's

relatively benign to the environment and

humans, but arguably there are some factors there that were considered that were not.

But the real gist of it, of the discussion centered on the fact that we felt the material failed both evaluation criteria two and three, and to give a little institutional history on this material, when tetracycline calcium, the form it's currently on the list, came up for sunset the last time and was voted on at the NOSB meeting, it barely, barely passed.

In fact, I distinctly remember the vote in that it was so close that the final person giving their vote I believe was Nancy Ostiguy, and she was actually counting in her head all the votes and analyzed -- she sat there for a minute deciding how she was going to vote because her vote either way would have either approved or killed the material.

So I only say that now to say that this material in general has been on the verge of being removed from the list, and many, many

people within the community would like to see it gone, and that's enough said about that.

We felt there are other

alternatives that are beginning to be

developed in the apple and pear production

areas. Some growers in the Pacific Northwest,

for example, are already exporting to Europe

where this material is not allowed in crop

production, so they are somehow accomplishing

that, although with difficulty, I hear.

10

11

12

13

14

15

16

17

18

19

20

21

22

So there are other materials slowly in principles and practices becoming available that are coming into production to allow the use without this material -- I mean allow production without this material.

On category three, is it compatible and consistent with the organic regulation? This is where we felt as a committee it really falls down. There are no other instances in the rule anywhere that allow antibiotic use in livestock or anywhere else.

So we felt it is very inconsistent 1 2. to leave these materials on the list, and the 3 thought of adding another form of the same 4 material, that was really the area that the 5 Crops Committee just couldn't get past, and it's all spelled out up here in that section 7 B for anyone that wanted to read the more detail of the reasoning. 8 9 The vote within the committee was 10 zero yes and six no, and I'll open the floor to any questions or discussion on that. 11 12 MR. KARREMAN: I'm not going to 13 reiterate my feelings on this. I'm just wondering maybe as a procedural type thing, is 14 15 the petitioner now asking for this to be recommended simply as tetracycline? Could you 16 clarify it? Or was it tetracycline 17 hydrochloride? I need to know that for the 18 19 next question. 20 MR. DAVIS: Specifically the top 21 line says in parentheses, oxytetracycline hydrochloride. That's the specific material. 22

1	MR. KARREMAN: Okay. Because
2	well, at some point in the future I'm going to
3	do something about it, but if it was
4	tetracycline itself and only tetracycline, so
5	it covers both the salts of the tetracycline,
6	which this manufacturer makes the other one,
7	what's already on the list, and we voted a
8	straight-up vote on tetracycline here, and it
9	didn't make it at the board level, what would
10	that do to the tetracycline salt that's
11	already on the list?
12	MR. DELGADO: Jerry?
13	MR. DAVIS: I don't have an answer
14	for that. Dan probably does.
15	MR. GIACOMINI: The petition as
16	the Crop Committee presents it to the board
17	today is as the petition was originally
18	submitted, which is a new listing, a new
19	addition of an additional item.
20	The alternative that was what they
21	tried to propose, what the Crop Committee also
22	considered, would be considered an annotation

- 1 change. So it would either be presenting it 2. like this as a new item on a separate line, or 3 it would be, without getting my book out, deleting the specification of the salt within 5 tetracycline listing. 6 MR. KARREMAN: Okay. So then if 7 someone were to make an amendment to just add this, if it was -- I guess it would have be up 8 9 to the petitioner, I'm just asking if this 10 comes up to a board vote as tetracycline, and then it doesn't pass, what would happen to the 11 other tetracycline that's already on the list? 12 13 That's really the question. If it had come up 14 MR. GIACOMINI: 15 as an annotation change and it failed, then the existing listing would stand. 16
- it's not a petition to remove. 17
- 18 MR. DELGADO: No, but the question 19 is what would happen if a motion is to list 20 tetracycline and it's --
- 21 MR. GIACOMINI: That's still 22 separate and in a petition to remove any

- 1 existing listing.
- 2 MR. DELGADO: Is that clear?
- MR. KARREMAN: Yes, but how can
- 4 that be if we vote no to tetracycline? I
- 5 understand where you're coming from, but I
- 6 mean how is it logically that we would both
- 7 say vote no to tetracycline in general, at a
- 8 current board in public, and then there's
- 9 still a tetracycline on the list? That just
- 10 can't -- that doesn't jive except for
- 11 procedural technicalities.
- MR. DELGADO: We were talking
- about a specific petition that is clear as to
- what they want. They're not asking for a
- renewal of material, so we would not be able
- to proceed with a hypothetical scenario that
- 17 you're talking about.
- 18 Julie first, then followed by
- 19 Gerry.
- MS. WEISMAN: I just only want to
- 21 reiterate what you already started to say,
- 22 which is that removing a material requires

- 1 very specific criteria to be met that would in
- 2 no way be met with this procedure.
- 3 MR. KARREMAN: And I guess I have
- 4 a question.
- 5 MR. DELGADO: Excuse me, Gerry,
- 6 and then we'll go back to you.
- 7 MR. DAVIS: Julie, your statement
- 8 just now was referring to removing the
- 9 annotation.
- MS. WEISMAN: No, I'm following on
- 11 his -- on the hypothetical, that if it gets --
- 12 the petition is tetracycline. Because of this
- specific petition for adding to the list, and
- it fails the board as tetracycline, he wants
- 15 to know if then procedurally what's already on
- the list then goes away, has to come off the
- 17 list, and I am saying things have to come off
- the list in a very certain specific way. And
- this can't be the way it happens.
- MR. DAVIS: Okay, so my follow-up
- 21 comment to that is the original, as Dan said,
- the original petition presented it as a

1	separate material, but in the statement from
2	the petitioner in public comment, you know,
3	now that they are learning more about the
4	process, they don't care if it's add the new
5	material or change the annotation, they're
6	willing to go either way.
7	MR. DELGADO: Thank you.
8	MR. KARREMAN: I apologize. I
9	just wanted to say how would they look at
10	that? I realize there's a whole separate
11	thing to take something off, but isn't there
12	some legal oddity if we at the program
13	level?
14	MR. DELGADO: Let's consider the
15	questions we have from Joe and Bea.
16	MR. SMILLIE: You know, that's an
17	issue and I understand the issue, but that's
18	not the place for this issue. The petition
19	we have to address the petition. The petition
20	is asking for to add the material or change
21	the annotation. That's what we have to

address, and I think the board, regardless of

22

- its feelings on tetracycline in general, has
 to look at the petition for its own value, and
 all they're saying is equal playing field for
 material that's already allowed.

 So, to me, unless the Crops
 Committee can demonstrate to me that there's
 a reason why this material is different from -
- Committee can demonstrate to me that there's
 a reason why this material is different from and again, I didn't study this like you
 guys, so I'm relying on you, but I'm asking
 you as a committee explain to me why this
 material would be rejected when a comparable
 material has already been allowed. I need to
 know the answer to that.
- MR. DELGADO: Bea, followed by

 Jeff.
- MS. JAMES: Well, logically it
 seems like, you know, what Hugh is pointing
 out is there's a contradiction. But there's
 a procedure also for how we remove petitions.

However, just because something is already on the list doesn't mean that that's justification for adding something similar to

It has to stand on its own accord. 1 2 you can't say that just because tetracycline 3 is already on the list, why would we reject a petition for another form of it to be added. 5 They are separate issues and they should be 6 looked at separately, in my opinion. 7 like petitioning for the removal is a separate 8 issue, petitioning for the addition should 9 also be looked at as its own petition and not 10 just because something is already on the list 11 similar to it. 12 Jeff, followed by MR. DELGADO: 13 Kim. Joe, I think 14 MR. MOYER: Yes. 15 what you're going to see with a lot of the materials that we're starting to look at, 16 there's great similarities in the material, 17 but it does have a different CAS number, so it 18 19 is recognized as a separate material. You're

20

21

22

going to see that with sorbitol as well.

iterations of the same material that was on

mean we're starting to get different

- 1 before, and eventually that list gets that
- very long. It's like, okay, you know, this,
- 3 this, and this. And the next one on the list,
- 4 this, this, and this, because they're all
- 5 similar but yet they are different, and that's
- 6 why they're being marketed that way.
- 7 MR. DELGADO: Gerry, please
- 8 respond to that.
- 9 MR. DAVIS: I do want in fairness
- 10 to this petitioner, this material, to compare
- 11 sorbitol octanoate to sucrose octanoate and
- say they are similar, their relation to each
- other is the same as this, it's much, much
- more specifically the same than that analogy.
- 15 MR. DELGADO: Tina, followed by
- 16 Kevin.
- 17 MS. ELLOR: Yes. And Jeff made my
- 18 point. We chose to look at this as a separate
- 19 material because it is a different CAS number,
- and we didn't send it out a separate TAP. So
- 21 we chose not to to do that. I mean, you know,
- 22 but we are looking at it as a different

-	
	material.
	ilially rate

- 2 MR. DELGADO: Kevin, followed by
- Joe.
- 4 MR. ENGELBERT: We heard from Bob
- 5 Pooler at our meeting, at our last meeting,
- 6 and his quote from that meeting is, "It's
- 7 different from the calcium complex that's
- 8 currently on the list, so it would have to be
- 9 a separate material."
- MR. DELGADO: Joe.
- MR. SMILLIE: Well, okay, I'm not
- going to beat this horse to death, but my
- understanding is the petition says to change
- the annotation as well as add the material,
- 15 whichever the committee in its wisdom -- did
- 16 you consider both of these?
- 17 MR. DELGADO: Gerry.
- MR. DAVIS: The petition did not
- 19 actually state to change the annotation. That
- was something that was brought up in committee
- 21 discussions, that that was one way to
- 22 accomplish their goal. You know, they're not

1 experts in the petition process, to understand 2 going into the process, which way to accomplish that. So I believe the petition 3 4 itself -- but I guess the petitioner could 5 maybe -- you know your petition very well, and 6 maybe you could state that for the public 7 record, what it did say. 8 MR. DELGADO: Petitioner, can you 9 approach the microphone and identify yourself, 10 please? And the question is very specific. 11 Are you willing to change your petition from 12 adding to the list to changing the annotation? 13 MR. DAVIS: I just was asking him what did your petition state. Was it stated 14 15 as I want to add this material to the list, or do I want to change the annotation? 16 MR. RICHARDSON: Taw Richardson 17 18 with Agrosource. 19 And the petition requested to 20 address tetracycline, the listing for 21 tetracycline, which is the listing. And we 22 initially, just as a piece of history,

- initially we followed the guide -- what we were asked to do by NOP for our petition.
- That's why the original petition

 was structured the way it was because we were

 asked to do it -- we were told we had to do

 it.

7 After going through the main meeting, we realized, which we thought 8 9 initially, that it should have been dealt with 10 as tetracycline. So we came back with 11 specifically either -- and we used the term "parenthetical" in our petition, which should 12 13 have in your vernacular been annotation, but we asked that the annotation either be removed 14 15 or in the wisdom of the board, if they thought it should be included as part of the 16 annotation, to use the calcium complex and 17 hydrochloride. 18

But our first preference was a removal of the annotation. We thought that was the best way to address it.

MR. DELGADO: Okay, okays?

1	MR. MOYER: Taw, your original
2	petition was for expanded use as well?
3	MR. RICHARDSON: Yes. Yes. But,
4	again, we didn't understand the implications
5	of that at the time. That's why we withdrew
6	that in this revised petition. So it stricly
7	is related to apples and pears, which is the
8	current usage for tetracycline.
9	MR. DELGADO: Any other questions
10	for the petitioner? Okay, thank you very
11	much.
12	MR. RICHARDSON: Thank you.
13	MR. DELGADO: Any other questions
14	on the part of the board for this material?
15	Okay, Gerry, back to you.
16	MR. DAVIS: I have a question.
17	(Laughter.)
18	We did discuss whether we'd change
19	the annotation or just leave it this way.
20	There was I believe there was some
21	uncertainty on the difficulty of changing the
22	annotation versus just addressing this as a

1 stand-alone material, and I guess I would like 2 input from the program on changing the annotation -- if this were amended to a vote 3 for changing the annotation or not on the 5 already listed material, are there problems 6 with that procedure? 7 MR. DELGADO: Comment from --8 MR. MATTHEWS: If you wanted to add it as a new item, then we would propose 9 10 If you wanted to change the annotation 11 in some way, we would propose a change to the 12 annotation. 13 Okay, at this point MR. DELGADO: the chair would like to recommend that the 14 15 committee get together and discuss this. Definitely. 16 MR. DAVIS: 17 MR. DELGADO: And find the motion 18 that they want to bring to the table tomorrow. 19 MR. DAVIS: Okay. Moving on to 20 the next material. 21 Sorbitol octanoate. The petition 22 is for adding sorbitol octanoate as insect

control on the national list in section 1 205.601(e). The committee felt that it failed 2. evaluation criteria 2 and 3, No. 2 being that 3 it's not essential. This material is not 5 essential to organic farming, as there are many alternative insect control methods and 7 materials already available. Adding another synthetic material to the national list in 8 9 this case would be inconsistent with the 10 original intent of the OFPA, which was 11 intended to severely limit the routine 12 addition of exempted synthetics. 13 We put an attachment of that OFPA preamble to document that statement. 14 15 The petition was clear in its statement in that it was -- this is just like 16 sucrose octanoate, pretty close, but it's a 17 18 lot cheaper. And I quess the committee really 19 objected to that, because it voted to add 20 sucrose octanoate two or three years in a 21 different board, different situation, that now 22 we must accept another material that's not

1	identical but, you know, similar.
2	The vote was zero yes to add it to
3	the list by nos or absent. Any discussion?

4 MR. DELGADO: Questions from the

5 board? Hugh?

7

8

9

10

11

12

13

14

16

17

18

19

20

21

22

MR. KARREMAN: I certainly can understand why your committee didn't like the response that, well, it's going to be cheaper. I hear that a lot from my farmers, you know, alternatives when I'm out in the field, but also I just think we need to keep in mind what Jeff said, actually, about CAS numbers, and if this is a different material, even if it's a cousin, it's a different material.

MR. DELGADO: Dan?

MR. GIACOMINI: Could the Crops

Committee address the issue of -- I understand how it's close and it's cheaper. I don't like buying the cheaper argument, either. Could you address the discussions of difference in solubility and difference in target organisms?

MR. DAVIS: Well, there was public

- testimony yesterday that was brought to bear
 on the difference in target organisms a little
 bit, different crops, greenhouse production.

 It was mentioned that the sorbitol material
 would be more appropriate for that, and the
- Tevidently the sucrose material is

 not working on mite control in hops, so they

 have hop growers who are very interested in

 it. So there are differences in activity.

 They are not identical materials, but they are

 close. The same principle. It's a suffocant

 type soft-bodied insect control.
- MR. DELGADO: Joe.

sucrose material is not.

6

- MR. SMILLIE: Well, again, the

 same issue. I want to hear from the Crops

 Committee because you guys studied it -- I

 didn't -- I want to hear what the criteria -
 was the criteria you applied to this material

 different than the criteria that was applied

 to the other material?
- MR. DELGADO: Gerry, do you want

1 to respond? Tina.

2 MR. DAVIS: I can respond to that.

3 But first I want to go into a little history

4 on the sucrose material. That one was

5 presented mainly as a livestock material at

f the -- I forget which year that was, my first

7 year on the board, I believe, or second year -

8 - for its benefits and perceived need in the

9 apiculture production as a mite control for

10 application to bees.

opinion.

11

12

13

14

15

16

17

18

19

And so that was the big thrust of it. Nancy Ostiguy, former board member, the expert, spoke up for it, and the -- but it was determined at that time, well, if it's approved for crops, we probably should approve the crops usages also, so as not to have a discrepancy, and it kind of piggy-backed in on the perceived need in livestock, in my

So now we have another material piggy-backing on something that was piggy-backed on a livestock material.

1 MR. DELGADO: We have Tina, 2 followed by Joe. 3 MS. ELLOR: And, you know, we always use the same checklist and the same 5 criteria where, you know, the committee compositions constantly change, but we always 7 use the same checklist, but what changes is that as we add materials to the list we have 8 9 to consider those materials as we go through 10 the checklist. 11 So we also looked at it that way, 12 that there was already this other material. 13 So in that way, you know, we did look at it 14 differently. But we always use the same criteria. 15 So to flesh that out a 16 MR. DAVIS: 17 little more, the original sucrose material, it 18 passed the criteria on is it essential, 19 because there was nothing else available for 20 mite control in bees. That was the driving

21

22

Neal R. Gross and Co., Inc. 202-234-4433

That is considerably different

force for that material being approved.

- than the criteria as it applies to the 1 2 sorbitol material for general crop usage. 3 So that sucrose passed that criteria back then. It can be, you know, 5 decided by the committee that the sorbitol material doesn't pass the general crop use 7 criteria because there are several good materials as well as practices for insect, and 8 9 particularly aphid, soft-bodied insect 10 control.
- So we are not being capricious in approving the one or the other. There are different circumstances.
- MR. DELGADO: Joe.
- 15 MR. SMILLIE: As Rigo, in his list
 16 earlier, we still have more public comment to
 17 go. So I'm looking for the public to also
 18 comment on this issue in general. So I'll
 19 hold any more comments.
- MR. DELGADO: Jeff.
- MR. MOYER: Well, I was just going
- to say, Joe, that in the context of this

committee makeup, we do, as Tina said, follow
the same checklist that everybody follows, and
we look at that. But we do have to take into
account materials that were passed. We did
talk with Nancy about this particular
material. I went back and spoke with her
about it, and what her feeling was on it, on
the subject.

And then for better or for worse,
you know, this committee does look at OFPA and
say what is the intent of the rule which is,
in my opinion -- I speak for myself, not the
committee -- is to -- and we heard testimony
yesterday to the contrary -- but is to keep
the list small, and to not allow that many
synthetic materials on there.

So if there is a synthetic material that is currently on the list, it's not -- at least I don't feel it's in my best interest, representing consumers, to try to make that list as long as possible when somebody else comes up with a material that's

1	similar and says, hey, about me, and then how
2	about me, and how about me, and how about me,
3	and how about me, and how about me. I can't
4	help it.
5	That's my view.
6	MR. DELGADO: Joe.
7	MR. SMILLIE: That one I have
8	trouble with, Jeff. I have trouble with that,
9	that reasoning. I don't have trouble with the
10	necessary needs for mites and honey. I didn't
11	know that was part of the first reason,
12	because essential needs are just that, and for
13	all the mites and honey it is a big issue and
14	important.
15	So that makes sense to me as a
16	differentiation between the two materials.
17	Your second reason, going back to
18	OFPA that doesn't want to allow synthetics,

MR. MOYER: Right, but when you go to the criteria, those other materials on the

-- nothing else.

19

20

you have to go to the criteria, you know, not

- list, and that was my point. There's other
 materials on the list that do that.
- MR. SMILLIE: Yes, but we've heard
 testimony that there's different effects on
 different things and, you know, being a
 hophead myself, you know, if the hop growers
 need this -- you know, I got blasted for
 getting hops on 606, which I think was a good
 decision, and I'd love to take it off. And if
 this material helps me get hops off 606, then
- MR. DELGADO: Any other comments
 from board members? Questions? Okay.

God bless it.

11

- Well, we're done. We reached -it's 12 o'clock right now, so I guess it's
 fair to take a lunch break of about one hour.
 We'll come back here at 1 o'clock, the
 scheduled time, and we'll proceed with
 discussion on the Crops Committee. An hour.
 See you at 1 o'clock.
- 21 (Whereupon, at 12:03 p.m., the meeting 22 recessed for lunch, to reconvene at 1:00 p.m.)

1	AFTERNOON SESSION
2	(1:08 p.m.)
3	MR. DELGADO: We'd like to resume
4	the discussion of the Crops Committee, and we
5	had just finished one item, and we are moving
6	on to pelargonic acid and ammonium salts in
7	fatty acids. While the Crops Committee chair
8	is getting ready, please be mindful of the
9	time. We are running half an hour late, and
10	we have a lot to cover, and I know it's
11	important to get feedback and provide input,
12	but please bear that in mind.
13	We also have afterwards a session
14	for public comment. We have a number of
15	people who have already signed up for our
16	discussion.
17	Are you ready, Mr. Chairman?
18	MR. DAVIS: Yes.
19	MR. DELGADO: Please proceed.
20	MR. DAVIS: The next material is
21	pelargonic acid petitioned for use as an
22	herbicide, with the condition of with the

existing annotation for use only in farmstead 1 2. maintenance, roadways, ditches, rights of way, 3 building perimeters, and ornamental crops. It's on the national list 205.601(b)(1). 5 Another material that was 6 petitioned earlier, considered at another 7 meeting, and then withdrawn, similar to the other herbicide. So some of this work is from 8 9 a little while back that the committee did. 10 The committee felt that it -- as 11 far as going through the evaluation criteria, criterion one, impact on humans and 12 13 environment, we thought it was relatively

On criterion two, whether it was
essential and availability criteria, the
committee agreed that they felt it did not
pass the criteria, as well as the number
three, the compatibility and consistency with
organic farming regulations. We felt that it
did not satisfy that, either.

14

22

benign and satisfied the criteria for that.

On the criterion three, the main

reason that we felt it was inconsistent was 1 2 that they were petitioning for use as if it was a soap-based herbicide, and we, after 3 investigating it and questioning the 5 petitioner for further information and response from them, that they never did 7 support that it is in fact a soap, even though it's in -- it's a fatty acid, but they never 8 9 did claim that it qualifies as a soap. 10 So that was one question we had to 11 answer. 12 The other thing on the -- is it 13 essential or not, the next -- this material and the next material both called to question 14 15 the ideas are synthetic herbicides appropriate in organic farming practice. Are they 16

and the next material both called to question
the ideas are synthetic herbicides appropriate
in organic farming practice. Are they
necessary, are they essential, and some people
might say that herbicides would be helpful,
and some growers might say, yes, we would like
such a thing, although I fail to see a big
groundswell of public comment in the written
transmissions, at least, that spoke up for

1 that.

6

7

8

16

17

18

19

20

21

22

We just felt that there are a lot

of weed control options other than adding

synthetic chemicals to the national list to

accommodate that.

Just basically that was why the committee voted zero yes, five no, to not add this to the list, the national list.

Any discussion or questions?

MR. DELGADO: Questions, comments

from the board? No comments, questions?

Okay. You can proceed with the next one.

MR. DAVIS: The next material, we
compared to what was posted on the Web site.

We -- I'm going to have to find it in a

different spot here. Excuse me a minute.

We did make a -- based on input from the petitioner, who requested in their public comment yesterday, they asked that we change the name from ammonium salts of fatty acids to a more specific name, ammonium nonanoate, so that editing was done last

- night, and the CAS number is actually put

 there in the -- where it says "petition is

 for," ammonium nonanoate, CAS number such and

 such, to be allowed as an herbicide in organic

 crop production.
- As part of the committee

 deliberations, it was determined that this

 material is a soap-based herbicide. It does

 qualify as a soap, a true soap, going by EPA

 regulation and determination.

11 So we did put in here a comment that the -- we felt that the substance was not 12 13 compatible with the provisions of the rules for general use on crops or cropland, but 14 15 since this material is a soap-based herbicide, the current listing in 205.601(b)(1) as 16 annotated would apply to this form of salt, 17 which is ammonium salt of fatty acid. 18

So that was in effect a clarification for this material, specific material, that it would be eligible for use, for farmstead use, ditches, roadways, and

19

20

21

22

1 ornamental crops.

This has -- as far as the

evaluation criteria, again, relatively benign

in the environment; in fact, all these fatty

acids would be consumed by soil bacteria and

degraded very quickly. They would use it as

a food source and actually grow on it,

probably.

probably.

9

10

11

12

13

14

15

16

17

18

19

20

Criterion number two, is it
essential for organic farming, and the
committee voted that it was not, based on
many, many alternative practices, and weed
control. We list many of them. And also the
fact that this material, as well as the
pelargonic acid, we did not want to discourage
the development of natural herbicide options
that are coming to the fore, such as the -- an
example would be lemon grass oil formulations
that are fairly effective herbicides that are
fairly new on the market.

We felt that approving synthetics out of hand would very readily squash the

1 development of natural herbicide options if 2 that is what organic growers want, is a 3 material to be able to spray on weeds to kill 4 We did not want to select -- give 5 preference to the synthetics over the 6 development of naturals. 7 So in a nutshell that was, I 8 believe, why the committee voted zero yes, 9 five no, there was one absent, to reject this 10 being put on the national list. 11 Any discussion or questions? 12 MR. DELGADO: Questions? No 13 comments? Yes, Julie. 14 MS. WEISMAN: I was just 15 wondering, like you mentioned these lemon 16 17 grass preparations. Are those -- do those specifically target the same kinds of weeds 18 that the ammonium nonanoate would be 19 20 attacking? 21 They are -- the lemon MR. DAVIS: 22 grass oil formulations, that is brand new on

- the market. I have tested it personally, just
 beginning to develop by a company who has
 provided input to us before, the Murone
- Enterprise. I'm not sure of the exact company
 name. But she has spoken before us before
 several times.
- Very broad spectrum, will burn

 most anything they touch. I don't think they

 would be -- I don't know -- I haven't tested

 either one of them enough to speak to whether

 they are all very broad spectrum or contact

 herbicides.
- MR. DELGADO: Any other questions?

 Okay. There are no questions. Let's proceed

 with the next item, please.
- MR. DAVIS: Excuse me just a minute.
- The next item is the soilless

 growing systems discussion item. It was not

 posted. I would like to defer that to the

 work plan section of the meeting tomorrow,

 because essentially that is really all it is,

1	is just a work plan update for the Crops
2	Committee. There's nothing new there.
3	MR. DELGADO: So you'll give us
4	more details on that tomorrow?
5	MR. DAVIS: Yes.
6	MR. DELGADO: Very well. Let's
7	move on then to the next topic, which is list
8	4 inerts.
9	MR. DAVIS: Okay. The background
10	on this for list 4 inerts in pesticide
11	formulations is that the EPA has changed their
12	policy somewhat in that the national listing
13	for the the organic national list
14	references list 4 inerts used in pesticide
15	formulations as a one-item entry that
16	encompasses many, many materials as they are
17	used in pesticides.
18	The EPA determined that they
19	wanted to do away with that, that listing and
20	nomenclature, and notified the program that
21	the NOSB would have to look at changing that

listing and coming up with something

22

different, because we could not allow the

status quo to continue because they were

changing their stats on it and their listing

of it.

They have since changed the listing of these minimal risk type inerts -I'd say that in quotes, minimal risk. They have listed it specifically in section 40 CFR 180.950, titled as "Tolerance Exemptions for Minimal Risk Active and Inert Ingredients," which is attached to the end of this document.

So we are seeking input from the public to see what is the consensus, see if there is a consensus on which way to go. Do we -- and there are several options that we list here as possible solutions. I'll read them now.

The NOSB will begin public discussion of these matters as this meeting, November 2008. Public comment is invited to comment on the possible solutions described below. Public comment is heavily encouraged

1 to identify the number and nature of synthetic 2. materials deemed to be vital in pesticide formulations used in organic farming. We are 3 hoping to get some good input from various 5 concerns that have that expertise. Possible solution options. 7 NOP has suggested that a substitution of the 8 language in the rule currently as list 4 with 9 the new regulatory reference of 40 CFR 10 180.950, the minimal risk ingredients. 11

12

13

14

15

16

17

18

19

20

21

22

They do correlate, but they are not identical at all. There are a lot of materials that are on one that are not on the other, but they are similar, I guess.

Number two, adopt the original 2000 version of the list 4-A inerts, which is attached as attachment 1, as an itemized list with ongoing reassessment through the sunset process.

Number three, adopt the minimal risk ingredients currently found in 40 CFR 180.950. This would entail a one-time

- adoption of the materials currently on this list, with ongoing reassessment through the sunset process.
- Option four, eliminate blanket
 inerts lists and adopt a policy of requiring
 inerts and pesticides to be petitioned
 individually.

Five concerns the list 3 inerts 8 9 currently used in passive pheromone 10 dispensers. The current policy is that they 11 need to be petitioned individually and are 12 subject to regular sunset reevaluations, that 13 that has already been in place as an NOP policy for a couple years now, since we were 14 first notified about the EPA change. 15

We wanted to throw this out to the community to where we get input and begin work on a possible recommendation for the spring 2009 meeting, and that was the purpose of this discussion document.

21 MR. DELGADO: Any questions? 22 Jeff.

16

17

18

19

20

1	MR. MOYER: One of the things that
2	we wanted to mention that didn't make it into
3	this document at posting was on item three,
4	option three. What we were talking about
5	doing there was a one-time acceptance of CFR
6	180.95, but then moving forward, any new
7	materials that would be want to be added to
8	the list would have to be petitioned.
9	And, furthermore, if EPA changes
10	lists CFR 180.950, it would not affect this
11	list. So in that regard, it begins to
12	separate us from the EPA's list because there
13	was a lot of things that they'll put on their
14	list that we don't want to have on our list.
15	So it's a one-time acceptance by
16	reference, but from then on any new materials
17	would have to be petitioned to us. They would
18	not automatically go on if EPA changed their
19	list again in the future.
20	MR. DELGADO: Comments from
21	Gerry?
22	MR. DAVIS: No, that's absolutely

1 correct.

9

10

13

14

15

16

17

18

19

20

21

22

2 MR. DELGADO: Dan?

3 MR. GIACOMINI: Just a question.

As we go through this process, we don't really
need to discuss it now, but I'd like to know
what the answer is. What is going to be the
implication, the impact on the pesticide
formulations because of this change? Is the

change that we're making going to fit in with

what they're going to be forced to do or not

11 forced to do because of these regulations,

12 these numbering changes?

MR. DAVIS: Right. And there was some public comment that I'll call attention to from OMRI yesterday where they mentioned that they thought that the former list 4-B materials, which are not part of this new CFR listing with EPA -- generally they've been left off of that list -- the statement was made that fully 50 percent of their approved formulations contain list 4-B ingredients, which would be a problem.

1	MR. GIACOMINI: No, what I'm
2	asking, though, is within the pesticide
3	formulation industry, is this change that has
4	gone on at EPA going to affect the way they
5	formulate things?
6	MR. DAVIS: For even conventional
7	agriculture, you mean?
8	MR. GIACOMINI: Yes. I mean, for
9	instance, those formulations, are they likely
10	to be changed because of this EPA change?
11	That's sort of what I'm wondering in deciding
12	how we can go about it.
13	It may be solved within what we're
14	doing simply by knowing how what their
15	forced reaction is going to be.
16	MR. DAVIS: Okay. There are
17	people here that might be able to comment on
18	that, but I can't speak for them.
19	MR. DELGADO: Gerry, you're
20	calling someone specifically from the public?
21	MR. DAVIS: Emily.
22	MS. ROSEN: Well, I was just going

- 1 to say Chris Pfeifer from the EPA is going to
- 2 be dealing with that.
- 3 MR. DAVIS: If he's willing, sure.
- 4 MR. DELGADO: Yes. Come to the
- 5 microphone, please.
- 6 MS. FRANCES: I wanted to follow
- 7 up on what Jeff said.
- 8 MR. DELGADO: Okay. Can you hang
- 9 on, please.
- MS. FRANCES: What we currently do
- is incorporate by reference. A one-time
- adoption would be an adoption of the list of
- individual items, and that's not the same
- 14 language. I just wanted to make sure it was
- understood for the record.
- 16 MR. MOYER: I think that that's a
- 17 very important point because that is what we
- 18 talked about, was not doing it by reference as
- 19 I stated. I apologize for that.
- 20 But reading the list over as a
- 21 list of itemized materials, not bringing the
- list by reference number but bringing it over

as an itemized list of material, there is 83 1 materials on that list. And all of the 83 2. 3 materials are listed individually so that they 4 can be sunset as individual materials, and we 5 can then deal with them as a board. Coming forward, the new materials, even though the 7 EPA might put them on their list, we would not. 9 Thank you, Valerie. I appreciate 10 that. 11 MR. DELGADO: Please identify 12 yourself for the record. 13 MR. PFEIFER: Yes, my name is Chris Pfeifer. I'm the EPA's liaison to USDA 14 15 NOP, and I work with the biopesticides 16 program. 17 MR. DELGADO: We have specific 18 questions for you. Dan, why don't you ask 19 your question? 20 MR. GIACOMINI: Is the change that 21 you've made in your listing, does that have a direct impact on how formulations of those 22

- 1 pesticides will be made?
- 2 MR. PFEIFER: No. List 4 has
- 3 never been, or the list system, has never been
- 4 a system that has actually determined how our
- 5 pesticides were formulated. It was more or
- 6 less a thumbnail way to do reassessment or a
- 7 quick and dirty way to work with different
- 8 programs, whether they were the organic
- 9 program or unregulated pesticide program for
- 10 25(b)s.
- So, no, the list system does not
- affect that. We have always used 40 CFR as
- our source material for pesticide formulation.
- 14 MR. DELGADO: Any other questions?
- 15 Gerry.
- 16 MR. DAVIS: I have a lot that in
- 17 speaking with Mr. Pfeifer earlier I don't
- 18 think he is prepared to answer my type of
- 19 questions until he consults more with his
- 20 associates.
- 21 MR. PFEIFER: To finalize, I just
- can't speak for the agency going forward. I

can give a little thought on the historical thinking.

The agency in the past has expressed an interest in narrowing the inerts list a little bit simply because they believe that it would reflect better on the integrity of the program, mainly because there has not been any ecological assessment attached with the inerts determinations in the past.

So list 4 as it was originally contrived was not really built around any ecological thinking, and as reassessment came again and it spoke more or less to human toxicology and didn't really address the ecological issues.

You know, again, this is USDA's program, but it's always been our feeling that it's a principal program built around both ecological and human health concerns.

So that's about as much as I'm prepared to say unless there are some specific questions.

1	MR. DELGADO: Any other questions?
2	Okay, well, thank you very much. We are going
3	back to the schedule, and we have Tina next.
4	Do you have a presentation?
5	MS. ELLOR: No, Gerry already
6	covered it.
7	MR. DELGADO: Okay, any other
8	questions? Very good. Does that conclude
9	MR. DAVIS: That concludes our
10	presentation.
11	MR. DELGADO: Thank you very much.
12	We will proceed right away with the Livestock
13	Committee. Dr. Karreman.
14	LIVESTOCK COMMITTEE
15	MR. KARREMAN: Okay, thank you,
16	Mr. Chair.
17	I would like to discuss our
18	recommendation for fish feed and net pens.
19	This is a continuation of a rather lengthy
20	assignment that the Livestock Committee of the
21	National Organic Standards Board has had in
22	conjunction with the agricultural working

- group.
- 2 After that, I would like to ask
- 3 Jennifer to talk about the bivalves and due to
- 4 time and everything, the animal husbandry
- 5 discussion we'll just let go for now as a work
- 6 plan like Gerry mentioned.
- 7 So I think everyone knows that the
- 8 board passed a estimate of agriculture
- 9 recommendations to send up to the board
- 10 February 2007, and they are in the hopper
- 11 right now. They have not been acted on by the
- board as far as we know.
- Regardless of what happens with
- these recommendations in the next day when we
- 15 vote, we would like to have the board start
- 16 promulgating those recommendations that we
- 17 have already passed on up to that in February
- 18 2007.
- 19 MR. SMILLIE: You mean the NOP
- 20 program?
- 21 MR. KARREMAN: Yes. I'm sorry.
- The program. I misspoke. Okay.

1	So we have that already on record.
2	And so before I get into the fish feed issue
3	document, which will be first, I just want to
4	say that, you know, we have a lot of science
5	on both sides of the issue, and hopefully
6	there's some nice middle ground as well, and
7	that's what we try to strive to attain here at
8	the board.
9	Okay, so for our document,
10	basically I already gave you the background
11	about where we're at and how the is that
12	hurting your eyes, Joe? I apologize. I don't
13	know what's up.
14	All right. I'll sit back. How's
15	that? I'm trying to hide behind this post,
16	you guys.
17	(Laughter.)
18	All right. How's that back here?
19	Is that okay? All right.
20	So what I want to get at is
21	basically I want to go over the discussion
22	

- regulatory framework, and then our
 recommendation, the red-letter changes that
 were already posted on the Web. Okay.
- So we as a board, you know, wanted to respect the current knowledge of nutritional needs of aquatic animals for fish meal and fish oil that they need, if they need it, and we would expect a certified organic fish meal and fish oil would be becoming increasingly available in the future if this program starts.

We want to make sure that their
diets are nutritionally complete, and we want
to make sure as a board that the sourcing of
fish meal and fish oil sources are from
responsibly managed sustainably caught fish.
And the sustainability of wild-caught
fisheries is paramount. Okay.

19

20

21

22

And then we also discussed in the discussion part of the document still why we feel that marine-based fish oil is needed for potentially farmed organic aquaculture species

because plant-based oils, oils from plant-1 2 based feed, as well as even freshwater fish, 3 may not have, according to what we know from the agriculture working group and other 5 scientific folks, the correct -- the exact correct oils that are needed in the diets of 7 fish. Okay. All right. So that's 8 9 somewhat the background discussion. 10 We believe that we have the 11 regulatory framework to consider this 12 Under OFPA 2102, section 2102, document. 13 under the term livestock -- the term livestock means any cattle, goat, swine, poultry, equine 14 animals used for food and the production of 15 fish used for food, wild or domesticated game 16 or other nonplant life. 17 We also relied upon OFPA section 18 19 2107(a), No. 6, that would require periodic 20 residue testing by certifying agents of 21 agricultural products. Also then in 2107(c) of OFPA, 22

regarding wild seafood, in general 1 2 notwithstanding the requirement of 2107(a)(1)(a) requiring products to be 3 4 produced only on certified organic farms, the 5 Secretary shall allow through regulations promulgated after public notice an opportunity 7 for comment, wild seafood to be certified as labeled -- to be certified or labeled as 8 9 organic, in consultation and accommodation 10 with the Secretary of Commerce, the NOSB, 11 producers, processors, and sellers, and other 12 interested members of the public. 13 So we believe that we are at this point potentially promulgating OFPA in regards 14 to fish oil or fish oils from wild-caught 15 16 species. We think we have that in OFPA to go 17 on. And so the committee voted seven 18 19 in favor, zero opposed, to go ahead with this 20 document. 21 So now how do you want me Okay. 22 to go through the recommendations?

1	there's quite a bit. Just the
2	MR. DELGADO: Concentrate on the
3	highlights. You can review the comments of
4	the public and discuss what approaches to
5	take. You can incorporate those.
6	MR. KARREMAN: I'll do the
7	comments like that at the end but, you know,
8	there's a fair amount of red-lining here.
9	MR. DELGADO: I think the public
10	has had sufficient time to review the
11	recommendations.
12	MR. KARREMAN: Okay. All right.
13	MR. DELGADO: So just briefly
14	highlight them, the most important ones.
15	MR. KARREMAN: Well, basically
16	part of the public comment regarding this
17	issue of wild-caught fish oil has been based
18	on that it's not allowable in OFPA, and I just
19	mentioned that we believe it is, and that the
20	that livestock, which fish would fall
21	under, under OFPA, need to be fed 100 percent
22	organic feed, which we understand.

1	And the reason we put the
2	exemption to use in a step-down fashion, fish
3	oil derived from marine wild-caught fish in
4	612(a) essentially on the national list, and
5	not in let's say 252 under the feed section,
6	is because if it's in the feed section, it
7	would have to be certified organic 100 percent
8	for the animals that are eating it, whereas as
9	an exemption on 612, we feel that it can be
10	used but in a stepped-down, phase-out type
11	situation in order to get the industry
12	started.
13	That was actually in consultation
14	with the program, and that's what we've done.
15	Okay. Is there any discussion at
16	this point here?
17	MR. DELGADO: Any comments,
18	questions? Please proceed.
19	MR. KARREMAN: Okay. We
20	definitely we got a lot of public comment
21	written go ahead, Valerie.
22	MS. FRANCES: I guess I'm just

- wondering how you're going to put the aquatic animal versus the aquatic livestock terminology.
- MR. KARREMAN: I think it was the

 AWG that's supposed to use aquatic animals

 instead of aquatic livestock, and we certainly

 -- I think we could make that change without

 any substantive, you know, meaning change.

9

10

11

12

13

14

15

16

17

18

19

20

21

22

So and just so the public knows,
we have taken public comment seriously, and
there's some very strong views on either side
of this, and we do plan to have a Livestock
Committee meeting this evening to take into
account further public comment this afternoon
as well.

So one thing that we definitely don't want to do is have byproducts of land-based livestock going into the fish because there's a lot of consumers that would not want to have that for organic fish. That's why we have kept it at a byproducts for edible fish or for fisheries. Okay. That has come up as

1 a question.

I think we need to define,

3 perhaps, better the term sustainably, since we

4 did say wild fisheries need -- the

5 sustainability of the wild fisheries is

paramount in potentially harvesting the

7 byproduct.

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

We think that using the byproduct of edible fish is a good, complete usage of a resource that's already there. We were told by the agriculture working group that right now they actually use fish oil, they make it into diesel fuel and run it in their boats up there because it costs too much to bring it to the mainland, and we think it would be better used to feed fish than be used as diesel oil. That's part of the reason we want to use that.

Let's see. One thing, the Ocean Conservancy, George Leonard, gave a lot of valuable input at the symposium, and the idea of performance standards, which might apply more to net pens which I'll talk about in a

minute, but there were some good -- I think we
could use some performance standards in our
document that we might want to mention.

Let's see. There has been questioning about the extra label on products, on aquatic animal products that have been potentially fed these wild-caught trimmings.

Some people yesterday and also in a written comment said that it would be confusing to the consumer. We also know, however, that some consumers of organic fish may not want to buy that fish that was fed wild-caught, and yet other consumers we know would actually want that because they know that those fish have been fed a very complete natural diet. That may become certified.

MR. ENGELBERT: And we also wanted to make the point that by adding that label, there's no deception involved whatsoever. We want to be sure that also consumers realize that that organic fish was fed wild-caught

Go ahead, Kevin.

- 1 trimmings.
- 2 MR. KARREMAN: Okay. So I'm open
- 3 to any discussion you guys want on this. I
- 4 can go on to net pens.
- 5 MR. DELGADO: Questions on the
- 6 topic of feed. No questions? Dan?
- 7 MR. GIACOMINI: Just one further
- 8 statement, and I had a lot of work to do so
- 9 you may have covered this, but in separating
- off the national list in consulting with the
- 11 program, it was also -- it was pretty well
- 12 established that even if fish and aquaculture
- 13 stayed in 603, they wouldn't automatically be
- 14 granted the use of everything that was on 603.
- So by saying that by separating it
- 16 off to this other section we would create this
- 17 new work and new petitioning -- well, they
- 18 would all pretty much have to be reconsidered,
- 19 anyway, to the information that we received at
- 20 that time.
- MR. KARREMAN: That's a very good
- 22 point. As a matter of fact, we are proposing

1 -- but you don't want me to go into all the details -- section 609, 610, 611, and 612, and 2 I think it's very clear that there are no 3 4 other materials so far on that list, and they 5 will need petitioning. So it's not a transfer. I just wanted to make that clear. 6 7 But we can't go there yet until 8 this might pass. 9 MR. GIACOMINI: We even looked at 10 the consideration of the possibility of 11 bringing over the things as generic as the vitamins and minerals, and we were recommended 12 13 not to do that, either. MR. KARREMAN: Well, we did bring 14 15 over the structure, though. 16 MR. GIACOMINI: The structure, 17 yes. MR. KARREMAN: The structure is 18 19 all we brought over. So basically we're just 20 -- we're trying to have aquatic animals have 21 their own section in the rule because they are very different than land-based animals. 22

are some similarities, but as everyone has

said, they're very different, so that's how

we're -- that's why we created the new

section.

MR. DELGADO: Any other questions,

Go on to next one.

6

comments?

7 MR. KARREMAN: All right. Net 8 So this is another part of the issue pens. 9 that was put off in February and March 2007, 10 and we have come up with a recommendation 11 based once again a lot on the agriculture 12 working group, which they have been 13 indispensible. They have been always willing to work with us every minute over time, and 14 yet at some point we did have to say, hey, 15 look, you know, now we have to work on it as 16 the board, as the Livestock Committee. 17

So a lot of this has agriculture

working group input, but we have also tempered

it to try to take into account the organic

community, because net pens have been

historically kind of a hot button issue, as I

1 think we all know.

14

15

16

17

18

19

20

21

22

2. So basically -- first it should be said that -- I want to say, and I think I said 3 yesterday, that net pens, everyone always 4 5 associates net pens and salmon together, but there are other species out there that are 6 7 grown in net pens. Tilapia is grown in net pens, just so everyone knows that. I heard 8 9 that today. And so we have to be, you know, 10 careful in accepting and think about ramifications of net pens not just for salmon, 11 okay, because there are other species out 12 13 there, too.

And, as well, just so people know, closed containment systems, if the program does enact rulemaking, we are already past at the March 2007 meeting. So we already have a containment type situation, and now we are looking at open water net pens.

So essentially what we believe we have done is looked at net pens and said, okay, we know how they've been used from the

aquaculture symposium; we know what is

possible; and we tried to tighten up, and

perhaps we can tighten more by more specific

language, the performance metrics.

The issue of escapes, the issue of the nutrient management, some people have commented that the 50 percent nutrient recycling is not feasible. Some people say it is feasible.

So we are going to hopefully err on the side of the people that agree with us on the 50 percent nutrients are, you know, recyclable.

As far as the issue, I think we need to -- and in our document we do address the siting of net pens. Perhaps we need to tighten that up more or even preclude certain areas of having net pens.

But I think that a lot of the public comment posed on net pens has been really strongly based on existing conventional salmon farming in the Northwest, and our

proposal is truly a major improvement, we 1 2 believe, and not even attainable by a lot of growers out there. And organics isn't for 3 4 everybody, and I realize people will say not 5 everything can be organic, and I would agree with that. 6 7 But if people can meet these standards that we have for these net pens --8 9 and we're open to tightening up some language 10 from the public comment we got -- then I 11 believe that net pens can be done in an 12 environmentally friendly fashion that improves 13 the environment as well as provide food for 14 people. 15 So I guess I'll take comments from rest of the board. 16 Questions? 17 MR. DELGADO: Questions from the board? 18 None. 19 surprised. 20 MR. KARREMAN: Okay. Well, okay,

21

22

comment this afternoon, and I do look forward

that's fine. We're going to have public

1 I guess yesterday I was pretty engaged 2 in public comment and with the aquaculture 3 commenters, and I apologize to anyone if I had 4 been a little bit too aggressive. 5 mean that, but I think it brought out really 6 a lot of good information that the whole board 7 can use as we deliberate on this before we And we'll have some more this 8 vote tomorrow. 9 afternoon. 10 So I guess if that's it for net 11 pens right now, then I would like to turn it 12 over to Jennifer to just briefly discuss the 13 discussion item on bivalves and mollusks. So I am presenting on 14 MS. HALL: behalf of the Livestock Committee our current 15

The committee has continued its partnership with the aquaculture working group to bring the organic community another document for consideration in our attempt to determine a correct fit for cultured aquatic

state of art as it regards the interim final

report on bivalves and mollusks.

16

17

18

19

20

21

22

animals with the existing regulations, and we present here a revised interim final report on bivalve mollusks from the AWG for comment.

this meeting. We have already voted to accept the report as it was presented by the AWG. They did receive, when it was open to comment, a fairly comprehensive comment from the Pacific Coast Shellfish Growers Association, and while the Livestock Committee continued pretty in-depth work on net pen and feed issues that we had delayed from prior meetings, we thought it best to allow their expertise to dig into the concerns raised by that comment and continue to revise the document for another submission. So that is what this is, is their final work that replies to the comments that were received.

It is a discussion document at

So we are basically open for comment on this document. We have used much of the very strong and detailed language from the bivalve mollusk document to enhance our

presentations on the net pen one. Their

siting language was much more detailed. It

was very helpful as we tried to tighten our

own language as we revised the net pens.

I would say that due to the complexity that has been raised by the community that sits before us today, as well as kind of in our own committee, as we move forward we will still wrestle I think perhaps even a little bit more in this piece of work with where it fits in the regulation vis-a-vis the management of inputs.

It does a pretty great job of raising the bar on siting and where to place these operations, and on managing the environmental impact. But due to the way they are cultured, it is not an intensive system of input management. And so that is something we will continue to discuss and invite comments as it regards that topic, too.

That's it. Discussion?

MR. DELGADO: Any questions?

- 1 Questions from the board? Okay, no questions.
- 2 Thank you.
- MR. KARREMAN: That pretty much
- 4 wraps it up, Rigo. That pretty much finishes
- 5 the aquaculture presentation as we have it.
- 6 The animal welfare, as I
- mentioned, has been put off because of every
- 8 Tuesday at 3 o'clock we were talking
- 9 aquaculture since the last meeting, and we
- 10 hope to get back to that, so we're going to
- 11 put that off, but otherwise as everyone knows,
- we have a meeting tonight after dinner for
- 13 livestock. Okay.
- MR. DELGADO: Jim?
- 15 MR. MOYER: I just want to take
- 16 this moment to put on the record to thank the
- 17 entire Livestock Committee for the amount of
- 18 work that they put into this aquaculture
- 19 standard.
- While it is only a few pages long,
- it represents a tremendous amount of work, not
- 22 only in committee but working on subsequent

calls with the aquaculture working group, and
also to thank Valerie for sitting in on all
those calls as well. I think that there was
a tremendous amount of work done here, and
hopefully we can get something going. Thank
you.
MR. DELGADO: Very good comments,
and I join in those congratulations.
That does conclude the Livestock
Committee, and we're going on to our next
topic right away. We're almost on schedule,
back on schedule, and it's now Julie Weisman,
please.
HANDLING COMMITTEE
MS. WEISMAN: On schedule, you
say? We can fix that.
(Laughter.)
MR. DELGADO: You were kidding.
MS. WEISMAN: Actually no.
Actually we have nine materials on our agenda,
which is a record low for us, although it's a
substantial amount of work.

I think what I want to address 1 2. first, because it's come to my attention that it was cause for some consternation, is 3 although there are nine materials on the 5 agenda for the meeting, seven recommendations were delivered. And I think that because our 7 -- I don't know. I don't want to get us off schedule, so I want to acknowledge that there 8 9 are materials that we don't have 10 recommendations for at this meeting that were 11 on the agenda, and I understand that there are 12 people who traveled down here particularly and 13 especially and spent money and fare to be here for the recommendations. 14 15 So I want to acknowledge that there is some justified disappointment. 16 I also do want to say that I think 17 that it's not the first time that this has 18 19 happened, and that I think that we have a --20 we're becoming more professional in getting

21

22

agendas agreed on farther ahead before the

meetings, and having them posted in time, and

1	this is I think an unfortunate consequence of
2	that improvement in our procedures, that now
3	all of our timelines have gotten pushed out.
4	So I'll move on from there.
5	MR. DELGADO: Julie, just a
6	clarification. Is it the intent of the
7	committee then to include these materials in
8	the work plan?
9	MS. WEISMAN: Absolutely.
10	MR. DELGADO: Great. Thank you.
11	MS. WEISMAN: Also this is what
12	I meant when I said I'll take care of us being
13	almost caught up. I wanted to say something -
14	- I felt that it was warranted to say
15	something about a petition or a couple of
16	petitions that are not on the agenda for
17	today's meeting. And those are there are
18	two petitions for concerning lecithin.
19	We, everyone in this room, we have
20	about almost 20 years of experience in looking
21	at and thinking about and figuring out what
22	should be required for a material to be

listed, to be added to the national list.

Throughout that time period,

organic stakeholders have remained to this

day, as of yesterday and including this

afternoon, I'm sure, in continuing to inform

the NOSB and the program on what the

requirements should be and what that process

should be.

In recent years, in the past couple of years since I've been on the board, we've been covering some new ground. The redefined requirement to list agricultural products on 606 has caused us to review those requirements anew and to look at things like commercial availability.

This summer the Handling Committee received their first petitions for the removal of a listed item. Now it's not the first time that the board has looked at petitions to remove, but in the past those have always been based on new information coming to light that had to do with the safety of the material or

new information about toxicity, either to 1 2 people or the environment. This is the first time that we have looked at petitions to 3 remove on the basis of the commercial 5 availability of the organic version of a listed item. 6 7 So we should be kind of used to 8 this by now. We are once again in virgin 9 territory. 10 Now it could be that I'm a little 11 short on history. That's possible, and if 12 that's the cause, I'm sure someone is going to

of a decision. But we figured it out before
and I'm sure we'll figure it out now.

The issue is very intimately
related to the issue of items being listed on
606, and I will go on record as saying that
personally I did push for encouragement, I did

step forward and help me out. But there's

been alarmingly little, if any, precedent on

which the board right now can base this kind

13

14

15

22

encourage people to have a positive attitude

towards listing items on 606, and because I 1 2. personally believe that that spurs the development of organic ingredients. 3 4 That is with the ultimate goal 5 being the delisting of nonorganic ingredients. 6 The other piece I'd like people to 7 keep in mind is the current state of the 8 national list, where there is no organic 9 preference, and commercial availability does 10 not apply to items on 605, and at times I have 11 been concerned that some of my fellow non-12 handling board members don't realize that there's no incentive for manufacturers to put 13 time and energy into developing organic 14 ingredients if there is no incentive such as 15 commercial availability or organic preference. 16 17 So developing potential, developers and manufacturers of organic 18 19 ingredients won't remain engaged in that

20

21

22

Neal R. Gross and Co., Inc. 202-234-4433

process very long if we don't figure out a way

to -- if we don't figure out the ways to bring

those things off the list when those materials

do get developed.

And if that happens, then

everyone's fears become realized, that the

listing of 606 ingredients does then become

hollow and static and possibly detrimental to

the organic industry.

But we're not there yet, and I

don't think that's where we're going to go.

The Handling Committee, in looking at this new

territory, has a lot of questions that have

come up. We have been already discussing this

on committee calls since the summer, and I

would like to share some of those questions

because I would like to refine further the

kind of public comment that we're getting

about this.

One question is are TAPs as essential, are technical reviews as essential to the removal of an ingredient as they are to the listing. And if there is a difference, how are they different. If there's a difference in what should be in those

technical reviews, we would like to know what those differences -- what people think those differences should be.

Should commercial availability -this is another question -- should commercial
availability be considered in a different
light for removal than it is currently for
listing.

And then there are some factors probably that don't change with whether it's a petition for removal or a petition for addition.

An example of that would be how we weigh the competing views of different stakeholders, that that's probably going to remain the same.

But it's because of these kind of questions that the Handling Committee made -- took the unprecedented step of asking for public comment on an item which is not even on the agenda for this meeting. Because we are wanting to address this in a very timely

1 fashion.

2.

The need to act expediently but methodically on this issue is great, and we felt compelled to begin the process of eliciting public comment way ahead of the spring meeting, which is where I am hoping we will be maybe taking action on these, but then we'll see how it goes.

And I will say that we did get a lot of comments, which I was heartened by. So, anyway, a lot has been said so far in the meeting about what I think of as a dialectical relationship between the board and the stakeholder community that takes place through the public comment process, and so I am asking all of you out there to remain as actively engaged as you have always been and consider the questions that we are posing to you, so that we can be that much farther along in our thinking, and our fleshing out of this issue by the spring meeting, that we will be able to make a well-considered recommendation based on

1 well-articulated criteria.

11

12

13

14

15

16

17

18

19

20

21

22

And with that, I will now -- we

will plunge into the actual materials that are

on the agenda for this meeting.

I'm going to start with the 605

materials. There are four of them on the

agenda. Two of them are being deferred

because the TAPS -- we were waiting for

technical reviews, and they couldn't be

completed in time.

Now, with that, I will say that in the old days, because I'm looking at my -- one of them -- the two materials in question, I'll specify them now, we had sodium chloride acidified that was being petitioned to 605(b) in the category of chlorine materials. And then we also have proprionic acid, also being petitioned to 605(b).

The agenda for this meeting was voted on at the executive committee call on August 8th. That is the date that the Handling Committee received the technical

1 review for sodium chloride acidified.

In the old days, probably we could

have cranked that sucker out on the 30th day

before the meeting date, with just like

seconds to make the requirement for public

comment.

But we've gotten more professional since then, and we don't fly on that tight a timeline. I apologize that I think the organic community and petitioners may not -- have no way of knowing that we're improving our processes.

in late 2008, that's not enough time for us to turn around a recommendation. And with the proprionic acid, actually, that technical review was received by the Handling Committee on October 9th, and I think that our publication deadline for recommendations had already passed by then, so that wasn't even a possibility. So I am sorry for anyone out there who was disappointed and was expecting

- to hear recommendations on these today. And
 I am sure that we are -- well, around here
 I've learned not to ever say I'm totally sure,
 but I'm pretty sure we're going to have those
 delivered at the spring meeting.
- That being said, I would like to
 move on now to recommendations that we do
 have. The first one is going to be calcium
 from seaweed, and actually Katrina Heinze was
 originally supposed to present this, so I'm
 kind of doing it on the fly here a little bit,
 but I think we'll be okay. I do miss Katrina
 right now, though.

Calcium derived from seaweed is produced from basically the skeleton of seaweed on the ocean floor that's mineralized.

In this particular case it is harvested, if I can use that word, off the Irish coast.

14

15

16

17

18

19

20

21

22

This mineralized seaweed gets
washed and it's hard, it gets milled into a
powder, and the result is a substance that's
intended to be used as an ingredient for

nutritional -- for added nutritional value,

2 for its health benefit.

The chemical composition of this is over 95 percent the calcium and then the other 5 percent are kind of calcium-related compounds, calcium carbonate and magnesium carbonate.

We had a lot of discussion earlier today about minerals that potentially were agricultural products. There's a lot of issues based potentially, but the Handling Committee has managed to avoid them this time around because we believe that calcium for this use is included in the listing of nutrients, vitamins, and minerals already on 605(b).

So we did not feel that it was appropriate for this material to be added separately to the national list to 605(a) since the use of the material is currently allowed through that existing listing for nutrient minerals.

1	And this so that actually, that
2	is our recommendation. Calcium seaweed
3	derived as petitioned does not need to be
4	considered for addition to the national list
5	since the use of this material is currently
6	allowed through the existing listing of
7	nutrient minerals on the national list,
8	section 205.605(b). That was passed by
9	committee vote five yes, no dissenting, there
10	was one absent that day.
11	MR. DELGADO: Questions, Dan?
12	MR. GIACOMINI: We've been
13	discussing this quite a bit, and I just feel
14	it's important and vital to the industry to
15	understand this, what we're doing here.
16	The committee is determining that
17	this is a nonsynthetic product. That's
18	605(a). They are saying that it is already
19	allowed because of a listing on 605(b) for
20	synthetics.
21	We have requested the program to
22	address the issue of whether this is a blanket

1	crossover between 605(a) and (b) or a specific
2	implementation because of the specific
3	annotation for the minerals listed in 605(b).
4	Barbara, can you address that?
5	DR. ROBINSON: I did answer it
6	before.
7	MR. GIACOMINI: Yes.
8	DR. ROBINSON: The FDA's
9	regulations in fact, I think I sent you the
10	citation there. It is in fact I can't
11	remember the exact wording, but it is I
12	think when I sent you back the citation from
13	FDA's regulations, I don't remember the exact
14	wording, but in the FDA regulations it's
15	illegal to in fact, or of a fashion to
16	discriminate or promote one nutrient over
17	another because one is natural or one is
18	nonsynthetic and one is synthetic.
19	So that nutrient, vitamins, and
20	minerals, even though it shows up on our list
21	under the synthetics, under FDA's regulations,
22	those include both nonsynthetics and

- 1 synthetics.
- 2 So the fact that you determine it
- 3 to be a nonsynthetic is of really -- doesn't
- 4 matter.
- 5 MR. GIACOMINI: Right.
- 6 DR. ROBINSON: Okay.
- 7 MR. GIACOMINI: It's specific --
- 8 so that everyone here and it is in the record,
- 9 it's specific to the annotation and not a
- 10 blanket crossover, if it's listed on the one
- and it comes from the other, we can go use
- 12 that over there.
- DR. ROBINSON: Yes.
- MR. GIACOMINI: Okay.
- MR. DELGADO: Any other questions?
- 16 Thank you. Julie.
- MS. WEISMAN: We have one other
- 18 605 material that's being petitioned for
- addition to the 605(b) synthetic, and that is
- 20 ethylene for pears, and Steve DeMuri is going
- 21 to present that.
- MR. DeMURI: Thank you, Julie.

1 As Julie mentioned, we did have a 2 petition for ethylene specifically for 3 ripening of pears on the national list 4 205.605(b). 5 As you heard in public comment yesterday and in written comment, we want to 6 7 note that it's been approved by previous boards for use in tropical fruits and for the 8 9 degreening of citrus. 10 It is produced by pyrolysis of 11 hydrocarbon feedstocks, such as natural gases. It includes crude oil. Or from ethanol. 12 So 13 it definitely is a synthetic material. It is produced naturally by 14 15 ripening fruits. However, this petition is specifically for synthetic ethylene, and the 16 naturally occurring ethylene is not 17 commercialized as a process, so making 18 19 ethylene for use in post-harvest handling at 20 this point. 21 We did receive a good amount of written and public comment, both during the 22

1	comment period and again yesterday. Thank you
2	very much for that. Including a couple of
3	folks who were able to provide some TAP
4	information that was not available to us on
5	the Web site previously. That was very
6	helpful, and we appreciate those comments.
7	Many of the commenters believed
8	that the approval of the use of ethylene for
9	organic pears would increase that market. A
10	lot more pears appear to be available as
11	organic and also possibly increase the length
12	of the season for the availability of organic
13	pears. That was derived from several of the
14	comments.
15	What the Handling Committee does
16	is vote on the addition of this synthetic to
17	the list, four yes, zero no, and two absent.
18	Any questions?
19	MR. DELGADO: Questions? None.
20	Okay. Can you repeat the vote, please?
21	MR. DeMURI: The vote was four yes
22	and zero no, two absent.

1 MR. DELGADO: Thank you. Any
2 other questions? Julie.
3 MS. WEISMAN: Next I have two

petitions which were petitions that were made with yet to be determined whether they were going to be appropriate more for 605(a) or for 606, and these are two algaes. One is chlorella, and the second dumontiacae.

I will make a general comment about this. Both of these petitions failed,

I think unanimously. Both were -- and this is where, you know, petitioning onto 606 is still a new process and there is an exchange that is continuing and a feedback loop that is going on where it's actually through the petition process that we are getting a better handle on what these -- what 606 petitions need to contain in order to be viable petitions.

So this, like a number of petitions -- many petitions that were heard at the two previous meetings, there was a kind of a blanket statement made about searching

databases and not finding any mention of any
of these being available organically. And we
want more specific information than that.

So I'll start with the chlorella petition. Is that chlorella up there? Okay.

This is an algae. I think there have been times when it's been questioned as to whether that would be considered a potentially agricultural or a nonagricultural

product, but the line up until now at least at
the state that we're now is that anything
that's photosynthesizing will be considered
potentially agricultural and therefore
eligible for 606.

So this is a red algae, a redbrown algae, which photosynthesizes. It is
produced in tanks, and it is then -- in what
is described in the petition as a hermetically
sealed unit, and it's collected, extracted,
and spray-dried onto astragalus root, and then
ground. And it is a powder that is used for
health benefits.

Our biggest problem with this

petition and where it did not -- it actually
we felt that it met criteria as being

agricultural, and the problem is that there is

certified organic chlorella out there.

Now it may not be in the form that this petitioner wants it, but the petition didn't make any mention of the existence of this organic material, and so -- and therefore did not even address why the organic material wasn't adequate for their use and what might be the obstacles towards making a form that was available for their use.

So this voted -- this was a -- this failed to pass a recommendation at the committee level. The vote was zero yes, four no, and two people were absent that day.

I do want to say, though, that in light of the -- this also raises some issues that came up this morning in the material working group presentation which is the question of an agricultural product, and does

1 it have to be land based, or is it a system 2 that's managed, and the question of whether we have standards for that management. And these 3 4 are all issues that are swirling around these 5 Even though they're not passing this time, I think that the issues that they raised 6 7 are important to point out. So before I -- should I just move 8 9 into the next algae? Okay. We're going to 10 move on to the dumontiacae. I think I've been 11 pronouncing that right. 12 MR. DAVIS: It would probably be 13 "dumontiacae" (pronouncing). (Laughter.) 14 15 MS. WEISMAN: Okay, I'm going to 16

MS. WEISMAN: Okay, I'm going to
try this again. Dumontiacae is also a red -a photosynthesizing red algae which is
indigenous to Pacific coastal areas of North
America from Alaska down to southern
California. Unlike the previous algae we
discussed, this is -- and I'm quoting the
petitioner here -- ethically wild harvested

- from the ocean floor in the Pacific, and it is
 then air dried and packaged. I don't think
 the process gets too much more simple.
- But we did have questions about

 what was meant by ethically wild harvested.

 It is also a material that would be added for

 nutritional and health benefit added

 ingredient.

9 Once again, we did not -- as with 10 the other petition, we did not feel that the 11 petitioner's broad statement that they had, 12 you know, checked a couple of well-known 13 places that -- I think I'm not allowed to say specifically because then -- anyway. 14 15 didn't state the usual places that we all look, and didn't find anything, and didn't 16 look any further or make any other comment 17 about why the wild harvested could not -- you 18 19 know, what the obstacles might be of that 20 being certified organic.

21 And so we did not feel that there 22 was -- that the evidence -- that they really

1	had done their homework, and so this petition
2	also failed for the same reasons as the other.
3	I believe by the same vote. It was zero yes,
4	four nos, and two were absent that day.
5	MR. DELGADO: Any questions?
6	Hugh.
7	MR. KARREMAN: This is something I
8	brought up a few meetings ago when you spoke
9	the Latin names, Rigo, of the petitions at
10	that time, but I really would like to see on
11	petitions with plants the Latin binomial name.
12	We had this discussion before, and Richard
13	agreed, or the program agreed, I should say,
14	sorry, that the Latin binomial name is the
15	preferred thing. Because this is a very I
16	don't know what level, you know, terminology
17	that is, but that's a much more big-umbrella
18	term than the Latin binomial. So, please
19	maybe that should be in the policy and
20	procedure manual or something, I don't know.
21	MR. FLAMM: That's a family name.
22	MR. KARREMAN: Well, I would

1 recommend --2 MR. FLAMM: The ending always the 3 family. So it's the same for every plant 4 family. 5 MR. KARREMAN: Extremely. And so it should be the genus and species, and 6 7 however many of them they want, just not the family name, or higher. I mean it's just kind 8 9 of vague, that's all. 10 MR. DELGADO: Any other questions? 11 MR. KARREMAN: One other thing 12 that Kevin just mentioned also, if that is 13 what they petition for, for that family name, then they're even on a weaker kind of basis 14 15 because, you know -- I mean there's that much more they could be looking for in the organic 16 17 availability. 18 MR. DELGADO: Any other comments, questions? Very well. You can go to the 19 20 next. 21 Okay. We also had MS. WEISMAN:

three materials that we looked at this time

22

- around that were being petitioned for 606.
- 2 And they are buck hull powder, black pepper
- 3 extract, and dried orange pulp.
- 4 Gerry, I just had a moment of
- 5 panic as to whether -- are you prepared to
- 6 present the buck hull powder?
- 7 MR. DAVIS: Sure.
- 8 MS. WEISMAN: Okay. I
- 9 couldn't remember if I asked you or not. I
- 10 would like to ask my colleague Gerry to
- 11 present the recommendation for buck hull
- 12 powder.
- MR. DAVIS: The buck hull powder
- 14 refers to the hulls of buckwheat. When the
- 15 grain is milled, they typically pull the outer
- 16 black hull off of it, and this particular
- 17 petitioner was petitioning -- the use was it's
- 18 a colorant for soba noodles, buckwheat
- 19 noodles, and we checked into claims of
- 20 commercial unavailability and felt that the
- 21 petitioner did not provide sufficient
- information on their investigation of global

supplies from other buckwheat production areas.

They mentioned at the bottom of page 1, we kind of put it in a nutshell or a buckwheat shell, the petition provided information on the obstacles for growing and importing organic buckwheat to Australia where the petitioner, being a manufacturer of soba noodles, is located.

However, the petition does not address the fact that the organic soba noodles are currently made and sold in the U.S. from certified organic buckwheat. They refer to Chinese supplies of buckwheat and Japanese millers and they kind of focused on that sector, and did not consider the global supply, or they considered it and they did not put it in their petition that they considered it, and explained anything about it.

So we felt they did not do the job, and going to page -- the last page, category four, some pertinent -- the grain is

- produced all over the place, and they just did 1 2 not investigate why other areas of the globe 3 could not be a potential supply. 4 There may be reasons, but they 5 didn't spell it out. And the fact that we were able to find soba noodles produced in the 7 U.S. from Canadian grain sources that were certified organic, those two things 8 9 essentially caused the committee to vote to 10 deny the petition and not include it on 606. 11 MR. DELGADO: Any questions on 12 that? Okay. Julie.
- MS. WEISMAN: Okay, I'd like to
 now look at the black pepper extract powder,
 and Joe Smillie is going to talk about that
 recommendation.

MR. SMILLIE: Right. This

petition basically is -- was denied. The

petition does not provide sufficient

information to demonstrate the material cannot

be obtained organically in the appropriate

form, quality, or quantity.

So it meets the first three

criteria, no problem, but criteria No. 4, we

had issues with, in a similar sense of a lot

of the things we have discussed.

Basically, we felt that the search by this petitioner was not exhaustive in the least, and that we felt that it would be -- that they did not present us a convincing argument that they could not use currently available organic black pepper, both fruit and oil extract, for further processing.

The petition was very complete. I mean the technical information was good. They went into great detail about this product, which is used as a -- in the sense of a black pepper as a flavor or a condiment. It's used to increase bioavailability of other nutrients, and hence it's processed in three or four steps, and they said that the final step product wasn't available, but going back two steps, there is black pepper available and there is black pepper oil available, and why

- this couldn't be contracted for further
- 2 processing -- I mean it's possible that it
- 3 can't. But they did not present that
- 4 argument, and we can't fill in blanks. We
- 5 have to see that as a major part.
- 6 All the rest of the petition was
- 7 accurate and thorough, but again the
- 8 exhaustive search.
- 9 So moving to the last page once
- 10 again, good old category four, which seems to
- 11 be -- I mean we need to put out -- we need to
- get the information out to petitioners to
- point out that they are continually failing on
- the same issue.
- In other words, show us that you
- 16 can't get organic. You know, the information
- is always good on, you know, the process and
- 18 grass and all the other things, but it always
- fails when it comes down to why couldn't you
- get it orgg. And we, you know, off in this
- 21 magical world of ours of, you know, Google and
- all these other search engines, we go out

1 there and we see it there, you know. 2. know it's there. Maybe it's not there in 3 sufficient quantities, and we have gone this argument with other materials, but again, the 5 petitioner didn't present any kind of detailed 6 information on why the current organic black 7 pepper supplies and black pepper oil supplies couldn't fill this need. 8 9 I can't find the voting on my 10 document. Valerie, can you -- So it was 11 petitioned to be added, and it was zero yes, six no, no absent, and no abstained and no 12 13 recused. 14 MR. DELGADO: Any questions? 15 Okay. Yes? I just wanted for 16 MS. FRANCES: 17 the record to state to put these recommendations out there, and petitioners 18 19 have the opportunity to provide you with that

writtencommentsandregulations.gov, or here, or

additional information during the public

comment process, either through

20

21

22

- come to the meeting and tell us more. 1 2 just wanted to say that. So it's not a done deal once the committee makes its 3 recommendations. 5 MR. DELGADO: Good comment. Yes. 6 Julie, do you want to add 7 something else to that? 8 MS. WEISMAN: You know, what I can 9 -- I'll -- we have one more material, and 10 Steve is going to present that, and you know, 11 and actually I think at that time I'll say 12 something more general about the 606 13 petitions. Okay. The last one 14 MR. DeMURI: 15 for the Handling Committee today is dried 16 orange pulp, and we had a petition for 17 205.606. It is used as a moisture retention 18 agent and that substitute in baked goods, 19 pastas, salad dressings, confectionery, processed cheese spreads, and frozen food 20
- 22 As you heard yesterday, it's a

21

entrees.

fairly benign process to make this stuff.

2 It's -- the material is a byproduct of orange

juice processing. It's kind of what's left

4 over from the physical extraction process to

5 make orange juice, and basically what the

6 producer does is heat treat it to stabilize

7 it. They mix it, dry it, and mill it,

8 physically mill it. So it's a pretty simple

9 process.

10

11

12

13

14

15

16

17

18

19

20

21

22

It did pass fine categories one through three, impact on humans, environment, essential and available, and compatability and consistency, but again like the previous material, it failed category four in our minds because the petitioner did not provide sufficient information to demonstrate that material could not be obtained organically in an appropriate form, quantity, or quality.

Now there were two things with this petition. First of all, we weren't convinced that there weren't enough organic oranges out there to produce the dried orange

1 pulp in an organic form. And also there was an equipment issue. That came up a couple 2 3 times yesterday during the public comment 4 period, that this particular producer has very 5 large equipment, which is understood, but 6 never really was answered on the question why 7 couldn't you build something on a little bit smaller scale to produce the organic version 8 9 of this dried orange pulp. 10 So it did fail based on that criteria No. 4. 11 12 There was a little bit of public 13 comment on that. We thank you for that. Lundberg did a good job yesterday of giving us 14 15 background on the material. Thank you. That 16 was very good. 17 The committee vote was zero yes, 18 five no, and one absent. 19 MR. DELGADO: Okay, any questions 20 on that material? Gerry. 21 MR. DAVIS: The one question left 22 in my mind from the public comment yesterday

was we discussed the fact that the data

presented on the amount of organic orange

juice being produced in Florida was fairly old

data. I'm not sure how much more is there now

that the organic marketplace has grown.

But also I never really got an impression of if smaller equipment was built and installed next to an organic source, that would fulfill their requirements on quick handling and so forth.

With newer data of what's available for orange pulp from organic orange juice, how much of a percentage of their -- of the marketplace for orange juice in organic products would that represent? I'm not sure that was made clear. I don't know if anyone else on the board heard something that I missed.

MR. DeMURI: I did not have an answer to that myself. Is the petitioner in the audience today? Can you let him answer

22 that?

1	MR. DELGADO: Yes. Please come up
2	to the microphone.
3	MR. DAVIS: And I guess the
4	question would be, to try to boil it down, if
5	you first exhausted the supply of orange pulp
6	from organic orange juice with one
7	installation of the equipment, then how much
8	additional would have to come from
9	conventional?
10	MR. LUNDBERG: Well, first, the
11	MR. DELGADO: State your name,
12	please.
13	MR. LUNDBERG: Brock Lundberg with
14	Fiberstar, petitioner for the dried orange
15	pulp.
16	First regarding the data, the
17	amount of available orange pulp, it is a
18	half a truckload is the current number, 20,000
19	pounds on a dry basis, and I'm not sure how it
20	got misunderstood that that was old data. I
21	apologize for that. But it actually is
22	current data. We did talk to the largest

- orange juice processors in Florida about this
- information, and that's where the source came.
- 3 That's less than a month old, that

Florida Organic Association.

4 information.

8

16

17

18

19

20

21

22

I did talk to Marty Mesh about

that, too, to confirm, and he didn't disagree

that that is reliable numbers. He's with the

And regarding that 20,000 pounds,
that would represent roughly 1 percent of our
total market, and that's now -- that's only
after three years of manufacturing. Our
business is growing and the organic is going
to be a large part of the business. That's
approximately at least 10 percent of our

We have many large manufacturers

that have been asking for us to be on the

list, and large and small, I should say, and

but the reasons for the availability -- I mean

there's two different reasons. We get -- when

there's orange pulp, we get 20 times less. We

business opportunity is in the organic area.

- have a 100 pounds of raw pulp, we get five
 pounds of finished product. That's the first
 thing.
- Secondly is all of the pulp has

 much higher value when it's used in juice, and

 most of the pulp does go back into making

 juice, organic juice is a growing industry.

 But a lot of the pulp that's used goes back in

 the juice.

We use the byproduct that's left

over and made into otherwise cattle feed, so

we are -- essentially when the organic

industry -- we'll benefit the organic juice

manufacturers, when there is growth, by

providing them with added value for their

product stream.

17 But -- go ahead.

18

19

20

21

22

MR. DAVIS: So while that might help us to understand the small amount of supply then that you just highlighted was the organically grown and produced orange juice typically retains most of the pulp and is not

- 1 as much being pulled out.
- MR. LUNDBERG: Exactly. The
- 3 majority of the pulp goes into orange juice.
- 4 Exactly.
- 5 Thank you.
- 6 MR. DELGADO: There were a few
- 7 comments. Hugh.
- 8 MR. KARREMAN: I apologize. How
- 9 many orange growers are there in Florida, and
- 10 what percent are organic, certified organic,
- and is there a major difference in size of the
- 12 groves between certified organic and
- 13 conventional?
- MR. LUNDBERG: Sure. Yes, there
- is a difference in supply. There's two
- 16 different issues regarding supply.
- 17 First there's -- on a -- I don't
- 18 know that I know the acres off the top of my
- 19 head, but I know in terms of total oranges
- 20 produced. There's approximately 2.7 million
- 21 boxes of fruit produced in the United States,
- and most of that is in Florida, and the pulp

1	is the pulp goes into juice, but regarding
2	what that represents compared to the total,
3	the total is in the range of approximately 20
4	million boxes is produced in I'm sorry, not
5	20, 20 is at Southern Gardens Citrus. Two
6	hundred million Southern Gardens Citrus,
7	which is where our processing operation is at,
8	includes that 200 million boxes is the total
9	amount produced of the standard nonorganic
10	variety of oranges that goes into juice.
11	That's about yes. Yes, that
12	2.69 is there on that slide.
13	MR. DELGADO: Jennifer.
14	MS. HALL: Yes, thank you.
15	Do I remember correctly that
16	yesterday you said that the function of this
17	organic pulp is as a thickener, and that it
18	can potentially replace chemically derived
19	options that are currently used?
20	MR. LUNDBERG: Exactly. And
21	that's what that's why so many organic
22	producers or food ingredient manufacturers

- like the product, is just because of the
- 2 functionality it delivers of normal -- of a
- 3 lot of chemically derived preservatives,
- 4 stabilizers, emulsifiers. It's got a very
- 5 creamy mouth feel, and it's unique compared to
- 6 a lot of gums because of the cleanness of both
- 7 the label, as well as the mouth feel of the
- 8 product.
- 9 MS. HALL: Thanks.
- MR. DELGADO: Barbara.
- DR. ROBINSON: I just -- did I
- hear the committee say that you thought was an
- 13 alternative was having the company make
- 14 smaller equipment?
- MS. WEISMAN: That was just me
- 16 yesterday. You can't pin that on the
- 17 committee. That was just my personal
- 18 question.
- DR. ROBINSON: Okay. All right.
- 20 MR. DELGADO: So the answer to
- 21 your question is yes, we were looking at an
- 22 alternative.

1 That was my question MS. WEISMAN: why can't it be done on a smaller scale. 2. 3 like to elaborate, okay, because I think that 4 sometimes we get petitions from the end user 5 who has no control over how this is going to be manufactured, and I looked at that 7 differently than when the petition comes from a manufacturer. 8 9 I'm a manufacturer, and the scale 10 on which I do organic production, I do much smaller than what I did conventional 11 12 production. And so I'm trying to understand 13 why that can't happen in this instance. 14 DR. ROBINSON: Okay. I was just 15 hoping we weren't making -- we weren't voting against something because of the scale. 16

MR. DAVIS: That was why I asked the question, Barbara, of what percentage of your marketplace, if you were to build

then we'd reconsider this.

could ask them to make smaller equipment, and

17

18

19

20

21

22

equipment to exhaust all that organic orange

pulp that there is, if you did that first and
then moved on to conventional for the
additional, I wanted to see what is that
marketplace. And he said only about 1 percent
of what we need for our organic for your
organic customers or all customers?
DR. ROBINSON: Right, but you also
want to consider the potential market, too.
MR. DAVIS: Right. True. True.
MS. WEISMAN: And that's very
important because there is this dynamic
relationship between the demand and then
supplying. When the supply starts to come,
then the demand follows.
DR. ROBINSON: Correct.
MR. DELGADO: Okay. Let's go back
to Dan.
MR. GIACOMINI: I think what Julie
was saying is important here. I think another
factor that's important is that this is a
proprietary process, and by putting it on the
list, we are allowing them to say we'll never

1 have to.

DR. ROBINSON: Never have to what?

MR. GIACOMINI: Never have to have

an organic source because no one can ever push
us into having one. There will never be a

6 commercial availability -- there's a

7 possibility of never having a commercial

8 availability of an organic source when they

9 own the process of making this product.

MR. DELGADO: Tracy.

MS. MIEDEMA: I sense that we are so engaged in this topic, like we were with

okra, because something intuitive feels like,

hey, there's an organic version of that

15 commodity. Come on. And we're really not

16 looking at the processing side.

And as someone who works for a

large organic processor who processes millions

and millions of pounds, I understand that. We

don't flip on our "on" switch for anything

21 under 20,000 pounds, and we can't. It's just

22 not feasible.

1 You know, what we're really 2. getting to here -- and this is to your comment, Dan -- is this philosophy behind 3 4 statistics, whether it spurs or spurns demand 5 -- or sorry, supply of organic products out 6 there in the marketplace. 7 If you use 606 as an opportunity 8 list, then we think it spurs the supply of new 9 organic product. 10 So, you know, in the case of okra, 11 Marty came up here and made this very 12 compelling argument that, hey, nobody has come 13 to me and asked for organic okra. Well, what if organic IQF -- I'm sorry, what if IQF okra 14 15 had been put on 606? Some products that developed? Guess what. Now there's this 16 17 opportunity list of organic growers who'd say I get to go to the front of the line, and that 18 19 manufacturer has to buy my organic okra. 20 Somebody can look at dried orange 21 pulp, for instance, on 606 and say, hey, I want to make that, and I'll beat Fiberstar 22

- because those manufacturers have to come to me
 for the organic version.
- So, you know, we don't have enough

 evidence yet to know how often it spurs and

 how often it spurns the supply, but we're

 going to start accumulating that evidence, and

 it's reasonable to think that in many

 instances we will have more organic products

 because of its presence on 606.
- MR. DELGADO: Dan.

22

MR. GIACOMINI: I completely agree
with what you're saying, but anybody can grow
okra, relatively. But in the case where you
own the proprietary rights to process, that
makes it a little bit different.

MS. MIEDEMA: A point of order.

And I -- it was not okra, and it's not organic

oranges, it's not oranges we're talking about.

It was IQF okra, and this says dried orange

pulp. And there are some very specific things

that happen in processing about heat and

transportation, and you don't get to just sort

- of accumulate a bunch of this stuff and set it aside over a year's time and wait to turn your processing machine on.
- What Brock was explaining to us is

 if little dribs and drabs of organic oranges

 showed up, they can't kind of turn on their

 machines for those 100 pounds each day as it

 shows up.
- 9 So we have to keep in mind the specific item that's being petitioned.
- 11 Just one follow-up MR. LUNDBERG: 12 I do know other processors coming 13 out with dried orange pulp, and it's -- and I don't know whether or not that would infringe 14 15 patents. I can't comment on that, but certainly it has been made before. It's been 16 made before us, and just that alone would mean 17 18 that there's ways that other people can 19 produce it.
- MR. DELGADO: Steve, followed by
- 21 Bea.
- MR. DeMURI: In my mind, the

process worked here because when we first --1 2. when we visited about a few months ago we didn't have all the information we needed. 3 You saw that, came and gave us more 5 information, and backed it up, and now we can make a more informed decision. 6 7 So I commend you for that. 8 future reference, I think for anybody here 9 that wants to petition us, it also helps to 10 get back-up from the people you're selling to. 11 If they come to us and say we need this, then 12 we know that it's necessary for the industry. 13 MR. DELGADO: Am I to understand that the committee will be changing their 14 15 position on this? We'll talk about it. 16 MR. DeMURI: 17 MR. DELGADO: Very good. We have Bea, followed by Jennifer. 18 19 MS. JAMES: Under the evaluation 20 criteria, it says here that it is produced by 21 taking the pulp and washing it with water, 22 stabilizing with heat and water, mixing,

1 drying, grinding. I'm just curious as a 2 stabilizer and an emulsifier, is the flavor in 3 there, so everything you use it for would have 4 an orange --5 MR. LUNDBERG: No, it's very 6 bland. We remove the flavors in the washing, 7 so that allows us more market and that it can be used in more products, because of the bland 8 flavor and neutral odor. 9 10 MS. JAMES: So there's no 11 chemicals used when you take the flavor out? 12 MR. LUNDBERG: It's just water. 13 MR. DELGADO: Any other questions? Jennifer. 14 15 MS. HALL: In addition, I think it's helpful to, if there are specific items 16 that might be able to be removed from the list 17 as the result of the addition that are more 18 19 harmful, it's helpful to know that. 20 MR. LUNDBERG: Okay. 21 MR. DELGADO: Any other comments, 22 questions?

1	MS. JAMES: Well, you know, to
2	just kind of off of what Jennifer just
3	said, do you know offhand what other items on
4	the list could potentially be affected by this
5	being added?
6	MR. LUNDBERG: I'm sorry, I don't
7	know offhand. I could come back up and
8	probably in an hour's time and tell you that.
9	MS. JAMES: Will you be here
10	tomorrow?
11	MR. LUNDBERG: Yes.
12	MR. DELGADO: Any other questions,
13	comments? Okay, Julie, back to you.
14	MS. WEISMAN: We're done with
15	materials, but we have oh, I'm sorry. Yes,
16	we're done. Thank you very much for being
17	here.
18	MR. DELGADO: Right. So we can
19	move on to the next item, which is
20	MS. WEISMAN: Right. The next
21	item is the pet food recommendation. And for
22	that presentation, I'm going to turn it over

- 1 to Tracy Miedema.
- 2 MR. DELGADO: Tracy.
- 3 MS. MIEDEMA: I'm so glad we have
- 4 something warm and fuzzy to talk about.
- 5 (Laughter.)
- I hope.
- 7 Okay, the National Organic Program
- 8 came to us four years ago and asked for the
- 9 recommendations that we are presenting today -
- Barbara's over there telling me, and we
- 11 thought they were slow.
- 12 (Laughter.)
- 13 Six months later, a task force had
- been formed, and this group was comprised of
- 15 experts from industry and certification, and
- 16 some other groups, 12 people. They spent
- about a year coming up with a task force
- 18 recommendation and brought it to the board,
- and to this board in April 2006.
- Just a little bit of background
- 21 ground. Pet food regulations are quite
- 22 baffling, actually. All 50 states have their

own rubric certification, and you really need

a professional consultant every time you build

a pet food package because you have to build

4 a label that cuts across all 50 states.

3

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

Then, you know, what we were doing
is layering on top of that our regulations.

So it was very complex, and this group did a

fantastic job of threading the needle.

But something happened after April 2006 which was the Harvey case, and we had to reevaluate the way this recommendation by the task force was written.

Frankly, it languished. This recommendation languished in a back room for about a year, and tremendous demand for this information has been coming from the industry, but just an anecdote here. A few days at one of the country's biggest pet food product shows in Las Vegas, called Superzoo, a couple of months ago, and I talked with a lot of people about organic pet food, and just kind of beating the bushes and finding out how

1 people were feeling about what was happening 2. there, and a tremendous amount of confusion, 3 anxiety. They feel like they were in neutral. They had invested money in developing organic 5 pet food, and so what we have is a little subindustry here that wants to grow and wants 7 to fulfill its destiny, and it's time we 8 really give them what they need. 9 So what our committee did in 10 conjunction -- we've still been working with 11 the task force -- is revise the organic pet 12 food task force recommendation to reflect 13 changes based on Harvey. Based on some excellent comment that has come in in the last 14 15 few weeks, we even made a few more tweaks which, Valerie, when she pulls our 16 recommendation, I'm going to show those 17 additional highlights, because we really 18 19 wanted to get this right. 20 It's a very technical 21

recommendation. One thing that I would say to the organic pet food people out there is that

just like an organic shortbread cookie might
not be more nutritious than a regular old
conventional shortbread cookie, the organic
pet food does not present itself as somehow
having a nutritionally superior line of pet
food, and that was one of the main points of
confusion I found at that pet food show.

So, you know, this is talking about the practices and everything that's been tried in OFPA and not reinventing pet food, per se. However, we do comply with everything in AAFCO in this recommendation. That takes primacy to what we did here.

In terms of the -- you know, some of the highlights of the proposed rule change, we're talking about putting this regulation in the pet food -- or, sorry, in the Livestock section, because we're feeding animals, but the label claims labeled the same way human food does, because it's humans that are buying it. So that's why that split has occurred.

And at this point I would like to

1 invite Emily Brown Rosen up to the podium 2. because no doubt there could or will be 3 questions that Emily can do much a better job 4 answering than I can. 5 MR. DELGADO: Emily, can you 6 approach, please. 7 MS. MIEDEMA: One other highlight 8 I guess I wanted to make based on some comment 9 that came in yesterday is how 606 items would 10 appear, and we proposed parsing 606 into A and 11 B, and we got help from the program on how 12 this should be parsed, so that a bunch of pet 13 food-sounding ingredients didn't kind of get commingled with the other 606 items. 14 15 just an appearances thing. And with that, I would turn it 16 over to the board. 17 Questions? 18 MR. DELGADO: Jeff? 19 Ouestions from the board? 20 MR. MOYER: Yes, I was just going 21 to say sitting in on the few calls that I did

sit in on, I was completely amazed at how

1 complex the basic pet food industry is in 2 terms of labeling and the way they work, and for us to have dovetailed into there like we 3 4 did I think was just a real credit to those 5 people that did much more work than I did. it's a very well thought-out document. 6 7 MS. ROSEN: I think it was a 8 challenge, because I've -- I mean I've already 9 given presentations to AAFCO on what organic 10 means, but we're going to need more 11 presentations to organic to what AAFCO means, 12 because there's two sets of regulations that 13 they have to comply with, and it's a little bit of a puzzle. 14 MR. MOYER: 15 I think after reading this, my dog should apply for another home 16 17 because my dog gets what he gets and this is -18 19 (Laughter.) 20 MR. MOYER: -- much more complex. 21 MS. ROSEN: These are just little 22 minor changes that we picked out where we

1 missed a few spots on the 606 changes. So 2 it's basically what you saw earlier. 3 Are you going to MR. DELGADO: review those changes? 4 5 MS. MIEDEMA: Sure. Let's just go 6 through those very quickly. There's three 7 items, and comments came up from our eagle 8 eye, Gwendolyn Wyard, and were seconded by 9 Emily, who was vice chair of the organic pet 10 food task force. So I went ahead and layered 11 those in. One of the additional comments was 12 13 to propose an entirely different section of the regulation devoted to organic pet food, 14 15 and we are not recommending that because I feel that that's a programmatic decision that 16 the program can opt to do or not do later on. 17 18 So if you look at -- what page are we on there, Valerie? 19 20 MR. MOYER: Seven. 21 MS. MIEDEMA: Okay. 22 MS. ROSEN: This is 237(c), and

- this fits in with the livestock section which
 we are now calling livestock feed and pet
 food, so we've added this new step (c) which
 was in addition to the -- I should back up a
 little bit.
- The 237(b) are things that are not prohibited for organic livestock operations, but not prohibited for pet food formulations.

 So this is a separate addition.

10 Pet food must be composed of
11 agricultural products that are organically
12 produced and, if applicable, organically
13 handled, except that nonagricultural
14 nonsynthetic substances and synthetic
15 substances are allowed under 603 and 605 may
16 be used as food supplements.

17

18

19

20

21

22

And so this goes along with the proposed change in the livestock feed pasture rules, actually, so that we are just identifying that items on 603 or 605 that are natural, nonsynthetic, but they're not agricultural, they'll be allowed for use. If

they're agricultural, they still have to go 1 2 through the 606 process. So this was put in more to clear that up, which has been a little 3 bit of a -- livestock feed and also now it's 5 trying to be all the same with the Harvey 6 thing. 7 And then it goes on to add that 8 nonorganic agricultural ingredients allowed 9 under 606 may be used in products labeled 10 organic provided they are commercially 11 unavailable in organic form and allowed by FDA for animal feed. 12 13 So it just covers all bases. It's not -- it was our intent to do this, but we 14 had missed it before. 15 The addition for the MS. FRANCES: 16 17 livestock community's benefit was (b)(7), the feed, it cannot feed organic pet food to 18 19 livestock was requested. 20 MS. ROSEN: That happened over the 21 That was earlier. summer.

MS. FRANCES: Yes.

Just to make

1 sure people didn't see that.

MS. ROSEN: That should be

3 underlined also, actually, yes. Because

4 that's not in the -- that was a concern to the

5 committee that somehow, you know, this

6 loophole for like maybe they're getting pet

food or it will end up in the livestock

8 feedstream, which does happen. In the real

9 world there is what they call salvage or

10 distressed pet food that ends up as livestock

11 feed. So that's a prohibition here.

12 MR. DELGADO: Any questions?

13 Jeff.

7

14 MR. MOYER: I just have one

15 question, Tracy. I'm going well outside my

16 realm of expertise, but in terms of definition

17 that you have on page 2, at the very end of

18 that we say that this does not apply to the

19 zoo animals, and I understand that, but as I

think about the near term and what's happen

21 with the -- sort of the greening of all

industries and the whole claims of

- sustainability, I can see where in the near

 future zoos would be very interested in

 feeding organic diets to their animals. Is

 this the groundwork for that, or is that way

 outside -
 MS. MIEDEMA: That came from the
- 7 pet food industry. They didn't -- I guess they're feeling there's a whole different 8 9 nutrient recommendations for zoo animals, and 10 they just felt like this is the bread-and-11 butter, this is cats and dogs, and you know, minor other species, and we just -- they had 12 13 their reasons they didn't want to throw that in here because I think it's still undeveloped 14 15 in the natural world, too, and the committee really talked about it, didn't want to add 16 that to the mix right now. 17

18

19

20

21

22

You know, it's not really pressing at this moment, and we need to get this thing done first. So I mean we could take it up later if there became a pressing need for it.

MR. DELGADO: Any other comments,

1 questions? Tracy, anything else? 2. MS. ROSEN: Oh, well, there was a few other changes we didn't finish. 3 4 MS. FRANCES: One thing I just 5 did, the language that was recommended for another program for 605 and 606 to be offered, 6 7 because that wasn't really -- it was 8 incorporated as a concept in the Handling Committee's recommendation, but not the actual 9 10 wording for 605 and 606. Do I just drop that into this document? 11 12 MS. ROSEN: Oh, you mean this 13 change that actually happened? MS. FRANCES: How it will actually 14 15 impact the rules. I just wanted to -- just so 16 people understand the language. Okay. 17 MS. ROSEN: Where are you putting 18 that? In the regulatory part in the 19 beginning, or are you just --20 MS. FRANCES: Yes, the 605 21 includes pet food.

MS. MIEDEMA: Valerie, I would

rather you didn't do that. We did discuss 1 2 this very point in committee, and we preferred 3 to keep it as a note that the Handling Committee recommends, and since we discussed 5 it already, I just prefer we keep it out of there. 7 MS. FRANCES: But just for people to see how it would look. You can take it out 8 9 if you want, out of your recommendation, but 10 this was what was discussed as to how it would 11 ultimately appear. 12 MS. MIEDEMA: I think we're going 13 to get --14 MR. DELGADO: When you come to a 15 decision, it's up to the committee to decide what is it that they want to vote on. 16 17 Any other questions on the part of 18 the board? And we thank you very much for all 19 We appreciate it. your help.

conclude this segment?

20

21

22

That's all, folks.

Back to you, Julie. Does that

MS. WEISMAN:

1	MR. DELGADO: Fantastic. Thank
2	you very much. We are only a couple of
3	minutes off schedule, and we are due for a
4	nice break.
5	(Recess.)
6	MR. DELGADO: We're ready for the
7	board members to come and take your places so
8	we can start the public comment.
9	(Pause.)
10	Okay, we're ready to start with
11	our public comment section, day two, of our
12	meeting, and the first person up to provide
13	comment is Carrie Brownstein. If you could
14	please approach the podium, and followed by
15	Urvashi Rangan.
16	Carrie Brownstein, please approach
17	the podium. Carrie will be followed by
18	Urvashi Rangan and Brian Connolly.
19	While our presenter makes her way
20	up to the podium, I would like to remind the
21	board members that we have an hour and 45
22	minutes of public comment scheduled, but we

1	have	35	presenters.
	TIG V C	J J	PT CD CII CCI D.

6

8

17

18

19

20

21

2 Carrie, can you please introduce 3 yourself for the record, and your comments 4 start right now.

5 MS. BROWNSTEIN: Five minutes?

> MR. DELGADO: Five minutes, yes.

7 MS. BROWNSTEIN: Okay.

PUBLIC COMMENT ON NOSB ACTION AND

9 DISCUSSION ITEMS

10 MS. BROWNSTEIN: I am Carrie

Brownstein from Whole Foods Market. 11

12 I submitted comments and posted 13 them to the site, the NOSB site, so I probably will not read through all of my comments, but 14 15 hopefully the group has a chance to look at 16 those comments.

There are a couple points that I wanted to make that I made in my printed I think that there is some greater comments. clarity needed on a few of the proposed standards with respect to how some of the terms are defined and greater specificity 22

1 needed on some of the standards.

14

15

16

17

18

19

20

21

22

2. So just a couple examples of this. In the aquatic livestock feed, livestock feed, 3 4 about using wild fish, and calculating the --5 you know, figuring out how much wild fish is acceptable, I think that it needs to be 7 specified whether the trimmings from fish processing will be counted in a calculation, 8 and in our standards at Whole Foods Market, we 9 10 do not require that trimmings or processing 11 wastes are calculated in what we call the 12 fish-in, fish-out. So I think that could use 13 some specification.

Around contaminants, I think the important point is that environmental contaminants, is that the standard refers to regulatory levels, but -- for allowable levels of contaminants, but there are no regulatory levels really, and so as it's written it's kind of unclear whether the group was talking about following European regulatory levels or if there was an error in assuming that there

- are established standards for PCBs, mercury and things like that, in feed.
- 3 So I just wanted to mention that.

4 The term sustainably sourced for 5 the fish meal, fish oil that goes into feed, I really think that needs to be defined. 7 -- for Whole Foods Market, we have reserved the term sustainable for just products that 8 9 are certified by the Marine Stewardship 10 Council. You know, as you know, in terms of 11 production fisheries, you know, there aren't really that many that would qualify from the 12

So I think that's just -- that kind of specificity is needed.

MSC group.

13

16

17

18

19

20

21

22

And when it comes to the net pen category, there's a bunch of areas where I think more clarification is needed. For example, will hormones for sex reversal be prohibited for grow-out stock only, or also for brood stock? That's important. It's used for brood stock in trout, but, okay, I have to

- 1 hurry.
- 2 So there's a couple of really
- 3 quick points then.
- 4 The aquaculture working group had
- 5 a couple of interesting comments, so I agree
- 6 with them that the aquatic plants and aquatic
- 7 animals are good terms to use rather than
- 8 livestock and crops when you're talking about
- 9 aquaculture.
- I also like some of the specifics
- 11 that they put in their comments, like the use
- of acoustic harassment devices should be
- prohibited. Those are the kinds of specifics
- in our Whole Foods Market's standards that we
- 15 try to put in so that people knew exactly what
- 16 kinds of practices on the farm are allowed and
- 17 are not allowed.
- 18 So I also like this point that in
- the rules for fish meal and fish oil that they
- should apply to terrestrial livestock. I
- 21 thought that was an interesting point as well.
- 22 Finally, it's really a great thing

1 to have performance targets, and we tried to 2. do this in our standards as much as possible. But regarding the nutrient reduction of 50 3 percent through cycling, I'm just a little 5 curious where that number came from. I tried to find numbers as we were working on our 7 standard that we could do, and I wasn't quite sure if there was science supporting that 8 9 particular number, because I think it's great 10 to have a performance target, but if it's 11 arbitrary, I'm not sure if that gets you necessarily where you want to go in terms of 12 13 on-the-farm performance level. So I do please hope that you can 14 15 check out the printed comments that we submitted online, and hopefully find 16 opportunities for greater specificity, 17 especially on things like predator standards, 18 19

where there are specific things that you could require, like no acoustic harassment devices and greater definition on those kinds of standards.

20

21

1	Thank you.
2	MR. DELGADO: questions, Dan?
3	MR. GIACOMINI: Carrie, excuse me.
4	MS. BROWNSTEIN: Sir.
5	MR. GIACOMINI: Yes. I notice
6	when I go into your stores, you do have
7	accredited farm fishing program. Without
8	going into the specifics of it, I have talked
9	to some of the guys behind your fish counters
10	at some of your various stores, and but as
11	from your perspective, the store's
12	perspective, how is that program how is it
13	going, how is it being accepted by the
14	consumer to be dealing with these kind of
15	things, which we're being told are not
16	acceptable by the consumer? What are you
17	seeing?
18	MS. BROWNSTEIN: Well, we just
19	released the new aquaculture standards in July
20	of 2008, so they are new. But the feedback
21	that we have received has been really
22	positive, and in terms of the implementation

of the standards, we are in the implementation phase.

So, you know, it's going to take a little while, but the point is that all of the farms will have to be operating completely under those standards. And so, you know, it's a process of getting everybody up to speed, and so far I think it's going really well.

We've got some great relationships with these producers that are working really hard to make this happen.

MR. DELGADO: Any other questions?

Joe?

MR. SMILLIE: Yes, I just wanted to clarify, you guys have the ability to note a sustainability standard you can adhere to.

We lack that ability. We can't refer to a nongovernmental sustainability standard.

We explored that earlier because that's one of the things that we wanted to do is pin it to sustainability as far as the feed mill goes, but basically it's difficult for us

1 to have a nongovernmental standard and a 2. governmental regulation. So until such time as the 3 4 community create, you know, sustainability 5 standards that are acceptable, we are stuck 6 without, you know, a donkey to pin the tail to 7 as far as our desire for sustainability. Isn't that correct, Hugh? 8 9 MR. DELGADO: Jeff? 10 MR. MOYER: Yes. Carrie, I was 11 just wondering if you can expand just briefly 12 on what your waste management standards are. 13 You brought up the 50 percent recycling. exactly is doing that? 14 MS. BROWNSTEIN: We looked at it 15 from the input side in terms of looking for 16 the producers to reduce the amount of nutrient 17 inputs in the form of feed and fertilizer. 18 19 We did not put a 50 percent 20 reduction or a particular percentage reduction 21 on that particular standard. But we did look

at it from the input side, especially because

- of the context of net pens and open water

 systems, it seemed a little bit easier to keep

 track of the inputs.
- 4 But we are looking -- I mean I 5 think there's a lot of consistency here in terms of what we are trying to achieve, you 7 know, in terms of recycling nutrients. We are 8 looking to producers to find ways to recycle 9 these nutrients, and so, you know, the kinds 10 of integrated multitrophe, integrated aquaculture systems that I think you probably 11 12 had in mind in this standard, I think those 13 are fantastic, and we're looking to find producers who can do that. It was just that 14 15 that particular number of 50 percent of reduction, we just had a little trouble 16 finding, you know, a justification for that 17 exact number. 18
- MR. MOYER: Thank you.
- MR. DELGADO: Kevin.
- 21 MR. ENGELBERT: How many producers
- are you working with? Do you know, off the

1 top of your head? And what types of seafood --2. MS. BROWNSTEIN: So our 3 aquaculture standards cover all farm fish except for mullet. So we're talking about 5 salmon, Arctic char, steelhead, tilapia, farmed shrimp, and then, you know, those are 7 really the big ones, and then there's obviously some fish that are not quite as 8 9 popular. You know, here we're talking about 10 Mediterranean sea bass, sea bream, and of 11 course there's cod, we don't really deal much with farmed cod. 12 13 But there are other species that are covered under the standards, but the 14 15 standards were really designed for those big 16 ones. 17 And in terms of producers, I don't have the number of producers offhand. 18 19 not an enormous number because we try to 20 develop long-term partnerships with our suppliers that are working to, you know, be a 21 22 part of our firm.

1	MR. DELGADO: Kevin.
2	MR. ENGELBERT: And how are you
3	finding the enforcement of your standards
4	working out? Are you having trouble doing it,
5	or is it or are you able to follow through
6	on these standards?
7	MS. BROWNSTEIN: It's going okay
8	so far, and you know, in the beginning there
9	were some producers that had to be eliminated
10	because they weren't meeting the standards,
11	but many of our producers have already had the
12	same kind of outlook on how aquaculture should
13	be done, and we've had long-term relationships
14	with these suppliers.
15	So many of these suppliers were
16	really already on this honor program before we
17	had a chance to release them. But there were
18	some that, you know, that didn't make it.
19	MR. DELGADO: Bea.
20	MS. JAMES: On your Web site, you
21	have a page that's devoted to seafoods and

talk about Whole Foods' commitment to making

22

sure that you are committed to sustainable
practices and you talk about supporting
fishing practices that ensure the ecological
health of oceans and the abundance of marine
life.

Do you consider the ocean net pen
farming method be one that does not?

8

9

10

11

12

13

14

15

MS. BROWNSTEIN: Well, I think
with net pen aquaculture, there's a huge range
in the kind of practices that are out there.
So I think if it's done well, it can be a good
source of seafood, and I don't use the term
sustainable in general, but we tend to say
environmentally responsible, environmentally
friendly.

But it's -- you know, I think with

net pen aquaculture specifically, because that

sounds like what you're specifically

interested in, it's a question of finding

people that are doing it right. And so, you

know, with our -- we talk about suppliers on

our Web site a bit. We have a blog on our

1	site, if you check it out we have a couple
2	features. You know, we're only working with
3	maybe three salmon suppliers, you know, so
4	it's not like we're speaking about the rest of
5	the universe in the salmon industry.
6	But I think it can be done well.
7	MR. DELGADO: Bea.
8	MS. JAMES: Another follow-up
9	question.
10	I know in your stores, when I go
11	into your stores, that there is an emphasis,
12	a heavy emphasis on sustainability in your
13	fish department, and if you ask the guy behind
14	the counter, they usually have answers that
15	focus around that aspect of the fish that you
16	sell.
17	Do you have consumers that are
18	asking for organic fish, or is the main
19	concern for consumers that you see at Whole
20	Foods around sustainability?
21	MS. BROWNSTEIN: Well, we have had
22	a policy for a little while now that we don't

- sell fish that is labeled organic, and we do
 have people asking us sometimes why, and we
 explain it to them. And, you know, we do
 provide this kind of information to our
 customers in various formats.

 We did a podcast and we explained
- 7 this to our customers, and we respond to customer e-mails about these kinds of 8 9 questions. But we have people asking about, 10 you know, all aspects of seafood, whether it's 11 from questions about sustainability, or 12 whether it's questions about contaminants, or 13 whether it's, you know, about aquaculture. get all kinds of questions. We have pretty 14 15 engaged customers that, you know, really want 16 to know. Maybe they're a representative sample of the general people, so we see all 17 kinds of things. 18
- MR. DELGADO: Hugh.
- MR. KARREMAN: I apologize,
- Carrie, for not being in the room when you
- spoke, but I did read your written comments,

1 so I'm happy to have them.

12

13

14

15

16

17

18

19

20

21

22

2. I just wanted to -- so maybe 3 you've already mentioned this, but of your 4 producers that you have in your program right 5 now, would they be able to -- how do our 6 standards -- I'm not trying to compare 7 standards with NOSB and you guys, but would your producers be able to produce also 8 9 certified organic by these standards that we 10 are proposing, or, you know, amending 11 slightly?

MS. BROWNSTEIN: Well, I think
that's a good question because in the process
of developing my comments, I did speak to a
number of our producers, the ones who I know
would be interested in producing under an
organic standard. So I was very curious about
what their perspective on it would be.

So specifically related to the net pen standard, one of our most engaged producers said, you know, it's not clear to me from many of these standards exactly how we

- can or can't produce fish.
- 2 And so that -- I tried to address
- 3 some of those things in my comments about the
- 4 need for greater specificity.
- 5 You know, for example, under the
- 6 predator standards of how you handle
- 7 predators, it doesn't say whether you can use
- 8 acoustic deterrent devices or not, and it
- 9 doesn't explain I think quite enough on how
- things can or can't be done.
- 11 And I know you don't want to be
- too prescriptive, I'm sure, but at the same
- 13 time I think there was in the net pen
- 14 standards a little too much vagueness. And
- that was coming, you know, from some of the
- 16 producers who said it's not totally clear to
- me if I would comply with these standards.
- 18 I'm not sure what I can and can't do.
- 19 MR. DELGADO: Hugh?
- MR. KARREMAN: Just a follow-up.
- I really appreciate everyone's
- 22 comments for sure, and I -- George Leonard

1	from the Ocean Conservancy now, did you
2	consult with him or to look to their to
3	what he always is talking about, performance
4	metrics, and how do you feel about that,
5	performance metrics to show compliance?
6	MS. BROWNSTEIN: Right. Well, in
7	the development of our standards, we did talk
8	a lot with George Leonard and folks at other
9	organizations, and obviously there's a lot of
10	support for having performance metrics, and we
11	try to do that in our work as much as we can,
12	as long as we can find a performance metric
13	that seemed logical and not arbitrary. So I
14	think they're really good to have if you can -
15	- if there's one that's sensible, I think it's
16	a great idea.
17	It makes it, you know, a lot
18	easier to interpret the standards and informs
19	the producers more specifically as to what
20	they need to work toward.
21	MR. KARREMAN: Okay. Thanks.
22	MR. DELGADO: Bea?

1 MS. JAMES: Sorry, one more

2 question.

I know and respect that you -Whole Foods stopped selling live lobster
because of the inhumane standards that you
felt were not being followed for that, and do
you see net pen or pond-raised as being humane
for aquaculture?

MS. BROWNSTEIN: Well, as you know, we have a very big effort under way on animal welfare for farm animals under our five-step program, and this is something that we have not yet addressed in our aquaculture standards. We felt like there was a lot to tackle in the first round of standards for farmed fish so, you know, in terms of, you know, what it looks like right now, I mean I think that there are questions to look into and say — there are arguments on both sides of it. We spent two years doing research on the sustainability components of aquaculture, so without spending a little time looking into

- the animal welfare aspects of it, you know,
- it's really hard for me to say because I
- 3 understand that, you know, in some people's
- 4 perspective, it's more natural or more humane
- 5 to be in an open water pen than it would be to
- 6 be in a tank.
- 7 And on the other side, you know,
- 8 there's other points. So it's difficult to
- 9 say yet.
- MS. JAMES: Is that something that
- 11 Whole Foods plans on doing some research on?
- MS. BROWNSTEIN: I'm sure we'll
- look into that. Our next big project, I know
- 14 you mentioned wild fish, and the
- 15 sustainability. Right now we're focusing our
- 16 efforts on developing our guidelines for wild-
- 17 capture fisheries.
- 18 MS. JAMES: Thank you.
- 19 MR. DELGADO: Any other questions?
- 20 Thank you very much, Carrie.
- 21 Next is Urvashi Rangan, followed
- 22 by Brian Connolly.

1 MS. RANGAN: Thank you. I sound a 2. little different because I'm sick from my 3 baby, but I'm going to try and make it through these comments. 5 The first thing I want to do is 6 stress -- my name is Urvashi Rangan. 7 senior scientist at Consumers Union. 8 publish Consumer Reports magazine, which 9 reaches over seven million people. 10 Consumers Union opposes the use of 11 animal byproducts in the pet food 12 recommendation. We feel that pet food should 13 be in line with the livestock feed recommendations, that consumers will not 14 15 understand why they are not the same, and at the very least we would like to see the 16 loophole or the allowance for conventional 17 animal byproducts in the nonorganic portion of 18 19 pet food to be omitted. 20 The fact of the matter is that 21 cats are also subject to mad cow disease. There are studies on this in the UK, at least 22

1 100 cases of mad cat, and the primary vector 2 for mad cow disease is the transference of 3 animal byproducts in the feed. So we would 4 like to see that closed. And I'm happy to

provide those references for you.

5

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

I would like to now turn my comments to what we heard during the Livestock Committee's discussion of aquaculture. And, Hugh, my comments are responding to your comments.

We don't think the job of this
board is to find a middle ground. Your job is
to uphold the principles of the National
Organic Program, and not to dilute the
standards so that a substandard market can
cash in and charge consumers a premium price
for something that isn't as organic as other
organic food that they are buying.

And an extra labeling proviso is not an answer, and it's not legal, and your obligation under section 2102 is to provide consistency to the meaning of that label. The

- standards you have currently for aquaculture do not do that.
- American consumers have in fact

 overwhelmingly, more than 90 percent, said

 they expect organic fish to be produced with

 100 percent of organic feed.

I don't understand how you have

arrived at that some consumers maybe will be

happy about wild fish food or happy about less

than 100 percent, but we have two national

polls that indicate that that is not the case.

12 Environmental pollution from open 13 net fish farms is not limited to the Pacific Northwest. They are in fact widespread 14 15 problems that happen in Norway, in Scotland, There are plenty of scientific 16 in Ireland. studies to document that, and Chile as well. 17 And that's just to name a few. 18

So we are concerned about what is being considered here in terms of science and fact in these recommendations.

Let's just be clear, too, about

19

20

21

open net pen systems. We are not just talking
about salmon. We are talking about a system
that is an open system into the natural
environment. No matter what you farm in it,
you flush it into the environment and that is
not in line with organic principles that
control for waste management. It's just not
in line with that.

We think that the use of the amendment for wild fish feed in this recommendation is erroneous. If you are promulgating on that amendment, I would like that to be made clear that those are the recommendations you are making so that the USDA can in fact promulgate, and what part of it you are trying to promulgate.

But to say that you are doing that and then to shoehorn this into the national list because if you looked at the 100 percent organic feed requirement under livestock, it wouldn't work, and it would require 100 percent organic feed.

1 So to now allow a prohibited substance on the national list as a fix to 2. that for fish? It's a disservice to the 3 organic marketplace, it's a disservice to 5 consumers. It's not in fact following the job that you need to do. It sets a really bad 7 precedent. We have had other industries in 8 9 here try to get their exemptions to the 100 10 percent organic feed requirement. Consumers 11 were vociferous about their opposition to 12 that, and what you are doing here is setting 13 a precedent to show how other industries can therefore go about it again. 14 This is a serious dilution of the 15 organic standards. If enacted, we will have 16 17 no choice but to advise consumers through our Advice and Consumer Reports, through our 18

21 Thank you.

organic fish.

19

20

MR. DELGADO: Questions? Kevin.

advice to the public, that they should not buy

1 MR. ENGELBERT: Urvashi, we've 2 been told by people in the agriculture business that the only way to get these 3 4 necessary nutrients into the start-up industry is to allow these wild-caught fish oils and 5 6 fish meals to be included. 7 Am I jumping to a conclusion by 8 saying that you don't think there's any way 9 that aquaculture could ever be certified as 10 organic? 11 MS. RANGAN: No. This isn't a 12 jump-start program, though. This is a program 13 that allows a label for any fashion that they qualify for it, and then to charge a premium 14 15 price for the value that they've added. 16 You are trying to create a sliding 17 value scale here. That's not what the organic program is about, and it's like consumers pay 18 19 more for it. They pay more for it because it 20 meets a consistent high bar. We are not 21 saying that you will not be able to produce

100 percent organic fish meal with organic

22

certified fish. We welcome it. That's how it should be done.

percent and let the industry innovate to get to that point. By giving them this jump-start, this sort of dilution in the standard so that they can capture this label before they are really ready to is basically allowing a product on the market that will be inconsistent in meaning, that will not have eaten the same 100 percent feed as other livestock, that could be contaminated, that may have come from polluting systems.

It's not what consumers want from the organic fish that they buy, and they have registered that sentiment overwhelmingly.

17 MR. DELGADO: Hugh.

MR. KARREMAN: On this topic right here right now, we would foresee that farms that produce with the organic feed right at the outset, which would be some but not a whole lot, would indeed even given a higher

premium than those that are having to use some
wild caught, and there would be incentive to
go as fast as they could to the fully organic
fed, you know, type version, and not use that

5

label.

- It is also -- I think a lot of the

 commenters have, I think, forgotten that it is

 a step-down, prescribed step-down. It's not

 like it's going to be there forever. And I

 agree, it is a jump-start. I think that

 that's your term, or maybe Kevin's, or

 whatever. But it is.
- 13 And we -- it's not to lower the bar of organics at all. It is to help an 14 15 industry start and hopefully get to that 100 percent as quickly as possible. 16 That's our 17 intent. With the step-down and that label. I don't know if that label 18 19 will stick or not, but that is the intent 20 there.
- 21 MS. RANGAN: I mean I appreciate 22 that, Hugh. The first thing is unfortunately

you don't set what a premium can be, and so
anyone can set the premium where they want to.

And where deception comes in the marketplace
is people who do try to capture that premium,
and they will, they will exploit it to charge
that premium.

are not going to differentiate, and that is significant. And I don't know how to keep explaining that this isn't a jump-start program. This is a program that consumers expect a certain bar achieved, and you are in fact lowering that bar. You are not requiring 100 percent organic feed. You have lowered that bar, and you have done it in a way that circumvents the livestock feed requirement by amending the national list. That's not the way to address this issue.

MR. DELGADO: Bea.

MS. JAMES: So what I think I hear you saying is that it's not speed to shelf that you're looking for; that you would

1 rather, and the consumers that you have gotten 2 feedback from, would rather see a 3 recommendation that would put forward the development of organic seafeed that was truly 5 organic, with organic fish feed, even if it 6 takes the industry five, six, seven years to 7 get to the point where the fish meal is available for producing organic fish. 8 9 MS. RANGAN: That is correct. 10 That is what we are trying to do. And in order -- and just to sort of flip this, you 11 12 come out with this and a consumer says, wow, 13 and they hear all this controversy and they can't quite understand what the debate is 14 15 about. And so someone like me is trying to 16 educate consumers, says, well, there are certain kinds of fish they do eat 100 percent, 17 and for other kinds they don't eat 100 18 19 percent, and a consumer says, why isn't it the 20 same? 21 And I say because the National 22 Organic Standards Board wanted to cast the net

1 as widely as possible to jump-start the 2. market. That's not an answer that consumers 3 want to hear, and they're not willing to pay more for that, and in fact it can undermine 4 5 consumer confidence not only in that organic fish but they will translate that to other 6 7 organic food products that they buy. 8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

MR. DELGADO: Kevin.

MR. ENGELBERT: Urvashi, I know this isn't an exact analogy, but the dairy industry was given a huge, in your terminology, jump-start by allowing dairy animals to transition into organic production and then produce certified organic milk.

Is this really that big a leap, that big a difference, in your mind, from the aid that was given to the dairy industry to get started, and with enough volume that the plants could have enough product to process that consumers could go to the store, knowing that it was there, knowing that these animals transitioned to organic production over a

1 period of originally nine months, now 12 2. months? 3 MS. RANGAN: Well, Kevin, 4 consumers don't perceive that as a jump-start, 5 they perceive it as a loophole. And we have survey data to show that consumers do not want 7 this shifting going around, with these conventional animals coming on the farm, and 8 9 after 12 months milking them for organic milk. 10 We have survey data to show that. 11 They would never have accepted it 12 had it been presented to them as a jump-start

perceived it as that, and one that needed to
be closed. It wasn't the case for other
organic livestock, so why was it the case for
dairy farms?

So, frankly, that's been another
piece of information that's sort of been

It was, frankly, a loophole, and we

13

20

21

22

program.

consumers do want to know how come some

flying under the radar but, you know,

organic milk is cheaper than others? And we

1 constantly have to say because some of them 2 aren't getting pasture, actually, and so that 3 allows a farm to produce a cheaper milk to be sold as a cheaper organic milk, and that's 5 what's happening. And consumers aren't happy 6 about that. 7 Let's fix these loopholes. 8 not use one loophole as a precedent for 9 another one. That's not the way this program 10

needs to be operating, and I'll tell you, it's really frustrating, and it's really undermining the quality of what organics should be out there.

MR. DELGADO: Hugh, this is the last question.

11

12

13

16 MR. KARREMAN: Yes. I just want to clarify what Kevin was getting at. 17 not what you're talking about now with the 18 19 original livestock that were coming in. 20 don't want to get into pasture and all that 21 right now, but it was the old way to get in 22 with the last third of gestation, and you had

- 1 to feed 100 percent organic for the last three
- 2 months. That's what he was talking about.
- Just so you know that. Just so you know that.
- 4 Now the other thing I wanted to
- ask you, though, is if in the European system
- 6 they allow, let's say, poulty byproducts --
- 7 we're not going to be allowed to do that here,
- but just philosophically, would you be in
- 9 favor of that to feed agriculture -- poultry
- 10 byproducts?
- MS. RANGAN: No. Animal
- byproducts are prohibited in this program.
- MR. DELGADO: Any other questions?
- 14 All right. Thank you very much.
- 15 Next up is Brian Connolly,
- 16 followed by Greg Aldrich.
- 17 MR. CONNOLLY: Thank you to the
- 18 committee. My name is Brian Connolly. I was
- on the pet food task force, and I'll be very
- 20 brief.
- 21 My company is based in Portland,
- 22 Oregon, called Caster Pollux. We formulate

as when of you decide to adopt the regulations, it really will help level the playing field out there. I think there's a	1	and produce organic pet food, and I just
us to have a say in these regulations, and for as when of you decide to adopt the regulations, it really will help level the playing field out there. I think there's a lot of consumer confusion, the way some brands have chosen to label and package and produce their food. So I applaud the committee and thank you again for allowing our input from the industry. MR. DELGADO: Any questions? All right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	2	wanted to thank the NOSB as well as the USDA
as when of you decide to adopt the regulations, it really will help level the playing field out there. I think there's a lot of consumer confusion, the way some brands have chosen to label and package and produce their food. So I applaud the committee and thank you again for allowing our input from the industry. MR. DELGADO: Any questions? All right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	3	for forming the pet food task force, allowing
regulations, it really will help level the playing field out there. I think there's a lot of consumer confusion, the way some brands have chosen to label and package and produce their food. So I applaud the committee and thank you again for allowing our input from the industry. MR. DELGADO: Any questions? All right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	4	us to have a say in these regulations, and for
playing field out there. I think there's a lot of consumer confusion, the way some brands have chosen to label and package and produce their food. So I applaud the committee and thank you again for allowing our input from the industry. MR. DELGADO: Any questions? All right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	5	as when of you decide to adopt the
lot of consumer confusion, the way some brands have chosen to label and package and produce their food. So I applaud the committee and thank you again for allowing our input from the industry. MR. DELGADO: Any questions? All right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	6	regulations, it really will help level the
have chosen to label and package and produce their food. So I applaud the committee and thank you again for allowing our input from the industry. MR. DELGADO: Any questions? All right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	7	playing field out there. I think there's a
their food. So I applaud the committee and thank you again for allowing our input from the industry. MR. DELGADO: Any questions? All right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	8	lot of consumer confusion, the way some brands
thank you again for allowing our input from the industry. MR. DELGADO: Any questions? All right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	9	have chosen to label and package and produce
the industry. MR. DELGADO: Any questions? All right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	10	their food. So I applaud the committee and
MR. DELGADO: Any questions? All right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	11	thank you again for allowing our input from
right. MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	12	the industry.
MR. CONNOLLY: Thank you. MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	13	MR. DELGADO: Any questions? All
MR. DELGADO: We'll move on next to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	14	right.
to Greg Aldrich, followed by Kristy Korb. MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	15	MR. CONNOLLY: Thank you.
MR. ALDRICH: Good afternoon. My name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	16	MR. DELGADO: We'll move on next
name is Greg Aldrich. I am an independent nutritionist in the pet food industry. I am also a columnist for the pet food industry	17	to Greg Aldrich, followed by Kristy Korb.
nutritionist in the pet food industry. I am also a columnist for the pet food industry	18	MR. ALDRICH: Good afternoon. My
also a columnist for the pet food industry	19	name is Greg Aldrich. I am an independent
-	20	nutritionist in the pet food industry. I am
magazine, and I write a column every month on	21	also a columnist for the pet food industry
	22	magazine, and I write a column every month on

1 ingredient issues.

I am also an adjunct professor of animal sciences at Kansas State University.

I am here as an independent nutritionist to give comments briefly on these rules that the task force has put together as it relates to the NOSB for pet food as an organic amendment, and generally speaking, I want to first off encourage the committee to accept the standards that were recommended by the task force.

What I want to do is remind
everybody that pet foods are complete and
balanced, are 100 percent of the animal's
daily requirements today, so we will combine
typically anywhere from 40 to 60 different
ingredients to meet 40 to 60 different
nutrients on a given animal's requirement on
an every-day basis.

These pets now, there are some 170 million in the United States, living in one out of every two homes. The industry

represents somewhere between \$15 billion in the U.S. to \$30 billion annually on a global sales volume.

The organic opportunity is somewhere in the neighborhood of 5 percent, and we are probably now somewhere around a half percent.

There is tremendous opportunity to grow this industry, but the consumer has to understand what organic is, and currently they feel pretty good about what the ingredient rules and regulations are under the livestock guidelines, outlined by AAFCO, the American Association of Feed Control Officials.

Most of those restrictions and guidelines give us specific identification for ingredients that we use on a regular basis and also nutrients that we have to meet.

One thing I also want to bring to the committee's attention is that in 2006, the nutrient -- or National Research Council came out with the 2006 nutrient requirements for

dogs and cats, and that will now promulgate
the change and update for the AAFCO nutrient
profiles for dog and cat foods over the next
couple of years.

The only change that really will manifest itself in those upcoming nutrient requirements is an increase or a recognition now for a conditional requirement for omega-3 fatty acids, and in some of the discussions earlier in this room, talking about aquaculture, some of the same ingredients that aquaculture uses to fortify diets with omega-3 fatty acids from fish or marine oil sources are going to be required for dog and cat diets as well.

To the committee's question
earlier about zoo and exotic animals, those
are not under the auspices of the American
Association of Feed Control Officials or the
FDA as livestock or domestic animals.

21 So with that, I will answer any 22 questions.

- 1 MR. DELGADO: Questions, comments?
- 2 Thank you very much.
- 3 MR. ALDRICH: Thank you.
- 4 MR. DELGADO: Okay. We do have a
- 5 question here.
- 6 MR. ALDRICH: Yes.
- 7 MS. JAMES: Do you work with
- 8 Caster and Pollux? Are you with regards to
- 9 the other -- no? Yes?
- 10 MR. ALDRICH: Yes and no. First
- off, Brian, I'm going to disclose that I work
- 12 with Caster and Pollux. I ordinarily do not
- disclose who my clients are. I'm here today
- 14 to represent the dog and cat, though. That's
- 15 it.
- MS. JAMES: Okay. Okay. Well, my
- 17 question was actually more directed on the
- organics, so I'll ask you at a break.
- 19 MR. ALDRICH: Yes. Thank you.
- 20 MR. DELGADO: Next, Kristy Korb,
- 21 followed by Dennis Kihlstadius. Kristy?
- 22 Gwen?

1 MS. WYARD: Kristy couldn't make 2 it to the meeting today, so I'm going to take 3 her place. 4 Gwendolyn Wyard. I'm a processing 5 reviewer technical specialist for Oregon Tilth. 7 I'll try to be brief. Thank you. I'm going to talk about the 8 9 material working group clarifications, give 10 you a personal perspective from Oregon Tilth, where we're at in this issue. 11 12 If possible, we encourage NOSB to 13 minimize regulatory changes, and clarify the definitions via quidance documents. 14 15 quidance documents that are circulated for public comment approved by the NOP and clearly 16 17 posted to the NOP Web site as official 18 quidance. The decision tree that was provided 19 in appendix C. We feel that that is a great 20 example of how this could be accomplished. 21 This was the original idea that 22 was submitted by Oregon Tilth in 2004.

that time we didn't suggest any regulatory

changes, but rather a flow chart accompanied

by a narrative.

With respect to agricultural and nonagricultural, there are two primary issues that we think can be clarified with minimal changes to the regulation. At this point we do feel that change to the definition of nonagricultural is necessary.

We support the concept that an agricultural product extends to any living organism that's raised, cultivated, or gathered by humans, for human or livestock consumption, and we find that the NOP definitions of crop, livestock, and wild harvest cover the spectrum from itty bitty little creatures to large creatures living in soil, air, or water. So this concept, we feel, is captured by the nonagricultural definition A.

21 And then whether or not living 22 organisms can be certified depends on whether appropriate standards exist, so you first
determine whether it can be agricultural, and
then you ask whether it can be certified.

The second issue is at what point something stops being agricultural. In the context of OFPA, we do believe that the loss of agricultural identity is connected to the term synthetic, but it also aligns with the processing standards.

The OFPA definition of agricultural includes raw or processed. The term synthetic should not include the effects of normal food processing activities. In other words, the term synthetic should not be applied to an otherwise nonsynthetic substance that's formulated or manufactured by processing.

In this respect, there is no such thing as a synthetic agricultural product, but rather a processed agricultural product.

We also encourage the material working group and the board to persevere with

the NOSB documents of August 2005 and the NOP
recommended framework document of March of
2006 to clarify the definitions of synthetic
and nonsynthetic.

On the yeast front, we also would like to reiterate the message we have stood by for many years. Yeast are living organisms and their production relies primarily on agricultural material that is available in organic form.

Yeast may not be grown on a farm in the traditional sense, but yeast can be manufactured in accordance with the composition standards for processed organic product.

We recognize that there are agricultural and environmental implications, and we feel that these should be addressed by applying organic principles to yeast used in organic food.

In this respect, yeast should be eligible for organic certification, and

labeled as organic yeast.

11

12

13

14

15

16

17

18

19

20

21

22

2. While we strongly believe that the handling requirements in 205.270 provide 3 4 adequate standards, we accept that the larger 5 community may feel more comfortable if organic yeast guidelines are in place, and the 7 appropriate place to house such guidelines is in a guidance document, and we offer our 8 9 assistance in helping to create such 10 quidelines.

I have a background degree in fermentation science. I'm very familiar with raising yeast, and that is an area where Oregon Tilth and myself could assist the board.

In respect to lecithin, we do not support the removal of bleached or unbleached lecithin from the national list. We applaud the petition. We think it's excellent that somebody has petitioned to have it removed. That is the correct process.

However, we think that bleached

- lecithin should be listed on 606. It is
- 2 importantly available in organic form.
- Therefore, its listing as a nonagricultural
- 4 substance is no longer appropriate.

5

9

forms is premature with the stable market

availability. The supply is fragile. To date

there's one supplier for organic lecithin, and

Complete removal of one or all the

10 collect from our clients, the products offered

based on the information that we diligently

are in some cases still in testing phase, not

12 consistently available, or they are available

in a form that is not suitable.

So we ask that both forms, all

forms that are regulated under 21 CFR 184.1400

16 remain listed, and the commercial

availability, form, quality, and quantity left

18 to the discretion of accredited certifiers.

19 And then finally I just want to

20 point out a little nuance with the algaes that

were petitioned for 606. We understand that

they are not being recommended for addition.

1 I am aware that chlorella and 2. nonorganic chlorella is currently being used 3 in organic products. While they were 4 classified or they were referred to as being 5 photosynthesizing plants, they are being petitioned to 606, they also can be 7 categorized as a microorganism, and this is going to get back to the job of agricultural 8 9 and nonagricultural. We don't have a very 10 good TAP review on microorganisms, so while 11 they're not going to be added to 606, they 12 still can be allowed if somebody submits them 13 and points to the listing of microorganisms on 605. 14 We don't think that 15 microorganisms, when they are placed on 605, 16 were necessarily meant to extend onto certain 17 types of algaes, but it is covered under that 18 19 category. With respect to the certification 20 21 of algae, the one that was harvested from the

bottom of the Pacific Ocean, when we look at

22

- wild harvest practice standards, we are not sure how this could ever be certified.
- We really believe that items that

 go on the 606 standards should be -- should

 exist. We're not sure how contamination

 prevention could take place at the bottom of

 the Pacific Ocean, so that's just another
- 9 Thank you very much. And if I
 10 don't have any questions --

nuance to take into consideration.

- MR. DELGADO: Questions from the board?
- Moving on then, we have Dennis

 Kihlstadius, followed by Ron Gonsalves.
- MR. KIHLSTADIUS: Good afternoon.
- 16 Thank you.

8

- My name is Dennis Kihlstadius. I

 have a company called Produce Technical
- 19 Services in, of al places, Bemidji, Minnesota,
- and I work for different commodity groups on
- 21 ripening fruit.
- 22 If you sit on an airplane and tell

- somebody you work in ripening fruit, they laugh at you.
- So this is your traditional -- I'm 3 4 sure you've all done this, put some fruit in 5 a bag, have a ripening bowl, either a banana 6 or an apple, and I'm here to tell you to use 7 an apple, bang it, bruise it, it produces 10 8 times more ethylene than the apple does. 9 apple produces four times more ethylene than 10 the banana.

11 So -- and there used to be an old 12 rule that you always had to ripen bananas with 13 ethylene, and they will ripen on their own, but not consistently, and what the retailers 14 15 want -- I'm going to read you something out of a Post Harvest Technology of Horticulture 16 Crops, published by UC-Davis. It's kind of 17 the authority in ripening in the horticulture 18 19 for post harvest world, and ethylene, which is 20 C2H4.

The simplest of organic compounds affecting the physiology processes of plants

21

22

is a natural product of plant metabolish and
ti's produced by all tissues of higher plants
and by some microorganisms. As a plant
hormone, C2H4, ethylene, regulates many
aspects of growth, development, senescence,

and ripening.

And I just wanted for you to understand that. We have tried in many different ways to produce ripened fruit with let's say a bin of rotting apples or a bin of rotting pears. So it's very consistent, and you can't really do it, because when you're dealing with ripening, you're dealing with parts per million.

So what we found is we can produce this -- and I've read it said synthetically, but what you do is you can break down an ethyl gel and you can create water, carbon oxide, and ethylene. And the ethylene is taken in from the fruit. The fruit doesn't care where it comes from. The group of fruit needs ethylene to have starch-to-sugar conversion.

1 Without it, you will not have

sugar into the fruit, and I'm sure everyone

here has had a banana. You wanted it and you

ate it, and it was just pasty tasting. There

was really no flavor to it. It was a banana,

6 yes, but there was no flavor.

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

I can guarantee you that was a banana that was ripened at too high of a temperature, where the ethylene receptor site was shut down and it was not received into the banana to convert starch to sugar.

So the pear industry, what we found on the conventional side -- I've been working with the pear industry for over 12 years -- that we can take some of the pears that have high starch content, and instead of putting them into storage for two months and then selling them in the market, we can take them basically off the harvest line, put them in an ethylene process, send them to the retailer, and the consumer will have a good tasting pear. And I'm not asking them to put

- it in this bag and eat it in five days. I

 don't know what product you'd ever want that

 you can buy on Monday but you can't enjoy it

 until Friday or Saturday. That's just not the

 way it works.
- Avocados. I worked for the

 avocado industry for seven-and-a-half years,

 and ethylene is approved on avocados for

 organic.
- 10 Well, the recipe for pears is the
 11 same as avocados and it's the same as bananas.
 12 By recipe, I mean the process it would take to
 13 condition the pears with ethylene process.

I am just here to say that I think

what it will do is increase the use of organic

pears on the consumer level, because there is

a gap from the time of harvesting until the

time of going to market right now for organic

pears.

20 We have proven it with the Anjou 21 pear on the conventional side. We can 22 actually go to market roughly five to six weeks sooner than we could in the past. And that just means that the consumer can have a pear, you know, that's usable.

of the world, and during that time, that gap, the offshore pears that would come into the United States during that time, it takes 21 days to get here, first, but they've been off the tree roughly for about four months anyway. So there is no place that we can source pears around the world in the beginning of our season because it's already done in the other season. It's almost six-month reversals of seasons for pears around the world.

So I'm asking that you take a serious look at this. It is used on other products already, organic products, and I think it would be very good for the pear industry.

I have no economic incentive,
whether you approve it or not. I don't get
paid whether one retailer goes on this program

1 I'm just here to educate and to bring or not. 2 up, you know, the points that -- or answer 3 questions that you might have about this. MR. DELGADO: Questions 4 5 board? Gerry. 6 MR. DAVIS: Could you speak to the 7 comment that we received that they referred to the degreening of citrus using ethylene and 8 9 the effect it had on imported fruit coming in 10 often in unripe status, and then used to color 11 up with ethylene, but it's not flavorful. 12 Would that exist at all in the pear realm, 13 coming from other northern hemisphere sources? MR. KIHLSTADIUS: 14 It's very 15 interesting. When you talk about degreening of citrus or the degreening of pineapple, once 16

strictly appearance.

And to me, it's kind of the old

shell game. You're just painting it a

you cannot make them taste any better.

different color. You're not going to do

17

18

22

you pick citrus and once you pick pineapple,

anything for the flavor of it.

On a pear, you can actually affect
the flavor of it. But as I said, during that
time of the season, when we would really like
this to be used -- we don't use it through a
whole season.

On the conventional side, we will stop adding ethylene to the pears probably about February, maybe even April, and that's because the starch in the fruit is pretty well used up, so there's not a real economic gain in the fruit.

And I'm here to tell you if you can store pears -- I don't care what it is, if you can store any fruit for 12 months, your flavor life may be only 10 months. That last end of any fruit, I don't care what it is, it's just not going to have the flavor that it does in the beginning.

The fruit has vigor in it and has life, and if you can give that pear or that banana or that apple -- even apples use

- ethylene to convert starch to sugar. If you can give to the beginning, you have a better tasting piece of fruit.
- 4 So to answer your question, no, 5 there's really nothing in -- when I hear --6 sit in in grocery stores or I talk to people 7 at grocery stores and they talk about ripening this or how do I tell the pineapple, and 8 9 they're pulling a leaf on it, that means the 10 leaf is loose. That pineapple isn't going to 11 get any better, you know, once it's sitting 12 there.
- So you cannot make it better.

 It's just the degreening. Now you use

 probably five to seven parts per million to

 degree citrus. We use 100 parts per billion

 to ripen pears or bananas or mangoes, papaya.
- MR. DAVIS: So it's not an applesto-apples comparison, to compare degreeing

 citrus --
- 21 MR. KIHLSTADIUS: Exactly.
- 22 Exactly. It's a whole separate process.

1	MR. DAVIS: to pears.
2	MR. KIHLSTADIUS: It's ethylene
3	is used to green tobacco. I mean it's on that
4	same principle. You're degreening the
5	chlorophyl.
6	MR. DAVIS: Thank you.
7	MR. KIHLSTADIUS: You're welcome.
8	MR. DELGADO: Any other comments,
9	questions? Well, thank you very much.
10	MR. KIHLSTADIUS: Thank you.
11	MR. DELGADO: Next is Ron
12	Gonsalves, followed by Deborah Carter.
13	MR. GONSALVES: Good afternoon.
14	As a representative of the organic pear
15	growers, I'd like to thank the organic
16	standards board for the opportunity to speak
17	today in support of the petition to allow the
18	use of ethylene for post-harvest ripening of
19	organic pears.
20	My name is Ron Gonsalves. I'm the
21	president of Bluebird, a Peshastin, Washington
22	tree fruit packing co-op, a grower's co-op of

- over 200 growers celebrating our 95th anniversary.
- Bluebird's historical reputation

 has been that of a dynamic leader of the

 Pacific Northwest pear industry, currently

 packing and shipping approximately 7 percent

 of the Northwest total pear crop.

Many of Bluebird's growers are

second- and third-generation pear and apple

growers. Bluebird growers are located

throughout the state of Washington, harvesting

multiple varieties of pears, apples, cherries,

and apricots.

14

15

16

17

18

19

20

21

22

Within that varietal tree fruit mix, Bluebird growers follow conventional as well as organic practices.

The Bluebird co-op is also unique in that in addition to its member-growers, the co-op owns and operates over 750 acres of orchard, with half of that acreage in certified organic production.

Bluebird packs and ships fruit

- from 51 certified organic tree fruit growers, of which 18 growers farm organic winter and
- 3 summer pears.

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

I'm trying to set the stage here
as far as our involvement in the tree fruit
industry, especially the pear industry.

Bluebird has been involved in packing certified organic pears and apples for over 20 years at our dedicated organic packing facility located in Wenatchee, Washington.

Bluebird's board of directors has invested considerable capital to provide for its growers a dedicated organic packing facility that has helped to position its growers for success in a very fast and expanding organic tree fruit market.

Our dedicated facility also helps to assure that the retailer and ultimately the consumer, that their organic purchase has been packed and handled following strict adherence to both WSDA organic standards as well as national retail fruit safety requirements.

1 During the past 12 years, the 2. Pacific Northwest has seen significant increases in the organic pear production with 3 4 Bluebird being an industry leader. 5 With the current 2008 crop that 6 has just been finished harvesting, Bluebird 7 will pack approximately 10 million pounds of organic pears. This will represent roughly 20 8 9 percent of the total Northwest organic pear 10 production. 11 The consumer demand for 12 conventional winter pears has seen significant 13 increases over the past five years, with all major U.S. retailers committing more retail 14 15 shelf space to all pear varieties. One of the reasons for the 16 increased consumption of winter pears has been 17 directly attributed to the increased use of 18 19 ethylene for conditioning. 20 The actual ethylene treatment is 21 being done by the pear packer prior to the shipments on on-site ripening rooms and 22

affordable ripening trailers for following delivery by the retailer at their regional distribution centers.

In-store consumer testing conducted by the Pear Bureau of the Northwest at major retail stores across the country has found that pears ripened by the use of ethylene takes the guesswork out of as to whether a pear is ripe.

For example, when most produce ripens, it changes colors and textures.

Pears, on the other hand, do not significantly change color, therefore making it more confusing to the average consumer as to when the best time to eat a pear might be.

Consumers have expressed an enhanced eating experience when they try pears that have been conditioned with ethylene and are more inclined to repeat the purchase of all pears.

Additional research has shown that pears harvested from different orchard

- locations throughout the Northwest do not ripen evenly under normal cold storage.
- The diversity of the large

 geographic growing regions in the Northwest

 makes it impossible for all winter pears to be

 harvested in exactly the same maturity and

 storage quality.

8

9

10

11

12

13

14

15

16

17

Ethylene conditioning affects the ripening process without altering or changing the natural inherent aspects of the fruit, such as texture, aroma, or flavor.

a more uniform ripening of the pear. It also increases the rate of ripening, thus resulting in a more consistent pear to be offered to the consumer sooner each year following the completion of harvest.

Organic production of the

Northwest is increasing not only with

traditional varieties, such as the Anjou and

Bartlett pears, but also with new varieties

such as the Concord and Comice pear.

1 While the conventional pear 2. growers have seen benefits with the increased use of ethylene for conditioning pears, not 3 4 having this tool available for organic growers 5 and shippers can put them at a disadvantage in 6 today's marketplace. 7 As more acreage is transitioned into organic farming, the increased production 8 9 will also be at a disadvantage in the future. 10 The benefits that the conventional 11 pear growers have experienced and that the 12 consumer has expressed should also be 13 available to the organic growers and the consumer of all pears. 14 This board has heard and read the 15 petition to use ethylene for ripening organic 16 17 pears presented by the Northwest Council and

The petition speaks of the scientific considerations and specifically references that ethylene is currently approved for ripening of organic tropical fruits,

the Pear Bureau of the Northwest.

18

19

20

21

22

- organic bananas, and organic citrus in the U.S.
- The petition further states that

 4 ethylene is consistent with the principles of

 5 organic production and is widely accepted in

 6 other countries and by other governing bodies.

As a representative of the organic

pear growers of the Pacific Northwest, I would

like to ask that the National Organic

Standards Board consider this petition and

support the use of ethylene on organic pears.

I strongly believe that the ethylene would be an important tool for the organic pear growers in a very competitive produce arena.

I also believe that the consumer would be provided a better product when they purchase organic pears that have been conditioned with ethylene.

- MR. DELGADO: Your time is up.
- 21 Can you wrap up?

12

13

14

15

16

17

18

19

MR. GONSALVES: I'm finished.

1	MR. DELGADO: Thank you.
2	MS. HALL: So I live in Spokane.
3	MR. GONSALVES: Yes.
4	MS. HALL: And there is an organic
5	pear grower just north of me, very well known
6	throughout the state, smaller, but sells
7	direct at farmers markets, and I have
8	consistently bought from that farm and enjoyed
9	it.
10	I have never really had issues
11	even buying in I mean what I consider bulk on
12	a personal level with uneven ripening to a
13	large degree, and I'm just curious if there is
14	an issue of scale, if it's different for a
15	smaller producer versus large in how you
16	harvest that has some implication on that
17	uneven ripening?
18	I mean I know pears are really
19	fragile, so I'm just curious how that measures
20	up.
21	MR. GONSALVES: Well, I think on a
22	scale basis, you know, there obviously is a

scale issue there because of the amount of

pears that are truly grown in the Northwest,

and we can't diminish the fact that that

volume of pears is actually being grown.

And so in our harvesting procedures, we actually are looking at a pear that is being harvested to being marketed over a six- to seven-month period.

So as we get into the volumes that we currently have, as well as additional volumes that are being transitioned into pears, I don't think it's strictly just an issue of scope or how large this industry has become, is the fact that we are here now. We are here with significant volumes of organic pears, and I think the consideration needs to be given of how best to deliver that pear to the consumer and ultimately enhance that eating experience.

As it's been said earlier, the use of ethylene has been certified for other produce. If you buy organic bananas, it is

more than likely that your organic bananas
that you may feed your children are being
ripened by ethylene as well.

here petitioning the fact that this is something new that we want to use just on pears, but the actual reality is that we do have large volumes of pears coming out of the Northwest, a large volume of organic pears, and I have seen what the research as far as the conventional pears that the consumer has benefited by that -- by the volume of the pears that are currently available to them on a conventional level that have been ripened by ethylene.

MS. HALL: But it is fundamentally about holding time and extending the season?

MR. GONSALVES: No, not strictly, because the biggest -- the use of ethylene would be more on the front end of the season as opposed to the tail end of the season. As

Dennis said, there comes a point late in the

season where ethylene is not needed.

2.

The primary benefit of ethylene is to get pears to the market sooner because as the biggest pear variety, be it Anjou pears -- not sooner in the sense of it being harvested sooner, but all pears, all Anjou pears are -- their natural quality issue needs to remain in storage, an Anjou pear needs to remain in storage from 30 to 45 days after harvest before it will trigger maturity to ripen.

So the Northwest is confronted with the fact that the Anjou pear being the primary organic pear, to hold that pear in storage for that period of time, 30 to 45 days.

We have seen increased demand by the consumer to get Anjou pears on the market, into the market, sooner each year as they become available.

So the grower that you made reference of, you know, as small as he may be or as big as he may be, he may have advantages

with his harvesting that is unique to him and 1 2 is unique to his specific marketplace. 3 he's potentially selling pears early into the 4 season that may or may not be properly 5 ripened, or may not be in a position to be 6 properly ripened. 7 Any other questions, MR. DELGADO: 8 comments? Tracy. 9 MS. MIEDEMA: I have another 10 question. If you have an organic pear and you 11 put it in the paper bag and five days later 12 you took it out of the bag, and you have 13 another organic pear, and you put ethylene around it and it ripened in -- I don't know 14 what the duration is, like 24 hours? 15 MR. GONSALVES: It takes about a 16 three-day period to ripen. 17 18 MS. MIEDEMA: Okay. So after 19 three days, I'd have the ethylene-ripened pear 20 and the paper bag-ripened pear, both organic, 21 and if I sent them to a lab for analysis, would the scientist be able to tell the 22

difference in some sort of chemical change to
the artificially ethylene versus the good old
home paper bag pear?

MR. GONSALVES: Well, what you're ripening that pear with in that paper bag is ethylene. You're ripening it with ethylene that the pear is actually producing in a small confined environment. It's not being — it's not ripened because it's in a paper bag and it's dark; it's ripened because the pear is giving off ethylene and you're trapping that ethylene into that small container, which is your paper bag. And so the ethylene that you are ripening in that paper bag is very similar to the ethylene that we would use on a large scale to ripen a whole trailer of pears.

The advantage you would have is that you as a consumer would be able to go to the marketplace and, as Dennis said, you can purchase a preripened pear on Monday and take it home and eat it that evening.

On the nonconditioned pear you may

purchase on Monday and take it home and be able to eat it on Friday.

consumer having the basic knowledge about a ripened pear and five or six other consumers who don't have that background as far as ripening a pear. You may take that pear home and put it in a bag and have an enjoyable eating experience, whereas the average consumer may take that pear home and try to eat it in the current state that it's in and may not enjoy it as much as they would if that pear had been conditioned.

MS. MIEDEMA: Okay. And specifically to my question, I realize it's the ethylene trapped in the bag that's making it ripen. What I'm trying to get at is from an organic consumer's perspective, am I eating a different fruit? You know, our concern is going to be something around -- you know -- MR. GONSALVES: Is there good

ethylene and bad ethylene?

1 MS. MIEDEMA: Specifically to the 2. question would a chemist look at those two 3 pieces of fruit and tell -- could they tell 4 the difference? 5 MR. GONSALVES: That would be more for the chemist to answer that question, but 7 it is my understanding that ethylene is ethylene, regardless of how it is produced. 8 9 The molecular structure of ethylene is the 10 same whether or not it's given out by produce 11 or it's generated from ethanol, from cornbased ethanol, which is also a source of 12 13 ethylene. So there are multiple sources of ethylene that can be used for the 14 15 conditioning. So ethylene is ethylene in the 16 17 sense of where the source may come from is the question in hand is whether or not that's 18

So ethylene is ethylene in the sense of where the source may come from is the question in hand is whether or not that's certifiable, but the ethylene itself, whether you trap it in a bag that's being produced by the pear itself, or that it's been produced off site somewhere, and used in a commercial

19

20

21

22

- scale, that ethylene is still the same ethylene.
- 3 MR. DELGADO: Jerry.
- 4 MR. DAVIS: I'd like to ask you
- 5 within your production system, are you using -
- 6 what form of starting material are you using
- 7 to make the ethylene? Is it corn-based
- 8 ethanol or is it something different?
- 9 MR. GONSALVES: The ethylene that
- 10 we use on our conventional pears today is from
- an ethanol-based corn that we use in our
- catalytic generators that then produces the
- vapor that allows the chamber to be
- 14 conditioned.
- 15 MR. DAVIS: But it is starting as
- 16 ethanol, not some other method of doing it?
- 17 MR. GONSALVES: Yes, that's
- 18 exactly right.
- 19 MR. DAVIS: How common is that
- with your competitors? Is that the same
- 21 generally or --
- 22 MR. GONSALVES: Yes, I would say

1 that on the conventional pears, using that as 2 the gauge, that the source of ethylene is 3 pretty much a one-dimensional source, and 4 everybody uses that same source 5 conventionally. So I would imagine that would 6 just carry over into the organic arena. 7 MR. DAVIS: Okay. 8 MR. DELGADO: Any other questions? 9 Well, yes, now you MR. MOYER: 10 bring that up, Gerry, it brings to mind the 11 question are there any other materials that 12 outgas or are generated along with the ethanol 13 that would not happen from the ethanol that's given off by the pear itself? Because you're 14 15 using ethanol, which is something totally different. 16 17 MR. GONSALVES: No, no, no, we're 18 not using ethanol. We're using ethanol as a 19 source of ethylene, so there's a process that 20 the ethanol is converted through a chemical reaction, the ethanol is converted into 21

22

ethylene.

1	MR. MOYER: I understand that, but
2	along with that process, what else moves with
3	it?
4	MR. GONSALVES: We don't convert
5	it on site. We actually purchase containers
6	that are 100 percent ethylene that we use for
7	ripening. So we're not converting it from
8	ethanol. On site. We're purchasing a product
9	that's
10	MR. DAVIS: I think maybe we might
11	want to ask Mr. Kihlstadius that question.
12	MS. CARTER: I'm a chemist, and I
13	might be able to answer that.
14	MR. DELGADO: You're a chemist?
15	MS. CARTER: Yes, I'm a chemist,
16	and I probably can answer your question for
17	you.
18	MR. DELGADO: Would you state your
19	name, please.
20	MS. CARTER: Yes. I'm Deborah
21	Carter with Northwest Horticultural Council in
22	Yakima, Washington. I am the next speaker.

1	MR. DELGADO: Why don't you get
2	started?
3	MR. GONSALVES: Have you got any
4	other additional questions?
5	MS. CARTER: Sure.
6	MR. DELGADO: And go on with your
7	presentation, and we might come up with a
8	question for you.
9	MS. CARTER: Okay. The first
10	question, though, that was asked was about
11	whether ethylene generated by fruit is the
12	same as ethylene generated by any other
13	process, whether it be a cogenerator or the
14	fruit sees it as C2HR, so it sees it as
15	ethylene rather no matter how it's
16	generated, that's how the fruit sees it.
17	And if you would take it to a lab
18	and you had cut a piece of organic fruit up
19	and you cut a conventional piece of fruit up,
20	both of them would be C2H4. Both of them
21	would be ethylene.
22	Now as far as the catalytic

1	generator is concerned, that was another
2	question, the way that operates is that the
3	ethanol that is produced comes from non-GMO
4	corn, and so the ethanol is non-GMO derived,
5	and what it is, it's put into a box which has
6	a zeolite has zeolite laying in the bottom
7	of the box. The ethanol is sent into the box,
8	and the temperature is raised, and what
9	happens is that when the temperature is
10	raised, CO2 and water is given off, and
11	ethylene is produced.
12	And so what happens is the
13	zeolite, or the zeolite that's in the bottom
14	of the containers, picks up the water and
1,5	picks up the CO2 and leaves the ethylene.
16	MR. DELGADO: Any questions?
17	Steve.
18	MR. DeMURI: The TAP reports that
19	were submitted to us indicated there are other
20	methods of manufacture for that?
21	MS. CARTER: That's correct.
22	MR. DeMURI: Like crude oil. Do

- 1 you use any of those methods?
- MS. CARTER: Not that I know of in
- 3 our industry. I do know that in the banana
- 4 industry, they do use those other methods, but
- 5 Ron is right, in our industry, most people use
- 6 what's called the epogen for conventional
- 7 ethylene production, and that's for the
- 8 ethanol process.
- 9 I don't know, maybe there's
- somebody out there in a small company who's
- doing it, but most of the ones in the Pacific
- 12 Northwest do use that process.
- 13 MR. DAVIS: So just to clarify, in
- 14 the actual storages where the pears are
- 15 stored, are most growers purchasing ethylene
- 16 made from that process, or they actually have
- 17 converters in the storage that are doing it on
- 18 site?
- MS. CARTER: Most people have
- 20 converters. Most of the producers in our area
- 21 use the converters, ethanol --
- MR. GONSALVES: No, no, but the

- 1 converter is to convert the liquid ethylene
- 2 into a vapor process that releases the
- 3 ethylene.
- 4 MR. DAVIS: Most growers are
- 5 starting with ethanol.
- 6 MS. CARTER: Yes.
- 7 MR. DAVIS: Putting it in the
- 8 converter on site at the farm.
- 9 MS. CARTER: Yes.
- MR. DAVIS: Storage area. Okay.
- 11 MR. GONSALVES: Yes. So she's
- 12 clarifying that technical point that I'm not
- as clear on as far as that.
- MR. DELGADO: Kevin.
- MR. ENGELBERT: Ron, I had trouble
- 16 with your statement that the use of ethanol is
- 17 compatible with organic agriculture. Most
- 18 consumers walk into a store and purchase a
- 19 pear, an organic pear, under the assumption
- that there's a minimum amount of any type of
- 21 treatment or processing from the time the pear
- is grown, harvested, and put on that shelf.

1 How can you explain the reasoning behind the 2 statement?

3 MR. GONSALVES: Well, again, as Dennis said, and as well as Deborah mentioned, 4 5 all pears are ripened by ethanol -- by 6 ethylene. All pears are ripened by ethylene, 7 whether that pear produces it itself or whether we trigger that process by putting it 8 9 in an environment with ethylene generated 10 creating more of an environment for ethylene.

11

12

13

14

15

16

17

18

19

20

21

22

So all pears are producing, all apples are producing its own ethylene for a natural ripening process. And so when I say it's -- it follows that standard is that ethylene is ethylene, as Deborah said, and whether that pear is producing that ethylene and being trapped in a paper bag, or whether we're producing that ethylene in ripening a greater volume of pears, triggering its natural production of ethylene, because it's all a trigger response, and Dennis could probably talk about that more specifically.

1	But the ethylene is triggering the
2	receptors within that pear to begin the
3	ripening process.

So as that pear stays in storage for that 30 to 40-day period, it's those receptors that are maturing during that period of time that then will then start producing its own ethylene.

What we are saying is that we would like to be in an environment where we can trigger those receptors sooner to allow that ripening to take place earlier in the season so that we can then market organic pears sooner to the consumer, as opposed to having to wait that 30 to 45-day period in regular cold storage.

MR. DELGADO: Any other questions?

MR. DAVIS: I have one.

MR. DELGADO: Gerry.

MR. DAVIS: Pears that are ripened without the use of ethylene for that 30 to 45-day period, their eventual storage ability,

the length of time they will stay in storage, 1 2. can you comment to, either one of you, on does the nonethylene -- does it start the clock to 3 4 where they store the same amount of time 5 either way, you just have a more limited 6 marketing period? That's the question. 7 MR. GONSALVES: There's two ways 8 that we obviously store pears. One is just 9 cold storage, cold treatment, whereas we're 10 putting that pear in a 30-degree environment,

we store pears at 30 degrees, 30 to 32

degrees, but primarily 30 degrees.

11

12

13

14

15

16

17

18

19

20

21

22

That temperature is one way we store pears. The other way we store pears, organic, conventional, whatever, is under controlled atmosphere, where you're all familiar with controlled atmosphere, where we take the oxygen out of the environment and we store the pears at a reduced level of oxygen.

So pears have a certain shelf life is what I think you're getting to, is how we actually store the pear at the beginning of

1 the season.

So when we say we hold that pear

for 30 to 45 days, that pear is in cold

storage basically going through its maturation

that it does in normal storage.

Once we begin to pack that pear, then those receptors are more mature and they begin to develop ethylene themselves.

When you break that cold chain is when that ethylene may or may not be triggered in a more rapid way in the sense of that pear ripening a lot faster than if you maintain the cold chain and keep that pear under cold storage.

You can maintain the quality of a pear for about 90 days under just cold storage. Under CA conditions you can probably hold a pear up to seven months.

So, again, how we store and where the cold chain is broken is really when those receptors start to trigger the ripening process. But they have to sit in the 30 to

45-day period just to allow those receptors to mature and that pear be put in position to mature.

If I could just make one quick comment just briefly on pear and apple production.

We can't turn back the clock as far as the amount of pears and apples that are being produced. The Northwest currently is looking at the largest organic apple crop ever produced, and we are looking at large increases on the pear volumes as well.

As we go forward with these productions, we need to keep pace with what is going to allow us to market, to make these products available to the consumer. We have to keep pace to allow that the quality as well as the "eatability" to be marketed to the consumer. Because at the end of each season over the last five years, we run out of pears. The demand for organic pears exceeds the supply that we're currently under. So as more

- and more pears become transitioned, is the sole benefit of sustaining the demand that exists currently as we go forward.
- And so we need to maintain these
 tools that are going to allow us to market a
 quality pear to the consumer.
- MR. DELGADO: Okay. We have to
 move on. Deborah, would you like to go ahead?
 Thank you, Ron.
- 10 MS. CARTER: As I mentioned, my
 11 name is Deborah Carter with Northwest
 12 Horticultural Council.
- 13 On behalf of the organic pear

 14 industry of the West Coast I would like to

 15 thank you for the opportunity to speak in

 16 support of the petition to allow the use of

 17 ethylene on post-harvest ripening pears.

The Northwest Horticultural

Council represents the pear grower and

shippers of Idaho, Oregon, and Washington on

technical matters, national and international

policy issues, trade and food safety concerns.

The California Pear Advisory Board 1 2. has also allowed me to speak on their behalf. 3 Oregon and Washington produce 84 percent of the pear crop produced in the 5 United States, and if we add California to that, 98 percent of the U.S. pear crop is 7 produced on the West Coast, and so I am representing 98 percent of the pear crop 8 9 produced in the United States. 10 California, Oregon, and Washington 11 have about 2,000 organic pear acres, and there are another 700 acres in transition to 12 13 organic. In 2007, 2008, these states 14 15 produced about 17,000 tons of marketable 16 organic pears. The average pear farm is less 17 than 20 acres. 18 Like tomatoes, avocados, and 19 bananas, pears are climacteric, and that means 20 that there is a marked respiration that 21 accompanies the onset of ripening, so that's the conversion of starch to sugar. 22

Both the ripening and the increase
of climacteric respiration are triggered by
endogenous production of ethylene, which is a
natural plant hormone, which is what one of
the questions was about earlier.

Pears are harvested at a mature but not a ripe stage, which is very different from degreening pineapple and also degreening citrus.

If left on the trees, pears tend to soften from the inside out, so the center will become mushy by the time the outside flesh is ready.

A mature pear ready for harvest is fully formed but still hard. It can require up to two months of cold storage, depending on the variety, to complete the physiological changes that drive the ripening process.

This is particularly true for pear varieties, our winter pear varieties, and that's basically everything of the Barlett cultivar.

1 Both ripening and respiration 2. processes are stimulated to occur by an 3 exogenous application of ethylene, and sources of ethylene do vary. But no matter the 5 source, whether natural or external, the pear interacts with the molecule of ethylene as 7 C2H4. 8 Externally applied ethylene set at 9 about 100 parts per million triggers the pear 10 to start producing its own ethylene. 11 what's ripening the pear is the pear's own 12 ethylene. What we add to it only triggers the 13 pear to start to produce its own.

14

15

16

17

18

19

20

21

22

Now some may suggest that ethylene is not compatible with organic certification, but as we look at ethylene in the organic scheme, we see that the use of ethylene is consistent with organic practices.

The NOSB's definition states that organic agriculture promotes and enhances biologic cycles, and on a molecular scale this is exactly what ethylene does when it triggers

1 the ripening process in a pear.

2.

In fact, this board has already approved the use of ethylene for degreening organic pineapple, bananas, citrus, as already discussed.

Exogenously applied ethylene
causes no adverse effect on the fruit's
biological processes. Research has indicated,
and it's been reported in our petition, that
although exogenous ethylene may be introduced,
the fruit has an internal self-limiting step
which inhibits too much ethylene from being
produced.

Now this is important. Exogenous ethylene is simply the trigger for the fruit to do what it does naturally. Exogenously applied ethylene does not physiologically alter the ripening process which is consistent with organic production.

You may ask why we need ethylene.

We know that increased volumes, as Ron

mentioned, it allows producers to reach out to

a broader organic consumer. We all know that

consumer demands for organic products are

growing, and it's grown probably 20 percent

per year over the last 10 years.

5

6

7

8

9

10

20

is up.

- We know that researchers in Oregon

 State University have developed a plan to ship

 pears which are delivered to the market can be

 ripened to eating quality in about five days,

 and maintain a normal shelf life, eliminating

 the consumer guesswork.
- But this process is best obtained
 using exogenously applied ethylene. If
 ethylene could be used for organic pears, this
 same process could be implemented providing
 the organic consumer a better quality product
 with no guesswork.
- 17 And this process also helps the 18 retailer to better manage his stock.
- MR. DELGADO: Deborah, your time
- 21 MS. CARTER: Thank you very much.
- 22 MR. DELGADO: Any questions from

1 the board? Okay. Thank you very much. Next 2. is Brian Kozisek. After Brian, we have Maury 3 Johnson. Hello. 4 MR. KOZISEK: I'm Brian 5 Kozisek with the Organic Crop Improvement Association. 7 We certify approximately 100 8 grower groups and I'm here to speak a little 9 bit on grower certification. One of the key 10 ideas behind grower certification is that a 11 group operates as a single unit, even though 12 it's made up of discrete individual production 13 units. They agree with the stated 14 15 prerequisites and the organizational requirements with a strong emphasis on 16 17 geographic proximity for the individual units. While there is strong evidence 18 19 that supports the use of the square root group 20 size for sampling, we feel that using the 21 square of principle is not effective for

groups larger than 100.

22

1 One of the reasons is that sample 2 size for inspections can be an effective tool 3 to manage groups that have a struggling internal control system and other issues that 5 contribute to higher risk. Increasing sample for the 7 inspections based on risk gives a greater assurance that the organic integrity is 8 9 maintained, but also has the residual effect 10 of placing economic pressures on the group 11 that encourages ICS development and 12 functioning. 13 For well-managed groups with good ICS, reduced external inspections should 14 contribute to the financial success of the 15 individual operators. 16 We feel that for these reasons 17 that the lower limit for required sample size 18 19 be no less than 15 percent, with no 20 established upper limit. 21 This would be set at the discretion of the certifier. In practice, OCA 22

typically uses 20 percent as the size of the
sample for even established groups, with the
idea that all members will have been inspected
at least once in a five-year period.

We feel that a good compromise with the minority opinion is to have all new entrants be inspected but to also include this in the count towards the total for the sample size.

It is our belief that a responsible certifier will consider the number of new entrants into a grower group and adjust the risk evaluation for a higher sampling rate as needed.

The use of subunits may be a tool to manage large group size, but it must not be a subunit in name only. The recommendation should establish a maximum size for a subunit and firm criteria, rather than relying on the certifier to establish this.

As a tool for training by the certifier, we recommend that a minimum of

1 three of the inspections conducted by a new 2. internal control staff be witnessed by the external inspector in the form of witness 3 This way they identify 5 inconsistencies and also serve as a training 6 tool for the ICS. 7 Any questions? MR. DELGADO: Questions from the 8 9 board? 10 MR. KOZISEK: Okay, thank you. 11 Thank you very much. MR. DELGADO: 12 Moving on, we have Maury Johnson, followed by 13 Matthew Johnson. MR. HOWARD: I'm Luke Howard. 14 15 here as a representative for Maury from Blue River Hybrids. 16 17 Blue River Hybrids is an organic 18 seed company that produces corn and soybeans, 19 organic corn and soybeans, a little bit of red 20 clover, and a little bit of alfalfa. 21 we are here to comment on your further 22 guidance on commercial availability of organic

1 seed.

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

We want to thank you for your

continuing to discuss the important issues of

organic seed and organic crop production under

the NOP.

There are several comments and points that we would like to make regarding this document.

The first one. Although it is true that for certain species, the supply of organic seed is limited or nonexistent, it should be recognized and noted that some species -- for instance, field corn -- is sufficiently available, and only about 60 to 65 percent of organic corn acres today are planted with organic field corn seeds.

Supplies are available to plant a higher percentage, and if growers used organic rather than conventional seed, that would be available.

21 Companies and individuals
22 providing conventional seed to the organic

market often have a significant financial incentive to continue marketing conventional rather than organic seed.

Conventional seed is cheaper to produce and involves less risk, and can be sold to the organic marketplace at a lower price and a better profit margin than organic seed.

Point number three. The document correctly notes that there have been issues of substandard organic seed. A first step to correct this problem would be to emphasize that the organic seed must comply with all Federal and state seed laws, especially when it comes to labeling.

We appreciate that the Joint

Committee members recognize in the document

that the conventional seed business is moving

in the direction of biotechnology, and that it

is of utmost importance for organic farmers to

recognize that by supporting the organic seed

suppliers and growers today, they will have a

better and more secure organic seed supply in
the future.

I really want to emphasize the point that there's no justifiable excuses for certifiers to accept not using organic seed. We appreciate the efforts of the NOSB Joint Committee to prepare this document and to consider the public comments that have been submitted on previous versions.

Because this topic has had such serious consideration by the NOSB and has been openly discussed at NOSB meetings, we have noticed that certifiers and growers are becoming more responsible in their consideration and decisions on their use and availability of organic seed.

I also want to switch hats a little bit and I have an organic farm on the eastern shore of Maryland, where we grow about 200 acres of grain and five acres of vegetables, fresh market vegetables, so we kind of do both things. And the name of that

farm is Homestead Farms. And my wife and I
own that.

I see two different issues. I see the row crops issue and I see the vegetables issue. And when it comes to row crops, and we talk about different varieties, one of the things you need to keep in mind is that when we speak of varieties in corn and soybeans, we talk about maturity length. And so we really can't compare Blue River XYZ hydbrid to Pioneer ABC hybrid because if they are in different maturity length -- if one is a 98 day and the other one is a 120 day, they really don't compare. But if they are in the same maturity length, then really they do compare.

So when I look at the seed issue,

So if one is a 110 day and one is a 112 day, they are a comparable hybrid.

The other thing to remember is

that in vegetables, a lot of things are done

in taste and texture and consumer driven. And

again, having the five acres of fresh market

- vegetables, I know that sometimes a consumer
 really wants a certain tomato, and if we can't
 find that organically, we really need to plant
 that tomato for our marketing aspect.
- So those are really two different issues that you need to evaluate as you look at this.
- Really, finding organic seed from

 a corn and soybean standpoint is not

 impossible and it's not even difficult today.

 And when we have competitors out there who are

 marketing conventional seed against some like

 a Blue River, it really discredits the

 situation.

Some of the field testing -- as a farmer, I want to say that some of the field testing that goes on to compare organic hybrids against conventional hybrids, I think is a little slanted to one side.

I've been on several farms where
they've planted an organic hybrid next to
their favorite conventional untreated hybrid,

- and they put that organic hybrid in the lowest spot in the field or the driest spot in the field to kind of weigh the results. And
- 4 that's a little frustrating.
- 5 As a grower, I try to do the right 6 thing.
- Another thing, the percent of seed
 used on a farm -- and as some of the
 discussions were going on earlier, I was
 thinking about my own farm and having just
 gone through inspection, and at the risk of my
 certifier being in the room, I don't want to
 get too deep into it, but --
- 14 (Laughter.)
- 15 -- the question was asked what

 16 percentage of organic seed do I use. Well,

 17 because we have 200 acres of organic field

 18 crops that are all organic seed and we have

 19 five acres of fresh market vegetables, it's an

 20 unfair weighted example.
- 21 And so I just caution you going 22 forward that you reevaluate that. I know you

1	want probably some sort of measurement tool,
2	but just be careful with that because it would
3	be easy for me to say, well, I plant 200 of my
4	205 acres organically. So just another point.
5	MR. DELGADO: Your time is up.
6	MR. HOWARD: Any questions?
7	MR. DELGADO: Any questions from
8	the board? That's it. Okay, Jim, followed by
9	Gerry.
10	MR. SMILLIE: Do you have any
11	other specific comments to make on the
12	recommendation itself? I really appreciated
13	all your comments, and you know, that's where
14	we are headed with this recommendation.
15	But I mean from your point of
16	view, like, for example, the database, the
17	two-way database, as a seed producer, is there
18	anything in this recommendation that you think
19	needs tweaking as far as your perspective?
20	MR. HOWARD: I'm glad you brought
21	up the database because I know there have been
22	some comments made in the written statements

1 that some farmers don't have access to

2 Internet. We do have electricity at my house

and we do have a computer, and we do have

4 access to Internet, and I have never used the

5 database.

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

Really, I don't see that as an important tool for me. Now if it helps 50 or 75 percent of the other farmers, then that's not saying it's a bad tool. But developing that database, I don't think should limit the enforcement of using organic seed. I see it as a tool and I feel like the excuse is being

MR. DELGADO: Gerry.

used as a crutch.

MR. DAVIS: So in the sample of your farm that uses all organic seed on 200 acres of grain, and on the 5 percent that is vegetables -- five acres, excuse me -- in your case what the recommendation is calling for is that we would ask your certifier to check with you on the five acres of vegetables to see if you are showing any improvement at all working

- towards more organic seed. Do you have an
 issue with that?
- MR. HOWARD: Yes. You know, as a

 producer we evaluate that every year, and I

 would say of the vegetable varieties -- I mean

 we all kind of know what a market garden is.

 You know, it's all these different varieties,

 and my wife kind of manages that, so I try not

to get too deep into choosing varieties.

9

17

18

19

20

21

22

10 But we know that there are dozens
11 of varieties, and I would say off the top of
12 my head, looking down the list of seeds we
13 bought this year, a third to 40 percent -- I
14 don't want to say 50 percent because I think
15 that's stretching it, but I would say over a
16 third are certified organic seeds.

And, you know, when we want to try something new, we try it on a very small scale, try to find it organically; if it's not available organically we then use it conventional and treat it. And hopefully with the seed suppliers that we have in place today

- 1 -- you know, they're pretty gung-ho at
- 2 producing organic seed, and that's really been
- 3 very helpful.
- 4 I would say five years ago or four
- 5 years ago, it was a different situation, but
- 6 today it's a much easier situation. Not
- 7 perfect, but much easier.
- 8 MR. DELGADO: Any other questions?
- 9 Thank you very much.
- MR. HOWARD: Thank you.
- MS. FRANCES: I just want to say
- one thing. Rick is actually signed up right
- now. He had himself, so you cut him off at
- 14 five minutes. I didn't know if you really
- 15 didn't have anything more to add, or just
- 16 wanted to say that he was on as a proxy as
- well as himself. So just to offer that.
- 18 MR. DELGADO: Next is Matt Dillon.
- 19 And I would like to point out for the board
- members, we are running extremely late. I
- 21 would like to move on as fast as possible. We
- do have a total of 27 speakers. We've got 10

- wait-listed there, and we might not have time to go to them, but, please, measure your
- 4 Please proceed, sir.

questions.

3

MR. DILLON: At first I had

comments today, but after this morning's

session when I heard such goodwill towards

organic seed by the committee, I felt the need

to amend my manifesto and maybe tone things

down a bit.

11 First, I want to thank the board
12 for their work, particularly the Joint and CAC
13 Committees. I also want to thank all the
14 folks here. This is my first time attending,
15 and your persistence is awe inspiring. It's
16 something.

17 While it's my first time here, I'm
18 not new to organics and I'm not new to seed.
19 My first organic crop was in 1982 at a
20 Benedictine monastery where I lived and went
21 to school in Elkhorn, Nebraska. I bring that
22 up because in '82, we didn't have NOSB

1	guidance, but the monks claimed we had divine
2	guidance
3	(Laughter.)
4	and as often as I keep hearing
5	about us bringing in the devil in the details,
6	I'm a little nervous about my loss of faith,
7	and I think I might need that.
8	(Laughter.)
9	I also as the director of an
10	heirloom seed nonprofit, Abundant Life Seed
11	Foundation and Organic Seed Catalogue, founder
12	and the current director of Advocacy for the
13	Organic Seed Alliance, which is an educational
14	research nonprofit that's published also
15	things like a guide for on-farm variety
16	trials, which might be very useful for some
17	farmers after the last comments.
18	I am currently also the policy
19	analyst for the Organic Seed Growers and Trade
20	Association on whose behalf I am here today.
21	You heard from Woody Dericks of
22	the Organic Seed Growers Trade Association

last in the spring, and I'm going to touch on some of his comments, but go further.

First let me say that OSGATA, as we call the Organic Seed Growers and Trade
Association, OSGATA develops, protects, and promotes the organic seed trade and its growers and assures that the organic community has access to excellent quality organic seed that's free of contaminants and adapted to the diverse needs of local organic agriculture.

Now we are a new organization starting in January 2009, but already very diverse with plant readers, seed producers, seed companies, and 47 members at present, a variety of scale from people like Blue River and Seeds of Change to people like Judy Owsowitz in Montana and Brian Campbell in Washington, who are seed producers but also fresh market producers, producing dozens -- Judy produces 78 different varieties of fresh market crops. So we are a diverse group.

Neal R. Gross and Co., Inc. 202-234-4433

So I first want to talk about the

reasons to use organic seed, and Joe did a 1 2. good job of that this morning, but I just want 3 to touch on it real quickly. There are three, as I see it. One is because it's the rule. 5 It's the NOP rule, and the producers need to 6 7 use the seed with some allowance, and also there's also the approved 2005 guidance 8 9 recommendations requiring full reporting of 10 allowances to use nonorganic seed. 11 Second, because of contamination. 12 By contamination I don't just mean transgenic, 13 I also mean chemical contamination. If you lived in my neck of the woods, where the vast 14 15 majority of the world's veg seed is produced, you would see the chemical contamination 16 occurring in our waterways, and I'm happy to 17 provide anybody with an Excel spreadsheet of 18 19 some very toxic chemicals that go into 20 conventional seed production. 21 There's also transgenic

contamination, and at present the seed we are

22

planting in our fields, particularly in corn,
is helping to contaminate organic food
products, both from the conventional seed and
also some of the organic seed companies are
releasing conventional lines are releasing
conventional and knowingly selling

7 contaminated seed. And there are no rules to

prevent that.

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

Third, really the most important reason is the benefit. And the benefit is multiple. It's a benefit primarily to organic producers. It's also a benefit to the markets, and it's really a benefit to the overall spirit of the organic rule and organic integrity.

Now that said, as an association we recognize the need for allowances to plant conventional untreated seed. We understand the folly of drop-dead deadlines, and do not support restricting usage to European style registry that would damage genetic diversity.

And obviously the organic seed

- 1 sector would not profit by growers losing their certification or leaving certification 2. altogether because of the rules. We want this 3 4 to work for one and all. 5 And as such, we are happy to hear 6 the recommendations, but we really think we 7 need to continue to work together on implementation. 8
- To the recommendations at hand:

 Enforcement. We support the recommendation of

 the committees that the NOP auditors better

 monitor the ACA's use of exemptions.

13 We also support reporting
14 percentage use but with some caveats that I
15 don't think I'll have time to get to, and we
16 do see that with that reporting of the ACAs,
17 it needs to be a full reporting of all
18 varieties for which there is an allowance.

Data collection. The database,

the two-way database is a great idea, it needs

to have crop variety and treat data, not just

variety name data.

1	Third, on the buyers of organic
2	products
3	MR. DELGADO: Your time is up.
4	MR. DILLON: The last minute went
5	fast. Questions?
6	MR. DELGADO: Questions? Yes,
7	Julie.
8	MS. WEISMAN: You went through
9	really quickly, and I appreciate why you did
10	that, because you were trying to get
11	everything in, but I just want to when you
12	were talking about transgenic contamination,
13	can you repeat more slowly the part that came
14	there's no rule for that? Can you repeat
15	slowly the
16	MR. DILLON: Well, there's
17	currently a rule on transgenic seed, correct,
18	biotech seed, that's currently in the rule.
19	A farmer, an organic farmer cannot plant
20	genetically modified transgenic seed.
21	However, it's being done. The way
22	it's being done is that our corn lines are

contaminated with transgenic. The

conventional lines that we're using to create

organic lines, as well as the conventional

seed that's being planted by organic farmers

who are not using the organic seed that Blue

River is producing.

And that seed then gets, you know, into the fields and into organic products. So the seed industry is helping contaminate organically.

Seed companies are not required to report to their customers that they don't test for contamination. Last year there was a sweet corn variety tested positive for contamination. One seed company came forward and reported that hybrid variety had been contaminated and pulled it. The other seed companies who bought from that producer did not.

So organic farmers planted contaminated organic sweet corn seed last year. There's nothing to stop that. Seed

1 companies are not required to reveal that, but 2 it's breaking the rule, and the farmers are 3 now planting transgenic seed. 4 We're going to be back here again. 5 I mean this exemption -- that regulatory piece 6 is one piece where there's been great effort 7 to move forward. I applaud that. And we need 8 to all work together to continue to work on 9 the regulatory piece. 10 But we need a seed task force 11 because there are so many complexities, as 12 Luke pointed out, crop-specific complexities, 13 technology complexities in producing hybrid seed, complexities of contamination. 14 15 And the seed issue is not going to

And the seed issue is not going to go away just with these recommendations. We went over it with the ACAs and the farmers to work on solutions together.

MR. DELGADO: Any other questions?

All right, Gerry.

16

17

18

MR. DAVIS: In the public
comments, it was brought up about foundation

1 seed and a request to be able to use treated 2. seed from foundation seed growers. Do you 3 have any comments on that? 4 MR. DILLON: I think that is a 5 slippery slope. I think it's pretty clear that is not allowed, again it's using 7 conventional seed and it's not supporting the 8 organic industry. 9 I think particularly in corn there 10 is plenty of public material in red lines 11 available. It's not an issue of availability 12 of germplasm, and so I see no reason for that 13 exemption. Any other questions? 14 15 MR. DELGADO: Any other questions? 16 Thank you all MR. DILLON: Okay. 17 for your work. MR. DELGADO: 18 Thank you. Next is 19 Marc Cool, followed by DeEtta Bilek. 20 MR. COOL: Hi, everybody. My name 21 is Marc Cool with Seasons Change of Santa Fe, New Mexico. I would like to thank the board 22

- and program for allowing us to continue to talk with the seed issue here.

I put a couple of comments on the

Web, on your site. You can read those and

talk a little bit more about some other things

here.

First of all, it was said today earlier by Joe why we need organic seed, and frankly, ditto. That's the whole story right there. So thanks, Joe, for that.

would like to say that I see it much more as shared gain. If there's more organic seed being used because of regulations and enforcements, that's going to drive the organic seed industry. They will produce more organic seed of specific varieties for growers who will be more successful in the enterprise, producing higher quality products for the end consumer, who then has confidence in the

1 organic business.

2.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

In my mind, that is a gain that 3 we are trying to push here from the beginning, the first link of the food chain, which is seed, indeed. So that's how I see it.

> The recommendation as put forth in my mind with one small exception is quite good, and I thank the two committees, Gerry and Joe, for doing that, with everyone that helped with that.

You clearly understand the issue, you describe it very well, you know all the pluses and minuses. You have heard all the stakeholders. We've had a number of meetings here. We've talked about this issue. have voted as two committees very often to support the recommendation. It's not yet passed the full NOSB board.

And on the one hand, it's a little disappointing because it's taken so much. the other hand, due process has been followed and public comment has been heard, and there's

been slight modifications made to the
recommendation to comply with all the requests
and needs of all the different stakeholders.

I believe we are there now, and I would strongly encourage the full board tomorrow to vote in favor of this current Joint Committee proposal.

One thing I would like to add is - I'm not sure if this is intentionally left
out or just purposely -- is that in the twoway reporting section, it talks about -- it no
longer talks about the requirements to report
derogations.

I feel that if there is on the OSP

a list of varieties which are being planted by

a grower which are not organic and there is

justification to the certifier in their

communication on why they are not using

organic varieties, I believe that information

should be written down and it should also be

passed to an organization or in some fashion

to NOP, and we could talk in detail about what

that is, but that opportunity list, as we've 1 2 called it often, is in my mind very important to show the organic industry what organic seed 3 varieties growers want, and therefore what we 5 need to do in our development or to achieve that. 6 7 So I'd like to ask if that reporting requirement of derogations could be 8 9 reincluded before you vote on that tomorrow. 10 There's a couple of comments that

There's a couple of comments that

have been made in the last couple of days I'd

like to I guess respond to.

One is about biodiversity in

organic. I very strongly -- in fact, in our

company biodiversity is part of our mission

statement. I very strongly want to encourage

biodiversity.

18

19

20

21

22

In fact, as I have explained last
May, a very important part of what I see as
the future organic seed industry is developing
organic specific varieties which use
biodiversity available from the past as a way

to bring genes back in that will allow plants

to be adapted to low input conditions and also

have end consumer trades that are very

valuable.

So biodiversity, in my mind, and organics actually go hand in hand, and they are not at all in conflict with each other.

A comment was made also that certification done by certifiers on farms in many cases is -- it's kind of scary, frankly, to say --- in many cases it's done on a basis of has process been followed versus has every single variety been looked at to determine if it's organic or not. That, frankly, is wrong. Every single input, as we all know, on an organic farm has to comply with organic standards, including every single variety.

That clearly, to me, is the current rule and the way it should happen.

People have said there's a large number of varieties available for farmers, and many farmers plant a large number of

1 varieties. Absolutely true.

It doesn't mean, however, it's

difficult for farmers to write down on their

OSP what varieties they use. Farmers know

exactly what varieties they use. They write

it down all the time. They know exactly what

they used last year, the year before, next

year, et cetera. Writing down what they are

using is not a big deal at all.

increased. Two years ago I commented to the board that less than 1 percent of fruit and vegetables organic farms were using organic seed. That's not somewhere up towards 5 and 6 percent. It's improving; it's doing better. But after six years, we can still do a lot better, in my opinion.

So I'd like to ask you to please vote in favor of this recommendation. What we will then do as a seed industry is work with program, work with ACAs, work with growers, work with yourselves to find a way to

- 1 accomplish the goals that you put forth, and 2 then you can move on in your deliberations onto a lot of other important issues. 3 4 So with that, thank you, and I 5 have a few questions. MR. DELGADO: 6 Joe. 7 MR. SMILLIE: Yes. Marc, the 8 section you're referring to on reporting of --9 I love that European word, derogations. 10 often get compared to the Europeans, and you 11 know, sometimes we don't realize that the role 12 of derogations in the European system is a 13 fairly interesting topic. But that's a different topic. 14 15 We are on 5(d) right now. Val, could you put that one up there for everyone, 16 on the CA document, 5(d). 17
- MS. FRANCES: Oh, okay.
- 19 MR. SMILLIE: And I've got to ask
- 20 help from Gerry and Jeff on this, because
- 21 basically what was said in the earlier
- 22 recommendation was maintain and submit upon

request to the National Organic Program crop 1 2. varieties permitted by each agency. We struck "crop varieties 3 4 permitted by each agency" and substituted 5 "maintain and submit upon request to the National Organic Program documentation of the 7 organic seed usage status current percent levels as compared to historic levels of usage 8 9 by acre of each certified operator." 10 MR. DAVIS: I'm taking your 11 question as concerning why don't we have a 12 specific reporting to the program on what all 13 these varieties are and so forth in there any Is that what you're saying? 14 I think what Marc is 15 MR. SMILLIE: after -- and correct me if I'm wrong, Marc --16 17 is like lots of -- well, what were the allowances made? What seed was granted 18 19 permission -- what varieties were granted 20 permission to be used conventionally rather 21 than organically? 22 And your reason for that, Marc, is

- 1 to try and get a fix on --
- 2 MR. COOL: Opportunities, demands.
- 3 MR. DELGADO: Jim.
- 4 MR. MOYER: Well, two things, Joe,
- 5 that came up. At the last meeting, the ACAs
- and the growers, they said that's too much
- 7 work for both sides to handle. So I was
- 8 wondering --
- 9 MR. DAVIS: And the program.
- MR. MOYER: Not the programmers,
- 11 the ACAs and the growers.
- 12 MR. DAVIS: No, no, the program
- 13 also.
- MR. MOYER: Well, and the program.
- 15 Everybody pushed back on that and said that
- 16 was a lot of extra work, a lot of extra
- 17 paperwork. Growers that we spoke to also said
- it's not their job to do their job for
- 19 marketing. If you want to find out what
- growers want, you go ask them. It's not their
- job to make this list of opportunities for the
- seed industry.

1	So we got pushback in a lot of
2	different areas, and so we came to this
3	decision that within the context of what we're
4	trying to do, which is grow the entire seed
5	industry, checking percentages is an easier
6	way for everybody to say I know whether I do
7	100 percent of my seed as organic, I don't
8	have to write anything down except 100
9	percent. I know I'm doing 50 percent or 10
10	percent. I mean we know what that is, and
11	it's very easy for everybody to track that
12	across the board.
13	Unless you get to the point where
14	there's somebody willing to handle a database,
15	then that would work. But to this point in
16	time nobody has stepped up and said we're
17	going to fund the opportunity that database
18	which would then create that opportunity list.
19	MR. COOL: Is there a question
20	there for me somewhere?
21	(Laughter.)
22	MR. DAVIS: Are you a sharing

1 company? Are you going to share some of that

2 --

MR. COOL: I'm not sure if it was

May this year or November last year or some

other time, I actually did offer to help with

the program on the database. I believe that's

a huge deal. I believe it's really

straightforward. I'll bet 10 bucks that we

can get Anita's coalition together to help

with that if necessary in both resources and

everything else.

MR. DELGADO: Jerry?

MR. DAVIS: From the committee's point of view, the Crops Committee at least, that is what we attempted to hand to you in the last version of this in previous meetings. The industry -- because the NOP said that it's not our role, that is not -- it's just going to get -- it's go nowhere. They have told us repeatedly that is going nowhere for the

So we didn't want the important

program to administer that database.

- step of improving organic seed availability
 hindered by the program saying this isn't
 going anywhere.
- 4 So we came out with a second step 5 of, okay, let's see if the industry will fund it and have a third party such as OMRI or 6 7 someone like that do the leg work with the organic seed industry to fund it. 8 It went 9 nowhere. No one made any comments at the last 10 meeting to step up to the plate to say, yes, 11 we'll do that.
- Maybe you guys weren't ready yet,

 it was too soon, but that's what we perceive

 as what happened.
- MR. DELGADO: Tracy.
- 16 MS. MIEDEMA: I just think we need
 17 to be very frank here about basic economics
 18 and supply and demand requires transparency.
 19 And the certifiers have come back to us loud
 20 and clear that it is overly burdensome, really
 21 put their foot down at the last two meetings,
 22 that they do not want to report back that

- information, it's just overly cumbersome. And
- 2 without transparency to match up buyers and
- 3 sellers in any economic model, you have
- 4 failure.
- 5 I think our failure to develop
- 6 organic seed is evidence that we just don't
- 7 have transparency. This recommendation
- doesn't get us there, either, on that one
- 9 point of transparency. To answer his question
- 10 very specifically, yes, it was left out
- 11 deliberately because it got killed by
- certifiers in the last two meetings.
- 13 MR. COOL: Could I respond to that
- 14 very briefly?
- 15 MR. DELGADO: Please respond very
- 16 quickly.
- 17 MR. COOL: So I'm not asking that
- 18 we develop a database tomorrow. I'm saying I
- 19 think in the recommendation that we work
- towards a database with all stakeholders, I
- 21 think would be a good direction.
- MR. DELGADO: Thank you very much.

DeEtta Bilek, and after that we'll have a short break to recover.

MS. BILEK: I want to thank you

for this opportunity. I am DeEtta Bilek. I

am an organic farmer from Minnesota, and I am

currently the second vice president of the

OCIA International Board of Directors.

I also chair the Education

Committee for the Minnesota Chapter, and our farmer members would disagree with what has been stated here, that there's plenty of corn available to them.

They live in northwest Minnesota, so the climate is definitely different than out east or in Nebraska, and they have not be able to find short season specialty corn, they tell us. They talk about soybean qualities that they can plant there for seed.

So they have brought this concern to the chapter committee, and then we brought it to the International Seed Committee for their discussion.

We also discovered that OCIA 1 2. International does certify Blue River hybrids, and they certify Lakeland organic seed. 3 4 A Lakeland organic seed member has 5 brought forward that they are not able to find foundation seed stock in qualities with 7 diversity that they can produce seed for organic farmers. 8 9 So I'd have to disagree a little 10 bit with -- or I'm kind of the opposite of a 11 couple of the speakers prior to me. OCIA International is a 12 13 certification agency based in Nebraska. have been operating for more than 20 years. 14 15 We certify nearly 1500 chapter members in the U.S. and Canada, plus 700 direct associates, 16 and of those Blue River and Lakeland organic 17 seeds as licensed seed producers for organic 18 19 corn. 20 We agree with NOSB that further 21 development of the organic seed industry is key to increasing commercial availability of 22

organically grown seeds and subsequent increased usage by growers.

While OCIA supports the draft recommendation, we believe that an important issue has not been addressed, and that is being the seed sourcing for seed producers.

Seed companies purchase foundation seed varieties that they cross-breed to produce various hybrids which are harvested and processed for resale the following year.

So they have one year to provide seed to farmers.

Several regional seed companies that provide the germplasm and treats have been purchased so now there are only a few remaining that are providing that form in an untreated form for the seed producers.

Nearly all foundation seed stock purchased for seed production has been treated with material that is currently prohibited by NOP. These treatments that are mentioned by our committee are names like Captain and

- Apron. They are fungicides and insecticides
 that are used to protect seed from seed
 diseases, including seed rot.

 There is a statement that's in my
- full -- in our full comment from Walter

 Goldstein that indicates minimal adverse

 ecological effects from these treatments.

Maury Johnson from Blue River has

a statement in our full comment. Also he has

stated that the seed stock landscape has

changed a lot in the last two to five years.

12

13

14

15

16

17

18

19

20

This concern was brought to NOSB a number of years ago. I think, if I remember right, it was 2001, so it is from what our seed producers are telling us, it's more of a concern now than ever.

Seed grower Ray Boughton of
Lakeland Seeds states that the organic seed
producer has a very limited access to quality
nontreated seed.

21 Our concern is that as long as 22 organic seed producers can only use untreated

seed stock, most foundation seed continues to 1 2 be available only as treated, organic hybrid 3 developers and organic producers will be very 4 limited in their hybrid selections. 5 Organic farmers are allowed to 6 plant untreated seed which was grown by 7 conventional seed companies, using treated foundation seed stock commercial fertilizers 8 9 and chemical pesticides. And this is what Jim 10 Riddle mentioned yesterday. 11 This is a very unrealistic 12 situation for the organic seed producer. 13 we are asking that you consider changing 205, 204, to allow treated seed stock. 14 15 Thank you. 16 MR. DELGADO: Thank you. Any 17 questions? Thank you very much. We are due for a well-deserved 18 19 We are halfway there with the list of break. 20 speakers, and I would ask you to come back 21 promptly in 20 minutes from now -- five.

(Laughter.)

22

First, biodiversity. Of course,

21

22

labeling.

1 CCOF supports the preservation of biodiversity in organic farm systems. We agree with the 2. the Wild Farm Alliance that the NOP 3 regulations as written require organic farmers 5 to protect and preserve biodiversity and preserve natural resources. 7 In the pursuit of this goal, CCOF 8 includes questions in our inspection reports 9 that specifically address biodiversity issues, 10 and we have been communicating with our 11 clients the need to take biodiversity issues into consideration in their farming systems. 12 13 While we agree with the stated goal of the committee discussion paper to 14 15 improve and increase biodiversity conservation, we do not agree with the No. 2 16 under the section titled "Main Points of 17

organic system plan.

18

19

20

21

22

Each accredited certification

development and implementation of a template

Possible Recommendation, " which points the way

to biodiversity conservation through the

agency develops their own organic system plan documents, which are approved by the NOP via the accreditation process.

4

5

7

8

9

10

11

12

13

14

15

16

17

18

19

20

Requiring specific questions or wording for organic system plans regarding biodiversity would circumvent this process and create additional paperwork burdens for certifiers and growers which are not justified at this time.

The contents of the organic system

plan should be left to the certifier to

develop and should continue to be approved

through the accreditation process and not

through additional regulations that mandate

specific language to be used.

It is important to note the biodiversity concerns often intersect with other laws, regulations, or industry agreements, such as the California Leafy Greens Marketing Agreement.

While it is important to take
biodiversity concern into consideration, it is

also essential that we do not put growers into
a catch-22 position by forcing conditions for
organic certification which are in direct
contradiction with other production
requirements.

Again, I reiterate CCOF's support for increased attention to the biodiversity concerns and organic production, and we will comply with any requirements imposed by the NOP equally on all certifiers.

We strongly urge the NOP to notify all certifiers at the same time in writing of any new requirements.

Second, I would like to comment on the document titled "Further Guidance on Commercial Availability of Organic Seed," dated September 22nd.

CCOF is grateful to the committee

for the time and effort that they have

obviously put into considering the comments

they have received on the previous version of
this document. We appreciate the revisions

1 made and believe that this version is a step 2 in the right direction.

CCOF continues to support the growth and development of the organic seed industry, and we are pleased to see the efforts made on multiple fronts to encourage more use of organic seed by organic growers.

While it is clear to us that this version of the guidance is an improvement over the previous version, the recommendation still appears to be based on a few fundamental assumptions that are incorrect.

While the recommendation states that the committee "acknowledges that only a small proportion of the seed currently used by organic growers is certified organically grown seed," CCOF questions the validity of this assumption. Many of our growers are purchasing all or most of their seed from organic sources or growing and seeding their organic seed.

We also strongly disagree that

comparing the percent of organic seed used
from year to year is a legitimate or accurate
way to measure the increase in the use of
organic seed.

Many of our farmers plant 100 if not more varieties of seed each year, and if a grower changes varieties or changes the crops they're planting altogether, comparing whether or not the seed is organic from year to year does not give you an accurate picture of whether or not the grower is properly seeking out organic seed.

We strongly caution against relying on this information to determine a grower's compliance with the regulation.

I have a proxy also.

While we do not think that percentages are a way to get an accurate reading on the state of the organic seed industry, we do recognize that obtaining information on organic seed use will require an increased paperwork burden on the part of

organic growers and accredited certifiers, and
we are willing to collect and report the data
needed if it is required of all certifiers.

We believe organic seed use is an important part of certification, and we all need to do our part to encourage the use of organic seed by organic growers.

Another flawed assumption in this document is that certifiers are approving the use of nonorganic seed for each variety of seed used. Certifiers cannot possibly do this.

Instead we approve the producers' management plan for seeking organic seeds in the marketplace.

While on-site inspectors review
the documentation for all seed purchased,
requiring explicit certifier approval for all
varieties would create a mass burden for
certification agencies. It would unduly
affect small farmers who plant a large number
of different seed varieties.

1 As was mentioned earlier today,
2 there is an inevitable burden to be shared by
3 all members, including growers, the NOP, and
4 certifiers.

It is the ACA's job to review and inspect and certify the management system of growers, and if the grower describes in their organic system plan their method of seeking organic seed and determining when it is not commercially available, certifiers should not be expected to individually approve specific varieties.

So, finally, as a proxy for Jody
Bergeal -- she's Jeff's handler certification
supervisor -- I'm going to comment on the
recommended guidelines for the use of
packaging and processing aids with products
labeled and sold as 100 percent organic.

The 100 percent category is unique to the NOP, and the level of complexity required to implement is avoided under other organic standards that do not include this

1 category.

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

2 CCOF often wonders if continuing
3 to allow the 100 percent organic claim is
4 worth the time and energy we spend
5 interpreting it.

However, since the provisions of the 100 percent organic labeling claim do currently exist, it is essential that all stakeholders be completely clear with what the requirements for its use are.

The small business owner who would like to use the 100 percent organic label on their product cannot be expected to meet a standard that is so complex and convoluted as to require high levels of research to understand.

The level of complexity in the proposed guidelines and lack of understanding in the marketplace makes the certifiers' jobs much more difficult as we must then spend time untangling the knots of regulation for our clients in order to allow them to comply.

1 CCOF feels that the recommended 2. guidelines, while thorough and knowledgeable, are focused on some points that confuse the 3 4 issue instead of clarifying it. Including 5 information about several other regulations and their interaction with the organic 7 standards is unnecessary. NOP regulation section 205.301 8 9 says nothing may be used to produce a 100 10 percent organic product except organic 11 ingredients and processing aids. Therefore, we understand that all 12 13 components of a 100 percent organic product, regardless of function, must be organic in 14 order for the product to be labeled as a 100 15 percent organic, and no synthetic or 16 17 nonorganic processing aids may be used. Any additional nonorganic 18 19 material, whether defined as a processing aid, 20 an additive, a sanitizer, a microbial, would 21 preclude the product from being called 100 22 percent organic.

1 Therefore, there is no need in the recommendation to differentiate between 2. processing aids, antimicrobials, sanitizers, 3 or additives, as the regulation does not 5 distinguish between these classes of materials. 7 The spirit of the 100 percent 8 organic category was intended for 9 unadulterated, unprocessed product. 10 Continuing the use of our current 11 interpretation would assure consumers the the 12 products they are purchasing are free of all 13 nonorganic materials. CCOF presents this step toward 14 15 consistency in certifying to the 100 percent labeling category. However, we suggest taking 16 a deep breath and a step back and simplifying 17 the approach. 18 19 We are glad to hear that the 20 committee has taken the previous public 21 comment into account and may reconsider the current recommendation. 22

recommendation should be based on the tene of the NOP, not on other food safety or production regulations. They should consider the spiri	ts
4 production regulations.	
5 They should consider the spiri	
	t
6 and philosophy in which the NOP and OFPA w	ere
7 written and be comprehendable by organic	
8 operators and consumers.	
9 In the long term we should ask	
10 ourself if the 100 percent organic claim i	S
worth the time and energy spent interpreti	ng
12 it.	
13 Please see our written comment	S
for further discussion on this issue.	
15 Thank you very much for your t	ime.
MR. DELGADO: Any questions?	
Julie.	
18 MS. WEISMAN: Well, I think yo	u're
very clear about the use of sanitizer y	our
very clear about the use of sanitizer y position about sanitizers in the 100 perce	
	nt

- impacts say on farm processing?
- 2 MS. ALLAN: We do. We don't -- if
- it's not going to -- if that product is not
- 4 going to be labeled as 100 percent organic, we
- 5 don't feel that the use of sanitizers or
- 6 microbials is an issue in the post-harvest
- 7 handling.
- 8 MR. DELGADO: Any other questions?
- 9 Hugh.
- 10 MR. KARREMAN: I'm not sure if I
- 11 heard it or not, did you speak at all on
- 12 animal husbandry?
- 13 MS. ALLAN: No. I don't have
- anything to say about that.
- MR. SMILLIE: I want to thank you
- 16 and CCOF for supporting the commercial
- 17 availability and being willing to do your
- share to carry the load. I really appreciate
- 19 that from accredited certifiers.
- Your comments on the 100 percent,
- 21 I couldn't agree more. I think that, you
- know, we're going to go back and look at it,

and I think one of the things we will suggest
is just eliminating it because the candle
doesn't seem to be worth the flame in this

case.

alternatives, and we would like to get some input from CCOF, especially on the post-harvest handling part of it rather than the processing. And again, that's the mistake -- one of the mistakes we made in the document as not sufficiently -- you know, the difference between post-harvest handling and processing is there, and you guys do a lot of that, so we'll look forward to working with you to get some comments specifically on that.

You said that the sanitizers, the microbials basically if they are not making a 100 percent claim, could you just go through what you said there again in answer to Julie's question?

21 MS. ALLAN: Sure. I guess what 22 I'm saying is I'm referencing when you're

- 1 calculating a percentage of organic product.
- 2 I'm assuming that's what your question was
- 3 going toward.
- 4 MR. SMILLIE: Right.
- 5 MS. ALLAN: That if that
- 6 individual ingredient is not being labeled as
- 7 100 percent organic, it's going into a final
- 8 product, we don't have a problem assuming that
- 9 that is a 100 percent product.
- MR. SMILLIE: Got it.
- MR. DELGADO: Bea.
- MS. JAMES: You mentioned that you
- 13 thought -- CCOF feels that the 100 percent
- 14 claim should just be eliminated, it's too
- 15 complicated. It was intended for
- 16 unadulterated products like -- give me an
- 17 example. Are there still some out there? I
- mean you're basically saying like produce and
- 19 nothing really -- or your standards qualify
- 20 for that anymore?
- 21 MS. ALLAN: No, I think there are
- definitely products that can meet the 100

1 percent requirements. I think that we're 2 talking about the spirit of it, and I think 3 that's what we're trying to say, is you don't necessarily need a 100 percent -- you don't 5 need highly processed products to be able to be labeled as 100 percent organic. And that 7 is okay if we don't have that. 8 MR. DELGADO: Any other questions? 9 Thank you very much. 10 MS. ALLAN: Thank you. 11 MR. DELGADO: Next is Kelly Shea, 12 followed by Coni Francis. 13 MS. SHEA: Hi, there. I'm Kelly Shea with White Wave Foods, and you know us as 14 15 Horizon Organic Dairy and Silk Soy Milk. Mr. Chair, in the interest of 16 17 time, if the board members would review the written comments that we submitted, I would be 18 19 willing to not take my full five minutes up 20 here. 21 Instead, I just want to thank the 22 NOSB, both past NOSB boards and present NOSB

- board, for the work that you have done around
 the pasture rulemaking.
- I sat down and looked a little 3 4 back in history, and do you realize that 5 beginning in 1994, with subsequent work in '95, '98, 2000, 2001, twice in 2005, and then 6 7 again with the ANPR in the symposium in April 8 2006, this board has attempted to help USDA 9 and help the community address this issue? 10 So I thank you very much for not
- We have finally a proposed rule on
 pasture we can celebrate. It's not perfect,
 but I think it will be a very, very workable
 rule.

11

giving up.

As well, we are not looking for an
extension on this, and I know that this
rulemaking is not in your hands, but I really
do want to think this board for everything
they've done.

I think we also commend the USDA for their stated intent to begin further

- rulemaking to deal with the uneven playing
 field on original of livestock in the rule.
- So we are going to continue to

 follow that as well, and we are asking the

 NOSB that you would as well continue to follow

 that issue, and urge the USDA to move forward

 with the next piece of rulemaking that we're

 waiting for.
- 9 Okay. So thank you guys for 10 everything you do. I know it's a lot of hard, 11 rough hours, and we really appreciate it.
- MR. DELGADO: Thank you. Any
 questions? Thanks. Moving on then to Coni
 Francis, followed by Rich Theuer.

I think Valerie is 15 MS. FRANCIS: 16 putting up my little presentation for you, but I can start with saying that my name is Coni 17 Francis, and I represent GTC Nutrition. 18 19 Nutrition is a manufacturer and supplier of 20 science-based nutritional ingredients to the 21 traditional and organic food markets, and one of the things that I want to do is to thank 22

the board for the opportunity to comment

today, and I especially want to thank the

Handling Committee for all their hard work in

reviewing the petition materials. I know that

this takes a lot of your time, and I know you

take your work very seriously.

My comment is on calcium from seaweed, and although yesterday we did hear comments regarding the thoroughness of the review process in regards to the manufacturing of petition materials, in my experience the Handling Committee is quite thorough in their review process and, in fact, they look very seriously at the manufacturing of the materials that are petitioned.

In addition, the material, the calcium from seaweed, has undergone GRAS review, which requires extensive manufacturing information and has received a "no questions" letter from GRAS with the petition GRN-00028.

Further, this material has been certified by the Organic Trust, Ltd., which is

an EU organic body that is there, and if we could go to the next slide.

The petition material is calcium 3 that comes from a seaweed. It's produced 5 actually from a red algae, lithothamnium, and it grows for about four to five years in the 7 ocean naturally. It absorbs the essential minerals and nutrients from the sea, and then 8 9 when it is mineralized, the portion drops to 10 the ocean floor and then it's harvested, 11 washed, and milled for use as an ingredient in foods. 12

The composition of this substance is over 95 percent minerals. The rest is essentially moisture that's there.

13

14

15

16

17

18

19

20

21

22

The mineralized seaweed, in fact, is a very positive organism in terms of the fact that this is a very sustainable process because we don't touch the living seaweed. We only take that that has died, and so it continues to produce, and we aren't, you know, touching them by plant at all.

1 If I could go to the next slide. 2 So just to give you a real quick 3 history of the petition for those of you who

4 didn't sit on the Handling Committee, in the 5 spring of 2007 we did send this petition in

and asked that it be put on the national list. 6

7 We asked for it specifically because we weren't sure where to place it and wanted to make sure that we were putting it in the right

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

place.

In September of 2008, it was reviewed by the Handling Committee -- if you'd go to next slide -- and the Handling Committee, as you heard here today, believes that this is a nutrient mineral in accordance with 21 CFR 104.2, and they recommend that this petition doesn't need to be considered and it is currently allowed through the existing things in the 205.605(b).

The next two slides that I have will show you just some composition data so that you can see. The first is looking at

cations and anions, and you can see that
largely it is calcium that we are looking at,
with small amounts of other minerals that are

there.

5 And then the next slide. 6 just shows in terms of daily contribution. 7 Since most manufacturers will be using this product to provide either a good or an 8 9 excellent source of calcium in their product, 10 what you would likely see is that they are 11 going to be looking at that 10 or 20 percent 12 level of calcium, and therefore, as you can 13 see here, if we have a good source of calcium, that's going to provide about 10 percent 14 15 calcium, and really the only other nutrient that's going to be in very large amounts would 16 be iodine at 7 percent, and an excellent 17 source, you're going to have calcium at 20 18 19 percent and iodine at less than 15 percent. 20 So it is largely calcium that we 21 are talking about.

Next slide, please.

1	So, in summary, this is mainly a
2	source of calcium. We appreciate the
3	consideration of this material, and we want to
4	applaud the Handling Committee for their
5	recommendation not to crowd the list with
6	materials that are already covered under
7	another category. And we feel that it has
8	been correctly classified and support what the
9	Handling Committee has recommended.
10	Are there any questions?
11	MR. DELGADO: Any questions?
12	Okay, thanks very much.
13	MS. FRANCIS: Thank you.
14	MR. DELGADO: We now have Rich
15	Theuer, followed by Lynn Coody.
16	MR. THEUER: Thank you very much
17	for hanging in. I admire your stamina and
18	applaud your dedication.
19	As you may know, I am Rich Theuer,
20	and I have a presentation.
21	The reason I am coming to talk to
22	you today is basically to bring to your

attention to the NOP an issue relating to micronutrients in organic crop production.

There currently is a section in the rule 205.601(j) that I believe is being misinterpreted by all of the certifiers, or at least many of them, and since we work on the paradigm that healthy soil creates healthy plants that create healthy animals, we should think of that as we go through what I have to say.

This is the regulation. It describes micronutrients, and then gets into two, Roman numeral I and Roman numeral II.

Can I have the next?

If you look at this, the J61 and J62 mention specific nutrients. Most certifiers are interpreting the 1 and 2 as constituting list of allowed synthetic micronutrients. And the question, the basic question, are those the only specific micronutrients, the ones mentioned, are they the only ones allowed, or do these

1	subparagraphs pertain simply to the mentioned
2	micronutrients?
3	In other words, where it says
4	it lists zinc and a bunch of others, it
5	doesn't mention, for example, nickle, and
6	nickle is an essential nutrient.
7	Can I have the next one.
8	In the regulatory world, for
9	fertilizers, part 205 governs organic crop
10	production, but fertilizers are regulated on
11	a state-by-state basis, not by the Federal
12	government, and AAPFCO, the American
13	Association of Plant Food Control Officials,
14	is the one that establishes standards for
15	fertilizer.
16	Could I have the next.
17	In their terms, in their
18	standards, they have this particular
19	definition, and I would like to call your
20	attention to two things:
21	One, it's essential for the normal
22	growth of plants they're agronomists, and

- they don't mention animals. And they mention certain nutrients that they consider the microplant nutrients.
- 4 Can I have the next.
- Well, we got two problems. One is

 a fuzzy definition of a micronutrient. J6

 talks to soil, the fish, and the sea. The

 AAPFCO standard talks to microplant nutrients

 essential for the normal growth of plants.
- So what micronutrients are we talking about in the regulation?
- The other thing is that there's a

 conflicting list of allowable micronutrients

 where the rule is inconsistent with the AAPFCO

 fertilizer standard.
- 16 Could I have the next.
- So what should be the definition

 of micronutrient? Is it a nutrient needed in

 micro amounts for normal growth of plants? Is

 it also a nutrient needed in micro amounts for

 the normal growth of animals and humans

 consuming the plants?

- 1 The example there is selenium,
- which is actually in the rule.
- Now 205.601, you refer to soil
- 4 deficiency, you do not refer to plant
- 5 deficiency. That gives me hope that we are
- 6 talking also about the animals that eat the
- 7 plants, not just the plants.
- 8 Can I have the next.
- 9 You also have conflicting lists,
- 10 that they're not the same.
- 11 Could I have the next.
- These are okay. Chlorine, you get
- enough naturally, you don't need synthetic.
- Next.
- These are the same. Sodium, again
- it's like chlorine.
- But now we get to four nutrients
- in the next slide -- cobalt, selenium, nickle,
- 19 and iodine.
- 20 Cobalt is listed in both places,
- 21 but if you apply a standard that what is
- 22 enough for a plant is enough, you're going --

1 you can have a problem with the animals 2 consuming the pasture, sheep, livestock, 3 ruminants, and so you can have wonderful 4 pasture and dead sheep. And that can occur. On selenium, somehow the selenium 5 is mentioned in 205.601. It's not listed in 7 the AAPFCO standard. There are some hints 8 that it might be important for plants, but the 9 other side would be it's definitely needed for 10 animals, so I have to talk to the AAPFCO next. 11 I have already been in correspondence with 12 them. 13 Nickle is not on your list in the NOP, in the rule, but AAPFCO approved it a 14 15 year ago. And iodine is not in either. 16 Can I have the next. 17 And so nickle is essential 18 19 according to AAPFCO. It's a documented 20 deficiency. Certifiers are not permitting 21 organic growers to use nickle supplemented fertilizers when soil deficiency is 22

- Why? J6 is considered an

 exclusive list. If it's not on the list,

 they're saying, no, you can't have it, even if

 it's documented.
- The next is iodine. And that's -
 I'm a nutritionist by training. There's a

 goiter belt in the United States, cretinism is

 a source of mental retardation.
- 10 OMRI last week just dropped iodine 11 from its listing of acceptable micronutrients. 12 Because the provisions of this rule are Why? 13 considered an exclusive list. If it's not in the list, the certifiers are using that as 14 their exclusive list in forbidding any other 15 additions. And I thought both the Secretary 16 17 and his representatives should know it, and I thought it would be useful for you to be aware 18 of that as well. 19
- Thank you.
- MR. DELGADO: Questions? Joe.
- MR. SMILLIE: I think we've been

around this before, right, in the gums issue. 1 2 And I thought the intention of the board at 3 that point was that if it's -- that your interpretation of what the certifiers are 5 interpreting is correct. This is an exclusive list, because it doesn't say "including but 7 not limited to" kind of language. But, Dan, I'll defer to you on it. 8 9 MR. DELGADO: Dan. 10 MR. GIACOMINI: The one thing that 11 I would like would be the language that had been in the list originally with the animal 12 13 mineral listing and see how that language I really don't know where it stands 14 compared. 15 right now, and it would be up to 16 interpretation, you know. MR. THEUER: In the absence of the 17 18 Roman numeral I and Roman numeral II sections, 19 the deficiency is documented. So if you just 20 take the 6 without subparagraph I and II, it 21 would actually not be an exclusive. 22 Thank you.

1 MR. DELGADO: Any other questions? 2 Next we have Lynn Coody, followed by Lynn Clarkson. 3 4 MS. COODY: Hi, everyone. 5 here to talk today about biodiversity. I'm 6 presenting testimony for the Wild Farm 7 Alliance. Wild Farm Alliance is a 8 9 California-based organization working to 10 promote healthy viable agriculture that protects and restores wild nature. 11 Our activities in the realm of 12 13 organic agriculture are varied and include publication of two booklets on biodiversity 14 15 conservation, which I brought copies of if anybody would like to see them. I've brought 16 17 them here before, but if you'd take a closer look, you may. 18 19 They're also available on the Web 20 site free, and they'll be happy to send you 21 copies if you'd like copies of it. They'd

like to distribute them widely.

22

1 The latest publication is a 2. document that contains specific suggestions about differentiating major and minor 3 4 noncompliances related to implementation of 5 the biodiversity standard, so it's very specific. 7 Wild Farm Alliance would like to express thanks to the NOSB's Joint Committee 8 9 for its discussion paper on biodiversity, and 10 to the NOSB as a whole for taking action on 11 the points we presented in our public comments 12 during the board's meeting last May. 13 Today I would like to present comments on four topics raised in the Joint 14 15 Committee's discussion paper. So the first topic is considering 16

So the first topic is considering biodiversity during the materials review process. Wild Farm Alliance concurs with the Joint Committee's recommendation that NOSB fully implement a decision made by the board in 2004 to adopt a criterion for a materials evaluation that would ensure that materials on

17

18

19

20

21

22

- the national list have a positive impact on 1 2 biodiversity. That's what the NOSB had 3 passed, and we would like to see that included 4 now. 5 So Wild Farm Aliance notes the 6 paper's findings, that the evaluation 7 criterion has been added to the materials -has not been added to the materials checklist 8 9 used by the committees in evaluating This in spite of the fact that 10 materials. 11 this recommendation received strong support by 12 all commenters. 13 We ask the NOSB to take all necessary steps to incorporate this criterion 14 when evaluating materials for addition or 15 removal from the national list as well as for 16 17 decisions related to the sunsetting process. Topic two. Revising AHRQ's 18 checklist to include assessment of 19
- We strongly support the Joint

about last May.

20

21

biodiversity. This is the point that we spoke

Committee's point that NOP should work with the audit review and compliance branch to

3 revise the checklist used to audit

4 certification agents.

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

This change would support

implementation of the biodiversity standards

by all NOP accredited certifiers.

before the NOSB with testimony about our organization's efforts to bring this issue to the attention of both AHRQ and NOP. At that time we identified three specific changes in the checklist that we believe would completely correct this problem.

We have resubmitted the details of this proposal in our written testimony, which hopefully you have on the Web site, and we believe that revisions of AHRQ's checklist represent a critically important step toward implementing NOP regulations for biodiversity in conservation of natural resources.

Taking this step will allow

1 certifiers to compete on an equitable basis.

It will ensure that consumers are getting what
they pay for, organic products whose claims of
environmental friendliness are backed by
accreditation and certification systems that

verify these claims.

The third topic is implementation of the biodiversity standard through the organization system plan. We support all the suggestions by the committee about methods for implementing the biodiversity standard through certification and accreditation systems.

We included an attachment to our written comments that provides detailed marked-up versions of the committee's paper containing more suggestions on this topic.

And the fourth and last one is training with regard to the suggestion that the role of NOP in providing training about biodiversity. We have contributed some specific ideas about the contents of such trainings in our written comments and, as

mentioned earlier, Wild Farm Alliance has 1 2. published booklets designed to provide practical information, suggestions, and 3 4 examples about implementation of biodiversity 5 standard, so if desired, we would be happy to supply these documents as background 7 information for NOP trainings. In closing, I would like to thank 8 9 again the committee and we appreciate the 10 opportunity to review and provide comments on 11 the document and to work with you as 12 additional resources for information if you 13 would like. 14 Thank you. 15 MR. DELGADO: Ouestions? Barry? Just a comment. 16 MR. FLAMM: want to publicly thank you, Lynn, and Wild 17 Farm Alliance for the great work that they've 18 19 done, and also I want to extend my 20 appreciation to everyone that provided 21 comments, and we'll be going over them --22 we've already read them, but we'll be going

- over them carefully as we prepare our paper.
- MS. COODY: Thanks, Barry. I look
- forward to working you some more.
- 4 MR. DELGADO: Any other comments,
- 5 questions? We go now to Lynn Clarkson,
- followed by Bill Wolf.
- 7 MR. CLARKSON: Good evening. My
- 8 name is Lynn Clarkson. I'm managing director
- 9 of Clarkson Soy Products. My company's name
- is on two petitions that have been submitted
- 11 to your board, and the petitions are quite
- complete. We are quite pleased with the way
- 13 they came out.
- I'm here to give you some insight
- into why we timed our petitions as we did, and
- 16 to address Julie Weisman's comments about how
- 17 you encourage an organic ingredients supplier
- 18 to step into this marketplace.
- To do that, I have to give you a
- 20 little history. Lecithin, which many of you
- 21 probably can't spell real well, but will be by
- the time you're done, lecithin is principally

an emulsifier. It's used in almost every process and product on the grocery store shelf.

When the national list started,
there was no organic source of lecithin. Why
did we get into it? Because we were
challenged by a major food company who was in
this room a little earlier today who wanted,
who embraced the organic policy. They wanted
organic lecithin. They asked us if we could
try and make it.

Three years later, having fallen off the learning curve at least five times and broken our financial neck at least twice, we learned how to make it. We have been providing commercial lecithin since 2004.

It is in baby food, it is in candy bars, it's in chocolate, it's in energy bars, it's in oil sprays, it's in baked goods, it's in ice cream, and somebody on my way up here just handed me this topic, which is a 70 committee organic product using organic

- lecithin. This is one of the companies that cares.
- Okay. I'd like you to invite you

 for a virtual hike down the hill to an organic

 grocery store that looks a lot like the ones

 that are actually down there.

We can walk up to almost any
category of product on the grocery store
shelf. We can walk up and I can put my hand
on product A, let's say vegetable oil spray,
hand it to you, you read the label, organic
lecithin.

13

14

15

16

17

18

Immediately to the left or right of that, I can put my hand on product B, C, and D, hand it to you. You will not be able as a consumer to tell the difference in those products, but those other three products are using conventional legithin.

I can do this time and time again.

We have been relying on the organic-first

policy, we have relying on NOP, and we have

been relying on certifiers, and I would guess

that there are probably four times as many 1 2. people scamming the system as really embracing the policy of organic first. 3 4 So what are the consequences of 5 that? The organic food chain stays open to the use of hexane, which is a volatile 7 synthetic solvent and a neurotoxic. There's no need for that. 8 9 The organic food chain stays open 10 to nonorganic soybeans. No need for that. 11 Every pesticide that's allowed by 12 the USDA, still involved in the organic food 13 chain. No need for that. Who wins, who loses? Well, who 14 15 loses, the organic consumer, the organic farmer, he doesn't get supported, the organic 16 manufacturer of foods who really embraces 17 organic first, and the organic ingredient 18 19 supplier. Who wins? 20 The guy who wins is the guy that's gaming the system and looking for 21 the lowest common denominator to get him into 22

1 a label category.

7

8

12

20

21

22

What approach have other bodies

taken? Take a look at the Soil Association.

Effective January 1, 2009, they will certify

no product as organic unless it has -- if it's

a product that uses lecithin, unless it has

None.

Now that's a polar position.

organic lecithin in it.

9 Take a look at the Canadian rule.

The Canadians have done something interesting.

11 They've said if you have to have a form of

lecithin that's not available organically,

it's okay as long as you start with organic

14 lecithin. Soy lecithin. Thank you.

So that removes 99 percent of the incentive for gaming the system because you have to start with organic lecithin. And everybody's organic lecithin starts as a fluid, and then you modify it.

So what we are basically saying is we have lost complete faith in the regulatory system as we have it today to encourage people

1 to be organic first. We would like something 2 that's clear enough that the NOP knows how and can enforce it without being tied up for years 3 4 in controversial arguments, at their 5 discretion and judgment and reason. So that's why we're asking two 6 7 invitations to you. We are one of the world's 8 lecithin experts, third party. We are 9 available to you in your deliberations if it 10 would be helpful. 11 If any of you wish to visit the 12 plant where this is done at some time, to help 13 your deliberations, tell us. Thanks. 14 15 MR. DELGADO: Any questions? Joe. Good presentation, 16 MR. SMILLIE: 17 I know exactly what you mean. You can see that on the shelves. It's there for 18 19 everyone to see. But let's cut to the case, 20 two big issues. We have heard presentations 21 from certification agencies saying that their

clients are telling them that the organic

22

- lecithin doesn't meet their needs, form,
- quality, function. That's number one.
- 3 Let me get both of them. The
- 4 second one is this new -- I shouldn't be
- 5 surprised, but the allergen issue, okay. It's
- 6 only soy lecithin that you're providing and
- 7 that there is an allergen issue up there also,
- 8 that other forms of lecithin or lecithin
- 9 replacements.
- 10 So I'd like to hear you address
- 11 those two issues.
- 12 MR. CLARKSON: Number one, many
- people said the quality won't work, you have
- a cognate product that's almost identical. So
- 15 I wonder.
- Secondly, we intercept a lot of e-
- mails we never intended to as we hit the
- 18 "respond to all" key.
- 19 (Laughter.)
- 20 Every one of those goes back to an
- economic issue, not a quality issue. So I'm
- 22 saying there are no issues. I'm saying it

- puzzles me greatly why three candy bars have 1 to use conventional and another one that just 2 looks like is using organic. 3 The second thing is I don't know 4 5 what to do about the allergen issue. Ninety-6 nine percent of all the lecithin used in the 7 world is soy-based lecithin, so I don't really know how to address that other than cut out a 8 9 niche for it. I don't know what to do about 10 that.
- MR. DELGADO: Any other questions?

12 Bea.

MS. JAMES: Is your lecithin 100

14 percent organic?

MR. CLARKSON: We have been

offering 100 percent organic lecithin --

MS. JAMES: Unadulterated, 100

18 percent organic?

MR. CLARKSON: Unadulterated. Now

if you want the yeast lecithin, that's at 95

21 percent.

MR. DELGADO: Any other questions?

- Thank you very much. Gerry, you have a question?
- MR. DAVIS: Sorry. I was just a
 little slow. You were speaking quickly in the
 area of talking about the Canadian system, and
 I want to make sure I understood what you
 said, if you could slow down and repeat that
 about it's okay as long as you start with 100
 percent.

10 MR. CLARKSON: The draft version 11 of the Canadian rule that was supposed to go 12 into effect a month or so about now, it now looks like it's coming into effect the middle 13 of next year, said addressing the issue of 14 bleach lecithin, said if you wish to bleach 15 lecithin and it's not available organically, 16 17 it's okay to bleach lecithin as long as you start on organic lecithin. 18

19

20

21

22

Now that would get us out of the situation where people run to the conventional supplier, and that would be faithful to the consumer, blah, blah, blah.

So there is one. We're not -- and 1 2. I need to make the point we're not asking to rule out every form of lecithin from the 3 national list. But we can do it the way the 5 Canadians do, and say as long as you start with organic lecithin, it's okay then to use 7 acetone. But right now everything 8 conventional is using hexane, and if it's the 9 oil, they're using acetone. 10 MR. DAVIS: Joe, could you go back 11 to the expert and how that would be available 12 to the Handling Committee if we have 13 questions? MR. SMILLIE: We went to the 14 15 University of Illinois Soy Food and said who is a retired expert who hasn't spent his life 16 on phosphate lipids that we could consult. 17 have him as part of our presentation in our 18 19 petitions. He has no tie to us. 20 reputation is far broader than us. 21 wish to put him into debate with anyone, if 22 you wish to ask him questions, we will be

- 1 happy to make him available to you.
- 2 MR. DELGADO: Any other questions?
- 3 Thank you very much.
- 4 MR. CLARKSON: You're welcome.
- 5 MR. DELGADO: Now Bill Wolf, and
- followed by Patti Bursten-Deutsch.
- 7 MR. WOLF: Hello again. First of
- 8 all, I am proxying for -- I need to speak very
- 9 briefly on behalf of Blue River Hybrids, thus
- 10 the hat.
- I am Bill Wolf, and I will get
- into some other of the issues I was originally
- planning to talk about, but first I'd like to
- 14 make a statement for Blue River because of
- some of the comments and clarify it. This is
- 16 really for clarification.
- MR. DELGADO: You're saying you
- have a proxy in addition to this time, or you
- 19 actually --
- MR. WOLF: I am going to make
- 21 every effort to stay within five minutes
- because I really feel for you guys. This is

- 1 just horrible.
- 2 MR. DELGADO: Thank you. Thank
- 3 you.
- 4 MR. WOLF: Two issues. One, Blue
- 5 River is not in favor of using treated seed
- 6 stock to grow organic seed. They have been
- 7 referenced as though they were.
- 8 Two, Blue River has multiple
- 9 varieties of corn and soybeans for the north
- 10 central part of the country, and those were
- just clarifications because there were
- implications or statements in other testimony
- that implied that Blue River was -- that was
- 14 not the case.
- 15 I'd like to take my hat off and
- 16 switch to some tough topics that you are
- facing, but first I want to say that the first
- 18 NOSB meeting I attended was the first NOSB
- 19 meeting. It was just over the bridge in Key
- 20 Bridge. And there were 15 board members, one
- 21 person from the USDA, and four people, four
- 22 presenters, and I'm -- I just want to say that

the continuous improvement in public comment and interaction is extraordinary, and the issues have gotten way more complicated.

I would like to talk first about
the -- as you recall, I submitted and handed
out to everyone a comment that was submitted.
Has everybody got copies of it? If they
don't, I have additional copies.

But I talked about the fact that the ag-non-ag debate is a debater's heaven, and if I were a debate coach, I would say now there's the issue you can debate every year and you will always have a different outcome of the debating team, depending on who is really good at it.

And that's why we at Wolf-DiMatteo strongly recommended that you look at option three or four of the materials working group, because it wasn't intended to be a loophole for organic preference, and that's what is happening in many areas on 605, and you will continue to have that problem unless you solve

the structural problem of having one materials
list with organic preference required on all
materials.

Item two, I had listed five specific recommendations we had. I'm going to add a sixth, and that is that I strongly encourage you to go forward with the multisite recommendation pretty much the way it is presented with some of the editing, minor edits that I've heard about, and I'm going to talk from my own experience.

I have been involved in my own certifications, helping others being certified, writing robust organic system plans, and reviewing operating systems of grower groups.

I have never seen an inspection that looked closely at every field, at every corner of a barn. The most important part of the organic certification is the organic system plan and the audit of that plan, and reviewing and verifying it and reviewing and

1 having a really tight internal control system.

2.

In fact, my company believes that everybody who is certified should have their own OSP, like a HASOP plan, not a form that was filled out, and I'm really glad to hear that the NOP is going to tackle as its first quidance document what an OSP contains.

And finally, the last item I need to clarify a few things about materials in sorbitol, and the general -- the statement I made yesterday about the fact that I think there is some issues around materials are being reviewed are substantially structurally different.

I think you all received a copy of seven letters from growers and from PCOs asking for sorbitol to be approved.

I am concerned that the actual process for reviewing has shifted. In the case of sorbitol, it differed radically from the sucrose in that it was declared that it wasn't compatible with organic production on

- 1 the petition.
- The second point I'd like to make
- is since some of the comments were made, I
- 4 went back and looked at the sucrose vote and
- 5 comments in the 2005 discussion by the board,
- and this was really a chain of events about
- 7 how the product was registered.
- 8 It was first registered, then the
- 9 petition was submitted, then the petition was
- 10 amended to add crops because EPA in fact
- 11 approved it for those crops. And the only
- reason sorbitol wasn't applied for at that
- time is because there was no EPA registration.
- So I think I am really concerned
- that you follow your protocols of consistent
- 16 review and look closely at the need dynamic,
- and that's really what I had to say.
- 18 Thank you.
- MR. DELGADO: Any questions from
- the board? Thank you.
- 21 MR. WOLF: I do have one statement
- 22 that was your -- when I spoke yesterday, you

1	said someone said, oh, can you tell the
2	difference between sucrose and sorbitol? And
3	I said I shouldn't be speaking to that, I
4	don't know, you should ask the petitioner.
5	And I was told it would come up during the
6	committee's discussed deliberation or
7	presentation of the sorbitol conversation
8	yesterday. My understanding is that because -
9	- I mean today, right before lunch. My
10	understanding is that that difference still
11	has not been described to you. So I wasn't
12	able to answer that question yesterday. I'm
13	sorry it didn't come up at noon time today.
14	But I do know that the petitioner changed his
15	flight to be available for either now or for
16	tomorrow if there are any questions.
17	MR. DELGADO: Gerry.
18	MR. DAVIS: I hear what you're
19	saying, and I think it would be worthwhile to
20	have them delineate the difference, because I
21	think the petition that we saw was fairly
22	deficient in explaining the difference between

1 the two.

2 MR. DELGADO: Is the petitioner

3 here? Can you please come up to the podium

4 and identify yourself?

5 MR. REYNOLDS: Sure. Thank you

6 very much. Again, Devlin Reynolds with

7 Natural Forces.

8 I'll cut right to the crux of the

9 matter.

16

17

18

19

20

21

22

The first thing I want to point

out is in the letters sent to you from the

growers, I just want to read one paragraph

from a hops grower. It appears hops is a big

item here. This is from Tim Perault, if you

want to call him. He's in Washington State,

if you all know him.

"There are not enough insect control substances on the NOP national list to warrant an investment in additional organic hop acres. A shortage of organic production of hops exists today as the industry cannot produce enough to keep up with demand.

- 1 Without additional materials approved for use,
- 2 we cannot grow our business and meet the
- demand of the consumer by increasing our
- 4 organic acreages to help meet the demand."
- I don't know any simpler than
- 6 that. The difference between the two
- 7 products, first of all, one, the REI. I think
- 8 we all understand what that is. You spray
- 9 today, how soon can you go back in and work as
- 10 a handler or a harvester.
- 11 Sucrose octanoate ester has a 48-
- hour REI based upon the U.S. EPA standards.
- 13 Sorbitol octanoate is 24 hours.
- 14 Everybody here who grows a crop
- that's perishable understands the difference
- 16 between 24 and 48 hours. If you have berries,
- if you have greenhouse vegetables, if you have
- a you-pick operation, you can't spray day one
- 19 at 6 a.m. and your crop is ripe and have to
- wait 48 hours before you can let anybody in
- there.
- 22 So that is a giant difference when

1 you're talking about perishable crops at the 2 end of the season.

You've got instances that are in those letters from a grape grower in North Carolina. We've got hurricanes coming in, we've got fruit flies, what can we spray in there that we can get out?

Well, they need a product they can spray and get out of there that they haven't already applied this year that socked their beneficials. That's one. And that's the biggest deal.

Leafy vegetables. We all know what we're talking about. Perishable goods.

The second thing is in sustainable agriculture, the processing and the making of sucrose octanoate ester involves recovering the use of solvents. It also has about a 10 X energy use rate to be able to make sucrose versus sorbitol. Sorbitol is a much simpler process. There is no use of solvent, there's no solvent recovery. It's a much more

1 sustainable type product.

2.

The third thing is the insect control. The two active ingredients -- you know, the one is marketed as a 40 percent AI, the other is a 90 percent AI. Just the consistency of the materials, sorbitol is heavier. When it attacks a larger insect, it will burn a bigger hole in the insect. Don't mean to be crude, but the way it works is it eats the cuticle layer of an insect, burn it out, uncontrollable loss of moisture, okay.

A thinner product does a better job on certain insects, but a thicker product does a much better job -- going back to my mealy bug example. When you have a larger insect, you need something that's going to be stronger on that insect, and that is what sorbitol does that sucrose cannot do.

That's probably not the case with bee mites, but it is the case with mealy bugs, it is the case with leps, it is the case with some of the stronger insects that cannot be

- 1 controlled by sucrose.
- 2 And so those are the three primary
- differences. And my question is if we can't
- 4 vote to allow it now, I'd like to see if we
- 5 could at least allow for, you know, a review
- of the product or at least table it.
- 7 MR. DELGADO: Gerry.
- 8 MR. DAVIS: The question on the
- 9 two materials on mite control in bees, is it
- 10 sucrose only?
- MR. REYNOLDS: Sucrose is the only
- one that's registered today for bee control.
- MR. DAVIS: That wasn't real clear
- to us when we were going through it.
- MR. REYNOLDS: No, it's -- I'm
- just saying mathematically from a chemistry
- standpoint, the molecules in sorbitol probably
- 18 would not be as good on bee control of mites
- than sucrose is. But it is not registered
- today for been control.
- 21 MR. DAVIS: And what would have
- 22 been the scenario if both of those materials

1	received EPA registration at the same time?
2	MR. REYNOLDS: I have absolutely
3	no idea.
4	MR. DAVIS: I mean as far as your
5	submitting them for organic consideration.
6	Would you have submitted them at the same
7	time?
8	MR. REYNOLDS: I would have, yes.
9	MR. DAVIS: The only reason we
10	it's taken a few years longer for us to see
11	sorbitol is because you did not have an EPA
12	registration at the time that the sucrose
13	petition was put in.
14	MR. REYNOLDS: It was my
15	understanding and again, I was not part of
16	the process when they put it in, so you're
17	asking me something that I have no idea about,
18	and you're asking me if it was me. It's my
19	understanding we can't submit anything until
20	we get an EPA registration, period.
21	MR. DAVIS: Right, yes, I
22	understand that. But that explains the delay

1 in -- because now the issue is, well, we 2 already have sucrose octanoate on the list, 3 why should we allow sorbitol. That's one of the reasons. 5 MR. REYNOLDS: Sure. Exactly. And again, my reason is because they are two 7 different products doing two different things. 8 Again, you have white sugar and 9 brown sugar. When you make molasses cookies, 10 do you make them with white sugar? No. 11 make them with brown. Same difference with insect control. 12 13 MR. DELGADO: Any questions, 14 comments? Okay. Thank you very much. will now continue with Patti Bursten-Deutsch, 15 followed by Grace Marroquin. 16 MS. BURSTEN-DEUTSCH: 17 Ηi, 18 everybody. Good evening. I am Patti Bursten-19 Deutsch, president of Organic Concepts, an 20 independent organic inspector and a certified 21 organic dairy farmer.

It is my plan to comment in five

22

1	sentences, and this is now two. Will the
2	verification of the 30 percent DMI requirement
3	be based on an assumption of how much each cow
4	is consuming, or is each producer required to
5	demonstrate in some explicit way that each cow
6	actually consumed 30 percent dry matter?
7	Please consider this and provide
8	clear, concise, and unambiguous guidance to
9	farmers, inspectors, and certifiers.
10	I appreciate very much all of your
11	earnestness and hard work in what I hope is
12	not a thankless effort.
13	MR. DELGADO: Very good. Are you
14	addressing that to the board at the moment?
15	MS. BURSTEN-DEUTSCH: I was hoping
16	Richard would be here, and I feel like it
17	needs to be inserted in the public comment.
18	MR. DELGADO: Yes.
19	MS. BURSTEN-DEUTSCH: Thank you.
20	MR. DELGADO: As I also remind the
21	public, there is always the option of
22	submitting written comments, questions.

1	Going on with Grace Marroquin.
2	MS. MARROQUIN: I'm Grace
3	Marroquin with Marroquin Organic,
4	International. I promise I'm not going to
5	talk about yeast. I promise.
6	Besides being an organic

ingredients supplier, I also have a reputation
for minor ingredient suppliers. That means
those ingredients that are generally used from
a half to 3 or 4 percent. And of course,
yeast -- I did say the word once -- fits into
that category.

13 But I am here actually because you are discussing citrus pulp, and there were 14 some questions raised in this discussion, and 15 I want to give some support to this issue 16 17 because I think, Dan, you brought up the question about other companies -- because they 18 19 have these five patents out there, there 20 wouldn't be this incentive for anyone to do this. 21

22 Well, I represent a company called

1 the Marma Corporation, and they are based in 2. Labelle, Florida, and we are producing a product, we're calling it citrus hummus, which 3 4 is comprised of citrus pulp and membrane, 5 which is the same product, in addition to the flavino, which is the orange part of the 6 7 orange, and albedo, which is the white part of 8 the orange. Very similar in action, but it 9 has other additional properties.

10

11

12

13

14

15

16

17

18

19

20

21

22

But already there is another company standing in there, and at one point it was our understanding that China was producing the citrus-type hummus product a long time ago.

So I want to give them support to the idea also about the problem with raw material availability. Their product, as he mentioned to you, has a 20-to-1 ratio. The product that we are producing is an 8-to-1 ratio, and I called my supplier here about an hour and a half ago to confirm what they had told me, which is there's not enough organic

fruit to be able to do this organically yet.

2.

3

4

5

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

Now I wouldn't have even aligned myself with the Marma Corporation if it wasn't because I thought there was a possibility of bringing this product out organically, because that's what we do. And there's not too many companies as foolish as ours who look at that little minor ingredient and goes after it, because we feel that with the idea of organic preferences, you put it on 606, and it motivates companies to produce things. just as if you put this on it, and you're going to find that there will be other companies who will be looking at it, and they may be coming in from Honduras or El Salvador where maybe they have more control of smaller production and they will be able to do it. But this is how this industry grew, this is why we are here where we are today is because of organic preference.

The industry needs things like shelf life extenders and antioxidants and

- preservatives. This product gives them an opportunity for shelf life extenders.
- Our product, when we bring it out,

 will be also a powerful antioxidant. I didn't

 know they were going to be here today, and I

 was trying to get my guts up to be able to do

 another petition which, you know -- and it is

 a daunting process, but at least if you put

 something on the 606, there's the opportunity

That's all I have to say. And how
am I going to petition this? That would be my
next question. If someone is petitioning for
pulp, then we go pulp and fiber and albedo and
flavedo, you know -- but you can talk to me
about that separately.

then to produce something organic.

But, again, I just wanted to give some support.

- 19 MR. DELGADO: Thank you.
- 20 Questions?

10

MS. MARROQUIN: Thank you all, and good luck tonight.

1	MR. DELGADO: I guess there's a
2	question. Joe.
3	MR. SMILLIE: I'll keep it brief.
4	I have a comment that I believe that the
5	evidence is slowly turning that when you put
6	something on 606, it spurs the growth of
7	organic, and I think that we're starting I
8	think the Handling Committee, dealing with
9	this every day, that's what we're seeing.
10	MR. DELGADO: Thank you. Next we
11	have Katherine DiMatteo.
12	MS. DiMATTEO: Thank you. Hello.
13	My name is Katherine DiMatteo, and I'm with
14	Wolf, DiMatteo & Associates today.
15	I like being sort of at the end of
16	the list because I'm picking up the bits and
17	pieces of things that haven't come up yet, I
18	hope.
19	What I wanted to say is that
20	National Organic Coalition, which is made up
21	of a broad group of environmental and organic
22	farming organizations, including Beyond

1 Pesticides, Center for Food Safety, Equal 2. Exchange, Food and Water Watch, Maine Organic Farmers and Gardeners Association, Midwest 3 Organic and Sustainable Education Services, 5 the National Co-Op Grocers Association, Northwest Dairy Producers Association, 7 Northeast Organic Farming Association State Council through the U.S.A. and the Union of 8 9 Concerned Scientists -- their electronic 10 comment did not appear. So you did not see 11 it, and it was on a number of issues, 12 including the multisite certification. 13 In it, they do support the current recommendation with some suggestions for 14 15 changes to make clear that the recommendation and the criteria are about producer groups 16 17 now. 18 So I just wanted to make you aware that this broad coalition in their comment 19 20 also supports the current statement with some 21 suggestions for changes, and if you can get 22 your hands on that, I think you've seen that -

1 - some of those suggestions already.

And I just want to -- I bring that

up because I wanted to say that over the

course of the last year, we in the community

have closer together on supporting the

recommendation.

So a lot of suggestions that we had come out individually in terms of how to define what a smallholder is, how to define to do the samples, how to put requiring limits or the five-year having -- making sure that everyone got inspected once every five years -- what you are seeing now with the support for the current recommendation is that we have come closer together to support the criteria and the protocols that are being set up in that recommendation.

I would just caution you, a number of people have said this on different issues during this -- these meetings, that we -- the organic sector is defining ourselves out of existence if we're not careful about how much

we write in as prescription as opposed to process and to clear criterion protocol.

We must be careful. Don't let ourselves be destroyed by lack of trust and giving up on the process-based system that we really believe in.

And I want to add to that comment,
I want to read from Grace Keshuni's comment.
She had to leave. She was also one of the
people who have fallen off the list, but I'm
reading this from Grace's comment, which you
have, because I agree with it.

Again, now I'm Grace.

"Once upon a time when I was an activist and small organic farmer, organic standards were a self-imposed system of rules developed primarily by organic farmers, those who had to work with them on the ground.

Consumer expectations have always figured into organic standards, but there was a general understanding that consumer perceptions of what is pure and natural did not always fit

the reality of organic farming, let alone food 1 2. processing. Organic standards were not just 3 about marketing products, either. We thought that consumers might well be ignorant about 5 farming and food production, but they could It was more important to support 7 farmers who did the right thing than to pander to consumer fears. Today no one seems 8 9 bothered by the assertion that consumer 10 expectations, even those grounded in 11 ignorance, are all that matters. Add to that 12 the argument that consumers cannot understand 13 and could care less about the nuances of organic methods and only want to be assured 14 15 that organic products meet the toughest possible standards. What it often adds up to 16 is unparalleled hypocrisy and betrayal of the 17 early vision of organic in the name of an 18 19 ideological anticorporate agenda that actually works against the interest of both small 20 21 farmers and ordinary citizens. In fact, 22 tightening the rules creates more obstacles

1	for small players to enter the market than for
2	large players who are accustomed to meeting
3	bureaucratic requirements and have paid
4	compliance staffs. They actually prefer to
5	have tighter standards to protect the
6	substantial investment needed to get in. With
7	the myriad crisis we face, not least of them
8	climate change, why on Earth would anyone want
9	to limit the possibility of the broadest
10	possible transition to organic methods without
11	delay."
12	Thank you very much.
13	MR. DELGADO: Questions for
14	Katherine? Tracy.
15	MS. MIEDEMA: Just a quick
16	clarification. Valerie did e-mail out the
17	National Organic Coalition comments, and I
18	have spoken with Lynn Coody about specific
19	wording confusion. So we are on top of that.
20	MS. DiMATTEO: Okay.
21	MR. DELGADO: Joe.
22	MR. SMILLIE: I just wanted to

1 say, Katherine, you mentioned a fairly large 2 group of people, and you are saying that there 3 was consensus and support of the multisite 4 document, and you said there was a few issues. 5 Could you just briefly hit those ones? We're 6 on top of --7 MS. DiMATTEO: Lynn or Emily -- I don't have it in front of me. 8 9 Brief. Well, we've MR. SMILLIE: 10 got the one that says change -- oh, my brain. 11 MS. DiMATTEO: Change post-harvest 12 handling. 13 MR. SMILLIE: Yes. Change handling to post-harvest handling. We've got 14 15 that one. If we could just get the titles. 16 MS. DiMATTEO: Yes. Yes. MS. ROSEN: 17 Okay, page 1, the 18 title, and all references to multisite to 19 grower groups.

20

21

22

Neal R. Gross and Co., Inc. 202-234-4433

well, there's an insertion of farmer livestock

producers in a few places. Definitions.

Page 4, change definitions of --

- the definition of post-harvest handling.
- 2 Production unit. Change the definition to
- 3 include -- so it says, portion of an organic
- 4 operation where agricultural products are
- 5 produced, delete "and/or handled." I mean,
- 6 you know, if you want us to, we can print it
- 7 out and give it to you.
- 8 MR. SMILLIE: Yes, if you could,
- 9 that would be great.
- I think -- but again we're not
- 11 talking big ticket items here.
- MR. DELGADO: We have Bea.
- 13 MS. JAMES: Thank you for your
- comments, Katherine. Does the group that you
- are representing, do you know if they support
- 16 the idea of addressing the multisite construct
- for retailers and/or processors?
- 18 MS. DiMATTEO: Okay, let me just
- 19 clarify. I am not representing the National
- Organic Coalition. Wouldn't that be lovely.
- 21 (Laughter.)
- 22 But I brought them up because I

1 thought it was -- I felt it was important that 2 this -- the group, the National Organic Coalition, and some of the other positions 3 4 that have been presented over time, which were 5 further apart, we have come closer together And I think that the National Organic 7 Coalition's position now still would prefer to make it unambiguous that currently this is not 8 9 a recommendation about handlers or retailers. 10 MS. JAMES: Separate, as a 11 separate --12 MS. DiMATTEO: Well, I'm not going 13 to answer for them on the separate. Personally, for me, Wolf, DiMatteo & 14 15 Associates, I support that there can be criteria developed that is specific and 16 appropriate for other types of growers. 17 MS. JAMES: We would love to work 18 19 with the NOC. 20 MS. DiMATTEO: Thank you. 21 MR. DELGADO: Any other questions? 22 Thank you very much, Katherine. Let's move on

- then to Will Fantle, and you have a proxy.
- 2 MR. FANTLE: Yes, I have a proxy
- 3 from Mark Kastel, the codirector of the
- 4 Cornucopia Institute. I gave that to Valerie
- 5 earlier today some time.
- 6 MR. DELGADO: Please.
- 7 MR. FANTLE: I am speaking for
- 8 Mark Kastel of the Cornucopia Institute, our
- 9 codirector, and I am going to be talking about
- 10 the livestock rule. Yes, the livestock rule.
- 11 What began as an exercise many
- 12 years ago in the middle of the last decade to
- address the problems, the interpretations
- 14 between pasture and dairy, morphed somehow.
- 15 It got transformed into the rule that was
- 16 delivered to us on the 23rd, the proposal that
- we are calling the livestock rule for its
- 18 inclusion of additional species under
- 19 livestock, fish, bee, only, not bees but bee,
- its take on how we should treat beef,
- 21 finishing of beef.
- 22 In fact, we will suggest that this

is an overly broad and sweeping revision of many, many parts that extend far beyond the problem that has been identified of pasture and dairy.

It is our opinion that the implementation of the rule as proposed will put out of business hundreds of legitimate organic livestock producers. This is something that we need to consider.

And we are left in somewhat of an awkward position with this because our citizen advisers here haven't had the opportunity to comment and weigh in on this rule on many of the provisions — the new definitions, the rewrites, the new language, that have not been fully discussed, publicly vetted in our hearing process. This is very disappointing.

What that has left us to do, as the organic community consisting of farmers, processors, handlers, certifiers, and retailers, to try and identify what this rule means.

We have been reading hard, we have
been trying to pull together different ideas
and alternatives and thoughts on what to do,
but it's a difficult proposition for us, with
so much never being publicly discussed before,
and trying to weigh its implications.

The other thing that leaves, at least in the opinion of the Cornucopia

Institute, is for the current rule to continue to be enforced.

That means investigations cannot be deferred, as has happened in the past. We have FOIA documents from the NOP indicating that investigations were deferred several years ago because a pasture rule rewrite was underway. This is unacceptable.

We know this rule can be enforced, the existing rule. We have the incident of the Vanderick Farm, the 10,000 herd operation in California that was decertified under this rule. We know that the Aurora Facilities and the findings of fact that were found by the

NOP investigators, 14 willful violations of organic law, further evidence that this existing rule can be enforced, can be used to manage our process. This still needs to be done over the next foreseeable future, for however long this takes to be vetted.

We know that even under the

We know that even under the optimistic scenario that this rule, if everything were to sail through as soon as possible, would not take effect until the growing season of 2010.

We have some other specific concerns that I'm going to make a comment on.

Pasturing of cattle for the entire grazing season is important, not just for 120 days, but the entire grazing season.

We know this would be a challenge in parts of the country, in parts of California where the rainfall is much more compressed into perhaps a two-month period of time. We met with dairy farmers last week out there, and we heard this would be a challenge

- to them to even meet the 120 days, but they
 were willing to do it, to try and make their
 best effort at doing that.
- The desert dairies in the 4 5 Southwest, some of the larger dairies, we think their pasture must be required to be 7 irrigated much like any other crop that's 8 grown in that region. Irrigation is 9 fundamental to keep that playing field level 10 so that they can't use lack of pasture as an 11 excuse to haul those animals off the range or 12 the pasture.

We would also suggest that three

times a day milking be prohibited. It's a

challenge logistically for any farmer to bring

animals in and out, in and out, in and out,

with a three time a day milking scheme.

If it is allowed in the

continuation, it's not proposed to be

eliminated, we are suggesting it should be, we

think there needs to be more strenuous

auditing done by certifiers to ensure that

1 this rule is not being cheated on.

NOSB in their recommendation.

6

11

12

13

14

15

16

17

18

19

20

21

22

The origin of livestock is a

biggie. The proposed language that is in this

rule is not acceptable. In fact, it flies in

the face of what has been suggested by the

We would suggest that the last
recommendation from the NOSB, looking at last
third of gestation, be substituted for the
language that is currently in the rule.

Lastly, I just want to talk a little bit about the process on this. We have formally asked for a 30-day extension on this. We think this is important. The community is still trying to figure this out. I know there is not even harmony within the community on whether or not we need an extension. It's our opinion we do.

Farmers we know that we're talking with are still just learning of this rule and looking at it. Transparency and inclusion have been hallmarks of the organic process.

- This needs to be brought to the sweeping rule to make sure that all of its ramifications are looked at by the process.
- Barbara Robinson, the acting

 program director, just yesterday, when talking

 about the philosophy of the NOP, said it's

 better to do it right than quick. Her exact

 words.
- 9 We think that should be applied to this rule as well.
- 11 Whatever emerges out of the back
 12 end of this, Cornucopia wants this rule to be
 13 strict. We also want this rule to be
 14 enforced.
- Thank you.
- MR. DELGADO: Thank you.
- 17 Questions? Thank you. And that is the last of the listed official speakers.
- 19 MS. FRANCES: Lisa Engelbert
- 20 postponed her comment to give you space last
- 21 night.
- MR. DELGADO: All right. We have

1	a couple of speakers that signed up recently.
2	We will allow them to go, and I will ask the
3	board members to consider being economical
4	with your questions. I'm concerned about the
5	time. I know the committees need to work on
6	the specific change, and I would appreciate
7	the members to be brief and concentrate on the
8	issues. That's what we are looking for.
9	Yes, Tracy?
10	MS. MIEDEMA: How many more?
11	MR. DELGADO: We have one, two,
12	three, four, five, six. Yes.
13	MS. MIEDEMA: Mr. Chair, with all
14	due respect, I move that we adjourn simply to
15	prevent fatigue for tomorrow when we are
16	voting.
17	MR. DELGADO: The Chair will
18	intend to take up the rest of them here, and
19	we will have an extension of 10 minutes, 15
20	minutes, to allow a couple of speakers. Hugh?
21	MR. KARREMAN: I know that someone
22	from the AWG came down from Maine. I'd like

- to hear him, Sebastian Belle, if possible. If
 he's on the list. I think he is.

 MR. DELGADO: I really don't know.
- If we allow one, we have to allow all of them,
- 5 and we do have six of them. So if the
- 6 question was --

it.

10

20

- 7 MR. KARREMAN: There is a motion.
- I mean there's a motion that you were asking

 if there was any questions. I did not second
- MR. DELGADO: Indeed we have a

 motion that we adjourn, and we ask if there is

 a second. Do we have a second? We don't.
- We are going up to 20 minutes

 after the hour, and try to get as many people

 as possible, and members of the public, I

 would request that you limit your time as much

 as possible and concentrate issues so we can

 be productive and allow this board to go
- 21 Up next then we have Luke Howard.
- Is he here? Okay, let's move on to Lisa

concentrate on dinner.

- Engelbert. And after Lisa we're going to have

 Harriet Behar.
- MS. ENGELBERT: Lisa Engelbert,

 dairy program administrator, NOFA New York

 certified organic in Binghampton, New York.
- I definitely will be brief. I'm hungry, too.

A few things that I'd like to

Comment on, multisite certification. I'm

still not clear if the recommendation includes

retail establishments. I heard two different

comments that took it both ways.

13

14

15

16

17

18

19

So we don't believe retail
establishments should be included in multisite
certification. Retail establishments should
not be exempt from inspection each year. We
feel that there is a high potential for fraud,
mainly due to high employee turnover in retail
establishments.

20 Multisite certification should be 21 limited to producers outside the U.S. Anybody 22 inside the U.S. really should be inspected each year.

14

15

20

21

22

2. NOP training. Thank you for --3 glad to hear that we're going to be having 4 additional face-to-face trainings. We were a 5 little concerned that we were going to Webbased training format, and we weren't really 7 happy about that, so thank you. important to have the face to face with the 8 9 NOP in training. 10 Ethylene gas for ripening pears. 11 We don't agree that it should be added to list 12 for ripening pears. We don't believe it's 13 necessary to add substances to make things

easier or faster or get them on the shelf

sooner or keep them on the shelf longer.

16 That's not really what organic is all about.

Organic consumers want less
processing and fewer substances used on their
products, not more.

And quite honestly, if organic consumers really truly understood some of the things that are on the list that are being

used, they probably wouldn't be buying those
products.

The NOSB is a gatekeeper in the

organic industry. It's really up to you guys

what goes on the list and what really truly is

needed in this industry.

7

8

9

10

17

18

19

20

21

22

If unnecessary substances keep getting added to the national list, at some point the word "organic" will become meaningless.

Hundred percent organic label.

Overall, we agree with the recommendation. I

don't like seeing livestock feed labeling

lumped in with human feed labeling. They're

really kind of two different issues there. So

hopefully you'll take that into consideration.

Most feed mills are not labeling their feed as 100 percent organic. Obviously anything going into an animal has to be 100 percent organic if it's an agricultural product, to which you can add allowed substances, like minerals and things like

1 that.

2 Commercial availability of seeds.

We overall agree with the recommendation, but

4 the section -- it's B5D, I believe --

5 requiring certifiers to submit historical data

on acreage and percent of organic seeds used

7 for each producer is problematic.

8 I really can't imagine the amount

9 of staff time that that is going to take.

10 It's going to be additional staff people

11 needed as certifiers for that one

12 recommendation.

13 Hopefully this can be handled

14 through ACA trainings and through the

15 accreditation process. Our experience at NOFA

16 New York is producers seem to be using more

seeds each year. We are not allowing cost as

a factor in determining commercial

19 availability.

18

20 I'm not going to comment on the

21 proposed pasture rule. I've already commented

in Auburn at the listening session, and we are

going to be submitting written comments on that, other than saying thank you for getting it out to the NOP.

Lastly, I would like to comment on civil penalties. I know they are not being assessed to operations that are being revoked, that are found to be fraudulent. I've said this in prior public comments. I really believe that's the only way we're going to stop some of the fraud that's potentially going on.

A lot of these operations are in it for the money. They don't care about the organic integrity. They don't care about the organic industry. They care about their bottom line. If they can take short-cuts, they're going to do it. If they do it and they get caught and it's jeopardizing the integrity of organic products in the marketplace, they need to pay the penalty for that. Revocation is not enough. They have already made their money on the organic

1	system. They don't care if they lose their
2	certification at that point. They need to be
3	fined.
4	That's all I have. Thank you.
5	MR. DELGADO: Questions? Bea.
6	MS. JAMES: Thank you for your
7	comments. I have a question for you. If we
8	can't make multisite certification work within
9	our own country, how can you justify that it's
10	a construct that can work internationally?
11	MS. ENGELBERT: I would prefer to
12	see every operation inspected every year,
13	actually. I realize in some of the Third
14	World countries there are some small grower
15	groups in close proximity, all under the same
16	organic system plan. They have a strong
17	internal control system, where people say it
18	can work. We're not certifying any of them.
19	I can't really comment on that.
20	MS. JAMES: But you support the
21	idea of multisite certification for
22	MS. ENGELBERT: Those really small

- operations that are under really close
- 2 supervision.
- 3 MR. DELGADO: Any other questions?
- 4 Thank you.
- 5 MS. ENGELBERT: Thank you.
- 6 MR. DELGADO: Jennifer, you have a
- 7 question?
- 8 MS. BEHAR: Hello. I'm Harriet
- 9 Behar, and I believe you all have my comments
- in front of you. Is that right?
- MR. DELGADO: We do.
- MS. BEHAR: Okay. Technical
- 13 review panels. The organic community has
- lobbied hard to get more NOP funds to cover
- 15 costs for third-party TAP reviews, so dollars
- should not be an issue here.
- 17 The NOSB puts in many hours
- 18 working together and strives for a continual
- 19 atmosphere, making it difficult to challenge
- the work of another member. With no third-
- 21 party TAPs, the board is relying on the
- 22 petitioner as their only source of outside

1 information.

The board itself is one organism

and cannot do TAPs and approve them as

complete. This is an inherent conflict of

interest, as well as not meeting both the

letter and the intent of the OFPA.

The NOSB is a stakeholder board and should not be converted into a board of experts. The OFPA gives the guardianship of the national list to the NOSB as well as giving them the tools to perform this responsibility with the depth and expert input that is necessary.

Please err on the side of more information rather than less. Do not put a responsibility on your shoulders that is not required in the OFPA, nor acceptable for a volunteer board.

Judging a material as

straightforward that does not need an outside

TAP review assumes that you already know the

status of the material before it has gone

- 1 through the review.
- 2 Again, I ask the NOSB to pressure
- 3 the NOP, as I look at Mark Bradley, for the
- 4 implementation of the peer review panel as
- 5 required in the OFPA, as well as a transparent
- 6 program manual as required by ISO.
- 7 This should include a clear
- 8 procedure that informs the NOSB and the public
- 9 on how best to make --
- MR. DELGADO: Excuse me, can you
- 11 just --
- MS. BEHAR: Am I too far away?
- MR. DELGADO: -- move closer to
- 14 the microphone.
- MS. BEHAR: Okay. -- make
- 16 recommendations on specific standards they are
- drafting on the content as well as the
- 18 timeline for the NOP to respond, or ask for
- 19 further information to move the
- 20 recommendations forward.
- The NOSB and the public spend
- 22 massive hours on these recommendations and are

- frustrated when the NOP decides they are not a priority.
- Having a written transparent

 process for the NOP and the NOSB with

 communication will help both groups understand

 each other's priorities in order to move the

 recommendations forward.
- 8 I'm going to skip down to 9 biodiversity.
- I support the rewording of the

 document as presented by Lynn Coody for the

 Wild Farm Alliance. This does not burden

 farmers. Biodiversity is the basis of organic

 farming, a system that mimics natural

 processes.

There are multiple ecological
services provided to farmers such as lower
insect problems, as well as improved quality
of life and ecosystem when the farmer
consciously works to enhance and expand
biodiversity on their farm.

22 And this brings me to materials

and the view of organic as a functioning

organic system. Tetracycline, I agree with

the committee recommendation to reject this,

especially with the thought that two other

related items should remove when they sunset.

There is documented evidence of resistance in orchards to these antibiotics as well as ongoing research in both the organic and nonorganic community to find alternatives which include technologically sophisticated monitoring paired with more benign inputs.

Approving this product sends the wrong message that this family of products is not problematic.

Sorbitol. I agree with the committee recommendation to reject this product. While I appreciate growers would like less expensive inputs for insect control, adding more products to the national list sends the wrong message, approving synthetics rather then encouraging the management of insect problems with a systems approach.

Pelargonic acid. This is the same
issue. The longer that organic farmers work
with their systems, the less weeds are an
issue. We do not want to offer material
crutches that can be used on farms to cover up
poor management rather than having farmers
learn their own systems that are site specific
for control of their specific weed challenges.
I am also concerned about removing
weeds from roadsides and ditches and the
negative effect this has on biodiversity and
soil erosion.
Ethylene for ripening pears
MR. DELGADO: Your time is up.
MS. BEHAR: Okay. You have my
comments.
MR. DELGADO: Any questions?
Let's move on then to we have Barbara
Blakistone, followed by Sebastian Belle.
Barbara, are you with us? We don't see her.
Sebastian, please step to the microphone.

- 1 have Brock Lundberg.
- 2 MR. BELLE: Good evening, I think.
- I don't know how you guys do it. I'm very
- 4 impressed, I have to say, and my sympathies
- 5 are with you.
- I'm going to be very brief. Dr.
- 7 Karreman, thank you very much for mentioning
- 8 me in recognizing that I was in the room. I
- 9 appreciate that.
- I just wanted to make a couple of
- 11 comments. One is, first and foremost,
- 12 recognize the hard work and long time that the
- 13 Livestock Committee has put in on the
- 14 aquaculture issues. I know this is an issue
- 15 which you would probably at this stage of the
- 16 game would much rather see go down the road
- and not coming back, and I don't blame you.
- 18 So my apologies for being the source of some
- 19 hard work and angst there.
- I also recognize and appreciate
- 21 the fact that the Livestock Committee, or at
- least that the AGW may have become

overengaged, and that the Livestock Committee

has needed to have an independent and rigorous

discussion amongst themselves, without the AWG

engaging, and I want to recognize that and

appreciate that.

Having said that, I want to make a couple comments. I want to make clear that I'm not commenting on behalf of the AWG. I am commenting as a person who works for the Maine Aquaculture Association. We represent about 140, 150 farms on any given year. We are old-family owned, and we are very small, so I am not probably the best commenter from the aquaculture perspective, but I do represent a group of growers.

At the risk of alienating the Livestock Committee members, because I'm coming from the AWG side, I would like to suggest that you very seriously look carefully at the latest AWG comments. Those comments were made respectfully and in the spirit of trying to take our technical expertise and

seeking to help the Livestock Committee

achieve the goals that they had articulated,

but making sure that the way you did that was

technically sound. And I think that's the key

piece.

One, on the feeds. Recycling processing
waste. Our interpretation, at least my
interpretation is that the one-to-one wild
fish to cultured fish ratio as it's currently
crafted in the standards applies to processing
waste as well as fish coming from industrial
commercial fisheries. We think that is a
mistake. I think that's a mistake.

We should try to reward processors who are trying to take byproducts that would normally be thrown away and put in landfills and allow them to put as much of that as they can in, and we shouldn't hold them to this one-to-one wild fish to cultured fish ratio for processing byproducts.

I certainly support the one-to-one

ratio for the industrial fish commercial end of things.

3

9

10

11

12

13

14

15

16

17

18

19

20

21

22

Also under the feeds, the

requirement that all pollutants are removed.

I would respectfully assert that there is no

feed in the world and, in fact, no grazing

system in the world that could achieve that

standard. I think that's just not possible.

So AWG did have some language that they submitted to try to highlight the need to deal with pollutants and make sure that the standard was higher than anything else, but didn't fall into the trap of this all-ornothing trap, which I think from a certification point of view you're just not going to be able to certify anything.

Net pens. Three key points. Zero impact on predators, and I think is probably an unintended consequence, but the reality is the rest of the standards establish very strict control and standards with respect to predator interactions and requires farmers to

- 1 maintain biodiversity and establish a
- 2 proactive predator deterrence program.

3 Effective deterrence inherently

4 implies impacts. Okay. Because you are

5 talking about either exclusion or behaviorial

6 modification of predators. So you cannot have

7 a zero impact standard and still have a

8 predator deterrence program.

9

10

11

12

13

14

15

16

17

18

19

20

21

22

The term "prevent the spread of disease in a facility or to surrounding ecosystems and populations," I would argue that no culture system in the world can prevent. They can seek to prevent, but they cannot prevent, and so that was a modification that AWG put forward.

And finally, the waste management plan. The 50 percent recycling requirement, very high standard. I think when that rolls out, we're going to find that even fish which are so-called from rivers, are going to have a very hard time meeting that. It's going to be very complicated to measure. I don't

1 oppose that. I would only ask that you have 2 a phase-in period much the same way as you had a phase-out period for fish meal and fish oil. 3 4 I think that accomplishes, sets the goal, 5 holds people to it clearly, allows them to 6 work toward something --7 Sebastian, your time MR. DELGADO: 8 is up. 9 MR. BELLE: Thank you. 10 MR. DELGADO: Any questions? 11 Hugh. 12 MR. KARREMAN: Thanks for coming, 13 Sebastian. I was just wondering -- two One real quick. Demographics of 14 questions. 15 your farmers up there that you work with, like what do they grow, and are they using a lot of 16 17 net pens or not? I just want to have an idea what it looks like up in Maine. 18 19 Fifteen species MR. BELLE: Yes. 20 Most of my members are actually we grow. shellfish growers, but we do also grow salmon, 21 halibut, and cod. Our halibut farms are land

22

1 based. Our cod and salmon farms are net pen 2 We have 40 sites that are net pen 3 based in the state. On any given year, about a third of those are used, because we rotate 5 between sites on a three-year cycle, so we do crop rotation. I don't know if that helps. 6 7 MR. KARREMAN: And then also I did 8 read all your comments, and there are a lot of 9 technical details that the program -- if this 10 gets up to the program, they will take care of 11 some of those details. Okay. But are you in -- with George 12 13 Leonard's performance metrics, how do you feel about that kind of approach? 14 15 MR. BELLE: Thank you for asking Performance standards are --16 that question.

well, just as a little bit of background.

engage in the World Wildlife Fund dialogue.

I sit on the ISO standards, a committee which

is promulgating aquaculture standards for ISO.

I sit on the Standards Oversight Committee for

17

18

19

20

21

22

the Global Aquaculture Alliance. All of those

groups are debating performance standards.

2.

The AWG talked about performance standards for probably three-and-a-half to four months. The conclusion we came to is if you're really going to do it, it's got to be species specific and it's very complicated, and it's very easy to promulgate performance standards which work for one species and are completely unworkable for another species.

I'll give you an example. Zero interaction genetically between farmed animals and wild animals. In fin fish, there are ways that you can come very close to that. In shellfish, which are broadcast spawners, or in pelargic marine fin fish, which are also broadcast spawners, probably the only way to even get close to that is to use triploi to induce sterility, currently prohibited under the organic standards.

So that's a case where you've got to kind of go through it on a case-by-case basis.

1	Performance standards are very
2	sexy, I think. They're very I mean who can
3	argue against performance standards? But when
4	you really get down into the weeds, they are
5	very, very, very difficult to work through.
6	MR. DELGADO: Any other questions?
7	Jennifer.
8	MS. HALL: It's not a question,
9	Sebastian, but just a thank you to you and all
10	your colleagues on the aquaculture working
11	group. Thanking us for our commitment is
12	it's not comparable to what you guys have
13	committed to this cause, and I appreciate you
14	and several others who have also made the trip
15	to this meeting several times personally to
16	share your wisdom with us.
17	MR. BELLE: Well, I appreciate
18	that. Thank you.
19	MR. DELGADO: Any other questions?
20	Thank you very much. We are moving on to
21	Marty Mesh. He's not here. We're moving on
22	to Brock Lundberg.

1 MR. LUNDBERG: Hi. Good to see

2 you again.

As an engineer, instead of saying

I'm going to keep it brief, I'm going to say

one minute. One minute.

Okay. I just wanted to provide a follow-up response to the question asked about possible replacements for gums or possible replacements on the ingredients that show up on 605 or the 606 list.

I did take a look and some of the possible replacements — it's not necessarily going to be exact one—to—one replacements, but it's all going to be low usage level, and there are some functionality for fat replacement in emulsifying, and those ingredients are alginates, pectin, xanthan gum, and then the wider extract gums that show up on the list as well as the gelatins. So those are the possible replacements. I don't have exact data specifically how it works, but just conceptually those are some of the items.

1	MR. DELGADO: Any questions?
2	Thank you very much.
3	Well, that concludes this session.
4	(Applause.)
5	I thank all of you for your
6	patience and input from the public. Yes, Joe?
7	MR. SMILLIE: I don't know if
8	anybody else has got announcements, but I'd
9	like to say that I'd really like to see a CACC
10	meeting tomorrow morning 20 minutes before we
11	start. Twenty minutes before the start of
12	tomorrow morning's CACC.
13	MR. DELGADO: We start tomorrow at
14	8 o'clock.
15	MR. SMILLIE: Not tonight. So
16	7:40, CACC meeting. Attendance is not
17	optional.
18	MR. DELGADO: Julie.
19	MS. WEISMAN: The Handling
20	Committee unfortunately we need to find a
21	way to pal out tonight, hopefully not for too
22	long.

		Page 551
1	MR. DELGADO: Specific time?	
2	MS. WEISMAN: Right now, I guess,	
3	you know, we need to eat.	
4	MR. DELGADO: Talk to Julie after	
5	dinner, see if they have a specific time for	
6	the meeting.	
7	MR. KARREMAN: We can do it after	
8	dinner. That's fine with me. Nine o'clock in	
9	here?	
10	(Whereupon, at 7:22 p.m., the	
11	meeting was adjourned.)	
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

	ACAs 155:6,15	447:3,13 479:5,12	90:3 111:14 259:2	adding 26:1 70:18
A	158:3 167:2,7	531:15	acted 22:15 97:5	72:4 112:4 116:20
AAFCO 304:12	177:1 422:16	accredited 105:4	105:12 231:11	183:15 185:3,11
306:9,11 350:13	425:17 432:21	138:5 155:1 320:7	acting 104:13 525:4	188:3 192:13
351:2	435:5,11	358:18 445:15	acting 104.13 325.4 action 3:21 8:8 15:5	194:22 198:12
AAPFCO 469:12	ACA's 155:13,22	446:22 451:1	38:5 39:3,9,13,22	201:22 202:7
470:8,14 472:7,10	156:7 161:8	457:19 478:7	40:1,13 42:8,21	214:3 240:19
472:14,19	422:12 452:5	accumulate 297:1	178:15,16,17,21	367:8 538:19
ABC 410:11	accept 9:2 202:22	accumulating 296:6	259:7 315:8	addition 10:16
abide 153:5	248:5 349:10	accurate 280:7	476:10 507:8	18:13 34:15,20
ability 19:12 59:6	357:4 409:5	450:2,10,18	actions 5:19	77:15 79:8 127:15
321:15,17 393:22	acceptable 316:6	accustomed 515:2	active 220:10 501:3	160:6 189:19
able 24:19 32:1	320:16 322:5	acetone 490:7,9	actively 33:3 259:16	195:8 202:12
41:13,14,18 80:1	473:11 524:4	achieve 323:6 430:5	activist 513:15	258:12 264:4
109:1 113:6 148:2	535:17	542:2 543:7	activities 8:11 53:1	266:19 268:16
170:13 177:22	acceptance 223:5	achieved 342:12	355:13 475:12	299:15,18 308:4,9
191:15 217:3	223:15	Achieving 153:7	activity 52:19	309:16 358:22
225:17 259:21	accepted 6:1 97:7,9	acid 41:5 50:19 63:2	204:10	370:18 463:16
268:3 278:6	145:5 320:13	211:6,21 213:8	actual 128:9 260:3	477:15 491:18
299:17 325:5	345:11 376:5	215:18 216:15	312:9 372:20	507:5
329:5,8 339:21		260:17 261:16	379:7 390:14	additional 11:8
381:22 382:18	accepting 244:10 access 107:3 145:21	539:1	495:18	29:14,15 30:7 37:5
383:2 387:13		acidified 260:15	ad 46:22	167:22 189:19
426:1 440:16	160:13 414:1,4 419:8 443:19	261:1		281:20 286:8
441:5 460:5	accommodate	acids 58:19 211:7	adapted 419:9 431:2	293:3 303:18
483:15 497:12	11:12 214:5	214:21 216:5	add 21:11 32:21	307:12 373:21
500:19 508:1,17	accommodation	351:9,13	33:4 84:10 99:9	378:10 388:4
509:6 543:16	235:9	acknowledge 252:8	124:17 167:22	447:7,14 454:18
absence 6:19 474:17	accompanied 354:2	252:15	190:7 193:4,20	456:1 480:12
absent 10:14 203:3	accompanies	acknowledges	190.7 193.4,20	493:8 498:19
217:9 264:10	398:21	449:14	201:9 202:19	499:1 507:9
268:17,22 271:17	accomplish 183:1	acoustic 318:12	203:2 206:8 214:7	519:18 529:4
274:4 281:12	197:22 198:3	319:20 330:8	282:6 309:7	531:10
284:18	433:1	acquisition 158:5	311:16 398:5	Additionally 48:2
absolute 140:20	accomplished	acquisition 138.3 acre 434:9	400:12 416:15	additions 7:22
absolutely 85:5	353:20	acreage 159:6	429:8 494:6	184:1 473:16
223:22 253:9	accomplishes 545:4	370:20 375:7	496:10 513:7	additive 454:20
432:1 503:2	accomplishing	531:6	514:11 516:22	additives 455:4
absorbs 464:7	152:10 187:9	acreages 499:4	529:13 530:21	address 11:15 12:8
abstained 281:12	accord 195:1	acres 127:18 138:17	added 11:5,7 18:13	66:1 99:9 114:7
abundance 326:4	account 129:14	138:18,20 158:18	130:15 141:22	134:22 140:4,10
Abundant 418:10	208:4 238:14	289:18 370:19	195:4 223:7 254:1	148:13 151:20
ACA 121:8,9	243:20 455:21	398:11,12,17	263:1,18 273:6,7	153:18 162:13
130:16 131:10	accreditation 3:9,12	407:15 409:20,20	281:11 288:15	163:8 180:5
132:18 142:5	3:14 100:17 101:1	410:22 412:17,19	300:5 308:3	182:11 193:19,22
157:14 176:4,9	101:4 112:7 150:5	413:4 414:17,18	339:15 359:11	198:20 199:21
177:17 178:14,15	155:14 156:7	414:21 498:20	477:7,8 529:11	203:17,20 229:14
531:14	161:17,19 165:22	act 16:6 38:22 89:8	530:8	245:15 252:1

250,22,264,22	offort 60:15 160:0	162.7 176.20	160.5 6 10 160.12	alginates 540:17
258:22 264:22	affect 60:15 162:9	163:7 176:20	162:5,6,10 168:13	alginates 549:17
265:4 271:10	223:10 225:4	245:11 246:5	178:2,5 225:7	Aliance 477:5
277:11 330:2	228:12 367:2	296:11 318:5	231:8 234:4	alienating 541:16
342:18 446:9	451:21	341:10 403:14	239:11 243:11,18	align 78:21
461:9 481:16	affectionately 35:8	441:20 446:2,13	339:2 347:9	aligned 508:2
487:10 488:8	affiliate 49:6,7	446:16 457:21	391:17 400:20	aligns 355:8
519:13	affiliated 99:16	513:12 529:11	419:10 475:10,13	Allan 445:6,13
addressed 97:9,14	affiliation 10:20	530:12 531:3	500:16	457:2,13 458:21
97:16 134:13	affordable 373:1	538:2,15	agronomists 469:22	459:5,21 460:10
148:12 183:21	afternoon 211:1	agreed 27:22	Agrosource 198:18	allay 124:9
332:13 356:18	238:14 246:22	185:21 212:17	AGW 540:22	allergen 487:5,7
442:5	247:9 254:5	252:21 274:13,13	ag-non-ag 493:10	488:5
addressing 113:19	348:18 360:15	agreeing 124:3	ag/non 81:15	alleviate 136:19
148:21 200:22	369:13	agreement 62:21	ag/non-ag 44:17	Alliance 181:8
489:14 505:14	afterthought 154:3	78:5 447:20	45:18 50:7 73:22	418:13 446:3
517:16	ag 75:11,15 81:16	agreements 447:19	85:19	475:7,8 476:7,18
adds 13:14 514:16	92:21 93:1	agrees 181:17	ahead 38:15 44:4	478:8 480:1,18
adequate 271:11	agencies 451:20	agricultural 33:10	60:19 62:14 64:10	537:12 546:22
357:4	486:21	33:18 44:19 50:16	76:14 77:8 91:7	allow 11:22 12:14
adhere 321:16	agency 155:1	50:22 51:7,11 52:3	120:11 235:19	43:12 45:13
adherence 371:20	158:13 228:22	52:6,13,17 54:1,16	237:21 240:17	146:19 153:20
adjourn 3:23	229:3 434:2,4	55:2,11,15 56:8,18	252:21 259:5	160:16 175:21
526:14 527:12	441:13 445:15	57:5,8,8,14,17	288:17 307:10	187:14,15,21
adjourned 551:11	447:1	58:12,16 59:5,20	397:8	208:15 209:18
adjunct 349:2	agenda 184:22	61:9,15 62:3,18,20	AHRQ 478:11	220:1 235:5
adjust 405:12	251:20 252:5,11	63:8 64:6 65:11	AHRQ's 477:18	248:13 338:1
adjustment 41:6	253:16 258:21	66:7,9 67:3 68:5	478:18	339:5 347:6
administer 437:21	260:4,7,19 514:19	68:17 69:9,13,18	AI 501:4,5	369:17 393:11
administrator	agendas 48:21	70:20 71:9,11,14	aid 344:17 454:19	396:1,15,17 397:5
104:10 528:4	252:21	71:17 73:9,10,16	aids 71:20 76:22	397:16 431:1
admire 467:17	agent 104:16 105:5	74:13,14,21 75:20	77:6 79:4 452:17	444:14 453:3,22
adopt 77:17 146:16	163:19 282:18	79:15,18,20 80:3	454:11,17 455:3	478:22 502:4,5
221:15,20 222:5	agents 138:5 145:3	80:11,13 81:9	air 66:14 273:2	504:3 526:2,20
348:5 476:21	234:20 478:4	83:16,18 84:12	354:18	527:4,4,19 542:18
adopted 113:9	aggressive 247:4	85:18 89:12 91:11	airplane 360:22	allowable 236:18
adoption 222:1	agish 68:15 73:5,18	91:19 162:3	al 4:6 360:19	316:17 470:13
226:12,12	74:13	230:22 234:21	alarmingly 255:14	allowance 24:19
advance 10:10	ago 45:4 82:15	254:12 263:10	Alaska 272:19	334:17 420:7
advantage 382:17	105:7 106:13	270:9,13 271:4,22	albedo 507:7 509:14	422:18
advantages 380:22	107:20 274:8	308:11,22 309:1,8	Aldrich 347:16	allowances 175:10
adverse 401:7 443:6	298:2 301:8	354:4,11 355:2,5,7	348:17,18,19	420:10 421:17
advertise 163:12	302:20 416:4,5	355:11,19,20	352:3,6,10,19	434:18
advice 338:18,19	432:11 443:13	356:9,17 359:8	alfalfa 406:20	allowed 6:21 71:3
advise 338:17	472:15 507:14,21	517:4 530:20	algae 270:6,15,16	71:15 75:12 78:22
advisers 520:12	519:12 521:15	agriculturally 91:5	272:9,17,20	93:12 187:8 194:4
advisory 36:18	agree 90:4 103:6	agriculture 1:1	359:21 464:5	194:12 215:4
398:1	122:12 127:2	22:21 30:6 50:14	algaes 269:7 358:20	263:21 264:6,19
Advocacy 418:12	128:1 140:5,9	61:1,13 88:17 89:1	359:18	273:13 308:15,22
	l	I		l

200.0 11 210.16	251.19 460.12	251.17 20 460.0	antihiatia 197.21	249.10 257.19
309:8,11 318:16	351:18 469:12	351:17,20 468:8	antibiotic 187:21	348:10 357:18
318:17 347:7	ammonium 41:7	470:1,21 471:6	antibiotics 538:7	425:7 467:4,18
359:12 374:12	211:6 214:20,21	472:1,10 523:11	anticorporate	Applause 4:8 100:8
398:2 426:6 444:5	215:3,18 217:19	523:16 547:11,12	514:19	550:4
465:18 468:18,22	amount 74:7 93:19	animal's 349:14,18	antimicrobials	apple 187:5 361:6,7
484:11 523:18	108:14 137:17	anions 466:1	455:3	361:8,9 367:22
530:21	140:17 149:3,14	Anita's 437:9	antioxidant 509:4	370:9 396:5,10
allowing 12:2 25:9	158:7 170:4 236:8	Anjou 364:20	antioxidants 508:22	Applegate 35:8
35:17 47:21	250:17,21 251:4	374:20 380:4,6,8	antsy 67:19	apples 200:7 362:10
123:12 126:12	251:22 267:21	380:12,17	anxiety 303:3	367:22 368:18
128:12 153:15	285:2 286:17	anniversary 370:2	anybody 19:22 61:9	370:12 371:8
293:22 340:8	288:19 290:9	annotated 6:22	64:20 67:14 68:14	392:12 396:8
344:12 348:3,11	303:2 322:17	215:17	89:20 99:5 296:12	applicable 308:12
427:1 531:17	378:1 391:20	annotation 185:12	298:8 420:18	applicant's 157:20
allows 49:8 299:7	394:4 396:8 531:8	189:22 190:15	475:16 499:20	application 205:10
339:13 346:3	amounts 466:3,16	192:9 193:5,21	528:21 550:8	400:3
385:13 401:22	470:19,20	197:19 198:12,16	anymore 459:20 anytime 19:22	applied 204:19,20 355:15 400:8
545:5	analogy 196:14 344:10	199:13,14,17,20	•	
alluded 19:6 116:5		200:19,22 201:3,4	anyway 88:13	401:6,17 402:12
all-encompassing	analysis 102:3	201:10,12 212:1	154:12 241:19	496:12 500:10
66:9	106:6 112:20	265:3 266:9	259:11 273:14	525:9
all-or 543:13	130:14 131:20	annotations 6:18	365:9	applies 149:13
alter 401:18	132:5,6 141:18	20:22 21:1,4,9	apart 518:5	207:1 542:11
altered 117:16	142:5 143:7	annotaton 197:14	aphid 207:9	apply 73:18,19
altering 374:9	163:14 381:21	announcements	apiculture 205:9	109:9 215:17
alternative 189:20	analyst 418:19	550:8	apologies 540:18	239:21 256:10
202:6 216:12	analyzed 186:16	annual 121:6 125:5	apologize 193:8	306:16 310:18
291:13,22	Andrea 48:8	annually 121:14	226:19 232:12	318:20 471:21
alternatives 187:4	ANDREW 2:8	140:14,19 159:3	247:3 261:9	applying 156:2
203:10 458:6	and/or 159:19 517:5	350:2	286:21 289:8 328:20	356:19
521:3 538:9	517:17	ANPR 461:7		appreciate 38:7
altogether 75:12 422:3 450:8	anecdote 302:17 anew 254:14	ANSI 136:4	apparent 55:13	81:20 96:18 100:2
amazed 305:22		answer 95:10,14	appeal 134:20	184:12,15 227:9
	angst 540:19 animal 55:22 231:4	97:4 99:6 133:7 174:3 189:13	appear 169:9 268:10 305:10	268:6 313:19 330:21 341:21
ambiguous 50:13 60:21	238:2 240:6 250:6	194:13 213:11	313:11 511:10	408:16 409:6
amend 417:9	309:12 332:11	224:6 228:18	appearance 366:19	423:9 448:22
amended 201:3	333:1 334:11,18	265:5 285:20,21	appearances 305:15	423:9 448:22 457:18 462:11
496:10	335:3 347:11	291:20 335:20	appearing 169:5	467:2 480:9
amending 329:10	349:3 457:12	344:2 351:21		505:10 526:6
342:17	474:12 530:19	366:2 368:4 384:6	appears 449:11 498:13	538:17 540:9,20
amendment 117:7	animals 233:6	387:13,16 439:9	appendices 102:4,6	541:5 548:13,17
160:5 190:7	234:15 237:8	458:19 497:12	102:10 113:13	appreciated 413:12
337:10,12 349:8	234.13 237.8	518:13	133:2,9	appreciation
America 145:14	248:1 304:18	answered 284:6	appendix 72:7 74:2	480:20
272:19	310:19 311:3,9	answering 305:4	76:4,9 102:15	approach 107:1
American 141:10	318:7 332:11	answers 60:15	353:19	112:20 132:6
336:3 350:13	344:13,21 345:8	327:14	applaud 44:1	163:3 198:9 305:6
330.3 330.13	J 11.13,21 373.0	327.11	appiaud (7.1	103.3 170.7 303.0

314:14,16 455:18	332:21 335:8	301:8 388:10	459:2,8	523:22
485:2 538:22	336:1 339:9	412:15 465:6,7	assumption 391:19	auditors 422:11
546:14	351:11,12 540:14	482:10 524:13	449:18 451:8	audits 155:19 156:7
approached 115:4	541:10,14 546:20	549:7	505:3	406:4
132:22	546:22 548:10	asking 21:8 22:12	assumptions 449:12	August 260:21
approaches 236:4	aquatic 41:6 233:6	35:21 77:7 90:14	assurance 404:8	356:1
appropriate 8:20	238:1,2,5,6 240:6	188:15 190:9	assure 371:18	Aurora 521:21
204:5 213:15	242:20 247:22	191:14 193:20	455:11	auspices 351:18
263:18 269:6	316:3 318:6,6	194:9 198:13	assured 514:14	Australia 277:7
278:21 283:18	arbitrary 319:11	225:2 258:19	assures 419:7	authority 361:18
355:1 357:7 358:4	331:13	259:15 287:18	astragalus 270:20	automatically
518:17	archive 19:21	327:18 328:2,9	ate 46:9 363:4	118:21 223:18
appropriately 34:4	archived 19:11	363:22 365:15	atmosphere 394:16	241:13
58:13	Arctic 324:5	439:17 444:13	394:17 534:19	availability 11:21
approval 8:19 268:8	area 89:17 92:6	462:4 486:6 490:2	atmospheric 61:22	51:21 59:4,10
451:18	109:22 152:8	495:17 503:17,18	61:22 65:8 66:5	73:18,20 150:1,10
approve 25:8	159:22 188:4	527:8 546:15	attached 18:4	150:22 152:18
205:15 365:21	287:16 357:13	asks 19:22	220:11 221:17	153:6 154:22
451:13 452:11	390:20 391:10	asleep 137:2	229:8	156:3,11 158:5
535:3	489:5	aspect 327:15 411:4	attachment 202:13	160:14 179:7,11
approved 25:6,15	areas 17:14 53:10	aspects 25:19	221:17 479:13	179:13 180:6
186:19 205:15	62:10 129:13	328:10 333:1	attacking 217:20	212:16 254:15
206:21 224:20	187:6 245:18	362:5 374:10	attacks 501:7	255:5 256:9,16
267:7 353:16	272:18 277:2	assert 543:5	attain 232:7	258:4,6 268:12
364:8 375:21	278:2 317:17	assertion 514:9	attainable 246:2	275:17 287:20
401:3 420:8 447:2	436:2 493:21	assessed 532:6	attempt 11:12	294:6,8 358:7,17
447:12 472:14	arena 376:15 386:6	assessment 229:8	178:12 247:21	406:22 409:16
495:17 496:11	arguably 186:1	477:19	attempted 96:1	426:11 438:1
499:1	argue 61:9 138:1	assign 8:20	437:15 461:8	441:22 445:19
approving 207:12	544:11 548:3	assigned 16:16	attempting 152:2	448:16 457:17
216:21 451:9	argument 107:5	assignment 230:20	Attendance 550:16	507:17 531:2,19
538:12,20	122:21 203:19	assist 8:13 15:6 47:8	attended 492:18	available 5:10 16:14
approximately	279:9 280:4 281:4	49:6 357:14	attending 417:14	52:1 59:7 75:3
45:18 287:15	295:12 514:12	assistance 7:20	attenuing 417.14	113:11 156:18
289:20 290:3	arguments 135:5	357:9	attention 64:1 121:5	160:21 161:2
370:6 372:7 403:7	332:19 486:4	associates 228:20	224:14 252:2	167:14 169:9
apricots 370:13	aroma 374:11	244:5 441:16	350:20 448:7	171:1,5 174:17
April 301:19 302:9	arrived 336:8	510:14 518:15	468:1 469:20	179:10 187:13
367:9 461:7	art 247:16	association 45:12	478:11	202:7 206:19
	articulate 148:2	47:21 248:9 287:8	attitude 255:22	
Apron 443:1 aquaculture 87:3	articulated 542:2	350:14 351:19	attributed 372:18	233:10 268:4,10 270:2 271:13
233:22 241:12				
245:1 247:2,19	artificially 382:2 aside 38:17 297:2	403:6 418:20,22 419:5 421:16	Auburn 531:22 audience 285:21	279:10,20,21,22 283:12 285:12
,	asked 9:12 12:6		audit 157:2 176:8	
250:5,9,18 251:1		469:13 485:3		286:17 343:8
318:4,9 320:19	42:11 98:5 108:1,6	511:3,5,6,7 541:10	176:11 183:3	356:9 358:2,12,12
323:11 324:3	177:15 199:2,5,14	assumed 76:6	478:2,3 494:21	375:4,13 379:13
325:12 326:9,17	214:19 276:9	assumes 535:21	audited 155:13	380:19 396:16
328:13 332:8,13	292:19 295:13	assuming 316:22	auditing 167:2	407:14,17,20

415.20 426.11	102.6 100.10	h-l116:11	h200.12	h 6 5 1 0 - 20 - 21
415:20 426:11	192:6 199:10	balanced 16:11	bases 309:13	beef 519:20,21
430:22 431:21	200:15 207:4	349:14	basic 115:22 135:3	bees 205:10 206:20
440:12 444:2	208:6 209:17	banana 361:5,10	141:2 306:1 383:4	502:9 519:19
452:10 475:19	210:17 212:9	363:3,5,8,11	438:17 468:19	began 19:10 519:11
485:12 486:9	230:3 232:14,18	367:22 390:3	basically 5:18 7:6	beginning 10:21
489:16 490:11	250:10 251:12	bananas 361:12	17:3,8 59:19 76:5	12:9 19:19 129:18
491:1 497:15	265:12 279:20	364:11 368:17	131:7 179:15	187:4 218:2
Avenue 1:11	288:6,8 293:16	376:1 378:22	214:6 232:10,21	312:19 325:8
avenues 182:1	300:7,13 302:14	379:1 398:19	236:15 242:19	365:11 367:19
average 373:14	308:4 313:20	401:4	244:2 248:19	368:2 394:22
383:9 398:16	359:8 396:7 425:4	bang 361:7	262:15 278:18	428:3 461:5
avocado 364:7	431:1 435:15	bar 249:14 339:20	279:5 283:5 307:2	begins 168:13
avocados 364:6,8	438:19,22 444:20	340:3 341:14	321:22 340:8	223:11
364:11 398:18	455:17 457:22	342:12,13,15	363:19 395:4	behalf 247:15
avoid 37:1 263:12	461:4 487:20	Barbara 2:10 19:6	399:21 433:21	397:13 398:2
avoided 452:21	490:10 496:4	93:8 112:17 265:4	458:17 459:18	418:20 445:18
aware 6:13 359:1	499:9 501:14	291:10 292:20	467:22 485:20	491:9 541:8
473:18 511:18	525:11 540:17	525:4 539:18,20	basics 142:19	Behar 528:2 534:8
awe 417:15	backbone 58:18	Barbara's 140:21	basis 45:15 128:6	534:9,12 536:12
AWG 238:5 248:3,6	backed 205:22	301:10	159:6 255:4	536:15 539:15
526:22 541:3,8,18	298:5 479:4	barely 186:11,11	275:14 286:19	behaviorial 544:5
541:20 543:9	background 15:15	Barlett 399:21	349:19 350:17	belabored 154:14
544:15 547:2	15:21 17:10 25:11	barn 494:19	377:22 431:11	belief 130:13 141:18
awkward 520:11	82:2 99:19 181:22	Barry 1:18 3:2,6	469:11 479:1	405:10
A(2) 172:2	219:9 232:10	4:17 9:3 88:8	537:13 547:22	believe 24:11 36:11
a-half 106:13	234:9 284:15	150:19 180:21	bass 324:10	39:8 40:3,7 45:4
a.m 1:12 499:19	301:20 357:11	480:15 481:2	bat 146:11	59:15 74:16 85:17
	383:6 480:6	bars 482:18,18	bathroom 53:19	97:9,13 111:6
<u>B</u>	546:17	488:1	Bea 1:19 18:9 31:15	124:9 129:15,16
b 13:22 14:3 64:17	backgrounds 47:1	Bartlett 374:21	94:7 133:12	129:16 130:7
64:19 70:12,12	backyard 163:2	base 102:18 255:15	146:21 183:11	131:5 132:17
72:7 74:2 75:22,22	back-up 298:10	based 9:17 55:3	193:15 194:14	134:1,6 138:19
76:4,9 156:1	bacteria 50:14	61:16 104:9	297:21 298:18	143:5 146:11
157:17 188:7	216:5	112:20 121:10	325:19 327:7	186:14 198:3
265:1 305:11	bacterial 61:3,6,10	171:19 214:17	331:22 342:19	200:20 205:7
309:17 483:14	bad 46:9 174:18	216:11 234:2	459:11 488:12	217:8 229:5
BABAK 2:20	338:6 383:22	236:17 238:18	517:12 533:5	234:10 235:13
baby 334:3 482:17	414:9	243:11 245:21	bear 53:18 204:1	236:19 244:20
back 4:15 19:11	baffling 301:22	254:21 259:22	211:12	246:2,11 256:2
27:20 37:14 39:13	bag 361:5 364:1	263:11 272:1	beat 147:3 163:14	263:13 274:3
40:14 41:20 42:8	381:11,12 382:3,5	284:10 303:13,13	197:12 295:22	355:6 357:2 360:3
44:8 46:10,11	382:9,13,14 383:8	305:8 347:21	beating 302:22	376:12,16 429:4
53:14 79:4 81:12	383:16 384:20	358:9 384:12	beautiful 16:1	429:19 437:6,7
96:15 100:13	392:17	404:7 441:13	becoming 148:1	442:4 449:1 451:4
117:10 126:21	bag-ripened 381:20	445:16 449:11	187:12 233:9	468:4 478:13,18
132:2,5 141:1	baked 57:3 282:18	456:2 499:12	252:20 409:14	510:4 513:6
142:18 173:5	482:19	505:3 507:1 529:6	bee 501:20 502:12	528:13 529:12
174:9 184:18	Baker 48:9	546:1,2,3	502:18 519:19,19	531:4 532:9 534:9
	<u> </u>	I	ı	<u> </u>

believed 268:7	501:12,14 525:7	476:17 477:2,20	540:17	183:11 189:9,16
believes 465:14	beyond 107:12	478:6,20 479:8,11	blames 162:22	190:10 191:8
495:2	110:14 510:22	479:20 480:4	163:1	192:14 193:22
believing 130:4	520:2	537:9,13,21	bland 299:6,8	199:15 200:14
Belle 527:1 539:19	Biard 48:14	539:11 544:1	blanket 147:15	202:21 203:5
540:2 545:9,19	biased 49:14 69:5	biologic 400:21	222:4 264:22	205:7,12 210:13
546:15 548:17	107:1	biological 56:22	266:10 269:22	214:11 227:5
belong 140:8	bicarbonate 41:7	79:17 401:8	blanks 280:4	230:21 231:8,9,12
belt 473:8	big 44:13,13 58:6	biopesticides	blasted 210:7	231:15 232:8
Bemidji 360:19	84:8 131:21 142:3	227:15	bleach 52:7 489:15	233:4,14 243:17
Benedictine 417:20	142:11 153:17	biotech 423:18	489:15,17	246:16,18 247:6
beneficials 500:11	166:11 173:13,22	biotechnology	bleached 357:17,22	250:1 254:10,19
benefit 93:4 118:6	175:7 205:11	153:11 408:19	bless 210:11	255:15 256:12
120:13 131:20	209:13 213:20	bit 6:4 22:6 31:17	blithely 138:13	259:13 285:17
153:14 263:2	324:7,15 332:10	46:8,12 58:5 84:19	blog 326:22	301:18,19 305:17
273:7 288:13	333:13 344:15,16	105:3 118:8,19	blow 140:21	305:19 313:18
309:17 380:2	380:22 432:9	120:18,19 128:22	blue 85:1 151:8	314:7,21 335:12
397:2 421:10,10	486:20 498:13	133:15 136:2	406:15,17 410:11	343:22 355:22
421:11,12,13	517:11	162:15 165:12,12	411:13 419:15	357:15 360:12
benefited 379:12	bigger 501:8	165:12,13 167:16	424:5 441:2,17	366:5 369:16
benefits 205:8	biggest 271:1	169:3,6,19 170:17	443:8 491:9,14	371:11 375:15
270:22 375:2,10	302:18 379:19	171:3,21 204:3	492:4,8,13	376:10 398:1
BENHAM 2:6	380:4 500:12	229:5 232:22	Bluebird 369:21	401:2 403:1 406:9
benign 185:22	biggie 524:3	236:1 247:4	370:10,15,17,22	413:8 416:19
212:14 216:3	big-umbrella	249:10 262:11	370.10,13,17,22	417:11 426:22
283:1 538:11	274:17	264:13 284:7,12	Bluebird's 370:3,8	428:18 429:5
bent 129:21	Bilek 426:19 440:1	296:15 301:20	371:11	432:12 436:12
Bergeal 452:14	440:3,4	306:14 308:5	board 1:3,10 6:14	440:7 445:4,9
berries 499:16	Bill 481:6 491:5,11	309:4 323:2	6:17 7:13,20,21	460:17 461:1,8,19
best 19:11 49:15	billion 350:1,2	326:22 403:9	8:1,2,6,8,10,12,18	463:1 474:2
94:19 95:20 96:2	368:16	406:19,20 409:18	9:9,17 11:8 12:18	476:20 481:11
114:9 133:6	bin 362:10,10	417:10 427:7	15:11 16:20 19:13	492:20 496:5,20
165:11 173:2	bind 149:3,6	441:10 524:12	20:19 24:10 27:3,7	505:14 526:3
199:21 208:19	ŕ	546:17	27:9 28:7 29:11,12	527:19 534:21
	Binghampton 528:5		,	
248:13 373:15 378:17 402:11	binomial 274:11,14 274:18	bite 163:6 bites 173:11	29:12,16,17 30:3	535:2,7,8,18
523:3 536:9			31:6 32:5 33:2,16 34:5 35:5 37:9	boards 267:8
	bioavailability	bits 510:16		460:22
541:13 bet 437:8	279:17	bitty 354:16	39:9,10 40:12	board's 476:12
	biodiversity 150:2	bivalve 248:3,22	41:20,22 42:5,6,7	boats 239:13
betrayal 514:17	150:13,15,20	bivalves 231:3	42:14 44:15 52:14	Bob 197:4
better 64:7 93:11	170:18,19,21	247:13,17	54:13 68:2 82:13	bodies 376:6 485:2
208:9 229:6 239:3	171:7 181:2,14,18	black 98:17 276:2	85:4,11 90:21	body 464:1
239:15 269:16	183:15,21 430:13	276:16 278:14	96:21 98:2 100:6	bogged 158:19
305:3 366:18	430:15,17,22	279:10,15,21,22	107:22 113:9	boil 286:4
368:2,11,13	431:5 445:19,22	281:6,7	118:5,7 119:13,19	bones 80:22 108:4
376:17 402:15,18	446:1,5,9,11,15,19	blah 489:22,22,22	120:14 121:5	book 190:3
408:7 409:1	447:6,17,22 448:7	Blakistone 539:19	151:4 152:16	booklets 475:14
422:11 432:15,17	475:5,14 476:5,9	blame 162:21,22	180:19 182:8	480:2

boots 105:3 134:12	349:5 396:5	314:16 315:5,7,10	bushes 302:22	calcium-related
136:17 138:17,20	439:14 491:9	314.10 313.3,7,10	business 75:5 113:2	263:5
167:4	516:5	322:15 324:2	160:19 168:22	calculated 116:8,16
border 132:4	briefness 184:16	325:7 326:8	287:13,14,16	316:11
bothered 514:9	bring 20:14 40:14	327:21 329:12	339:3 408:18	calculating 113:20
bottom 53:13 54:3	42:8 47:17 67:20	331:6 332:9	428:1 453:11	172:4 316:4 459:1
124:20 277:3	157:12 201:18	333:12	499:2 520:7	calculation 316:8
359:22 360:6	239:14 242:14	bruise 361:7	busy 4:10	calculations 114:1
389:6,13 532:16	247:20 256:21	buck 276:2,6,11,13	butter 311:11	calendar 15:1
bought 377:8	350:19 366:1	bucks 149:7 437:8	button 107:8 243:22	California 272:20
415:13 424:18	386:10 417:21	buckwheat 276:14	buy 92:21 163:16	398:1,5,10 445:16
Boughton 443:17	431:1 467:22	276:18 277:1,5,7	174:2 240:12	447:19 521:20
bowl 361:5	478:10 509:3	277:13,14	295:19 338:19	522:19
box 55:21 56:2	512:2 523:15	budget 184:15	340:15 344:7	California-based
389:5,7,7	bringing 226:21,22	bug 501:15	364:3 378:22	475:9
boxes 289:21 290:4	242:11 418:5	bugs 501:13	buyers 159:19	call 23:9 45:11
290:8	508:5	build 22:10 108:9	423:1 439:2	103:17 159:19
Bradley 2:12 536:3	brings 78:8 90:2	284:7 292:21	buying 203:19	184:6 224:14
brain 516:10	126:5 386:10	302:2,3	304:20 335:18	260:20 310:9
branch 478:2	537:22	building 23:10	377:11 530:1	316:11 419:4
brand 217:22	broad 46:22 52:22	212:3	buys 172:8	469:19 498:15
brands 348:8	143:22 218:7,11	built 229:11,18	bygone 154:3	called 10:14 106:4
bread 57:2	273:11 510:21	285:7	byproduct 93:20	162:20 213:14
bread-and 311:10	511:19 520:1	bulk 377:11	94:5 239:7,8 283:2	302:19 347:22
break 100:10,14	broadcast 547:14	bullet 11:9 12:5	288:10	360:18 390:6
210:16 314:4	547:16	163:7	byproducts 238:17	430:2 454:21
352:18 362:17	broader 402:1	bullets 12:16	238:21 334:11,18	506:22 507:20
395:9 440:2	490:20	bunch 137:11 149:5	335:3 347:6,10,12	calling 107:22
444:19	broadest 515:9	297:1 305:12	542:16,21	225:20 308:2
breaking 425:2	Brock 286:13 297:4	317:17 469:4	B5D 531:4	414:19 507:3
bream 324:10	540:1 548:22	burden 59:13 163:3		519:17
breath 455:17	broken 395:20	163:4 164:2	C	calls 45:13 47:17
bred 154:2	482:14	167:16,22 450:22	c 3:1 13:22 14:4	48:21 49:9 99:10
breeding 89:13	brood 317:21,22	451:19 452:2	35:4,21 53:4 159:1	152:2 251:1,3
Brian 48:9 314:18	brought 34:15 78:7	537:12	308:3 353:19	257:12 305:21
333:22 347:15,18	92:10 113:16	burdens 153:2	483:14	Campbell 419:17
352:11 403:2,2,4	115:11 159:21	447:7	CA 395:17 433:17	Campbell's 145:9
419:17	197:20 204:1	burdensome 36:2	CAC 115:2 147:5	145:12,14
bridge 130:1 492:19	242:19 247:5	164:3 438:20	417:12	Canada 441:16
492:20	274:8 301:18	Bureau 373:5	CACC 147:10	Canadian 278:7
brief 17:8 116:6	322:13 413:20	375:18	550:9,12,16	485:9 489:5,11
139:9 347:20	425:22 440:19,20	bureaucratic 515:3	calcium 83:7 185:13	Canadians 485:10
353:7 510:3 516:9	441:5 443:12	burn 218:7 501:8	186:8 197:7	490:5
526:7 528:6 540:6	475:15,16 506:17	501:10	199:17 262:8,14	candle 458:2
549:4	517:22 525:1	Bursten 504:18	263:4,6,13 264:2	candy 171:11
briefly 82:9 92:10	brown 48:9 270:16	Bursten-Deutsch	463:7,17 464:3	482:17 488:1
167:21 236:13	305:1 504:9,11	491:6 504:15,17	466:2,9,12,13,15	canteloupe 46:9
247:12 322:11	Brownstein 314:13	505:15,19	466:18,20 467:2	capital 371:12
	•	•		•

capricious 207:11	358:11 431:10,11	celebrate 461:13	528:9,15,20 533:2	403:7 441:2,3,15
Captain 442:22	case-by-case 547:21	celebrating 370:1	533:8,21 543:15	452:6 485:4
capture 333:17	cash 335:16	cell 54:18	certifications 164:5	543:16
340:7 342:4	cast 343:22	cellulose 91:9	494:13	certifying 86:9
captured 354:19	Caster 347:22 352:8	center 399:11 511:1	certified 87:18,20	103:18,20 104:16
carbon 362:18	352:12	centered 186:4	99:17 109:4 145:6	105:4 145:3 155:1
carbonate 83:9,15	cat 335:1 351:3,14	centers 373:3	147:20 148:1	234:20 455:15
263:6,7	352:14	central 141:10	158:18 159:1	533:18
care 38:2 193:4	Catalogue 418:11	492:10	175:19 233:8	cetera 72:14,14
253:12 362:20	catalytic 385:12	centralized 105:18	235:4,7,8 237:7	432:8
367:14,17 514:13	388:22	centrally 105:22	240:16 271:5	CFR 220:8 221:9,21
532:13,14,15	catch 13:10 124:8	certain 30:4 68:4	273:20 277:13	223:5,10 224:17
533:1 546:10	catch-22 448:2	71:10,11 126:12	278:8 289:10,12	228:12 358:15
careful 78:3 165:17	categories 283:10	173:20 178:9	317:9 329:9 339:9	465:16
244:10 413:2	categorized 359:7	192:18 245:17	340:1 344:14	chain 93:20 395:9
512:22 513:3	category 115:5	342:12 343:17	354:22 355:3	395:13,20 428:4
carefully 114:15	116:13,13 187:16	359:17 394:20	360:2 370:21	484:5,9,13 496:6
129:14 481:1	260:16 277:22	407:10 411:2	371:1,8 378:21	chair 1:14,15 4:17
541:19	280:10 283:14	470:2 501:13	415:16 434:9	8:8,9,10,10,18
cares 483:2	317:17 359:19	certainly 19:2,7	449:16 463:22	10:17 11:3,5,20
Caroe 48:8	452:19 453:1	40:7 69:9 90:21	494:14 495:3	14:17 28:5,12
Carolina 68:1 500:5	455:8,16 467:7	99:20 140:5 141:7	504:20 528:5	31:11,14 44:4 48:8
Carrie 314:13,16,17	483:8 485:1	171:8 177:20	certifier 121:19	96:4 100:19,21
315:2,10 320:3	506:12	182:15 203:6	125:1 131:22	101:7 117:13
322:10 328:21	cations 466:1	238:6 297:16	161:10 182:15	201:14 211:7
333:20	cats 146:8 311:11	542:22	404:22 405:11,20	230:16 307:9
carry 130:5 386:6	334:21 351:1	certifiability 84:17	405:22 412:12	440:8 460:16
457:18	cattle 234:14 288:11	certifiable 384:19	414:20 429:17	526:13,17
Carter 369:12	522:14	certificates 116:12	447:11 451:18	Chairman 9:11
387:12,15,20,21	caught 233:16	certification 3:9,12	certifiers 108:8	21:17 24:4 28:16
388:5,9 389:21	253:13 341:2	3:14 51:19 97:12	112:22 113:5	37:11,17 44:11
390:2,19 391:6,9	532:18	100:17,22 101:4	126:3 138:5 148:6	103:15 122:11
397:10,11 402:21	cause 162:15 252:3	104:2 106:18,20	151:15 152:5	166:17 211:17
CAS 195:18 196:19	255:12 548:13	108:16 112:7,14	155:4 159:16	chairperson 1:12
203:12 215:1,3	caused 254:13	112:16 113:3	164:18 168:11	3:2,5,6,8,10,13,14
case 21:7 40:3 174:5	278:9	130:6 150:6	182:18 358:18	3:17,18,20 5:9
174:11 176:21,21	causes 401:7	161:17,18 162:22	409:5,13 431:9	chairs 43:1 171:17
182:5,5 202:9	caution 412:21	163:14,18 164:8	438:19 439:12	173:18
262:17 295:10	450:13 512:18	165:19 301:15	447:8 448:10,12	challenge 306:8
296:13 302:10	cautious 175:3	302:1 356:22	451:1,3,9,11 452:4	522:17,22 523:15
336:11 345:15,16	caveats 422:14	359:20 400:15	452:10 453:19	534:19
414:19 458:4	CCOF 445:15,18	403:9,10 422:2,2	457:19 468:5,17	challenged 482:7
486:19 492:14	446:1,7 448:18	431:9 441:13	472:20 473:14	challenges 539:8
495:20 501:19,20	449:3,17 453:2	445:14,15 446:22	474:4 478:7 479:1	challenging 43:9
501:21,21 547:20	454:1 455:14	448:3 451:5,20	483:22 505:9	chamber 86:19
cases 5:5 8:16 62:21	457:16 458:7	452:14 478:4	520:20 523:22	385:13
63:15 131:7	459:13	479:5,12 486:21	531:5,11	chance 128:6
157:10 335:1	CCOF's 448:6	494:20 511:12	certify 86:2 88:6	136:10 315:15
	•	•	•	•

325:17	219:21 220:3	507:12	clarification 15:18	329:21 330:16
change 5:20 32:17	298:14 374:9	Chinese 277:14	29:19 30:9 34:20	336:22 337:13
34:8 46:8 56:19,21	444:13	chlorella 54:5,6,8	44:7 55:20 71:4,7	391:13 426:5
57:19 64:16 65:1	chapter 440:9,20	54:10 65:20 269:8	72:2,3 77:19 80:18	438:20 449:8
69:4 70:13 74:7	441:15	270:4,5 271:5	119:11,16,19,22	453:9 456:19
75:9,9 77:20 78:1	char 324:5	359:1,2	215:20 253:6	486:2 502:13
78:14,14,17,21,22	charge 138:6 150:3	chloride 260:14	317:18 491:16	505:8 511:15
79:6,8,16 83:21	335:16 339:14	261:1	515:16	513:2 528:10
95:19 103:10	342:5	chlorine 260:16	clarifications 22:3	536:7 541:7
105:10 136:16	chart 16:1 55:21	471:12,16	23:3 353:9 492:11	cleared 119:14
139:21 157:14	77:9 79:5 96:1	chlorophyl 369:5	clarified 69:10	clearer 165:3
190:1,15 193:5,20	354:2	chocolate 482:18	121:6 354:6	clearly 12:7 13:16
197:13,19 198:11	charts 15:15	choice 164:4 338:17	clarify 24:22 69:15	74:20 135:4
198:16 200:18	chasm 129:2	choir 99:22	70:1 79:13,14	353:16 428:11
201:10,11 206:6	cheaper 202:18	choose 70:11 175:3	82:10 113:17	431:18 545:5
214:20 222:15	203:8,18,19	choosing 415:9	133:8 188:17	clientele 155:13
224:8,9 225:3,10	345:22 346:3,4	chopping 57:16	321:15 346:17	clients 155:7 156:5
227:20 238:7,8	408:4	chose 196:18,21	353:13 356:3	156:17 352:13
258:10 304:15	cheated 524:1	chosen 70:15 348:9	390:13 491:15	358:10 446:11
308:18 312:13	check 319:15 327:1	Chris 226:1 227:14	495:9 517:19	453:22 486:22
351:2,5 354:8	414:20	circular 162:20	clarifying 25:5 30:2	climacteric 398:19
373:13 382:1	checked 132:9	circulated 353:15	38:12 47:6 391:12	399:2
419:16 426:21	273:12 276:19	circumstance 92:3	454:4	climate 440:14
478:5 515:8	checking 436:5	175:22	clarity 58:9 69:8	515:8
516:10,11,13,20	checklist 26:14,19	circumstances	315:20	clock 394:3 396:7
517:2 526:6	26:21 144:7	144:10 207:13	Clarkson 475:3	close 24:14 186:13
changed 65:1 176:1	182:10 206:4,7,10	circumvent 447:6	481:5,7,8,9 487:12	202:17 203:18
219:11 220:5	208:2 477:8,19	circumvents 342:16	488:15,19 489:10	204:12 533:15
223:18 225:10	478:3,13,18	citation 265:10,12	491:4	534:1 547:13,17
443:11 497:14	cheese 282:20	citizen 520:11	classes 455:5	closed 99:2 244:15
changes 6:2 8:5,7	chemical 56:19,21	citizens 514:21	classic 141:8	335:4 345:15
8:15 10:5 20:10	57:3,19 58:17	citric 50:19 63:2	classified 359:4	closely 16:2 494:18
28:22 31:10 37:4,5	78:13,17,21,22	citrus 267:9 290:5,6	467:8	496:16
57:3 58:17 59:17	79:16 83:21 263:3	366:8,16,17	clean 34:19 44:2	closer 475:17 512:5
70:5 81:5 93:16	382:1 386:20	368:16,20 376:1	cleaned 80:20	512:15 518:5
151:6,7,11 152:8	420:13,16 444:9	399:9 401:4	cleaners 76:3,20	536:13
154:16 161:6	chemically 83:8	506:14 507:3,4	77:1	closest 83:8
206:7 223:9	290:18 291:3	citrus-type 507:13	cleanness 291:6	closing 96:13 480:8
224:12 233:2	chemicals 214:4	civil 532:5	clear 12:9 16:18,19	clover 406:20
303:13 306:22	299:11 420:19	claim 92:18 113:19	23:20 26:4 76:21	clustered 106:9
307:1,4 312:3	chemist 384:2,6	162:4 213:9 453:3	101:2 110:20	coach 493:11
353:13 354:2,7	387:12,14,15	453:7 456:10,21	112:19 114:3	coalition 437:9
373:11 399:18	chemistry 502:16	458:18 459:14	120:10 121:9	510:20 511:19
450:7,7 456:1	cherries 370:12	claimed 418:1	131:8 147:5	515:17 517:20
478:12 511:15,21	children 379:2	claiming 40:6	151:10 165:3	518:3
changing 58:7	Chile 336:17	claims 276:19	168:4 191:2,13	Coalition's 518:7
185:11 198:12	chime 53:16	304:19 310:22	202:15 242:3,6	coast 248:9 262:18
200:21 201:2,4	China 140:16	479:3,6	285:16 309:3	397:14 398:7
	<u> </u>	<u> </u>	<u> </u>	<u> </u>

coastal 272:18	293:13 294:15	108:14 109:17	268:7 341:7	540:11 541:7,20
cobalt 471:18,20	295:13 294:13	114:13 115:11	477:12	541:20 546:8
,				
cochairs 46:2	298:11 300:7 303:14 313:14	116:5 123:3 129:14 133:16	commenting 541:8 541:9	Commerce 235:10
cod 324:11,12 545:22 546:1		137:7 140:7	=	commerciabl 51:20
	314:7 340:13		comments 9:5,8,15	commercial 59:4,10
codirector 519:3,9	343:12 345:21	142:22 144:16	16:15 20:18,21	73:18,19 150:1,10
coffee 111:22 141:10	365:6 384:17 388:7 438:19	147:6 148:7,21	21:12,14 28:1 34:12 49:2,13	150:21 152:18
		151:14 159:18 161:9 163:8 166:7	,	153:6 154:22 156:3,11 179:11
cogenerator 388:13 cognate 487:14	444:20 497:5,13 498:3 510:17	169:15 192:21	85:13 114:12,21 114:22 119:8	179:12 180:6
cold 374:2 393:16	512:8,15 518:5	193:2 201:7	122:14 129:5	254:15 255:4
394:9,9 395:3,9,13	547:13	207:16,18 211:14	148:19 163:11	254.13 253.4
	comes 70:19 94:13	213:21 214:19	171:16 173:17	
395:13,16,20 399:16	97:22 110:18		177:16 173:17	276:20 294:6,7 358:16 384:22
		215:11 220:20,21		
colleague 276:10	136:4 183:17 190:10 208:22	220:22 224:14 225:17 235:7	181:7 183:4 207:19 210:12	406:22 427:3 441:22 444:8
colleagues 548:10 collect 167:6 358:10	266:11 280:19			· -
451:2	292:7 317:16	236:16 237:20 238:10,14 240:9	214:10,11 217:13 223:20 236:3,7	445:19 448:16 457:16 482:16
collected 89:11	342:3 362:21	′	237:17 243:6	
		245:20 246:10,22		531:2,18 542:13 543:1
270:19	365:4 379:22 389:3 408:15	247:2 248:3,7,8,15	246:15 248:18	
collection 145:22 422:19	410:6 464:4	248:20 257:15	249:19 251:7	commercialized 267:18
· -		258:20 259:5,15	259:10 268:6,14 275:18 289:7	
color 366:10,22 373:13	comfortable 128:5 357:5	261:6 267:5,6,22 268:1 269:9	299:21 300:13	commercially 75:2 309:10 452:10
colorant 276:18	Comice 374:22	273:17 281:21		
colors 7:3 373:11	coming 32:9 43:6	282:5 284:3,13,22	307:7,12 311:22 315:3,12,14,16,19	commingled 305:14 commital 66:22
column 62:16	123:4 136:22	295:3 297:12,15	318:5,11 319:15	commitment 174:7
348:22	161:9 165:18	303:14 305:8	328:22 329:14	325:22 548:11
columnist 348:21	182:1,21 187:13	314:8,11,13,22	330:3,22 334:4	committed 326:1
combination 68:22	191:5 216:17	315:8 353:16	335:7,9,10 349:5	548:13
combination 36:5	219:22 227:5	366:7 394:2 396:5	352:1 369:8 381:8	committee 3:2,4,5,6
combine 35:12	254:21 297:12	406:21 428:22	407:6 409:8	3:8,10,12,13,15,16
349:15	301:17 302:16	431:8 443:5,9	413:11,13,22	3:18,19 4:17,18,20
combined 76:18	330:15 345:8	445:4,10,17	417:6 418:17	5:3,5 8:19,20,22
80:4	346:19 366:9,13	448:14 452:15	419:2 425:22	14:12,15,16,17,21
combines 75:10	379:8 467:21	455:21 463:1,7	426:3 427:5	15:4 17:4 18:3,5
come 23:7,20 34:3	489:13 500:5	480:16 493:1,6	430:10 438:9	22:5 23:17 28:5,8
35:19,22 42:12	508:15 540:17	504:22 505:17	448:20 456:13	28:12,13,18 30:16
50:6 52:12 55:1	541:18 542:12	510:4 511:10,19	457:20 458:15	31:12,15 37:13,15
64:12 85:9,11	545:12	513:7,8,11 520:13	460:18 463:9	39:22 40:1 41:20
86:18 87:16 88:16	commend 298:7	522:13 525:20	476:11,14 479:14	42:2,2,20,22 43:11
95:11 137:14	461:21	528:9 531:20	479:22 480:10,21	43:20 45:14 46:22
143:14 146:18	comment 3:21 10:1	532:4 533:19	481:4,16 491:15	48:7,18 100:18
190:14 192:16,17	10:3,9,21 11:13	commented 245:7	496:3,5 504:14	101:5,8 103:17
210:17 226:4	12:21 30:22 32:21	432:11 531:21	505:22 515:17	114:19 116:2
238:22 243:10	34:16 37:22 38:8	commenter 541:13	517:14 528:12	117:1,11,20 140:3
252:2 257:11	40:18 86:1 90:18	commenters 21:6	532:1,8 533:7	150:6,7 151:22
282:1 286:1,8	96:9 101:22	105:14 247:3	534:9 539:16	152:1,2 160:3
		100.11.217.0		102.1,2 100.0

161:18 162:17	428:8,16 445:11	company's 481:9	302:7 306:1,20	compromise 405:5
164:1 184:12,18	477:9 526:5	comparable 194:11	453:14	computer 64:19,20
184:19,20 185:16	committee's 153:3	410:18 548:12	complexities 425:11	414:3
185:20 187:19	175:15 312:9	compare 196:10	425:12,13,14	concentrate 236:2
188:5,9 189:16,21	335:8 350:20	329:6 368:19	complexity 249:6	526:7 527:18,20
194:6,10 197:15	351:16 437:13	410:11,15,16	452:20 453:17	concentrated 152:8
197:20 201:15	476:15,19 478:1	411:17	compliance 3:9,12	concept 5:4 44:18
202:2,18 203:7,17	479:15 497:6	compared 158:17	3:14 100:17 101:1	140:5 176:14
204:17 206:5	committing 372:14	214:14 290:2	101:2,5 134:15	312:8 354:10,18
207:5 208:1,10,13	commodity 294:15	291:5 433:10	149:22 150:5	concepts 77:17
210:19 211:4,7	360:20	434:8 474:14	161:17,19 182:22	181:15 504:19
212:9,10,17 214:7	common 146:1	comparing 450:1,8	331:5 450:15	conceptually
215:6 216:11	385:19 484:22	comparison 368:19	478:2 515:4	549:22
217:8 219:2	communicate 8:7	compatability	complicated 94:13	concern 31:18 95:6
230:13,14,20	41:18 178:20	283:12	162:12 459:15	116:1 310:4
235:18 238:13	communicating	compatibility	493:3 544:22	327:19 383:19
243:17 247:15,18	446:10	212:19	547:6	440:19 443:12,16
248:10 249:8	communication	compatible 187:17	Complicating 93:14	443:21 447:22
250:17,22 251:10	429:18 537:5	215:13 391:17	comply 304:11	concerned 102:13
251:14 253:7	community 7:13	400:15 495:22	306:13 330:17	116:20 138:2
254:16 257:9,12	59:11 103:19	compelled 259:4	408:13 429:2	171:22 173:6
258:18 260:20,22	114:6,10 118:7	compelling 295:12	431:16 448:9	256:11 336:19
261:17 263:12	168:11 187:1	compete 479:1	453:22	389:1 495:18
264:9,16 268:15	222:17 243:21	competing 258:14	component 71:2	496:14 511:9
271:16 278:9	247:20 249:7	competitive 376:14	112:5,17 176:22	526:4 529:5 539:9
282:3,15 284:17	259:14 261:10	competitors 385:20	components 71:21	concerning 150:14
291:12,17 298:14	322:4 357:5 419:7	411:11	73:22 113:20	253:18 434:11
303:9 310:5	461:9 512:4	compile 82:17	169:19 332:21	concerns 117:1
311:15 313:2,4,15	520:19 524:14,16	complacency	454:13	124:10 136:5
347:18 348:10	534:13 538:9	121:18	comport 124:15	137:2 221:5 222:8
349:9 408:17	community's	complete 15:2	137:18	229:19 248:14
409:7 417:8 429:7	309:17	233:13 239:9	composed 68:17	397:22 447:17
437:14 440:9,20	companies 162:21	240:15 279:12	308:10	448:8 522:13
440:21 442:22	166:3 407:21	349:13 358:5	composition 73:11	concession 126:7
446:14 448:18	419:14 421:4	399:17 481:12	115:3 263:3	concessions 126:8
449:14 455:20	424:11,18 425:1	485:21 535:4	356:14 464:13	126:18
463:3,12 465:4,12	442:7,13 444:7	completed 30:19	465:21	concise 505:8
465:14 467:4,9	483:1 506:18	81:10,11 260:10	compositions 206:6	conclude 28:2 122:5
476:8 479:10	508:7,11,14	completely 76:4	compost 86:18	230:8 251:9
480:9 482:22	company 137:8	110:3,3 296:11	compounds 263:6	313:21
490:12 510:8	160:19 163:5	305:22 321:5	361:21	concluded 68:1
538:3,16 540:13	168:22 218:2,4	453:9 478:13	comprehendable	concludes 12:20
540:21 541:1,17	291:13 347:21	547:9	456:7	118:3 184:11
542:1 546:19,21	360:18 390:10	completion 91:2	comprehensive	230:9 550:3
550:20	406:18 424:15	374:17	248:8	conclusion 24:12
committees 4:13	430:15 437:1	complex 81:22	compressed 522:20	50:6 52:12 95:11
16:16 29:12 43:13	482:7 495:2	96:17 162:12	comprised 301:14	339:7 547:4
417:13 422:11	506:22 507:11	197:7 199:17	507:4	Concord 374:22
	1	ı	ı	1

concurs 476:18	conjunction 230:22	considered 11:19	consulted 157:21	89:9 354:14
condiment 279:16	303:10	35:14 55:10 83:16	consulting 241:10	372:17
condition 211:22	connected 55:3 62:5	88:17 91:5 93:10	consults 228:19	contact 99:7,11
364:13	355:7	115:19,20 147:9	consumed 216:5	218:11
conditional 351:8	Connolly 314:18	155:19 185:16	505:6	contacted 39:17
conditioned 373:18	333:22 347:15,17	186:2 189:22,22	consumer 110:11	contacting 42:22
376:19 383:13	347:18 348:15	212:6 258:6 264:4	137:4 147:21	contain 71:2,20
385:14	conscious 184:14	270:8,12 277:17	171:11 240:10	74:13 224:21
conditioning 372:19	consciously 537:20	277:18 336:20	320:14,16 334:8	269:18
374:8 375:3	consensus 64:9 78:4	465:17 473:2,13	338:18 343:12,19	contained 102:14
384:15	95:15 185:21	considering 16:12	344:5 348:8 350:9	142:1
conditions 395:17	220:13,14 516:3	70:4 82:15 83:6	363:21 364:16	container 382:12
431:2 448:2	consequence 88:15	115:7 153:9	365:2 371:19	containers 387:5
conduct 104:16	88:21 89:2 253:1	175:12 179:13	372:11 373:4,14	389:14
conducted 122:20	543:19	448:20 476:16	374:16 375:12,14	containing 479:16
373:5 406:1	consequences 6:16	consistency 17:5	376:16 378:18	containment 244:15
confectionery	8:17 115:18 484:4	60:16,17 63:20	379:11 380:17	244:18
282:19	Conservancy	212:19 283:13	382:18 383:4,10	contains 476:2
conference 23:9	239:19 331:1	323:5 335:22	393:14 396:16,19	495:7
45:11 47:17 49:9	conservation	455:15 501:6	397:6 402:1,2,10	contaminants
confidence 344:5	446:16,19 475:15	consistent 52:1,2	402:15 410:21	316:14,16,18
427:22	478:21	64:8 81:7 95:9	411:1 427:22	328:12 419:9
confined 382:8	consider 12:18 69:4	187:17 339:20	431:3 483:16	contaminate 421:2
confirm 287:6	91:1 99:2 158:3	362:11 374:15	484:15 489:22	424:9
507:21	181:13,17 193:14	376:4 400:18	499:3 513:19,21	contaminated
conflate 110:1	197:16 206:9	401:18 496:15	514:8,9	340:12 421:7
conflict 181:15	234:11 259:17	consistently 358:12	consumers 135:8	424:1,17,21
431:7 535:4	277:16 293:8	361:14 377:8	136:19 138:15,19	contaminatin 88:1
conflicting 470:13	326:6 376:10	consisting 520:19	208:20 238:19	contamination
471:9	377:11 405:11	constant 172:22	240:11,13,21	172:17 360:5
conforms 144:9	409:8 444:13	constantly 206:6	327:17,19 334:7	420:11,12,13,16
confronted 380:11	456:5 470:2 505:7	346:1	334:10,14 335:16	420:22 423:12
confuse 94:15	520:9 526:3	consternation 252:3	336:3,8 338:5,10	424:13,15 425:14
179:18 454:3	considerable	constituting 468:18	338:17 339:18	contend 139:1
confused 21:6	371:12	construct 90:14	340:14 342:11	content 17:5 363:16
confuses 138:15	considerably	106:18 107:4,6	343:1,16 344:2,20	536:17
confusing 15:15	206:22	109:1 111:18	345:4,6,21 346:5	contents 447:10
22:7 66:6 120:9,21	considerate 12:12	141:15 148:18	373:16 383:5	479:21
240:10 373:14	consideration 12:17	149:9 517:16	391:18 455:11	context 65:14
confusion 7:12 37:1	93:19 123:12	533:10	456:8 479:2 514:4	207:22 323:1
119:17 183:17	126:22 127:1	constructive 24:7	514:12 529:17,21	355:6 436:3
303:2 304:7 348:8	242:10 247:21	25:18	consumer's 383:18	continual 534:18
515:19	360:8 378:16	consult 331:2	consuming 470:22	continually 280:13
congratulate 28:4,9	409:11,15 446:12	490:17	472:2 505:4	continuation
congratulations	447:22 467:3	consultant 302:2	consummation	230:19 523:19
251:8	503:5 530:16	consultation 29:8	181:2	continue 12:22
Coni 460:12 462:13	considerations	235:9 237:13	consumption 62:11	39:18 49:19 82:3
462:17	176:16 375:20	consultations 97:18	67:3 78:12 80:15	105:9 116:9 156:1
	I	1	I	ı

100 5 104 12	500 16 522 17	201.1.0	200 21 400 12	20.7
180:5 184:13	508:16 533:17	converter 391:1,8	389:21 408:12	courage 28:7
220:2 248:15	538:18 539:8	converters 390:17	423:17 434:16	course 64:8 175:3
249:19 408:2	543:21	390:20,21	474:5 478:14	177:18 324:11
422:7 425:8 427:1	controlled 54:7,8	converting 387:7	corrected 130:19	445:22 506:10
447:12 462:3,5	55:5 394:16,17	convey 171:9	correction 6:13	512:4
493:22 504:15	502:1	convinced 283:21	168:18	court 40:21 41:2
521:9	controversial 86:4	convincing 107:5	corrections 5:18,19	cousin 203:14
continued 25:13	486:4	279:8	correctly 6:22 24:15	cover 211:10 324:3
152:21 180:12	controversy 52:17	convoluted 453:14	290:15 408:10	354:16 534:14
247:18 248:10	343:13	Coody 467:15 475:2	467:8	539:5
continues 107:13	convene 45:8	475:4 481:2	correlate 221:11	covered 230:6 241:9
168:2 169:3 444:1	convenes 29:22	515:18 537:11	correspond 70:15	324:14 359:18
449:3 464:21	conventional 153:9	cookie 304:1,3	correspondence	467:6
continuing 43:7	153:22 163:17	cookies 504:9	472:11	covering 254:11
82:15 254:5	225:6 245:21	Cool 426:19,20,21	cost 531:17	covers 189:5 309:13
269:14 407:3	286:9 289:13	435:2 436:19	costs 239:14 534:15	cow 334:21 335:2
453:2 455:10	292:11 293:2	437:3 439:13,17	Council 317:10	505:3,5
continuous 169:17	304:3 334:17	cooperation 43:8	350:21 375:17	co-ge 86:19
493:1	345:8 363:13	45:5	387:21 397:12,19	co-op 369:22,22
continuously 19:2	364:21 367:7	coordinated 37:1	511:8	370:17,19 511:5
135:6	370:15 372:12	45:10	counsel 29:9	CO2 389:10,15
contracted 145:13	375:1,10 379:11	coordination	count 405:8	cracks 139:20
280:1	379:14 385:10	165:17	counted 316:8	crafted 9:16 542:11
contracts 145:10	386:1 388:19	copies 157:20	counter 327:14	Craig 48:9
contradicting 60:21	390:6 394:15	475:15,21,21	counters 320:9	cranked 261:3
contradiction 127:4	407:19,22 408:2,4	493:7,8	counting 14:5 24:16	cream 482:20
194:18 448:4	408:18 411:12,18	copy 495:15	186:15	creamy 291:5
contrary 208:14	411:22 415:21	core 17:22	countries 144:20	create 35:13 116:14
contribute 404:5,15	420:20 421:3,5,6	corn 172:11,11,20	376:6 533:14	123:2 133:17
contributed 479:20	421:18 424:2,3	173:4,21 384:11	country 90:11 373:6	241:16 322:4
contribution 466:6	426:7 444:7	385:11 389:4	492:10 522:18	339:16 357:9
contrived 229:11	483:18 488:2	406:18,19 407:13	533:9	362:18 424:2
control 106:17	489:20 490:8	407:15,16 410:9	country's 302:18	436:18 447:7
107:10 108:15	conventionally	411:9 421:1	couple 18:7 20:20	451:19 468:8
110:21 118:13	156:10 386:5	423:22 424:14,21	24:6 40:19 49:2,13	created 243:3
123:22 126:16	434:20	426:9 440:11,16	101:18 110:15	creates 468:7
135:11,14,22	conversation 77:3	441:19 492:9	120:15 121:22	514:22
146:5 185:4 202:1	96:17 129:19	corner 51:8 132:4	127:22 157:16	creating 19:20
202:6 204:8,13	147:1 170:17	494:19	174:10 222:14	392:10
205:9 206:20	497:7	Cornucopia 519:4,8	253:15 254:10	creation 35:18
207:10 214:3	conversations 55:1	521:8 525:12	268:2 273:12	creatures 354:17,17
216:13 292:5	117:2	corn-based 385:7	284:2 302:19	credit 181:7 306:4
337:7 350:14	conversion 362:22	Corporation 507:1	314:2 315:17	cretinism 473:8
351:19 404:4	398:22	508:3	316:2 318:2,5	crisis 515:7
406:2 469:13	convert 363:11	correct 7:14 224:1	327:1 351:4 427:5	criteria 54:15 70:18
495:1 498:18	368:1 387:4 391:1	234:5,6 247:22	430:10,11 441:11	71:10,11 72:4 74:1
501:3 502:9,12,18	converted 386:20	293:15 322:8	526:1,20 540:10	74:16,21 79:4
502:20 504:12	386:21 535:8	343:9 357:21	541:7 542:6	121:11 130:7,8
	1	1	1	1

121.2 122.10	170.5 100.4	206.10.22.272.5	402.15	270.1
131:3 132:18	179:5 180:4	286:18,22 372:5	483:15	270:1
138:12 142:13	184:18,19,20	383:11 418:12	daily 349:15 466:6	date 20:14 260:21
147:13 148:14	188:5 194:5	429:6 431:19	dairies 523:4,5	261:4 358:7
185:18,19 186:5	203:16 204:3,16	434:7 455:10,22	dairy 52:4 344:10	dated 448:17
192:1 202:3	205:15,16 210:19	511:13,20 512:14	344:12,17 345:17	daunting 509:8
204:18,19,20	211:4,7 212:3	521:9	460:15 504:21	Davis 1:15 3:13,17
206:5,15,18 207:1	215:14 216:1	currently 51:2	511:6 519:14	40:17 42:3,9 150:2
207:4,7 209:19,22	219:1 318:8	116:11 122:20	520:4 522:21	150:4,7 165:6
212:11,14,16,18	361:17 410:5,6	155:3 185:7,14	528:4	173:19 174:13
216:3 260:1 271:3	412:18 419:21	186:8 197:8	damage 421:21	184:20 188:20
279:2,2 284:11	437:14 450:8	208:18 221:8,21	Dan 3:5,8 24:2 26:3	189:13 192:7,20
298:20 405:19	496:10,11 500:1	222:1,9 226:10	26:5,11 27:12	196:9 197:18
511:16 512:15	crop-specific	258:7 263:20	28:14 31:16 34:12	198:13 200:16
518:16	425:12	264:5 277:12	42:18 43:22 44:6	201:16,19 203:22
criterion 212:12,15	crossed 72:13 74:5	279:9 290:19	48:13,22 81:12	205:2 206:16
212:22 216:9	111:13	336:1 350:10	93:5 99:12 122:9	211:18,20 214:13
476:21 477:7,14	crossover 265:1	359:2 370:5	128:21 133:14,20	217:21 218:16
513:2	266:10	375:21 378:10	135:4 136:6 139:8	219:5,9 223:22
critical 115:12	cross-breed 442:8	379:13 396:9,22	139:10,22 144:21	224:13 225:6,16
162:1	crowd 67:16 467:5	397:3 418:18	171:18 173:19	225:21 226:3
critically 478:19	crucial 80:19	423:17,18 440:6	175:9 177:11	228:16 230:9
critters 66:15	crude 267:12	442:20 449:15	189:14 192:21	272:12 276:7,13
crop 56:10 65:17,19	389:22 501:9	453:8 465:18	203:15 224:2	284:21 286:3
84:14 86:16,18	crutch 414:13	468:3 518:8	227:18 241:6	288:18 292:19
87:21 158:12	crutches 539:5	524:10 542:10	264:11 293:17	293:9 366:6
167:11 173:4	crux 498:8	547:18	295:3 296:10	368:18 369:1,6
174:14,15,16,19	Cruz 445:16	curve 33:17 482:13	320:2 474:8,9	385:4,15,19 386:7
175:17 177:3,4,20	crystal 120:9	customer 328:8	506:17	387:10 390:13
178:1,4 187:8	cube 20:4	customers 293:6,6	dance 165:15 176:6	391:4,7,10 393:18
189:16,21 207:2,6	cultivar 399:22	328:5,7,15 424:12	dangerous 171:3	393:20 414:15
215:5 354:15	cultivated 80:14	cut 46:10 60:21	DANIEL 1:18	425:21 434:10
370:7 372:5	354:12	69:22 85:12 132:2	Dan's 97:4 136:14	435:9,12 436:22
396:10 398:4,6,8	cultivating 179:18	132:5 388:18,19	dark 382:10	437:13 489:3
403:5 407:4	culture 50:15 61:3,6	416:13 486:19	data 20:5 93:10	490:10 497:18
417:19 422:21	61:10 544:12	488:8 498:8	285:1,4,11 286:16	502:8,13,21 503:4
434:1,3 468:2	cultured 247:22	cuticle 501:10	286:20,22 345:6	503:9,21
469:9 499:14,19	249:17 542:10,20	cuts 302:4	345:10 422:19,21	day 4:3,9 38:10 99:7
523:7 546:6	cultures 52:5	cutting 57:15	422:22 451:2	163:9 231:14
cropland 215:14	cumbersome 439:1	cycle 546:5	465:21 531:5	254:4 261:3
crops 3:12,13,16	curious 299:1 319:5	cycles 157:2 400:21	549:21	264:10 271:17
53:5 56:7 61:17	329:17 377:13,19	cycling 319:4	database 19:4 160:8	274:4 297:7
65:12,16 74:11	current 9:22 51:22	C(4)(a) 175:21	160:12,13 169:5,7	314:11 393:22
86:11,13 99:19	70:8 133:16 158:6	C2HR 388:14	169:10 413:16,17	410:13,14,17,18
112:8 144:9	158:16 160:14	C2H4 361:20 362:4	413:21 414:5,10	499:18 510:9
149:22 150:5	191:8 200:8	388:20 400:7	422:19,20 436:14	523:14,17
151:22 156:20	215:16 222:10	D	436:17 437:6,21	days 86:4 154:3
159:8 170:21,22	233:5 247:15		439:18,20	260:12 261:2
172:10 174:6,12	256:7 281:6	D 13:22 14:5 158:9	databases 160:22	302:17 364:1

365.9 390.0 15	decision 35:9 85:10	definition 37:6 44:8	118:4 119:8,18	310:12 311:22
365:8 380:9,15 381:11,19 395:3	85:11,19,20	50:7,10,12 51:3	118:4 119:8,18 122:5,8 124:6	310:12 311:22 313:14 314:1,6
*			*	,
395:16 402:8	129:10 147:15	53:7 56:9,20 57:5	128:20 130:9	315:6 320:2
430:11 522:16	157:5 210:9	57:12,16 60:18,20	133:12,20 135:1	321:12 322:9
523:1 DC 1-12	255:16 298:6	61:4,14,18 62:12	137:5 139:7,22	323:20 325:1,19
DC 1:12	307:16 313:15	62:18 63:6,10,19	144:16 145:17	327:7 328:19
dead 472:4	353:18 436:3	65:7 66:1,3,8,17	146:20 148:19	330:19 331:22
deadline 261:19	476:20	66:21,22 69:11,14	149:15 166:14	333:19 338:22
deadlines 421:19	decisions 111:11	70:10,16,22 71:14	167:19 168:15	340:17 342:19
deal 31:4 41:22	409:15 477:17	74:10 75:19,22	171:16 173:17	344:8 346:14
42:15 43:13 45:15	declared 495:21	78:7,19 79:1 88:22	175:8 176:19	347:13 348:13,16
80:1 81:1 106:13	decrease 32:14	105:16 145:11	177:9 179:1	352:1,4,20 360:11
127:22 161:12	decreased 171:13	310:16 319:21	180:15 183:10	366:4 369:8,11
227:5 282:3	dedicated 371:9,13	354:8,20 355:10	184:7,10 189:12	376:20 377:1
324:11 432:9	371:17	400:19 469:19	190:18 191:2,12	381:7 385:3 386:8
437:7 462:1	dedication 48:3	470:6,17 517:1,2	192:5 193:7,14	387:14,18 388:1,6
500:12 543:11	467:18	definitions 36:18	194:14 195:12	389:16 391:14
dealing 24:17 38:18	deem 59:5	47:7,11 58:8 60:14	196:7,15 197:2,10	393:17,19 397:7
44:16 226:2	deemed 221:2	64:4,7,13 65:6	197:17 198:8	402:19,22 406:8
320:14 362:13,13	deep 131:6 412:13	68:4,9,10,11 78:9	199:22 200:9,13	406:11 413:5,7
510:8	415:9 455:17	81:2,8 87:17 95:8	201:7,13,17 203:4	414:14 416:8,18
dealt 20:21 199:9	deeper 170:11	105:12 353:14	203:15 204:14,22	423:3,6 425:19
death 147:4 197:12	DeEtta 426:19	354:15 356:3	206:1 207:14,20	426:15,18 433:6
debate 84:17 149:17	440:1,4	516:20,22 520:14	209:6 210:12	435:3 437:12
343:14 490:21	defer 218:20 474:8	degraded 216:6	211:3,19 214:10	438:15 439:15,22
493:10,11,12	deferred 260:7	degree 357:11	217:12 218:13	444:16 445:3
debater's 493:10	521:12,14	368:16 377:13	219:3,6 222:21	456:16 457:8
debating 493:14	deficiency 471:4,5	degreeing 368:19	223:20 224:2	459:11 460:8,11
547:1	472:20,22 474:19	degreening 267:9	225:19 226:4,8	462:12 467:11,14
Deborah 369:12	deficient 497:22	366:8,15,16	227:11,17 228:14	473:21 474:9
387:20 392:4,15	define 12:6 57:7	368:14 369:4	230:1,7,11 236:2,9	475:1 480:15
397:8,11 402:19	75:20 105:21	399:8,8 401:3	236:13 237:17	481:4 486:15
decade 519:12	239:2 512:9,9	degrees 394:11,12	241:5 243:5	488:11,22 491:2,5
deception 240:20	defined 13:16 65:17	394:12	246:17 249:22	491:17 492:2
342:3	70:21 92:6 142:21	delay 503:22 515:11	250:14 251:7,18	496:19 497:17
decertification	145:21 183:16	delayed 248:12	253:5,10 264:11	498:2 502:7
167:11 175:17	315:22 317:6	delete 517:5	266:15 268:19	504:13 505:13,18
decertified 156:20	454:19	deleting 37:6 190:4	269:1 274:5	505:20 509:19
521:20	defining 10:3 13:20	Delgado 1:12,14 4:2	275:10,18 278:11	510:1,10 515:13
decide 80:13 81:15	66:12 512:21	9:5 21:18,22 23:21	281:14 282:5	515:21 517:12
85:15 91:4 117:4	definite 52:12	26:5 27:12 28:1	284:19 286:1,11	518:21 519:6
117:21 149:2	definitely 26:2 64:3	31:5 32:19 34:11	289:6 290:13	525:16,22 526:11
313:15 348:5	73:10,15 99:17	36:14 37:10 40:16	291:10,20 293:16	526:17 527:3,11
decided 45:7 134:21	118:11 148:10	42:17 43:18 65:2	294:10 296:10	533:5 534:3,6,11
207:5	201:16 237:20	88:8 89:21 90:18	297:20 298:13,17	536:10,13 539:14
decides 537:1	238:16 267:13	91:21 93:5 94:7	299:13,21 300:12	539:17 545:7,10
deciding 54:16	440:14 459:22	97:2,19 98:6,18	300:18 301:2	548:6,19 550:1,13
186:17 225:11	472:9 528:6	99:12,21 100:9,13	305:5,18 307:3	550:18 551:1,4
	l	I		

deliberate 247:7	145:5 327:13	72:12 102:3	47:9 125:6 256:14	different 11:9 27:3
deliberately 439:11	depend 164:18	107:21 248:21	256:17 303:4	27:5 41:10,10 50:1
deliberation 183:13	depending 11:20	249:2 281:5	329:14 333:16	60:14 83:22 94:16
497:6	26:22 64:5 399:16	479:14	414:9 430:20	94:20 125:9,17
deliberations 215:7	493:14	details 16:10 102:12	development 3:2,4	126:6 129:1 136:3
433:2 486:9,13	depends 25:10	129:3,9,20,21	3:6 4:16,18,19,21	141:3,5 142:8,12
delineate 497:20	354:22	158:20 219:4	5:3,11,17 8:22	141.3,5 142.8,12
delineated 159:22	depth 117:18	242:2 418:5	17:12 22:2 28:12	142.13 143.8
delisting 256:5	535:12	478:15 546:9,11	28:17 29:20 81:3	160:21 169:20
deliver 378:17	Deputy 104:10	detected 124:21	152:17 157:11	174:6 185:8 194:7
deliverable 18:1	Dericks 418:21	detection 125:4	172:1 179:20	195:18,21 196:5
delivered 252:6	derivative 78:11	determination	216:16 217:1,6	195.18,21 190.3
262:5 402:7	derived 58:15 79:19	29:10 71:8 215:10	256:3 331:7 343:4	202:21,21 203:13
519:16				*
	83:18 237:3	determinations	362:5 404:11	203:14 204:3,20
delivers 291:2	262:14 264:3 268:13 290:18	229:9	430:5 441:21	206:22 207:13
delivery 373:2	268:13 290:18	determine 157:22	446:20 449:4	210:4,5 214:16
demand 293:12,14		158:5 159:4	develops 419:5	220:1 228:7
295:4 302:15	derives 52:5	247:22 266:2	447:1	242:22 243:2
372:11 380:16	derogations 429:13	355:2 431:13	deviations 8:14	257:21 258:6,14 287:21 289:16
396:21 397:2	430:8 433:9,12	450:14	devices 318:12	
438:18 498:22	describe 428:12	determined 121:7	319:20 330:8	296:15 307:13
499:3,4	described 16:5	205:14 215:7	devil 129:8 418:5	311:8 334:2
demanding 171:4	78:15 118:16	219:18 228:4	Devlin 498:6	349:16,17 360:20
demands 402:2	148:22 149:1	269:5	devoted 81:21	362:9 365:4
435:2	169:7 220:21	determines 51:17	307:14 325:21	366:22 373:22
Demographics	270:18 497:11	121:9	dialectical 259:12	377:14 383:19
545:14	describes 452:7	determining 148:16	dialogue 546:18	385:8 386:16
demonstrate 60:9	468:12	154:22 156:11	died 464:20	399:7 410:4,7,12
178:11 194:6	describing 172:21	264:16 452:9	dies 83:11	411:5 415:7 416:5
278:20 283:16	description 6:20 desert 523:4	531:18	diesel 239:13,16	419:20 429:3
505:5		deterrence 544:2,3	diet 240:16	433:14 436:2
demonstrated 72:9	deserved 64:1	544:8	diets 233:13 234:6	440:14 451:22
170:1	design 97:12	deterrent 330:8	311:3 351:12,14	493:13 495:14
demonstrates	designated 62:10	detrimental 257:5	Dietz 46:3,7,18	504:7,7 512:19
178:11	designation 104:19	Deutsch 504:19	79:12 95:22 96:20	521:2 528:11
DeMuri 1:16	designed 324:15	develop 148:14	99:4	530:15
266:20,22 268:21	480:2	218:2 324:20	differed 495:20	differentials 156:9
282:14 285:19	desire 9:17 322:7	395:8 439:5,18	difference 110:20	differentiate 342:8
297:22 298:16	desired 480:5	447:12	130:3 203:20,21	455:2
389:18,22	desperately 101:17	developed 13:9 16:1	204:2 257:20,22	differentiating
denied 278:18	destiny 303:7	130:7 147:14	289:11,15 344:16	476:3
Dennis 352:21	destroyed 513:4	187:5 257:1	382:1 384:4	differentiation 64:8
360:13,17 379:22	detail 64:14 77:11	295:16 402:6	458:11 483:16	209:16
382:19 392:4,21	106:8 113:13	513:17 518:16	497:2,10,20,22	differently 6:4,8
denominator	131:17 133:4	developers 256:18	499:6,15,22	27:8,11 206:14
484:22	183:6 188:8	444:3	504:11	292:7 456:22
deny 278:10	279:14 429:22	developing 13:3	differences 204:10	difficult 85:3 91:15
department 1:1	detailed 47:18	14:15 22:5 30:14	258:2,3 502:3	321:22 333:8
	-	•	•	•

411.10 422.2	440-22	(4.2.77.2.92.1	401.01.441.7	J
411:10 432:3	449:22	64:2 77:2 82:1	421:21 441:7	documentation
453:20 521:4	disagreed 131:11	84:8,19 88:11	divide 55:14 130:2	155:10 157:20
534:19 548:5	disagreeing 132:16	150:3,13 152:14	divided 13:21 53:4 182:3	158:14,15 170:10
difficulties 91:3	disagreement 61:8	181:1,5,12,21		434:6 451:17
difficulty 116:21	185:20	186:4 188:11	divine 418:1	documented 472:19
187:10 200:21	disallowing 134:18	203:3 210:19	divisible 105:3	473:1,5 474:19
dig 248:14 dilemma 73:17	disappointed 261:22	211:4,16 214:9 217:11 218:19	134:11,13 DMI 505:2	538:6
	disappointing	220:19 222:20	doable 164:11	documents 34:17,17
diligent 159:9	428:20 520:17	231:5 232:21	document 25:1 26:1	47:10,18 48:17
diligently 358:9 Dillon 416:18 417:5		233:20 234:9	27:16,18 30:21	69:8,10 82:18 110:15 182:9
	disappointment 252:16	237:15 241:3	31:3 32:13,13 37:8	353:14,15 356:1
423:4,16 426:4,16 dilute 335:14	disaster 172:20	247:13 248:4	37:19 74:16 79:8	447:2 480:6
dilution 338:15	disclose 352:11,13	247.13 248.4 249:21 263:8	82:1,13 93:9,10	521:13
340:6	*		94:9,14 96:15	
DiMatteo 510:11,12	discourage 216:15 discovered 104:4,5	274:12 315:9 335:8 440:22	102:2,8,11,22	dog 306:16,17 351:3 351:14 352:14
510:13,14 515:20	441:1	446:14 456:14	102:2,8,11,22	dogs 311:11 351:1
510:13,14 515:20	discredits 411:13	476:9,15 496:5	105:1,9,15 105:15	doing 31:12 46:2
517:18 518:12,14	discrepancies 7:14	506:15 541:3	119:11 120:12	48:20 106:18
517.18 518.12,14	8:2	discussions 23:17	122:3,14 123:2,11	130:16 132:1
dimensional 175:1		23:19 55:12 56:2	124:15 126:7,19	142:5 150:20
diminish 378:3	discrepancy 205:17 discrete 403:12	151:21 197:21	131:2 133:18,22	151:18 152:4
diminish 378.3	discretion 10:17	203:20 351:9	131.2 133.18,22	
dinner 9:18 250:12	11:20 358:18	412:9		163:1 164:2,17,18 167:3,4 223:5
527:20 551:5,8	404:22 486:5	disease 334:21	139:14,21 142:21 145:16,19 150:14	225:14 226:18
direct 21:14 123:9	discriminate 171:5	335:2 544:10	151:2 152:15	262:11 264:15
123:17 124:1	265:16	diseases 443:3	151.2 152.15	302:5 322:14
227:22 377:7	discuss 5:17 18:9	disincentive 115:22	159:3,9 160:1,2,7	325:4 326:20
441:16 448:3	117:9 140:12	dispensers 222:10	164:16 166:9,20	332:20 333:11
directed 352:17	160:3 161:7	displaying 170:5	169:2,7 171:21	337:17 338:12
direction 124:3	200:18 201:15	dissenting 264:9	175:11 181:1,5,21	385:16 390:11,17
129:22 170:7	224:5 230:17	disservice 338:3,4	182:3 183:5	428:9 432:15
171:12 408:19	236:4 247:12	distinction 75:15,16	202:14 220:11	436:9 504:7 523:3
439:21 449:2	249:19 313:1	75:17 87:8	222:20 223:3	dollars 534:15
directions 5:13	407:3	distinctions 87:6	232:3,9 233:20	domain 112:22
directive 104:8	discussed 52:11	distinctly 186:12	234:12 235:20	domestic 110:6
directly 372:18	233:19 272:21	distinguish 455:5	240:3 245:15	351:20
director 7:21 418:9	279:4 285:1 313:4	distressed 310:10	247:21 248:4,16	domestically 62:9
418:12 481:8	313:10 401:5	distribute 475:22	248:20,22 281:10	domesticated
525:5	409:12 497:6	distribution 10:12	306:6 312:11	234:16
directors 371:11	520:16 521:5	373:3	336:17 356:2	donkey 322:6
440:7	discussing 120:5	ditches 212:2	357:8 407:8 408:9	door 56:12 70:11,12
dirty 228:7	257:11 264:13	215:22 539:10	408:17 409:7	83:2
disadvantage 375:5	506:14	ditto 427:11	433:17 448:15,22	dotted 111:12
375:9	discussion 3:22 4:11	dive 170:11	451:9 458:10	doubt 146:8 305:2
disagree 123:3	17:17 22:1 26:8	diverse 419:10,13	476:2 480:11	dovetailed 306:3
145:19 287:6	37:18 47:14,18	419:21	495:7 516:4	dozens 106:1
440:10 441:9	52:16 58:1 59:2	diversity 374:3	537:11	415:10 419:19
		1		

Dr 4:17 177:11	eagle 307:7	editorial 124:14	element 120:6	81:3 152:3 154:20
230:13 265:5,8	eagle 307.7 earlier 15:11 92:10	edits 494:10	elephant 108:18,19	179:16 255:22
266:6,13 291:11	136:6 207:16	educate 343:16	147:2,4	349:9 353:12
291:19 292:14	212:6 228:17	366:1	eliciting 259:5	355:21 429:5
293:7,15 294:2	263:8 307:2	education 147:20	eligibility 14:4	430:16 449:6
540:6	309:21 321:19	440:8 511:4	eligible 51:19	451:6 481:17
drabs 297:5	351:10,17 378:20	educational 418:13	215:21 270:14	485:22 494:7
draft 442:3 489:10	393:12 399:5	effect 215:19 366:9	356:22	encouraged 10:9
drafting 536:17	412:9 427:10	401:7 404:9	eliminate 123:8,17	121:19 220:22
drag 87:13	433:21 452:1	489:12,13 522:10	123:20 124:1,17	
drastic 115:17	480:1 482:8 519:5	539:11	183:17 222:4	encouragement 255:21
dressings 282:19	early 381:3 514:18	effective 35:6	eliminated 123:14	encourages 160:10
dribs 297:5	earned 127:6	216:19 403:21	124:17 325:9	168:20 404:11
dried 273:2 276:3	earnestness 505:11	404:2 485:4 544:3	459:14 523:20	encouraging 179:17
282:15 283:22	Earth 515:8	effects 210:4 355:12	eliminating 402:9	179:19,22 180:3
284:9 286:14	easier 323:2 331:18	443:7	458:2	538:21
295:20 296:19	416:6,7 436:5	effort 5:2,7 32:12	Elkhorn 417:21	ended 46:5
297:13	529:14	81:21 156:13	ELLOR 1:17 86:11	endogenous 399:3
driest 412:2	easiest 168:17	177:13,16 332:10	86:15 196:17	ends 310:10
drilling 106:3,4	easily 83:14	425:6 448:19	206:3 230:5	energy 256:14
drinkers 111:22	east 440:15	491:21 505:12	else's 64:20	453:4 456:11
drive 399:18 427:17	eastern 409:19	523:3	embraced 482:9	482:18 500:19
drive 399.18 427.17 driven 410:21	easy 82:16,19 413:3	efforts 44:1 45:3	embraces 484:17	enforce 146:17
driving 206:20	436:11 547:7	333:16 409:6	embracing 66:18	156:1 165:20
drop 312:10	eat 343:17,18 364:1	449:6 478:10	75:6 484:3	167:8 486:3
dropped 473:10	373:15 382:21	Egg 62:20	emerges 525:11	enforced 521:10,17
dropping 72:18	383:2,11 471:6	eight 10:3,4 11:6	Emily 46:15 48:9	522:3 525:14
drops 464:9	551:3	132:12,14	225:21 305:1,3,5	enforcement 110:7
drop-dead 421:19	eatability 396:18	either 20:9 57:9	307:9 516:7	125:15 178:14,16
dry 283:7 286:19	eaten 340:11	75:13 76:22	emphases 182:13	178:17 325:3
505:6	eating 237:8 373:17	186:18,19 190:1	emphasis 32:18	414:11 422:10
drying 299:1	378:19 383:9,18	193:6 199:11,14	182:14 184:3	enforcements
due 6:5 26:12 169:1	402:8	203:19 212:21	327:11,12 403:16	427:17
231:3 249:5,16	eats 501:10	218:10 238:11	emphasize 154:21	engage 546:18
314:3 428:21	ecological 229:8,12	242:13 255:1	155:6 156:8	engaged 49:17
444:18 526:14	229:15,19 326:3	281:21 361:5	169:20 408:12	247:1 256:19
528:18	443:7 537:16	394:2,5 439:8	409:3	259:17 294:12
dumontiacae 269:8	economic 365:20	466:8 472:16	emphasized 155:4	328:15 329:20
272:10,13,16	367:11 404:10	497:15 514:3	employee 528:18	engaging 541:4
duplicated 123:20	439:3 487:21	544:5	emulsifier 299:2	Engelbert 1:17
duration 381:15	economical 526:3	El 508:15	482:1	36:16 48:12 98:20
duties 13:15	economics 438:17	elaborate 133:15	emulsifiers 291:4	167:21 197:4
dynamic 293:11	ecosystem 537:19	292:3	emulsifying 549:16	240:18 323:21
370:4 496:16	ecosystems 544:11	election 13:1,5,7,14	enact 244:16	325:2 339:1 344:9
	edible 238:21 239:9	13:20 24:8,12	enacted 338:16	391:15 525:19
E	edit 122:2	electricity 414:2	encompasses	528:1,3,3 533:11
e 1:19 3:1 35:4,21	editing 214:22	electronic 511:9	219:16	533:22 534:5
487:16	494:9	electronically 10:11	encourage 60:2	engineer 549:3
	<u> </u>	<u> </u>	<u> </u>	ı

engines 280:22	envisioned 91:4	119:2 405:18,20	389:11,15 390:7	435:15 436:6,11
enhance 170:22	enzymatic 57:1	543:20 544:1	390:15 391:1,3	493:7 495:3
248:22 378:18	EPA 215:9 219:11	established 104:3	392:6,6,9,10,12,15	499:14 504:18
537:20	219:18 222:15	241:12 317:1	392:15,16,18,20	everybody's 485:18
enhanced 373:17	223:9,18 224:18	404:20 405:2	393:1,8,21 395:8	everyone's 257:3
enhances 400:20	225:4,10 226:1	establishes 469:14	395:10 397:17	330:21
enjoy 364:3 383:12	227:7 496:10,13	establishment	399:3 400:3,4,6,8	every-day 349:19
enjoyable 383:8	499:12 503:1,11	160:10	400:10,12,14,16	evidence 16:12
enjoyed 377:8	503:20	establishments	400:17,22 401:3,6	155:11 273:22
enormous 108:13	EPA's 223:12	528:11,14,15,19	401:10,12,15,17	296:4,6 403:18
137:17 149:3,13	227:14	esteemed 5:9	401:20 402:12,13	439:6 510:5 522:2
324:19	epogen 390:6	ester 499:11 500:17	529:10 539:13	538:6
enshrined 125:13	equal 26:22 58:1	estimate 231:8	ethylene-ripened	Evidently 204:7
ensure 106:22 146:6	194:3 511:1	et 72:13,14 432:8	381:19	eviscerating 57:15
326:3 476:22	equally 448:10	ethanol 7:4 267:12	EU 464:1	evolution 28:19
479:2 523:22	equation 171:1	384:11,12 385:8	Europe 187:7	46:5
entail 221:22	equine 234:14	385:16 386:12,13	European 316:21	evolved 16:8
enter 515:1	equipment 284:2,5	386:15,18,18,20	347:5 421:20	exact 8:13 139:10
enterprise 218:4	285:7 286:7	386:21 387:8	433:9,12	218:4 234:5
427:20	291:14 292:17,22	389:3,4,7 390:8,21	Europeans 433:10	265:11,13 323:18
entertain 21:13	equipped 112:15	391:5,16 392:5	evaluate 30:18	344:10 525:7
entire 19:17 103:9	equitable 479:1	ethanol-based	411:6 415:4	549:13,21
137:19 138:9	erosion 539:12	385:11	evaluated 21:3	exactly 13:21 14:8
250:17 436:4	err 245:10 535:14	ethically 272:22	evaluating 39:6	141:11 146:7
522:14,16	erroneous 337:11	273:5	477:9,15	289:2,4 290:20
entirely 307:13	error 316:22	ethyl 362:17	evaluation 176:17	318:15 322:14
entirety 111:7	escapes 245:5	ethylene 266:20	185:17 186:5	329:22 368:21,22
entity 142:19,22	especially 98:15	267:2,16,17,19	202:3 212:11	374:6 385:18
143:1	153:8 252:13	268:8 361:8,9,13	216:3 298:19	400:22 432:5,6
entrants 118:21	319:18 322:22	361:19 362:4,19	405:13 476:22	486:17 504:5
405:7,12	371:6 408:14	362:19,22 363:9	477:6	example 6:2,12,15
entrees 282:21	458:7 463:2 538:4	363:20 364:8,13	evening 238:13	6:19 41:5 51:6
entry 110:17 219:15	essence 30:13,20	366:8,11 367:8	382:21 481:7	54:9 61:20,21
environment 55:5	31:2 134:1,2	368:1 369:2,18	504:18 540:2	77:13 79:9,15 87:4
185:22 212:13	essential 162:1	372:19,20 373:8	evenly 374:2	100:4 130:18
216:4 246:13	202:4,5 206:18	373:18 374:8,12	events 496:6	131:11 136:7
255:2 283:11	209:12 212:16	375:3,16,21 376:4	eventual 393:22	145:9 173:22
337:4,5 382:8	213:13,17 216:10	376:11,13,19	eventually 130:22	181:12 187:7
392:9,10 393:10	257:18,18 283:12	378:21 379:3,15	168:6 196:1	216:18 258:13
394:10,18	448:1 453:8 464:7	379:19 380:1,2	everybody 62:1,16	317:19 330:5
environmental	469:6,21 470:9	381:13 382:2,6,6	64:22 141:8	353:20 373:10
73:10 249:16	472:18	382:11,12,13,15	144:19 145:13	412:20 413:16
316:15 336:12	essentially 17:7	383:16,22,22	163:1 164:1 166:3	459:17 469:5
356:17 479:4	66:20 218:22	384:7,8,9,13,14,16	166:12 167:15,16	471:1 501:15
510:21	237:4 244:20	384:16,19 385:1,2	172:8 181:16	547:10
environmentally	278:9 288:12	385:7,9 386:2,19	182:3 208:2 246:4	examples 7:17 61:2
246:12 326:14,14	464:15	386:22 387:6	321:7 349:13	61:6,12,19 64:13
environments 54:7	establish 38:13	388:11,12,15,21	386:4 426:20	65:7,9 66:4 69:19

69:22 120:15	ovieting 62:19 62:5	ovnlaing 502.22	88:10 162:12	factors 196:1 259:0
122:1 141:3 316:2	existing 62:18 63:5 65:15 157:15	explains 503:22	275:5 416:20	factors 186:1 258:9 factory 26:18
480:4	190:16 191:1	explanation 14:7 67:7,8		fail 178:21,22
exceeds 396:21	212:1 245:21	explicit 6:20 451:18	eye 115:4 171:10 307:8	213:20 284:10
Excel 19:14 420:18	248:1 263:21	505:5		failed 186:5 190:15
	264:6 465:19		eyes 232:12 e-mail 99:9 515:16	202:2 269:10
excellent 114:12 124:8 181:10	521:18 522:3	explicitly 108:21 exploit 342:5	e-mails 328:8	271:15 274:2
303:14 357:19	exists 397:3 498:21	explore 77:18 92:17	e-mans 320.0	283:14
419:8 466:9,17	exogenous 400:3	explored 59:16 60:1		failing 280:13
exception 59:18	401:10,14	321:19	fabulous 85:2	fails 178:11,15
428:7	exogenously 401:6	exporting 187:7	FACA 18:14	192:14 280:19
exchange 269:13	401:16 402:12	experting 187.7 express 476:8	face 140:22 156:19	failure 174:16 439:4
511:2	exotic 351:17	expressed 172:2	515:7 524:5 529:8	439:5
excluded 153:13	expand 17:18	229:4 373:16	529:8	failures 174:14
excludes 171:15	322:11 537:20	375:12	face-to-face 529:4	178:4
exclusion 107:5	expanded 200:2	extend 10:17 99:14	facilities 105:19	fair 34:10 118:1
544:5	expanded 200.2 expanding 371:16	137:9 359:17	149:5 521:21	162:15 210:16
exclusive 68:11	expect 233:8 336:5	480:19 520:2	facility 55:4 104:18	236:8
473:3,13,15 474:5	342:12	extended 4:6 107:12	134:8 145:22	fairly 216:19,20
474:21	expectations 513:19	extended 4.0 107.12 extenders 508:22	371:10,14,17	248:8 283:1 285:3
excuse 192:5 214:16	514:10	509:2	544:10	433:13 497:21
218:16 320:3	expected 8:6 155:9	extending 379:17	facing 492:17	516:1
414:12,18 523:11	452:11 453:13	extends 80:13	fact 21:10 28:6	fairness 196:9
536:10	expecting 261:22	354:11	44:21 54:19	faith 418:6 485:21
excuses 409:4	expediently 259:2	extension 461:17	106:14 107:4	faithful 489:21
executive 7:21 8:19	expensive 538:18	524:13,17 526:19	108:21 113:5	fall 24:10 129:20
15:4 23:17 260:20	experience 253:20	extensive 31:2	119:4 136:5	236:20 543:13
exempt 528:16	373:17 378:19	99:19 463:18	143:19 181:16	fallen 177:4 482:12
exempted 25:13	383:9 463:11	extensively 44:16	186:4,12 213:7	513:10
202:12	494:11 531:15	extent 181:6	216:4,14 241:22	falling 139:20
exemption 237:2,9	experienced 375:11	external 6:5 32:10	265:9,10,15 266:2	falls 22:20 83:11
425:5 426:13	expert 36:21 205:13	32:14 135:19	277:11 278:5	137:15 187:19
exemptions 220:9	490:11,16 535:12	400:5 404:14	285:1 334:20	familiar 60:13
338:9 422:12	expertise 16:16	406:3	336:3,14,21	357:12 394:17
exercise 60:9 63:22	29:14,18 32:4 34:4	Externally 400:8	337:15 338:5	family 274:21 275:3
519:11	221:5 248:14	extra 167:17 240:5	342:13 344:4	275:4,8,13 538:13
exercises 64:11	310:16 541:22	335:19 435:16,16	378:3,14 379:5	541:12
exhaust 292:22	experts 36:20 37:3	extract 51:1 79:19	380:12 401:2	fantastic 302:8
exhausted 286:5	198:1 301:15	276:3 278:14	430:14,18 463:13	314:1 323:13
exhaustive 40:8	486:8 535:9	279:11 549:18	464:16,18 477:10	Fantle 519:1,2,7
279:6 280:8	explain 117:19	extracted 7:2 50:19	493:9 495:2,11	far 26:9 43:16 54:5
exist 59:4 65:14	194:10 328:3	52:5 270:19	496:10 514:21	61:7 65:9 67:1
74:19,22 84:9	330:9 392:1	extraction 6:21 7:2	519:22 521:22	92:15 95:18
90:11 105:9 161:1	explained 134:2	7:5 283:4	524:4 540:21	102:15 131:7
355:1 360:5	277:19 328:6	extracts 41:6	543:6	140:22 161:4
366:12 453:8	430:18	extraordinary	factor 45:2 128:2	164:5 171:3
existence 271:8	explaining 297:4	493:2	156:10 293:20	212:11 216:2
512:22	342:10 497:22	extremely 66:16	531:18	231:12 242:4
	l ————————————————————————————————————	I	I	ı

	I	I		I
245:14 259:11	514:7,21 520:19	98:4 265:14	118:12 208:19	172:14,15 194:3
321:8,21 322:7	522:21 524:19	309:11 351:20	233:21 237:9	203:10 348:7
325:8 371:5	537:13,17 539:2,6	FDA's 265:8,13,21	263:17 264:13	407:13,16 411:15
379:10 383:6	543:22 545:15	Fe 426:21	273:10,21 291:5,7	411:16 412:2,3,17
388:22 391:13	farming 109:14	fear 33:1	303:3 307:16	462:2 494:18
396:8 413:19	181:15 202:5	fears 136:20 257:3	331:4 334:12	523:9
490:20 503:4	212:20 213:16	514:8	350:11 353:19	fields 421:1 424:8
520:2 536:12	216:10 221:3	feasible 129:15	354:8,19 356:18	Fifteen 545:19
fare 252:13	245:22 326:7	245:8,9 294:22	357:5 403:20	fifth 17:21 18:19
farm 52:21 55:7	375:8 446:12	features 146:2	404:17 405:5	figure 48:22 56:15
135:8 138:16	510:22 511:7	327:2	414:12 429:14	56:16 64:18 109:6
141:11 156:15	514:1,5 537:14	February 231:10,17	457:5 467:7	165:11 255:17
172:15 181:8,20	farms 54:2 235:4	243:9 367:9	491:22 505:16	256:20,21 524:15
318:16 320:7	321:5 336:13	fed 59:20 236:21	508:9 528:17	figured 255:16
324:3 332:11	340:19 345:17	240:7,12,15,22	546:13	513:19
337:4 345:8 346:3	410:1 411:20	341:4	feeling 151:15	figuring 38:12
356:11 371:2	431:9 432:13	Federal 5:21 6:9 7:8	183:22 208:7	253:21 316:5
377:8 391:8	539:5 541:11	7:22 8:3 408:14	229:17 303:1	file 176:3
398:16 409:18	545:22 546:1	469:11	311:8	fill 280:4 281:8
410:1 412:8,10	farmstead 212:1	feed 81:4 93:13,21	feelings 188:13	filled 495:5
414:16 431:16	215:22	230:18 232:2	194:1	fin 547:12,15
446:2,3 457:1	farm's 144:5	234:2 236:22	feels 79:13 294:13	final 8:7 38:5 97:10
475:6,8 476:7,18	farm-grown 73:7	237:5,6 239:16	454:1 459:13	97:12 107:15
477:5 478:8 480:1	farther 168:4	241:6 248:11	fellow 256:11	148:21 186:13
480:18 521:19	252:21 259:19	288:11 308:2,18	felt 94:15 176:13	247:16 248:2,17
537:12,21	fashion 15:21	309:4,12,18,18	185:17,18 186:4	279:19 459:7
farmed 233:22	139:17 237:2	310:11 316:3,3	187:3,18 188:1	finalize 228:21
324:6,12 332:16	246:12 259:1	317:2,5 321:21	202:2 212:10,17	finally 14:11 127:21
547:11	265:15 339:13	322:18 334:13	212:20 213:1	318:22 358:19
farmer 411:16	429:21	335:3 336:6	214:2 215:12	452:13 461:12
423:19,19 440:5	fast 341:3 371:15	337:10,20,22	216:21 253:14	495:8 544:16
440:10 484:16	416:21 423:5	338:10 340:11,20	259:4 271:3	financial 404:15
504:21 513:15	445:8	342:14,16 343:5	276:20 277:20	408:1 482:14
516:21 523:15	faster 395:12	347:1,9 350:14	279:5,7 311:10	find 19:13 38:1
537:19	529:14	351:19 379:2	332:6,14 417:8	39:17 43:14 71:10
farmers 108:16	fat 549:15	530:13,14,17,18	518:1	88:7 92:6 93:8
112:1 153:5	fatigue 526:15	543:6	fermentation 63:3	125:7 146:10
156:12 168:11	fatty 58:19 211:7	feedback 9:8 15:3	80:10 357:12	147:13 156:14
173:10 175:22	213:8 214:20	211:11 269:14	fermented 63:2,2	201:17 214:15
179:8 203:9 377:7	215:18 216:4	320:20 343:2	fertilizer 322:18	273:16 278:6
408:20 414:1,8	351:9,13	feeding 304:18	469:15 470:15	281:9 319:6,16
418:17 424:4,20	favor 9:1 103:1,9	311:3	fertilizers 444:8	323:8,13 331:12
425:2,17 431:21	235:19 347:9	feeds 542:7 543:3	469:9,10 472:22	335:12 354:14
431:22 432:3,4	429:6 432:19	feedstocks 267:11	fewer 529:18	411:3 415:19
441:8 442:12	492:5	feedstream 310:8	fiber 509:14	432:22 435:19
444:5 446:4 450:5	favorite 411:22	feel 51:15 69:12	Fiberstar 286:14	440:16 441:5
451:21 505:9	favorites 87:15	72:3 74:6,19 77:2	295:22	508:13 538:9
511:3 513:17	FDA 6:7 97:8,18	77:21 85:14 96:5	field 60:6 136:17	544:19 550:20

			1	I
finding 38:12 89:17	465:22 476:16	222:8 264:9	floor 82:9 83:11,12	475:2 481:6 491:6
167:13 270:1	484:3,18 486:1	284:18 288:1	84:21 188:10	504:16 539:19
302:22 323:17	491:7,13 492:17	315:5,6 343:6	262:16 273:1	following 5:3 47:5
325:3 326:19	492:17,18 493:4	364:1,22 368:15	464:10	156:22 192:10
411:8	495:6 496:8	372:13 381:11	floors 143:13	316:21 338:5
findings 477:6	498:10 499:7	383:5 396:20	Florida 285:3 287:1	371:20 373:1
521:22	540:11	402:8 409:20	287:8 289:9,22	374:16 442:10
fine 21:18 246:21	fish 87:3,5,7 88:6	410:22 412:19	507:2	follows 208:2
283:10 551:8	230:18 232:2	414:18,21 416:4	flow 16:1 55:21	293:14 392:14
fined 533:3	233:6,7,9,9,15,15	416:14 443:11	77:9 79:5 93:20	follow-through
finessed 169:11	233:16,21 234:2,7	444:21 460:19	354:2	182:10,15
finish 312:3	234:16 235:15,15	464:6 482:13	fluid 485:19	follow-up 192:20
finished 211:5	236:17,20 237:2,3	491:21 494:4	flush 337:5	297:11 327:8
288:2 372:6	238:18,20,21	504:22 506:19	fly 261:8 262:11	330:20 549:7
376:22	239:9,12,16	512:12 526:12	flying 345:20	folly 421:19
finishes 250:4	240:11,12,15,22	five-minute 11:16	focus 60:11 63:4	food 66:16 81:4
finishing 519:21	241:12 316:4,5,7	five-step 332:12	65:16 179:7	89:9,11,18 90:3,4
firing 162:20	317:5,5 318:19,19	five-year 405:4	327:15	93:20 115:22
firm 162:13 324:22	320:9 324:3,8	512:11	focused 56:3 277:15	116:9 216:7
405:19	327:13,15,18	fix 123:1 251:16	454:3	234:15,16 246:13
firmly 105:12	328:1 330:1	338:2 346:7 435:1	focusing 121:19	282:20 290:22
first 4:4 5:16 13:13	332:16 333:14	Flam 3:2	333:15	300:21 301:21
33:8 55:16,21 56:2	336:5,9,13 337:10	flame 458:3	FOIA 521:13	302:3,18,21 303:5
60:18 61:3 62:16	338:3,20 339:5,6	Flamm 1:18 3:6	folks 149:2 167:5	303:12,22 304:4,6
63:13,15 69:3	339:22 340:1,15	4:17,19 9:4 12:22	234:5 268:3	304:7,10,17,20
84:22 85:17 96:16	343:5,7,8,17 344:6	14:11 15:8 18:6,19	313:22 331:8	306:1 307:10,14
106:11,12 119:13	351:13 470:7	20:17 21:20 23:16	417:14	308:3,8,10,16
122:18 123:14	519:19 542:10,10	26:2 88:9 89:5,14	follow 14:18 16:2	309:18 310:7,10
150:9 168:17	542:12,20,20	90:9 180:22	42:18 86:22	311:7 312:21
169:22 178:14	543:1 544:19	183:19 184:8	166:18 208:1	334:11,12,19
185:1 191:18	545:3,3 547:12,15	274:21 275:2	226:6 325:5	335:18 336:9
199:19 205:3,6	fisheries 233:18	480:16	370:15 462:4,5	344:7 347:19
209:11 222:15	238:22 239:4,5	flavedo 509:15	496:15 539:22	348:1,3,10,20,21
232:3 244:2 252:2	317:11 333:17	flavino 507:6	followed 133:13	349:7 355:13
252:18 254:17,18	542:13	flavor 171:10	139:8 146:7	356:20 397:22
255:2 262:8 279:1	fishing 320:7 326:3	279:16 299:2,9,11	166:15 167:19	421:2 428:4 456:3
283:20 286:5,10	fish-in 316:12	363:5,6 367:1,3,16	191:18 194:14	462:21 469:13
286:16 288:2	fish-out 316:12	367:18 374:11	195:12 196:15	482:7,17 484:5,9
289:17 293:1	fit 6:18 70:12	flavorful 366:11	197:2 199:1 206:2	484:12 490:15
298:1 311:20	104:21 142:12	flavors 52:4,7 299:6	297:20 298:18	511:1,2 514:1,5
314:12 332:15	224:9 247:22	flawed 138:10 451:8	314:14,17 332:6	foods 315:11 316:9
334:5 341:22	513:22	flesh 108:3 206:16	333:21 347:16	317:7 318:14
349:9 352:10	fits 249:11 308:1	399:13	348:17 352:21	325:22 327:20
355:1 365:8 388:9	506:11	fleshing 259:20	360:14 369:12	332:4 333:11
407:9 408:11	five 10:18,19 85:7	flies 500:6 524:4	406:12 413:8	349:13 351:3
417:5,11,14,17,19	128:10 139:17	flight 497:15	426:19 428:21	460:14 464:12
419:3,22 427:9	142:3,4 157:16	flights 13:10	431:12 460:12	484:17
428:4 445:22	172:6 214:7 217:9	flip 294:20 343:11	462:14 467:15	food-sounding
	l	l	I	l ————————————————————————————————————

305:13	formulation 52:4	53:10 95:3,5	friendly 246:12	379:16
foolish 508:7	68:21 185:8 225:3	156:16 181:22	326:15	funds 534:14
foot 438:21	228:13	184:21,21 222:4	front 104:9 118:18	fungicides 443:1
footnotes 123:21	formulations	260:6 268:17,21	119:6 295:18	fungus 56:1
forbidding 473:15	216:18 217:22	271:16 274:4	356:5 379:20	further 10:2 13:4
force 136:16 206:21	219:11,15 221:3	277:22 279:19	516:8 534:10	14:7 15:5 30:18
301:13,17 302:12	224:8,21 225:9	280:10 283:14	fronts 449:6	70:1 75:20 82:2
303:11,12 307:10	227:22 308:8	301:8 361:9 365:9	frozen 282:20	152:16 160:9
347:19 348:3	forth 15:16,21	416:4 464:6	fruit 279:10 289:21	168:20 182:22
349:6,11 425:10	107:16,20 110:15	471:17 476:14	360:21 361:1,4	213:5 238:14
forced 29:3 224:10	111:4 131:3	484:1 492:21,21	362:9,20,20,21	241:7 257:14
224:11 225:15	285:10 428:6	493:18 526:12	363:2 365:4 366:9	273:17 279:11
Forces 498:7	433:1 434:13	547:4	367:10,12,15,17	280:1 376:3
forcing 448:2	fortify 351:12	fourth 479:17	367:20 368:3	406:21 419:2
fore 29:5 216:17	fortunate 114:21	fraction 50:20	369:22 370:14,22	441:20 448:15
foremost 540:11	forward 36:13	fragile 358:7 377:19	371:1,5,16,22	456:14 461:22
foresee 340:19	47:18 53:12 81:15	frame 140:11	371:1,3,10,22	463:21 518:5
foresee 340.19	81:16,21 91:1	frame 140.11 framework 105:8		522:2 536:19
forever 341:9	1		384:3 388:11,14	furthermore 223:9
	101:18 105:21	106:13 108:3	388:16,18,19	
forget 205:6	111:15 114:3	233:1 234:11	401:11,15 432:12	future 27:2,9 109:1
forgot 67:19	117:5 132:19	356:2	500:6 508:1	154:1 162:7 189:2
forgotten 341:7	148:15 150:16	Frances 2:7 18:21	fruits 267:8,15	223:19 233:10
form 59:7 171:2	163:21 166:9	19:6 76:15 133:8	375:22	298:8 311:2 375:9
186:8 188:3 195:4	168:14 181:2,3	226:6,10 237:22	fruit's 401:7	409:2 430:20
215:17 271:6,12	184:3 223:6 227:6	281:16 309:16,22	frustrated 537:1	522:5
278:22 283:18	228:22 246:22	312:4,14,20 313:7	frustrating 346:11	fuzzy 301:4 470:6
284:1 309:11	249:9 255:13	416:11 433:18	412:4	G
322:18 356:10	343:3 396:13	525:19 Ferral 460-12	fuel 239:13	$\overline{\mathbf{G}}$ 1:18
358:2,13,17 385:6	397:3 412:22	Francis 460:12	fulfill 285:9 303:7	gain 182:4 367:11
406:3 442:16,17	424:15 425:7	462:14,15,18	full 38:4 41:21 42:5	427:15 428:2
485:11 487:1	441:5 458:14	467:13	42:6,7 78:4 420:9	gal 137:13
490:3 495:4	462:6 481:3 494:7	frank 438:17	422:17 428:18	game 234:16 366:21
formal 23:8 41:21	536:20 537:7	frankly 111:8	429:5 443:5,5,9	540:16
formally 524:13	544:15	302:13 345:13,18	460:19	gaming 484:21
format 529:6	found 15:10,12	427:11 431:10,14	fully 224:20 341:3	485:16
formats 328:5	38:16 40:11 61:7	fraud 109:21 110:5	399:15 476:20	
formed 47:5 49:4	221:21 304:7	110:6,7 528:17	520:16	gap 182:9 364:17
301:14 399:15	362:15 363:13	532:10	function 290:16	365:5
former 45:7 68:2	373:7 521:22	fraudulent 532:7	454:14 487:2	gaping 105:16 109:22
205:12 224:16	532:7	free 419:9 455:12	functionality 291:2	
forming 348:3	foundation 118:17	475:20	549:15	garden 415:6
forms 145:15	119:3 418:11	freely 49:7 92:4	functioning 143:3	Gardeners 511:3
185:14 358:6,14	425:22 426:2	frequency 106:7	404:12 538:1	Gardens 290:5,6
358:15 487:8	441:6 442:7,18	fresh 409:21 410:22	fund 436:17 438:5,8	gas 61:22,22 65:8
formulate 17:2,3	444:1,8	412:19 419:19,20	546:18	66:5 529:10
225:5 347:22	founder 418:11	freshwater 234:2	fundamental 171:1	gases 267:11
formulated 228:5	founders 46:19	Friday 364:4 383:2	449:11 523:9	gatekeeper 530:3
355:16	four 10:16 15:3	friendliness 479:4	fundamentally	gather 92:5
	1	1	1	1

gothand 52:2 90:14	Gerry 40:16 165:8	474:10	65:22 67:6,9 70:3	540:16 547:21
gathered 53:2 80:14 354:13	•	giant 499:22	*	
	169:16 175:14	8	72:11,15 74:7 76:7	goal 47:17 152:20
gatherer 88:22	180:18 184:11,17	gist 161:6 186:3	76:14 77:8,16 84:7	153:7 169:16
gathering 62:8	191:19 192:5	give 20:12 28:13	85:16 87:10,14	197:22 256:4
88:14,16 89:9,12	196:7 197:17	31:20 43:1 46:4	88:5 96:2,8 105:21	446:7,14 545:4
89:16,18 90:3,10	200:15 204:22	108:7 114:16	106:1,8 108:8	goals 433:1 542:2
92:1,7	223:21 225:19	175:5 181:7 186:6	111:9 120:3 121:8	goat 234:14
gauge 386:2	228:15 230:5	217:4 219:3 229:1	121:22 122:13	God 210:11
gel 362:18	231:6 276:4,10	303:8 349:5	124:4,21 128:7	goes 23:11 58:16
gelatins 549:19	284:20 366:5	350:16 353:9	130:12 132:19	64:20 71:1 81:12
general 14:18 29:9	386:10 393:19	367:21 368:2	133:2,5 139:14	192:16 259:8
129:18,20 186:21	413:9 414:14	450:10 459:16	141:1,20 142:18	288:8 289:3 290:1
191:7 194:1 207:2	425:20 428:8	465:2 481:14,19	148:15 151:11,12	290:10 308:17
207:6,18 215:14	433:20 489:1	506:16 507:15	151:16 154:10,16	309:7 317:5
235:1 269:9	497:17 502:7	509:17 517:7	168:5 170:6,9,13	321:22 365:22
282:12 326:13	Gershuny 48:10	525:20 547:10	171:3,12 173:5	411:17 487:20
328:17 495:10	gestation 346:22	given 6:19 26:22	174:9 177:3	508:8 530:5
513:20	524:9	119:4 143:1 306:9	179:14 183:6	going 4:11 5:16
generally 30:6 32:5	getting 90:5 113:2	340:22 344:11,17	192:6 193:6 205:3	27:3 33:6,9 39:12
129:6 224:18	114:9 125:22	349:18 378:17	206:9 207:17	43:10 46:1,12,13
349:8 385:21	126:21 136:10	384:10 386:14	209:19,21 220:14	48:4 49:22 50:1,2
506:9	158:19 190:3	389:10 541:11	223:18 224:4	52:15 53:20 54:17
generated 384:11	210:8 211:8	546:3	225:12 231:5	60:11 62:5 65:18
386:12 388:11,12	252:20 257:15	gives 181:21 404:7	232:21 235:16,19	67:11,19 69:1 70:8
388:16 392:9	269:16 295:2	471:5 509:1 535:9	235:22 237:21	70:9 77:10,22 79:7
generator 389:1	310:6 321:7 346:2	giving 15:21 147:1	240:17 241:4	81:14 83:1 85:8,9
generators 385:12	346:17 394:21	186:14 284:14	242:1,7 243:6	91:10 94:14 95:9
generic 242:11	479:2 530:8 532:2	340:5 382:11	255:20 257:8	95:18 100:10
genes 431:1	Giacomini 1:18 3:5	461:11 513:5	266:11 275:19	101:13 109:12,18
genetic 153:11	3:8 24:3 27:13	535:11	280:22 288:6,17	109:19 111:10
421:21	28:15,19 31:22	glad 301:3 413:20	293:16 295:18	112:15,19 113:14
genetically 423:20	34:13 37:4,16	455:19 495:5	307:5 309:1	122:13 123:10
547:11	41:12 42:6,10 43:3		319:12 320:6	128:14,18 129:7,8
gentlemen 145:2	44:10 48:13 82:7	global 276:22	327:10 338:14	131:1,4 132:15
genus 275:6	83:6,19 84:3,7,20	277:16 350:2	341:3 344:20	133:17 136:12
geographic 145:20	90:19 93:6 99:13	546:22	360:4 364:22	137:14 143:14,21
374:4 403:17	122:10 124:16,19	globe 278:2	382:18 388:6	143:22 144:13
geographical	126:4 133:21	glycerin 52:7 58:14	396:13 397:3,8	149:5 150:8,16
145:11	134:5 140:1 143:9	58:14,18	417:2 419:2	162:8,15 164:3,7
geography 144:9	171:19 174:4	go 9:3 10:4 16:10	420:19 425:16	165:16,22 172:6
George 239:19	176:13 189:15	19:13,15 27:20	431:6 435:20	173:10,10,12,15
330:22 331:8	190:14,21 203:16	29:1 30:13 32:7	437:19 457:22	174:1 176:7
546:12	224:3 225:1,8	34:19 35:1 39:12	458:18 464:2	177:19,22 178:3
Gerald 1:15 3:13,17	227:20 241:7	39:13 41:13,14	465:1,13 468:9	179:17 184:17
Germany 54:20	242:9,16 264:12	43:9 46:11 48:2	481:5 489:11	186:17 188:12
germination 172:16	265:7 266:5,7,14	49:20 56:10,14	490:10 494:7	189:2 195:15,20
germplasm 426:12	293:18 294:3	58:3 60:18 62:14	499:9 509:14	197:12 198:2
442:14	296:11 320:3,5	63:21 64:6,10	526:2 527:19	199:7 203:8
	1			1

207:21 209:17	547:5 549:4,4,13	493:3	grew 508:19	groups 103:20
212:11 214:15	549:14	governing 376:6	grind 83:12	104:20 105:8,20
215:9 224:6,9,10	goiter 473:8	government 138:6	grind 03.12 grinding 299:1	104:20 103:0,20
225:4,15,22 226:1	Goldstein 443:6	469:12	GRN-00028 463:20	141:5,9 145:6
228:22 230:2	Gonsalves 360:14	governmental	Grocers 511:5	301:16 360:20
238:1,18 245:10	369:12,13,20	322:2	grocery 368:6,7	403:8,22 404:3,13
246:21 250:10	376:22 377:3,21	governs 469:9	482:2 483:5,8	405:2 494:16
251:5,10 255:12	379:18 381:16	Grace 48:10,10	ground 134:12	511:16 516:19
257:8 258:15	382:4 383:21	504:16 506:1,2	140:14 167:4	533:15 537:5
260:5 262:4,8	384:5 385:9,17,22	513:8,13	172:10 176:5	547:1
266:20 269:6,14	386:17 387:4	Grace's 513:11	232:6 254:11	groves 289:12
272:9,15 277:21	388:3 390:22	graciously 45:11	270:21 301:21	grow 173:9 216:7
278:15 279:20	391:11 392:3	49:8	335:12 513:18	296:12 303:6
282:10 287:13	394:7	grain 276:15 277:22	grounded 514:10	350:9 409:19
292:5 296:6	good 4:2 23:21	278:7 409:20	groundswell 213:21	436:4 492:6 499:2
300:22 303:17	24:18 40:5 44:1	414:17	groundwork 311:4	545:16,20,21
305:20 306:10	46:7 96:6,20	granted 109:12,13	group 36:19 37:2	grower 103:19
307:3 310:15	103:15 118:13	241:14 434:18,19	45:8,14 46:3,16,20	104:19 109:8
313:12 320:8,13	131:12 136:10	grape 500:4	46:21 47:2,4,16,22	126:10 134:14
321:3,8 325:7	149:15 166:7	GRAS 463:17,20	48:18,19 49:3,3	140:7,8,12,15,18
334:3 341:9 342:8	173:19 183:10	grass 216:18 217:17	50:3 51:15 52:11	141:5,9 145:6,14
345:7 347:7	207:7 210:8 221:4	217:22 280:18	60:12 64:9 67:15	145:15 146:6
351:14 352:11	230:8 239:9 240:1	grateful 100:1	79:13 85:2 91:2,17	158:6,22 163:4,13
353:2,8 359:8,11	241:21 247:6	448:18	94:21,22 95:5,12	166:1 170:5,6
361:15 364:18	251:7 267:21	grave 116:1	95:14 98:8 99:1,5	173:20 175:1
366:22 367:18	279:13 280:10,17	grazing 522:15,16	99:15,20 100:3,3	377:5 380:20
368:10 383:20	282:5 284:14,16	543:6	107:12 108:16	397:19 403:8,9,10
395:4 396:15	298:17 318:7	great 106:8 171:10	109:8,11 117:2	405:12 412:5
397:5 412:9,21	326:11 329:13	171:15 182:16	118:16 127:8	429:16 443:17
419:1 425:4,15	331:14 348:18	195:17 249:13	131:14,18 134:14	445:14 450:7,11
427:17 436:17	350:11 359:10	253:10 259:3	140:8,15,18	452:7 494:16
437:1,18,20 438:3	360:15 363:21	279:14 318:22	141:10,14 142:13	498:13 500:4
445:7 452:15	365:18 369:13	319:9 321:9	142:15 143:10	516:19 533:14
457:3,4,22 459:3,7	382:2 383:21	331:16 353:19	145:14,15 152:5	growers 116:8
462:3 466:11,14	404:13 405:5	422:20 425:6	154:13 231:1	127:5 135:13,16
466:16,18 471:22	420:2 428:8	480:18 517:9	234:4 239:11	136:8 141:16
480:21,22 491:20	439:21 466:8,13	greater 110:10	243:12,19 247:19	142:3,4 151:16
494:5,10 495:6	481:7 486:16	315:19,22 319:17	251:1 271:21	152:6,20 153:1,2
501:14,16 502:14	493:15 502:18	319:21 330:4	301:14 302:7	155:18,20 156:16
506:1,4 508:13	504:18 505:13	392:19 404:7	315:15 316:20	159:1,17,20
509:5,12 518:12	509:22 540:2	greatly 488:1	317:13 318:4	160:18 162:21,21
519:9 522:13	549:1	green 369:3	353:9 355:22	167:8 168:1 187:6
527:14 528:1	goods 282:18	greenhouse 204:3	362:21 403:11,19	204:9 210:6
529:3,5 530:19	482:19 500:14	499:17	404:10 405:12,16	213:19 217:2
531:9,10,20 532:1	goodwill 417:7	greening 310:21	419:21 493:18	246:3 248:9 289:9
532:9,11,17 537:8	Google 280:21	Greens 447:20	510:21 516:2	295:17 369:15
540:6 543:16	gotten 20:10 56:1	Greg 347:16 348:17	517:14 518:2	370:1,8,10,10,15
544:19,20,21	253:3 261:7 343:1	348:19	541:15 548:11	371:1,2,13,15
	l	l	l	

				
375:2,4,11,13	202:18 210:15	329:7 438:12	254:16 256:12	harassment 318:12
376:8,14 390:15	221:14 237:22	458:13 462:9	257:9 258:18	319:20
391:4 407:18	246:15 247:1,10	491:22 530:4	260:22 261:17	hard 48:3 91:6
408:22 409:13	286:3 295:16	540:3 548:12	263:11 267:19	101:9 123:10
418:19,22 419:4,7	305:8 311:7	Gwen 64:22 65:2	268:15 282:15	124:3 126:6
422:1 426:2	430:12 458:21	352:22	285:10 312:8	128:18 151:9
427:19 430:4	483:22 510:1	Gwendolyn 46:3,9	313:3 357:3 457:7	262:20 321:10
432:21 435:6,11	551:2	47:15 53:14 82:22	458:8,12 463:3,12	333:2 399:15
435:17,20 442:2	guesswork 373:8	86:21 98:9 99:8	465:4,12,13 467:4	445:11 462:10
447:8 448:1 449:7	402:10,16	307:8 353:4	467:9 490:12	463:3 505:11
449:16,18 451:1,7	guidance 23:4 47:10	H	510:8 516:12,14	521:1 534:14
452:3,7 472:21	69:8,10,15,22		516:14 517:1	540:12,19 544:21
495:16 498:12	77:14,16 79:8	half 91:7 118:22	550:19	harm 26:17
518:17 538:17	96:10 105:13	211:9 286:18	hands 67:16,17	harmful 27:5
541:15 545:21	106:12 107:21	350:7 370:20	461:18 511:22	299:19
grower's 175:20	108:7 110:14,15	506:10 507:21	hang 226:8	harmony 524:16
369:22 450:15	150:10,14 156:3	halfway 444:19	hanging 467:17	Harriet 528:2 534:8
growing 55:4,10	164:16 166:8	halibut 545:22,22 HALL 1:19 118:6	hang-ups 58:6	harvest 62:10 89:4
62:9 159:21	181:4 182:8	168:16 247:14	happen 88:2 92:6	354:16 360:1
218:19 277:6	353:14,15,18	290:14 291:9	105:18 110:7	361:16,19 363:19
287:13 288:7	357:8 406:22	290:14 291.9	113:14 146:19	374:17 377:16
374:4 402:3	418:1,2 420:8	379:16 548:8	147:16 166:1,2	380:9 399:14
449:20 522:11	448:15 449:9	hallmarks 524:22	174:14 175:13	458:8
grown 28:20 54:9	495:7 505:8	halo 171:9	178:4 190:11,19	harvested 262:17
58:11 152:19	guidances 20:9	hand 61:11 216:22	292:13 296:21	272:22 273:5,18
153:14 156:9,10	guide 5:1 18:8,12	373:12 384:18	310:8,20 321:11	359:21 373:22
159:8 170:21	19:4 21:2 199:1	422:9 428:19,21	336:15 386:13	374:6 378:7 380:5
244:7,7 285:5	418:15	431:6,6 437:15	431:19	391:22 399:6 442:9 464:10
288:21 356:11	guidelines 13:3	483:9,11,14,15	happened 5:21 98:3	
378:2,4 391:22 402:3 442:1 444:6	14:14 146:3	handed 153:4	252:19 302:9 309:20 312:13	harvester 499:10
449:16 523:8	333:16 350:13,16 357:6,7,10 452:16	175:16 482:21	438:14 521:12	harvesting 239:6 364:17 370:11
	453:18 454:2	493:5		
grows 173:21 174:5 464:6 499:14	455:18 454:2 gum 549:18	handing 145:22	happening 104:5 105:7 109:3 134:9	372:6 378:5 381:1 Harvey 302:10
growth 152:21	gums 50:18 51:8	handle 29:18 82:5	139:19 146:14	303:13 309:5
288:14 362:5	69:20 291:6 474:1	269:16 330:6	303:1 346:5	HASOP 495:4
449:4 469:22	549:8,18	435:7 436:14	493:21	hat 491:10 492:15
470:9,19,21 510:6	gung-ho 416:1	handled 37:12	happens 16:4 19:9	hate 117:7 171:13
grow-out 317:20	GUO 2:16	308:13 371:20	60:22 66:13 178:2	hats 409:17
grueling 95:17	guts 509:6	517:5 531:13	179:9 192:19	haul 523:11
GTC 462:18,18	gus 309.0 guy 132:3,4 163:11	handler 452:14	231:13 257:2	head 106:14 134:13
guarantee 363:7	173:1 327:13	499:10	389:9,12	134:22 165:1
guardianship 535:9	484:20,21	handlers 518:9	happy 101:19,21	171:3 186:16
guess 21:13 69:5	guys 81:14 94:9,16	520:20	164:7 329:1 335:4	289:19 324:1
107:19 138:11	94:19 96:7 142:14	handling 3:19 9:15	336:9,9 346:5	415:12
145:8 174:21	194:9 204:17	29:4 32:15 35:2	420:17 422:5	headed 413:14
180:2 190:8 192:3	232:16 241:3	53:5 56:7 65:12	475:20 480:5	heading 73:2 83:2
198:4 201:1	320:9 321:15	77:5 251:14	491:1 529:7	headings 70:9
170. 7 201.1	320.7 321.13	<u> </u>	171.1 347.1	incumings (0.)

heads-up 150:19	119:5	363:8,16 453:15	home 306:16 382:3	hour 210:16,19
health 229:19 263:2	Hello 403:4 491:7	528:17,18 544:18	382:21 383:1,7,10	211:9 314:21
270:22 273:7	510:12 534:8	higher 121:20 275:8	homes 349:22	499:12 507:21
326:4	help 22:18 24:21,21	288:5 340:22	Homestead 410:1	527:15
healthy 153:7 468:7	46:15 71:8 147:20	362:2 404:5	homework 274:1	hours 126:1 381:15
468:7,8 475:10	150:18 167:6	405:13 407:18	Honduras 508:15	462:11 499:13,16
hear 107:4 114:5	180:11 209:4	427:21 543:12	honest 26:15	499:20 534:17
122:15 140:6	255:13 288:19	highest 23:12	honestly 529:20	536:22
166:7 187:10	305:11 313:19	121:11,11	honey 209:10,13	hour's 300:8
203:9 204:16,18	341:14 348:6	highlight 236:14	honor 325:16	house 357:7 414:2
262:1 291:12	433:20 437:5,9	305:7 542:6	hop 204:9 210:6	Howard 406:14,14
342:20 343:13	461:8,9 486:12	543:10	498:20	413:6,20 415:3
344:3 368:5 422:5	499:4 537:5 542:1	highlighted 10:6	hope 92:9 154:13	416:10 527:21
455:19 463:8	helped 371:14	151:7 152:12	168:10 250:10	How's 232:14,18
487:10 495:5	428:10	288:20	301:6 319:14	Hubert 1:20 3:18
497:18 527:1	helpful 90:1 98:16	highlights 152:16	471:5 505:11	huge 57:22 173:1
529:3	213:18 249:3	236:3 303:18	510:18	326:9 344:11
heard 22:13 31:17	268:6 299:16,19	304:15	hopefully 16:18	437:7
33:1 61:8 82:12	416:3 486:10	highly 112:21 460:5	45:20 82:10 93:7	Hugh 5:12 16:22
104:10 114:12	helping 100:6 357:9	high-risk 120:21	102:9 112:11	26:6 91:21 97:20
140:6 147:5 148:7	421:2 424:9	127:8	113:8 149:20	139:8 188:11
167:5 197:4	494:13	hike 483:4	151:2 232:5	194:17 203:5
208:13 210:3	helps 19:1,2 107:7	hill 483:4	245:10 251:5	274:6 289:7 322:8
244:8 267:5	121:17 210:10	hindered 438:2	315:15 319:16	328:19 330:19
269:20 282:22	298:9 371:17	hinges 17:15	341:15 415:21	335:9 340:17
285:17 335:7	402:17 414:7	hints 472:7	478:17 530:16	341:22 346:14
375:15 417:7	546:6	historic 158:17	531:13 550:21	457:9 526:20
418:21 428:13,22	hemisphere 366:13	434:8	hophead 210:6	545:11
457:11 465:14	herbicide 211:22	historical 41:17	hoping 221:4 259:6	hull 276:2,6,11,13
486:20 494:10	212:8 213:3 215:4	229:1 370:3 531:5	292:15 505:15	276:16
522:22 528:11	215:8,15 216:16	historically 24:11	hopper 231:10	hulls 276:14
hearing 418:4	217:1	243:22	hops 140:22 204:8	human 62:11 67:2
520:17	herbicides 213:15	history 19:21 20:2	210:8,10 498:13	78:11 84:15 92:18
heart 59:2	213:18 216:19	89:11 186:7	498:13,21	181:18 229:13,19
heartened 259:10	218:12	198:22 205:3	Horizon 460:15	304:19 354:13
heat 58:17 283:6	herd 146:8 521:19	255:11 461:4	hormone 362:4	530:14
296:21 298:22	hermetically 270:18	465:3 481:20	399:4	humane 332:7
heated 57:2	hexane 7:3,3 79:20	hit 487:17 516:5	hormones 317:19	333:4
heating 58:4	484:6 490:8	hitting 165:18	horrible 492:1	humans 53:2 62:7
heaven 493:10	hey 209:1 243:15	hoc 46:22	horse 197:12	66:11 67:2 80:15
heavier 501:7	294:14 295:12,21	hold 207:19 380:13	Horticultural	80:15 186:1
heavily 220:22	Hi 426:20 460:13	395:2,18 542:19	387:21 397:12,18	212:12 283:11
heavy 327:12	475:4 504:17	holding 176:18	horticulture 361:16	304:20 354:13
hectarage 141:12	549:1	379:17	361:18	470:21
Heinze 48:11 262:9	hide 165:1 232:15	holds 545:5	host 56:12	hummus 507:3,13
heirloom 418:10	high 58:16,17	hole 501:8	hot 107:8 243:22	hundred 143:16
heirlooms 171:5,9	118:21 130:20	holes 146:10	Hotel 1:11	290:6 530:11
held 1:10 47:12	132:3 339:20	hollow 257:5	hotter 161:14	hundreds 520:7
	I	I	I	<u> </u>

hung 55:18	521:2	520:6 536:4	impossible 374:5	339:6 477:3
hungry 528:7	identical 179:21	implemented	411:10	479:13 528:14
hunter-gatherers	203:1 204:11	143:21 402:14	impoverished 107:2	includes 10:16
90:6	221:12 487:14	implementing	impress 156:16	50:18 53:8 57:11
hunting 89:12	identification	181:1 184:4	167:8	267:12 290:8
hunting-gathering	350:16	478:20 479:11	impressed 94:10	312:21 355:11
88:18	identified 120:22	implication 124:4	540:4	446:8 528:10
hurricanes 500:5	121:12 478:12	224:7 377:16	impression 285:7	including 13:20
hurry 318:1	520:3	implications 60:3	impressive 98:10	35:16 65:13
hurting 153:2	identify 43:13 132:7	73:11 91:8,13	improve 170:13	102:15 111:7
232:12	198:9 221:1	125:10 200:4	446:15	254:4 268:2
husbandry 231:4	227:11 406:4	356:17 492:12	improved 537:18	431:17 443:3
457:12	498:4 520:21	521:6	improvement	452:3 454:4 474:6
Hutcheson 48:14	identifying 22:19	implied 492:13	152:22 155:8,11	510:22 511:12
hybrid 410:12,18	308:20	implies 105:2 544:4	158:8 169:17,21	inclusion 153:11
411:21,22 412:1	identity 50:21 69:16	implying 110:9	170:1,4 172:3,5,7	519:18 524:21
424:16 425:13	69:17 355:7	importance 132:6	170:1,4 172:3,5,7	inclusive 40:5 64:1
444:2,4	ideological 514:19	408:20	246:1 253:2 403:5	incomplete 122:22
hybrids 406:16,17	ignorance 88:12	important 5:8 36:12	414:22 449:9	inconsistencies
411:18,18 441:2	514:11	48:5 57:11 63:3	493:1	406:5
442:9 491:9	ignorant 514:4	66:16 69:4 71:6	improvements	inconsistent 63:18
hydbrid 410:11	II 468:13 474:18,20	101:16 102:4,7	151:2	188:1 202:9 213:1
hydrocarbon	illegal 265:15	113:7 115:8 148:6	improves 246:12	340:10 470:14
267:11	Illinois 490:15	151:20 152:13	improving 261:11	incorporate 226:11
hydrochloride	imagine 83:14	153:8 154:12	432:15 438:1	236:5 477:14
185:2,4 188:18,22	386:5 531:8	155:5 161:22	inadvertently	incorporated 19:14
199:18	imagines 141:8	166:21 170:18	121:18	312:8
hypocrisy 514:17	immediately 4:16	182:7 209:14	incentive 256:13,15	incorporates 8:4
hypothetical 191:16	39:12 483:13	211:11 226:17	341:2 365:20	incorrect 169:6
192:11	immense 85:6	236:14 264:14	408:2 485:16	449:12
	impact 114:1 116:7	272:7 293:11,19	506:20	increase 268:9,11
I	212:12 224:7	293:20 316:15	incentivize 155:20	279:17 351:7
ice 482:20	227:22 249:16	317:21 376:13	inception 40:10	364:15 399:1
ICS 139:18 143:3	283:11 312:15	401:14 407:3	incident 521:18	446:15 450:3
404:11,14 406:6	477:1 543:18	414:7 421:9 430:2	inclined 373:19	increased 152:20
Idaho 397:20	544:7	430:19 433:3	include 13:22 25:20	372:17,18 375:2,8
idea 42:19 43:17	impacted 115:9	437:22 442:4	27:15,19 32:8	380:16 401:21
87:12 107:10	116:4	445:12 447:16,21	34:15 36:4 53:1	432:11 442:2
130:22 147:8	impacts 115:8 457:1	451:5 472:8	65:20 131:21	448:7 450:22
166:20,21 176:15	544:4	478:19 494:19	167:1 253:7	increases 372:3,13
239:20 331:16	implement 152:7	514:6 518:1	265:22 278:10	374:14 396:12
353:21 405:3	452:21 476:20	522:15 524:14	355:12 405:7	increasing 152:18
422:20 503:3,17	implementation	529:8	452:22 475:13	153:10 159:2
507:16 508:9	102:9 173:16	importantly 358:2	477:19 517:3	175:20 176:18
517:16 533:21	265:2 320:22	imported 109:20	536:7 538:10	374:19 404:6
545:17	321:1 422:8	110:2,5 366:9	included 41:9 61:19	441:22 499:3
ideas 96:10 213:15	446:20 476:4	importing 277:7	72:4 127:20 184:8	increasingly 233:10
403:10 479:21	478:6 479:7 480:4	imposed 448:9	199:16 263:14	independent 49:3
		<u> </u>	<u> </u>	<u> </u>

	İ	I	I	I
110:3 160:12	364:7 365:19	50:15,20 75:3	501:10,16,17	169:22 176:5
348:19 349:4	370:5 371:6,6	257:19 262:22	504:12 537:18	406:3 504:20
504:20 541:2	372:4 378:13	273:8 290:22	538:18,22	inspectors 135:16
independently	390:3,4,5 397:14	349:1 350:11	insecticides 443:1	136:18 167:3
119:5	424:9 426:8	459:6 464:11	insects 66:15 501:13	182:18 451:16
indicate 336:11	427:18 430:3,20	484:18 506:8	501:22	505:9
indicated 11:3,5	432:20 435:22	508:8	inserted 120:15	inspiring 417:15
389:19 401:8	436:5 437:17	ingredients 52:3	158:14 160:11	installation 286:7
indicates 443:6	438:5,8 441:21	68:18 71:12 72:21	168:21 170:2	installed 285:8
indicating 521:13	447:18 449:5	72:22 76:22 77:6	505:17	instance 103:2
indifferent 49:5	450:20 498:21	81:4 94:4 115:19	insertion 7:16 169:1	108:12 225:9
indigenous 272:18	508:18,21 530:4,6	115:20 180:1	516:21	292:13 295:21
indispensible	532:15	220:10 221:10,21	insertions 157:17	407:13
243:13	industrywide 99:15	224:21 256:3,5,15	inside 399:11	instances 187:20
individual 39:16	inequity 59:13	256:19 257:4	528:22	296:8 500:3
144:10 149:14	Inert 220:10	305:13 309:8	insight 481:14	Institute 519:4,8
156:20 226:13	inerts 219:8,10,14	349:17 350:17	inspect 452:6	521:9
227:4 403:12,17	220:6 221:16	351:11 454:11	inspected 120:22	institutional 186:7
404:16 459:6	222:5,6,8 229:4,9	462:20 481:17	121:1,2,12,14	integral 102:11
individually 222:7	inevitable 452:2	501:3 506:7,9	126:14 127:7,13	integrated 323:10
222:11 227:3	inferring 138:8	549:9,17	128:17 130:21	323:10
452:11 512:8	inform 155:15	inherent 139:2	131:13,19 134:9	integrity 118:12
individuals 38:9	157:5 180:12	374:10 535:4	135:9 136:20	134:18 229:6
407:21	254:5	inherently 110:10	139:17 140:13,19	404:8 421:15
induce 547:18	information 16:15	544:3	142:6 405:3,7	532:14,19
industrial 542:12	26:15 27:10 108:6	inhibits 401:12	512:12 528:22	intend 108:18 133:4
543:1	117:18 156:6	inhumane 332:5	533:12	526:18
industries 310:22	160:11,14,19	initial 16:13 104:17	inspection 104:17	intended 23:20
338:8,13	167:6 169:1 213:5	150:13	105:17,17 106:2	56:13 78:11
industry 6:18 28:20	241:19 247:6	initially 21:15	107:11 123:1,9,13	202:11 262:22
45:7 47:2 53:11	254:21 255:1	175:14 198:22	123:18 125:5,8	455:8 459:15
59:14 79:22 81:17	268:4 270:3	199:1,9	126:11 127:8,14	487:17 493:19
94:18 96:21	276:22 277:6	innovate 340:4	127:20 132:10	intensive 249:17
101:17 103:22	278:20 279:13	input 31:9 201:2	137:11 138:3,15	intent 17:18 32:13
116:14 152:17	280:12,16 281:6	211:11 214:17	138:18 139:3,6	118:9 131:9
153:8,10,16,20	281:20 283:16	218:3 220:12	144:14 147:16	146:18 168:3
159:12 162:2	287:2,4 298:3,5	221:4 222:17	149:7 170:3	169:12 170:5
166:12 168:10,14	302:16 328:4	239:20 243:19	412:11 446:8	171:20 177:13,17
225:3 237:11	345:19 358:9	249:18 322:16,22	494:17 528:16	183:8 202:10
257:6 264:14	429:19 439:1	348:11 431:2,15	inspections 122:20	208:11 253:6
288:7,13 298:12	450:14,21 454:5	458:7 535:12	122:22 128:3,9,16	309:14 341:17,19
301:15 302:16	463:19 480:3,7,12	550:6	135:10,15 136:15	461:22 535:6
306:1 311:7 327:5	535:1,15 536:19	inputs 28:21 249:12	158:4 169:22	intention 153:4
339:4 340:4	informed 298:6	322:18 323:3	404:2,7,14 406:1	175:15,18 176:2
341:15 343:6	informs 331:18	538:11,18	inspector 110:22	474:2
344:11,17 348:12	536:8	insect 201:22 202:6	111:3 128:18	intentional 62:8
348:20,21 349:22	infringe 297:14	204:13 207:8,9	131:15 135:18,19	89:7
350:9 363:12,14	ingredient 30:5	498:17 501:2,7,8	136:1,3 140:14	intentionally 53:2
330.7 303.12,14	ingi cultiit 50.5	770.17 301.2,7,0	150.1,5 170.14	intentionally 33.2

89:8 429:9	interpreting 152.5	iso 102:18 536:6	issued 16:7 181:4	50.10 20 70.15 19
intentions 114:9	interpreting 453:5 456:11 468:17	546:19,20	182:8	59:19,20 70:15,18 71:18 73:20 76:9
interaction 36:7	474:5	isolate 51:1	issues 12:7 14:20,22	76:10,21 92:11
454:6 493:2	intersect 447:17	isolated 50:20 52:5	17:11 19:21 22:13	93:12 103:5,11
547:11	intimately 255:18	isoterminology	22:19 34:15 45:4	129:12 150:8
interactions 35:7,18	intimidated 94:12	102:17	45:16 47:6,19	179:14 184:21
35:22 543:22	introduce 315:2	issuance 155:16	52:10 55:16 79:22	226:13 255:19
interacts 35:11	introduced 401:10	156:22	81:1 82:1 93:14	256:1,10 299:16
400:6	introduction 17:8	issue 8:21 20:1,2	101:9 110:1 115:8	300:3 305:9,14
intercept 487:16	46:14 133:22	23:3 33:2 41:3	115:9,12 131:6	307:7 308:20
interest 38:14 102:8	intuitive 294:13	44:15,21 45:18	151:21 161:19	315:9 360:3
117:14 208:20	invested 303:4	52:22 55:20 80:6	166:6 180:5 195:5	517:11 538:5
229:4 445:6	371:12	80:16 83:3 90:7,13	229:15 248:12	549:22
460:16 514:20		92:15 97:15	263:11 271:19	iterations 101:19
535:5	investigate 278:2			195:22
	investigating 213:4	101:16 107:9	272:4,6 279:3	
interested 35:5,6,15	investigation	110:7 111:14	289:16 349:1	itty 354:16 i.e 153:11
47:3 167:13 204:9	276:22	113:20 114:1,6	354:5 377:10	1.e 155:11
235:12 311:2	investigations	115:4,13 116:4,18	397:22 404:4	J
326:19 329:16	521:11,14	125:15 129:15	407:3 408:10	$\overline{\mathbf{J}}$ 1:20
interesting 48:19	investigators 522:1	140:10 154:14	410:4 411:6 433:3	JAMES 1:19 9:11
53:17 76:7,11	investment 498:19	155:18 162:12	446:9,11 486:20	9:20 13:2 14:13
88:10 147:13	515:6	163:8 164:4 165:1	487:11,22 491:12	18:11 22:22 23:14
318:5,21 366:15	invitations 486:7	168:12 177:6	492:4 493:3	31:16 94:8 95:4,16
433:13 485:10	invite 249:19 305:1	179:7,10,12	495:12 511:11	96:13 133:14
interim 247:16	483:3	180:12 193:17,17	512:19 516:4	134:3 146:22
248:2	invited 220:20	193:18 195:8	526:8 527:18	183:12 194:16
internal 7:10	involve 14:8	203:17 204:16	530:15 540:14	298:19 299:10
106:17 107:10	involved 48:6 83:21 98:10 125:10	207:18 209:13	item 5:16 9:10 19:3	300:1,9 325:20
108:15 110:21		232:2,5 236:17	27:4 32:6 36:8	327:8 332:1
118:13 123:22	135:14 179:5	243:8,22 245:5,5	39:15 42:21 71:1	333:10,18 342:20
126:15 135:11,14	182:4 240:20 371:7 484:12	245:14 255:18,19	102:20 103:4	352:7,16 459:12
135:18,21 136:1		259:3,20 264:22	109:6,16 113:15	488:13,17 517:13
137:10 146:5	494:12	280:14 284:2	122:6 173:21	518:10,18 533:6
401:11 404:4	involvement 49:10	342:18 353:11	176:10 189:19	533:20
406:2 495:1	49:11 182:6 371:5	355:4 377:14	190:2 201:9 211:5	January 419:12
533:17	involves 150:1	378:1,13 380:7	218:15,18,19	485:4
international	408:5 500:17	410:3,5,5 415:2	223:3 247:13	Japanese 277:14
397:21 440:7,21	in-depth 248:11	425:15 426:11	254:18 255:6	Jeff 133:13 135:1
441:2,12 506:4	In-store 373:4	427:2 428:11,15	258:20 297:10	176:21 194:15
internationally	iodine 466:17,19	442:5 454:4	300:19,21 494:4	195:12 196:17
533:10	471:19 472:16	456:14 457:6	495:8 498:14	203:12 207:20
Internet 414:2,4	473:6,10	461:9 462:6 468:1	itemized 221:17	209:8 222:22
interpret 331:18	IQF 295:14,14	474:1 478:10	226:21 227:1	226:7 305:19
interpretation	296:19	487:5,7,21,21	items 3:22 7:15	310:13 322:9
83:15 455:11	Ireland 336:16	488:5 489:14	26:19,21 29:5 30:5	433:20
474:4,16 542:8,9	Irish 262:18	493:12 504:1	31:1 36:5 37:19	JEFFREY 1:15
interpretations	irrigated 523:7	506:16 534:16	39:8,16 40:11	Jeff's 452:14
519:13	Irrigation 523:8	539:2,4 540:14	41:15,19 44:2 58:9	JUI 5 752.14

Jennifer 1:19 118:5	Johnson 403:3	194:22 323:17	410:8 418:4	258:17 262:11
119:9 166:15	406:12,13 443:8	429:17	498:22 510:3	263:5 269:21
167:20 168:15	join 99:1,5,22 251:8	justified 177:5	523:9 529:15	275:8,14 277:4,15
231:3 247:12	joint 3:4,12 28:11	252:16 447:8	530:7 549:4	281:5 283:3 297:6
290:13 298:18	28:17 149:21	justify 17:11 123:2	keeping 56:5 70:4	300:2 302:21
299:14 300:2	150:5,7 152:1	133:18 176:1	75:8 110:19	305:13 316:20
534:6 548:7	160:3 162:16	533:9	Kelly 48:12 460:11	317:15 320:14
jeopardizes 137:15	184:12 408:16	J6 470:6 473:2	460:13	325:12 326:10
jeopardizing	409:6 417:12	J61 468:15	kelp 63:4,6 65:20	328:4 361:17
532:18	429:7 476:8,14,19	J62 468:16	84:18 87:15,16	366:20 409:22
Jerry 189:12 385:3	477:22		91:19	412:3 415:6,8
437:12	JOSEPH 1:21	K	Kennebec 132:13	431:10 441:10
Jessica 48:11	judged 131:4	Kansas 349:3	kept 64:22 238:21	474:7 530:15
Jim 108:17 166:14	Judging 535:19	Karreman 1:20	Keshuni's 513:8	546:14 547:21
175:8 250:14	judgment 486:5	3:18 5:14 15:9	Kevin 1:17 36:15	kinds 217:18 318:13
413:8 435:3 444:9	JUDITH 2:11	17:1 26:7 27:22	48:12,12 98:19	318:16 319:21
jive 191:10	Judy 419:16,20	91:22 92:14 97:21	166:15 167:19	323:9 328:8,14,18
job 40:5 44:14 85:2	juice 283:3,5 285:3	139:9 188:12	196:16 197:2	343:17,18
130:16 131:8	285:13,14 286:6	189:1 190:6 191:3	240:17 275:12	knew 318:15
138:9 142:5	287:1 288:5,7,7,9	192:3 193:8 203:6	323:20 325:1	knock 116:10
249:13 277:21	288:13,21 289:3	230:13,15 231:21	338:22 344:8	knot 85:12
284:14 302:8	290:1,10	236:6,12,15	345:3 346:17	knots 453:21
305:3 335:11,12	Julie 1:22 3:20	237:19 238:4	391:14	know 7:6 19:11
338:5 359:8 420:2	32:19 48:11 89:19	241:2,21 242:14	Kevin's 341:11	20:5,12 26:10,14
435:18,18,21	89:21 98:6 114:16	242:18 243:7	key 112:5 152:18	26:20 27:4,5,17
452:5 501:13,14	179:2 191:18	246:20 250:3	176:21,22 403:9	31:20 33:14 34:14
jobs 453:19	192:7 217:14	274:7,22 275:5,11	441:22 487:18	36:12 40:21 48:6
Jody 452:13	251:12 253:5	289:8 328:20	492:19 542:4	49:15 53:14,22
Joe 3:10,14 84:21	266:16,22 267:1	330:20 331:21	543:17	54:12 55:2 56:12
100:16,19 110:16	269:2 278:12	340:18 346:16	keys 15:22	57:10,15 60:1
116:5 118:11	282:6 293:18	457:10 526:21	kidding 251:18	68:14,19 70:4
122:11 130:9	300:13 313:20	527:7 540:7	Kihlstadius 352:21	71:22 75:21 77:21
135:2 140:4	423:7 456:17	545:12 546:7	360:14,15,17	79:6 82:4 84:16
145:17 150:18	481:16 550:18	551:7	366:14 368:21	85:9 86:9 87:16
161:7,11 166:19	551:4	Kastel 519:3,8	369:2,7,10 387:11	89:17 92:1,15,18
168:12 176:6,19	Julie's 458:19	Katherine 2:6	kill 217:3	92:19,20 93:10
193:15 195:14	July 320:19	510:11,13 515:14	killed 39:2 186:19	94:9,21 96:17 98:2
197:3,10 204:14	jump 173:22 175:7	516:1 517:14	439:11	100:1 101:15
206:2 207:14,22	340:5	518:22	Kim 46:3,18 93:10	105:1 107:17
209:6 232:12	jumping 63:17	Katrina 48:11	98:9 195:13	108:3 109:11,17
278:15 321:13	339:7	262:9,12	kind 25:10 26:7	109:21 110:10
420:1 427:10,12	jumps 63:16	keep 36:9 54:17	46:13 53:19 62:22	111:12,21,22
428:9 433:6 435:4	jump-start 339:12	116:5 137:19	85:4 92:2,7,19	112:13,21 113:10
473:21 486:15	341:10 342:10	169:18 180:3,4	109:19,19 114:5	114:11,18 116:18
490:10 510:2	344:1,12 345:4,12	203:11 208:14	139:16 169:10	119:12 121:8,16
515:21 550:6	justifiable 409:4	256:7 297:9 313:3	170:10 205:17	122:15 125:16,18
Joe's 90:20 114:20	justification 122:19	313:5 323:2 342:9	243:22 249:8	126:1,9,9 127:17
177:15	175:21 176:12	395:13 396:14,17	255:7,15 257:15	128:22 129:5,8,9
			1	1

130:2,11 131:15
131:18,19 132:3,8
132:13 134:20
136:6,21 137:21
139:1 140:3
141:21 142:2
143:7,14,18,19,22
144:2 147:4,4
158:19 162:2,3,19
163:12,14,18,20
164:8,9,13,14,15
165:18,21 168:4
171:19 173:21
174:2,20 176:10
177:2 178:3,10,13
178:21 188:18
192:15 193:2,16
104.12 17 106.2
194:13,17 196:2
196:21 197:22
198:5 203:1,9
206:3,5,13 207:4
208:10 209:11,19
210:5,6,7 211:10
218:9 224:5
229:16 231:12
232:4,13 233:4
234:3 236:7 238:8
240:10,13,14
243:16 244:1,9,14
244:22 245:1,12
252:7 258:1
769.17.773.17.19
269:12 273:12,19
274:16,16,20
274:16,16,20 275:15 280:16,17
274:16,16,20 275:15 280:16,17
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14 310:5 311:11,18
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14 310:5 311:11,18 316:5 317:10,10
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14 310:5 311:11,18 316:5 317:10,10
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14 310:5 311:11,18 316:5 317:10,10 317:11 321:3,6
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14 310:5 311:11,18 316:5 317:10,10 317:11 321:3,6 322:4,6 323:7,9,17
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14 310:5 311:11,18 316:5 317:10,10 317:11 321:3,6
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14 310:5 311:11,18 316:5 317:10,10 317:11 321:3,6 322:4,6 323:7,9,17 323:22 324:6,9,21
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14 310:5 311:11,18 316:5 317:10,10 317:11 321:3,6 322:4,6 323:7,9,17 323:22 324:6,9,21 325:8,18 326:16
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14 310:5 311:11,18 316:5 317:10,10 317:11 321:3,6 322:4,6 323:7,9,17 323:22 324:6,9,21
274:16,16,20 275:15 280:16,17 280:20,21 281:1,2 282:8,10 285:16 289:18,18,19 295:1,10 296:3,4 297:12,14 298:12 299:19 300:1,3,7 302:5 304:8,14 310:5 311:11,18 316:5 317:10,10 317:11 321:3,6 322:4,6 323:7,9,17 323:22 324:6,9,21 325:8,18 326:16

328:3,10,13,15,16 329:10,15,21 330:5,11,15 331:17 332:3,10 332:16,17 333:1,3 333:7,13 341:4,18 342:9 344:9 345:20,21 347:3,3 364:2 365:3 366:2 368:11 377:18,22 380:21 381:14 383:19,20 390:2,3 390:9 401:21 402:1,5 411:1 412:22 413:13,21 415:3,6,7,10,17 416:1,14 424:7 428:12 431:15 432:4,6 433:11 436:6,9,10 457:22 458:11 460:14 461:17 462:10 463:4,5 464:21 467:19 473:17 474:14,16 486:17 488:4,8,9 497:4,14 498:16 499:5 500:13 501:4 502:5 509:5,7,15 517:6,15 521:17 521:21 522:7,17 524:15,19 526:5 526:21 527:3 532:5 535:21
540:3,14 546:6
550:7 551:3
knowing 35:6 36:7
225:14 261:11
344:20,21
knowingly 421:6
knowledge 29:15
233:5 383:4
knowledgeable
454:2
known 35:8 97:22
103:19,20,21
156:17 159:12
167:13 377:5

knows 231:7 238:9 244:8 250:11 486:2 know-how 100:5	la
Koenig 48:13 96:16 Korb 348:17 352:20 Kozisek 403:2,4,5 406:10	la
KRISTINE 1:17 Kristy 348:17 352:20,21 353:1	I
L lab 135:21 137:10 137:11 381:21 388:17	
label 113:18 240:5 240:19 291:7 302:4 304:19	la
335:22 339:13 340:7 341:5,17,18 348:9 453:12 483:11 485:1	la
530:11 labeled 235:8,8 304:19 309:9 328:1 357:1	
452:18 454:15 457:4 459:6 460:6 labeling 115:5 162:4 306:2	la
335:19 408:15 445:21 453:7 455:16 530:13,14	la
530:17 Labelle 507:2 labs 137:12,16	l
lack 60:16 321:17 453:18 513:4 523:10 Lactose 62:19	l
ladies 145:1 lady 54:19 laid 108:2 149:11	la I

545:22
landfills 542:17
landing 23:12
landscape 443:10
land-based 52:18
52:19 80:16
242:22
language 4:21 20:22
26:3 104:21
134:17 168:19,21
169:13 221:8
226:14 245:4
246:9 248:21
249:2,4 312:5,16
447:15 474:7,11
474:13 520:15
524:3,10 543:9
languished 302:13
302:14
large 141:14 164:9
168:1 284:5
287:14,17,19
294:18 354:17
374:3 377:13,15
378:13 379:8,9
382:15 396:11
405:16 431:20,22
451:21 466:16
515:2 516:1
largely 466:2,20
larger 141:17 142:7
181:18 357:4
403:22 501:7,15
523:5
largest 286:22
396:10
Las 302:19
Lastly 524:11 532:4
late 180:19 211:9
261:14 379:22
416:20
latest 476:1 541:20
Latin 274:9,11,14
274:18
laugh 361:2
Laughter 9:19
64:21 65:4 68:7,16
78:2 82:20 84:6

I
86:5 90:8,17
161:15 184:9
200:17 232:17
251:17 272:14
301:5,12 306:19
412:14 418:3,8
,
436:21 444:22
487:19 517:21
law 137:19 522:2
laws 408:14 447:18
lawsuit 134:19
lawsuits 28:22
lay 20:1
v
layer 501:10
layered 307:10
layering 302:6
· ·
laying 389:6
lead 5:6,12 85:19
leader 370:4 372:4
leadership 100:2
_
leading 47:13 48:19
150:3
leads 102:3
leaf 368:9,10
Leafy 447:19
500:13
leap 344:15
_
learn 514:6 539:7
learned 262:3
482:15
learning 33:17
193:3 482:13
524:20
leave 61:2 147:1
151:17 188:2
200:19 513:9
leaves 105:16
389:15 521:7
leaving 72:19 422:2
lecithin 51:5 52:7
253:18 357:16,18
358:1,8 481:20,22
482:5,10,16 483:1
483:12,18 485:6,7
485:12,14,14,17
485:18 486:8
487:1,6,8,8 488:6
488:7,13,16,20

Lakeland 441:3,4 441:17 443:18 **land** 55:3 61:16 62:5 238:17 272:1

			I	
489:15,16,17,18	438:5 445:1,3	line 16:2 48:1	227:7 228:2,3,11	264:19 358:3
490:3,6	483:10 486:19	120:16 126:3	229:5,10 237:4	359:13 473:11
left 54:5 160:1	518:22 527:22	188:21 190:2	241:10 242:4	474:13
224:19 283:3	539:18	270:10 295:18	254:1,12 256:8,22	lists 38:8 40:19 43:4
284:21 288:10	level 39:9,10,22	304:5 334:13	263:19 264:4,7	185:14 222:5
358:17 399:10	40:12 41:20,22	337:6,8 363:19	265:20 267:3	223:10 469:4
429:9 439:10	42:7,20 60:6	532:16	268:17 287:19	471:9
447:11 483:13	111:11 147:17,21	lines 25:13 28:22	293:22 295:8,17	literally 27:10
520:10,18	148:13 170:8	29:21 127:18	299:17 300:4	lithothamnium
leg 438:7	182:14 189:9	421:5 423:22	337:19 338:2	464:5
legal 105:8 106:13	193:13 271:16	424:2,3 426:10	342:17 357:18	little 6:4 22:6 31:17
108:3 142:19,22	274:16 319:13	link 19:1,16 428:4	415:12 429:15	32:22 36:1 46:8,12
143:1 193:12	348:6 364:16	links 19:17	430:1 435:21	58:5 60:9 66:15
335:20	377:12 379:14	lipids 490:17	436:18 444:19	84:19 105:17
legally 39:4	394:19 452:20	liquid 391:1	465:6 467:5	118:8,19 119:15
Legislatively 39:1	453:17 466:12	Lisa 525:19 527:22	468:18 470:13	119:15 120:18
legitimate 450:2	523:9 549:14	528:1,3	472:13 473:3,3,13	128:22 133:15
520:7	levels 155:10 158:17	list 11:18 14:20 25:8	473:14,15 474:6	136:2 142:4
legitimately 159:10	158:17 316:17,17	25:14 29:2 30:18	474:12 477:1,16	150:18 165:12,13
lemon 216:18	316:19,21 434:8,8	35:11,14,20 36:6	482:4 490:4 494:2	167:16 169:2,5,19
217:16,21	453:15	41:9,11 42:4 44:2	498:18 504:2	170:17 171:2,21
length 268:11 394:1	leverage 165:11,14	44:8 48:17 50:5	510:16 513:10	175:5 186:6 204:2
410:10,13,16	leveraging 100:5	51:18 60:14 71:21	527:2 529:11,22	205:3 206:17
lengthy 230:19	liaison 227:14	73:2,20 75:12 76:5	530:5,8 535:10	212:9 229:1,5
Leonard 239:19	licensed 441:18	76:8,19 80:9,19	538:19 549:10,19	232:22 247:4
330:22 331:8	lies 105:1	81:2 87:9 99:9	listed 21:4 25:14	249:10 255:10,14
Leonard's 546:13	life 53:9 56:11 66:2	121:10 130:14	58:10,13 76:10,11	262:11 284:7,12
leps 501:21	66:22 234:17	141:20,21 143:7	116:11 201:5	296:15 297:5
lessons 180:11	326:5 367:16,21	169:8 180:7,8	220:8 227:3 254:1	301:20 303:5
letter 163:13,16,17	394:20 402:9	185:5,9 186:9,22	254:18 255:6,19	306:13,21 308:5
463:20 535:6	418:10 490:16	188:2 189:7,11	265:3 266:10	309:3 319:4 321:4
letters 170:11	508:22 509:2	190:12,19 191:9	358:1,16 471:20	323:2,16 327:22
495:16 498:11	537:19	192:13,16,17,18	472:6 494:4	330:14 332:22
500:4	light 35:7 38:10	194:21 195:3,10	525:18	334:2 354:17
let's 4:15 13:4 26:16	115:12 116:22	196:1,3 197:8	listen 122:14	358:20 403:8
49:20 60:22 61:12	254:21 258:7	198:12,15 202:1,8	listened 114:15	406:19,20 409:18
61:13,15,16 65:14	271:19	203:3 206:8	169:15,15 175:14	411:19 412:4
65:15,16 76:14	likewise 39:21	207:15 208:15,18	listening 144:19	418:6 427:7
107:19 109:22	limestone 83:9,15	208:21 210:1,2	531:22	428:19 441:9
119:18 121:8,8	limit 108:14 202:11	212:4 214:4,8,8	listing 25:7,13	461:3 462:16
141:10 149:18	404:18,20 414:10	216:13 217:10	159:10 189:18	481:20 482:8
180:17 184:11	515:9 527:17	219:7,10,13,14	190:5,16 191:1	489:4 508:8
193:14 218:14	limited 162:9	220:16 221:8,16	198:20,21 215:16	524:12 529:5
219:6 237:5	336:13 394:5	221:17 222:2,8	219:12,19,22	546:17
239:18 240:4	407:11 443:19	223:8,11,12,14,14	220:3,6 224:18	live 173:3 332:4
293:16 307:5	444:4 474:7	223:19 224:16,19	227:21 256:1	377:2 440:13
336:22 346:7,7	528:21	224:21 226:12,20	257:4,20 258:8	lived 417:20 420:14
347:6 362:10	limits 512:10	226:21,22 227:1,2	263:14,21 264:6	livestock 3:18 6:3

	l		l	1 400 5 405 4 5
52:20 53:5,8 56:7	logical 331:13	384:2 400:16	loophole 105:16	483:5 487:16
56:10 59:3,8,14,21	logically 191:6	410:3 411:6	310:6 334:17	512:7 532:12
60:5 61:17 62:11	194:16	456:22 457:22	345:5,13 346:8	545:16 546:8
65:12,21 66:1 67:3	logistically 523:15	458:14 463:13	493:19	lots 66:15 134:18
73:17 74:11 78:11	LOMAX 2:21	468:15 475:18	loopholes 346:7	145:9 434:17
78:12 80:15 84:14	long 52:2 57:15	481:2 485:3,9	loose 368:10	lottery 136:11 138:4
92:12,16,19 93:3	102:6 121:10	493:17 496:16	lopped 66:5	138:14
93:13,21 97:7,11	154:11 171:4	508:7 536:3	lose 56:17 69:12,16	loud 147:5 438:19
99:19 112:9 172:9	196:2 208:21	541:19 549:11	69:17 165:22	love 210:9 433:9
187:21 205:5,18	250:20 256:20	looked 59:13 62:16	533:1	518:18
205:22 230:12,14	331:12 443:21	72:12 74:3 94:16	loses 484:14,15	lovely 77:9 517:20
230:20 234:13,13	456:9 485:13	105:3 106:7	losing 422:1	low 132:4 251:21
236:20 238:2,6,12	489:8,17 490:5	110:18 111:2	loss 355:6 418:6	431:2 549:14
238:18 243:17	507:13 522:6	141:19 143:17	501:11	lower 341:13
247:15 248:10	540:12 550:22	144:1 146:9 162:4	lost 15:13 169:3	404:18 408:6
250:13,17 251:9	longer 358:4 429:12	185:10 195:6,9	485:21	537:17
304:17 308:1,2,7	503:10 529:15	206:11 242:9	lot 33:1 39:2 51:14	lowered 342:14
308:18 309:4,17	539:2	244:21 254:19	52:16 54:22 63:11	lowering 342:13
309:19 310:7,10	long-term 118:15	255:3 275:22	83:1 90:10 92:17	lowest 412:1 484:22
316:3,3 318:8,20	324:20 325:13	292:6 322:15	94:16 101:14,15	luck 509:22
334:13 335:7	look 20:8 21:9 25:4	337:19 431:13	102:4,11 111:16	luckily 114:9
337:20 340:12	26:9,14,14 27:8	461:3 494:18	112:20 113:13	Luke 406:14 425:12
342:16 345:16	53:22 56:4,9 57:14	496:4 525:3	116:10 117:17,18	527:21
346:19 350:12	60:2 65:19 70:6,14	looking 27:17 34:21	129:19 131:6	lumped 530:14
351:20 354:13,15	76:8,12 79:10 81:7	35:4 36:3 45:19,22	133:4 136:22	lunch 136:2 137:14
445:14 462:2	81:13 87:14 89:10	46:1 58:9 60:4	139:10 151:13	210:16,22 497:9
472:2 516:21	91:14 95:17 106:3	68:19 89:7 95:8	161:11 166:7	Lundberg 284:14
519:10,10,17,19	106:19,21 108:5	126:6 138:3	171:11 195:15	286:10,13,13
520:8 524:2	109:18,19 122:15	143:15 149:10	202:18 203:9	289:2,14 290:20
530:13 540:13,21	129:5 130:14	170:2,9,9,16	211:10 214:2	297:11 299:5,12
541:1,17 542:1	131:20 134:10	171:20 173:7	221:12 223:13	299:20 300:6,11
living 53:1 56:5,12	137:14 144:4,13	174:9 184:3	228:16 232:4	540:1 548:22
58:11 62:6 66:10	145:19 147:11	196:22 207:17	237:20 238:19	549:1
66:18 67:1 80:14	149:9 167:2	244:19 253:20	239:19 241:8	luxury 109:13
349:21 354:11,17	169:22 174:18	257:9 260:12	243:11,18 245:19	Lynn 467:15 475:2
354:21 356:7	175:19 177:16	275:16 291:21	246:2 247:6	475:2 480:17
464:19	183:15,19 184:5	294:16 322:16	257:10 259:10,11	481:5,8 486:17
load 457:18	193:9 194:2	323:4,8,13 332:22	263:8,10 268:10	515:18 516:7
lobbied 534:14	195:16 196:18	342:22 378:6	279:3 288:8 291:3	537:11
lobbying 12:10	206:13 208:3,10	396:10,11 415:12	291:6 302:20	lysozymes 62:20
lobster 332:4	219:21 243:16	461:16 465:22	323:5 331:8,9,17	
local 419:10	246:22 254:14	466:2,11 484:21	332:14 340:22	M
located 18:16	273:16,17 278:14	508:14 524:8,21	341:6 348:8	M 1:19
145:20 277:9	295:20 307:18	526:8	395:12 410:20	machine 142:16
370:10 371:10	313:8 315:15	looks 144:5 332:17	432:16 433:3	297:3
locations 119:5	322:21 331:2	483:5 488:3	435:16,16 436:1	machines 297:7
374:1	332:18 333:13	489:13 545:18	443:11 458:13	mad 334:21 335:1,2
logic 144:12 149:4,8	359:22 365:16	loop 159:22 269:14	462:10 463:5	magazine 334:8
10gic 177.12 177.7,0	337.22 303.10	100p 137.22 207.14	102.10 403.3	

348:22 magical 280:21 magnesium 263:6 mails 487:17 322:12 337:7 451:14 452:6 marine-based 233:21 match 56:19 106:15 70:3 90:20 match 56:19 106:15 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:10 70:20 106:1	94:11 5:14,15 2:11 7:11 16 11 7:8 09:16 0:2 1:2,13 7,16 5:21 5:242:4 2:4,9
magnesium 263:6 mails 487:17 538:21 539:6 Mark 2:12 519:3,8 134:17 439:2 97:6,11 11 main 11:4 12:1 13:6 13:11 32:17 47:13 59:17 95:16 199:7 212:22 304:6 manages 415:8 managing 92:3 marked 398:20 market 68:21 26:18 27:1,6 33:6 market 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:21 18:	5:14,15 2:11 7:11 16 11 7:8 09:16 0:2 1:2,13 17,16 5:21 5:21 5:242:4 2:4,9
mails 487:17 544:16 536:3 material 21:3 25:14 115:19 18:19 18:14 main 11:4 12:1 13:6 manager 118:14 marked 398:20 26:18 27:1,6 33:6 184:21 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18:19 18	2:11 7:11 16 11 7:8 .09:16 0:2 1:2,13 .7,16 6:21 6:242:4 2:4,9
main 11:4 12:1 13:6 manager 118:14 marked 398:20 26:18 27:1,6 33:6 184:21 18:18 13:11 32:17 47:13 manages 415:8 manages 415:8 marked-up 479:15 35:13,13 51:18 188:2 195: 59:17 95:16 199:7 249:15 481:8 249:15 481:8 216:20 218:1 182:6 185:11,13 206:8,9 20 327:18 446:17 mandate 447:14 268:9 287:11 186:5,7,19,21 208:4,16 2 Maine 511:2 526:22 manifest 351:6 315:11 316:9 188:22 191:15,22 219:16 22 541:9 545:18 manifest 417:9 317:7 335:15 193:1,5,20 194:4,7 222:1 223: maintain 154:5 manner 23:8 109:5 340:9 344:2 358:6 194:11,12 195:17 224:17 220 395:15 397:4 manual 4:21,22 371:16 380:3,17 196:19 197:1,9,14 251:20 25:24 402:9 433:22 7:11 9:2 13:17 380:18 393:13 198:15 200:14 253:7 256:2 434:5 544:1 15:12,19 25:3 396:15 397:5 201:1,5,20 202:4,8 260:3,6,13 maintained 404:9 34:18 274:20 402:7 408:1 202:22 203:13,14 275:22 28	7:11 :16 :11 :7:8 :09:16 :0:2 1:2,13 :7,16 :5:21 :5:242:4 2:4,9
13:11 32:17 47:13 manages 415:8 marked-up 479:15 35:13,13 51:18 188:2 195:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:202:7 204:2	116 111 17:8 109:16 10:2 1:2,13 17,16 5:21 5:242:4 2:4,9
59:17 95:16 199:7 managing 92:3 market 68:21 52:6 98:12 102:15 202:7 204:20:20:20:20:20:20:20:20:20:20:20:20:20:	11 17:8 .09:16 0:2 1:2,13 .7,16 6:21 6:242:4 2:4,9
212:22 304:6 249:15 481:8 216:20 218:1 182:6 185:11,13 206:8,9 20 327:18 446:17 mandate 447:14 268:9 287:11 186:5,7,19,21 208:4,16 2 Maine 511:2 526:22 mangoes 368:17 293:8 299:7 187:8,14,15 188:4 209:22 210 541:9 545:18 manifest 351:6 315:11 316:9 188:22 191:15,22 219:16 22 mainland 239:15 manifest 417:9 317:7 335:15 193:1,5,20 194:4,7 222:1 223: maintain 154:5 manner 23:8 109:5 340:9 344:2 358:6 194:11,12 195:17 224:17 220 395:15 397:4 manual 4:21,22 371:16 380:3,17 196:19 197:1,9,14 251:20 25:2 402:9 433:22 7:11 9:2 13:17 380:18 393:13 198:15 200:14 253:7 256:2 434:5 544:1 15:12,19 25:3 396:15 397:5 201:1,5,20 202:4,8 260:3,6,13 maintained 404:9 34:18 274:20 402:7 408:1 202:22 203:13,14 275:22 28:1	7:8 :09:16 :0:2 1:2,13 :7,16 5:21 5:242:4 2:4,9
327:18 446:17 mandate 447:14 268:9 287:11 186:5,7,19,21 208:4,16 2 Maine 511:2 526:22 mangoes 368:17 293:8 299:7 187:8,14,15 188:4 209:22 210 541:9 545:18 manifest 351:6 315:11 316:9 188:22 191:15,22 219:16 22 maintain 154:5 manner 23:8 109:5 340:9 344:2 358:6 194:11,12 195:17 224:17 220 158:10,15 395:12 125:21 160:18 363:18 364:18,22 195:19,22 196:10 227:2,3,4,6 395:15 397:4 manual 4:21,22 371:16 380:3,17 196:19 197:1,9,14 251:20 252 434:5 544:1 15:12,19 25:3 396:15 397:5 201:1,5,20 202:4,8 260:3,6,13 maintained 404:9 34:18 274:20 402:7 408:1 202:22 203:13,14 275:22 28	.09:16 0:2 1:2,13 :7,16 6:21 6:242:4 2:4,9
Maine 511:2 526:22 541:9 545:18 manifest 351:6 293:8 299:7 315:11 316:9 187:8,14,15 188:4 188:22 191:15,22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 22 219:16 21 219:16 22 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 219:16 21 21	0:2 1:2,13 :7,16 5:21 5:242:4 2:4,9
541:9 545:18 manifest 351:6 315:11 316:9 188:22 191:15,22 219:16 22:1 mainland 239:15 manifest 417:9 317:7 335:15 193:1,5,20 194:4,7 222:1 223:1 maintain 154:5 manner 23:8 109:5 340:9 344:2 358:6 194:11,12 195:17 224:17 220:1 395:15 397:4 manual 4:21,22 371:16 380:3,17 196:19 197:1,9,14 251:20 25:2 402:9 433:22 7:11 9:2 13:17 380:18 393:13 198:15 200:14 253:7 256:2 434:5 544:1 15:12,19 25:3 396:15 397:5 201:1,5,20 202:4,8 260:3,6,13 maintained 404:9 34:18 274:20 402:7 408:1 202:22 203:13,14 275:22 28:1	1:2,13 :7,16 5:21 5:242:4 2:4,9
mainland 239:15 manifesto 417:9 317:7 335:15 193:1,5,20 194:4,7 222:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:22:1 223:23:22:1 223:22:1 223:23:22:1 223:23:22:1 223:23:22:1 223:23:22:1 223:23:22:1 223:23:23:22:1 223:23:23:23:23:23:23:23:23:23:23:23:23:	7,16 6:21 6 242:4 2:4,9
maintain 154:5 manner 23:8 109:5 340:9 344:2 358:6 194:11,12 195:17 224:17 220 158:10,15 395:12 125:21 160:18 363:18 364:18,22 195:19,22 196:10 227:2,3,4,6 395:15 397:4 manual 4:21,22 371:16 380:3,17 196:19 197:1,9,14 251:20 252 402:9 433:22 7:11 9:2 13:17 380:18 393:13 198:15 200:14 253:7 256: 434:5 544:1 15:12,19 25:3 396:15 397:5 201:1,5,20 202:4,8 260:3,6,13 maintained 404:9 34:18 274:20 402:7 408:1 202:22 203:13,14 275:22 28:	5:21 5 242:4 2:4,9
158:10,15 395:12 125:21 160:18 363:18 364:18,22 195:19,22 196:10 227:2,3,4,6 395:15 397:4 manual 4:21,22 371:16 380:3,17 196:19 197:1,9,14 251:20 25:2 402:9 433:22 7:11 9:2 13:17 380:18 393:13 198:15 200:14 253:7 256:2 434:5 544:1 15:12,19 25:3 396:15 397:5 201:1,5,20 202:4,8 260:3,6,13 maintained 404:9 34:18 274:20 402:7 408:1 202:22 203:13,14 275:22 28	5 242:4 2:4,9
395:15 397:4 manual 4:21,22 371:16 380:3,17 196:19 197:1,9,14 251:20 252 402:9 433:22 7:11 9:2 13:17 380:18 393:13 198:15 200:14 253:7 256:20 252 434:5 544:1 15:12,19 25:3 396:15 397:5 201:1,5,20 202:4,8 260:3,6,13 maintained 404:9 34:18 274:20 402:7 408:1 202:22 203:13,14 275:22 283	2:4,9
402:9 433:22 7:11 9:2 13:17 380:18 393:13 198:15 200:14 253:7 256:33:7 256:33:13 434:5 544:1 15:12,19 25:3 396:15 397:5 201:1,5,20 202:4,8 260:3,6,13 maintained 404:9 34:18 274:20 402:7 408:1 202:22 203:13,14 275:22 28:33	,
434:5 544:1 15:12,19 25:3 396:15 397:5 201:1,5,20 202:4,8 260:3,6,13 402:7 408:1 202:22 203:13,14 275:22 28	
maintained 404:9 34:18 274:20 402:7 408:1 202:22 203:13,14 275:22 28	
, and the second	
maintenance 212:2 536:6 409:21 410:22 204:4,6,7,19,21 300:15 380	
major 5:11 153:4 manuals 15:12 412:19 415:6 205:4,5,20,22 455:6,13 4	
155:17 175:16 manufacture 419:19,21 515:1 206:12,17,21 463:15 46	,
176:3 246:1 280:5 389:20 marketable 398:15 207:2,6 208:6,18 476:17,21,	
289:11 372:14 manufactured marketed 196:6 208:22 210:10 477:7,8,10	
373:6 476:3 482:7 26:20 292:6 378:7 396:18 211:20 212:5 493:18 494	*
majority 95:1 289:3 355:16 356:13 501:4 213:13,14 214:13 495:9,12 4	,
420:15 manufacturer marketing 135:7 215:8,15,20,21 501:6 502:	
makeup 208:1 189:6 277:8 292:8 394:6 408:2 411:4 216:14 217:3 537:22	. , , , , ,
making 18:13 54:20 292:9 295:19 411:12 435:19 227:1 228:13 math 122:1	
70:5 127:11 462:19 484:17 447:20 514:3 253:22 254:22 mathematic	allv
134:17 156:13 manufacturers marketplace 285:5 263:18,20 264:5 502:16	any
157:22 224:9 256:13,18 287:17 285:14 292:21 266:18 267:13 Matt 416:18	2
267:18 271:12 288:14 290:22 293:4 295:6 338:4 271:9,10,20 273:6 matter 45:8	
288:6 292:15 296:1 466:7 271:35:6 381:2 278:20 282:9 94:13 241:	
294:9 325:22 manufacturing 382:19 408:6 283:2,14,17 266:4 334:	
337:14 373:13	
383:16 458:17	
500:16 512:11	
534:19 542:3	
manage 402:18	
404:3 405:16	
522:4 244:17 356:2 marriage 96:21 535:19,22 539:4 Matthew 2	
managed 62:7,8 marching 108:20 Marroquin 48:10 materials 3:4,5,8 144:18 140	
67:2 92:8 105:18	
105:22 233:16 margin 408:7 509:21 28:17 31:12,14 maturation	
263:12 272:2 marginally 185:18 Marty 287:5 295:11 33:4,12 34:3 35:19 mature 395:	
management marine 237:3 317:9 539:22 548:21 37:13,15 40:19 396:3 399:	
118:14 245:6 326:4 351:13 Maryland 409:19 41:4 42:19 46:20 maturing 39	6 14
249:12,18 272:3 547:15 mass 451:19 46:21 47:4,21 maturity 37	
2.7.12,10 2.72.3 3.7.10 maturity 37	93:6

200.10 410 10 12	200.10.506.0		207.10.401.22	
380:10 410:10,13	398:19 506:8	meetings 9:15 10:2	397:10 401:22	microorganisms
410:15 Marray 402:2	520:22 521:11	10:12 13:9 47:12	427:13 442:21	73:5,15 359:10,13
Maury 403:2	meant 253:12 273:5	248:13 252:22	444:10 452:1	359:16 362:3
406:12,15 443:8	359:17	269:21 274:8	459:12 468:21	microphone 198:9
maximum 128:8,15	measure 417:2	409:12 428:14	469:1 472:6 480:1	226:5 286:2
136:15 405:18	450:3 544:22	437:16 438:21	507:18 516:1	536:14 539:21
mayhem 116:14	measured 172:5	439:12 512:20	mentioning 540:7	microplant 470:3,8
meal 233:7,9,15	measurement 413:1	meets 279:1 339:20	mercury 317:1	middle 232:6
317:5 318:19	measures 377:19	member 4:22 18:8	merely 32:15 40:13	335:12 489:13
339:22 343:7	meat 80:22	18:12,20,21 19:3	Mesh 287:5 539:22	519:12
545:3	mechanical 79:17	21:2 28:7 68:2	548:21	midnight 117:6
meals 339:6	mechnical 57:1	110:17,19 111:2	message 356:6	Midwest 511:3
mealy 501:15,20	media 109:20	131:13 205:12	538:13,20	Miedema 1:21 22:4
mean 27:4,16 33:19	140:21	441:4 534:20	met 117:2,11 192:1	23:6 103:12,14
68:19 84:18 89:9	medicines 6:3	members 5:4 11:22	192:2 271:3	120:2 124:5,7,18
90:9 91:8 92:6	Mediterranean	12:6,11,14 16:19	522:21	125:11 128:21
96:3 120:16 133:3	324:10	18:13 29:11 32:5	metabolisn 362:1	134:6 137:7
136:11 139:10,13	meet 46:12 74:21	45:7 51:14 96:5	metaphor 137:9,22	143:12 148:20
147:3 163:20	117:4 246:7	100:3 106:5,9	metaphors 137:8	294:11 296:16
174:6 175:2,12	349:17 350:18	121:20 132:8	method 57:1 106:19	301:1,3 305:7
178:1 187:14	453:13 459:22	210:13 235:12	155:19 326:7	307:5,21 311:6
191:6 194:21	487:1 499:2,4	256:12 314:7,21	385:16 452:8	312:22 313:12
195:21 196:21	514:15 523:1	405:3 408:17	methodically 259:3	381:9,18 383:14
225:7,8 231:19	meeting 1:5,10 4:3	416:20 419:14	methodology 162:3	384:1 438:16
235:22 247:5	24:10,12,14 40:10	440:10 441:15	methods 6:20 57:17	515:15 526:10,13
275:8,15 279:13	41:15 42:14 43:6	445:4 452:3	70:21 79:17	milk 344:14 345:9
280:2,11 287:20	45:5,21 47:5,13,15	460:17 492:20	153:13 158:1	345:22 346:3,4
297:17 306:8	83:7 101:10	526:3,7 527:16	202:6 389:20	460:15
311:20 312:12	107:14 117:14,21	541:17 545:20	390:1,4 479:10	milking 345:9
323:4 332:17	160:5 166:10	member-growers	514:14 515:10	523:14,17
341:21 364:12	170:17 183:9	370:18	metric 331:12	mill 283:7,8 321:22
369:3 377:11,18	186:10 197:5,5,6	membrane 507:4	metrics 245:4 331:4	milled 262:20
413:15 415:5	199:8 210:21	memory 41:17	331:5,10 546:13	276:15 464:11
420:12,13 425:5	212:7 218:21	mental 473:9	Mexico 426:22	millers 277:15
432:2 436:10	220:19 222:19	mention 20:19	micro 470:19,20	million 289:20
459:18 486:17	238:13 244:17	223:2 240:3 270:1	microbial 454:20	290:4,6,8 334:9
497:9 501:9 503:4	248:5 250:9,12	271:8 317:3	microbials 457:6	349:21 362:14
517:5 527:8 548:2	252:5,10 253:17	468:16 469:5	458:17	368:15 372:7
meaning 148:4	258:21 259:6,12	470:1,1	microbiology	400:9
152:5 238:8	259:21 260:4,19	mentioned 7:17	135:21	millions 294:18,19
335:22 340:10	261:4 262:5 282:1	105:15 110:16	micronutrient	mills 530:17
meaningless 530:10	314:12 325:10	118:11 159:18	470:6,18	mimics 537:14
means 51:16 104:2	353:2 435:5	204:4 217:16	micronutrients	mind 56:5 75:8
107:11 131:17	438:10 476:12	224:15 231:6	468:2,12,19,21	98:21 110:19
132:8 138:22	492:18,19 515:2	236:19 250:7	469:2 470:10,13	154:10 180:3,4
148:3 171:13	535:5 544:21	267:1 275:12	473:11	203:11 211:12
234:14 306:10,11	548:15 550:10,16	277:3 329:3	microorganism	256:7 284:22
365:2 368:9	551:6,11	333:14 392:4	359:7	297:9,22 323:12
	1	I	1	1

	1	l 	l	l
344:16 386:10	444:21 460:19	276:4 311:19	272:8,10 300:19	112:7
410:8 428:2,7	491:21 526:19,20	505:14	348:16 397:8	multitrophe 323:10
430:2 431:5	527:14 550:10,11	monastery 417:20	416:21 425:7	multi-fed 105:9
mindful 211:8	misheard 133:21	Monday 364:3	433:2 462:6	multi-ingredient
minds 283:14	misinterpreted	382:20 383:1	518:22 526:14	113:21
mined 84:2	118:20 468:5	money 252:13 303:4	527:22 536:13,19	Murone 218:3
mineral 50:14 61:2	misperception	532:13,22	537:6 539:18	mushroom 86:20
61:6,8,9,20,22	138:21	monitor 7:14	moved 9:1 113:10	mushrooms 86:9,10
65:8 66:4 83:3	misperceptions	422:12	293:2	mushy 399:12
84:1,1,11 465:15	139:3	monitored 155:8,9	movement 153:14	mute 107:14 108:22
474:13	missed 67:14	172:3	153:17	mutually 68:11
mineralized 262:16	127:11 285:18	monitoring 173:6	moves 154:1 387:2	myriad 515:7
262:19 464:9,16	307:1 309:15	177:1,8 538:11	moving 28:10 36:13	NT NT
minerals 242:12	missing 138:13	monks 418:1	37:12 38:15 43:1	N
263:9,15,22 264:7	mission 430:15	Montana 419:17	44:5,7 81:21,22	N 3:1,1
265:3,20 464:8,14	misspoke 231:22	month 287:3 348:22	107:17 154:15	NALLY 2:15
466:3 530:22	mistake 458:9	489:12	155:22 158:22	name 10:20 46:18
minimal 220:6,7,10	542:14,14	months 45:21	159:16 201:19	214:20,21 218:5
221:10,20 354:6	mistakes 458:10	107:18,20 127:7	211:5 223:6 280:9	227:13 274:11,14
443:6	misunderstood	298:2 301:13	360:13 406:12	274:21 275:8,13
minimize 7:12	286:20	302:20 345:1,2,9	408:18 462:13	286:11 334:6
128:2 353:13	mite 204:8 205:9	347:2 363:17	548:20,21	336:18 347:18
minimized 81:6	206:20 502:9	365:9 367:15,16	MOYER 1:15 135:2	348:19 360:17
minimum 139:15	mites 209:10,13	395:18 399:16	166:16 175:9	369:20 387:19
159:11 391:20	501:20 502:18	547:4	195:14 200:1	397:11 405:17
405:22	mix 283:7 311:17	morning 4:2 46:7	207:21 209:21	409:22 422:22
Minnesota 360:19	370:15	46:10 103:15	223:1 226:16	426:20 445:13
440:5,9,13	mixing 298:22	271:20 420:2	250:15 305:20	462:17 481:8,9
minor 155:17	mode 22:1	550:10	306:15,20 307:20	510:13 514:18
175:16 176:3	model 109:8 439:3	morning's 417:6	310:14 322:10	names 48:5 50:5
179:22 306:22	modern 90:13	550:12	323:19 386:9	274:9 442:22
311:12 476:3	modification	morphed 519:14	387:1 435:4,10,14	Nancy 186:14
494:9 506:8 508:8	153:12 544:6,14	motion 190:19	MSC 317:13	205:12 208:5
minority 18:4	modifications 429:1	201:17 527:7,8,12	mullet 324:4	narrative 16:3
102:21,22 103:1,3	modified 423:20	motivates 508:11	multiple 39:15	77:15 79:6 354:3
103:8,8 110:16	modify 36:3 485:19	mountains 132:3	157:4 370:12	narrow 115:13
111:1,5,8 118:10	modules 112:18	mouth 291:5,7	384:13 421:11	narrowed 50:9
127:2 131:12	moisture 282:17	move 18:6 53:12	449:6 492:8	narrowing 229:4
405:6	464:15 501:11	59:1,12 76:14	537:16	narrowly 108:16
minuses 428:13	molasses 504:9	81:15,16 91:1,6,15	multisite 101:11,14	115:4
minute 11:14	molecular 384:9	101:17 111:15,17	102:16 103:18	national 1:3 7:20
186:17 214:16	400:21	111:20 114:3	110:2,9,10 113:2	23:2 25:8,14 29:1
218:17 240:1	molecule 400:6	117:5 119:21	121:20 148:18	35:20 36:5 44:8
243:14 423:4	molecules 502:17	149:16,18 163:21	494:7 511:12	51:18 60:13 71:21
549:5,5	mollusk 248:22	166:9 168:14	516:3,18 517:16	80:9,19 158:11
minutes 10:18 11:2	mollusks 247:13,17	180:17 181:2,3	528:9,14,20 533:8	160:11 185:5
149:19 314:3,22	248:3	184:11 219:7	533:21	202:1,8 212:4
315:5,6 416:14	moment 250:16	249:8 253:4 262:7	multisites 104:20	214:4,8 217:10
515.5,0 110.11				<u> </u>

219:12,13 230:21	necessary 30:4,12	465:17 471:13	247:10 248:11	419:11 426:22
237:4 241:10	209:10 213:17	484:8,10,13 490:2	249:1,4 317:16	448:13 487:4
254:1 256:8	298:12 339:4	491:8 495:8	323:1 326:6,9,17	520:14,15 528:4,5
263:19 264:4,7	354:9 437:10	496:16 500:8	329:19 330:13	531:16
267:3 301:7	477:14 529:13	501:16 520:9	332:7 336:13	NEWBY 2:22
335:13 336:10	535:13	524:17 526:5	337:1 343:22	newcomer 88:9
337:18 338:2	neck 420:14 482:14	532:20 533:2	543:17 545:17	newer 285:11
342:17 343:21	need 6:13 25:4	535:20 543:10	546:1,2	
			,	newest 28:6
350:21 357:18	26:12 27:19 29:14	550:20 551:3	neurotoxic 484:7	nice 232:6 314:4
371:22 376:9	29:20 30:6,21 31:1	needed 5:19 27:1	neutral 299:9 303:3	niche 488:9
397:21 434:1,6	33:6,13 37:5,5	101:17 233:21	never 13:16 16:7	nickle 469:5,6
465:6 477:1,16	41:22 43:12 49:1	234:6 298:3	38:4 56:1 78:4	471:18 472:13,18
482:4 490:4	53:11 56:4 59:8	315:20 316:1	83:3,5 106:22	472:21
498:18 510:20	64:12 65:18 70:3	317:15,18 345:14	128:13,17 139:12	night 215:1 525:21
511:5 515:17	72:10 77:22 79:7	380:1 405:14	154:10 169:9	nightmare 140:21
517:19 518:2,6	91:12,14 96:8	451:3 470:18,20	177:22 213:6,8	nine 251:20 252:4
530:8 535:10	105:21 110:1	472:9 515:6 530:6	228:3,3 284:6	345:1 488:6 551:8
538:19	111:14,14 122:22	531:11 541:2	285:6 293:22	Ninety 488:5
nationalegglossce	123:8,13,17 124:1	needing 6:12 33:4	294:2,3,5,7 345:11	NOC 518:19
18:16	124:8 128:8	needle 302:8	377:10 414:4	NOFA 528:4 531:15
natural 84:11,13	131:19 132:9,9,13	needs 6:18 7:7,13	487:17 494:17	noggin 54:4
216:16 217:1	137:9 148:13	20:11 67:20 70:14	521:5	nomenclature
240:16 265:17	151:20 158:3	79:13,14 80:13,19	Nevertheless 104:1	219:20
267:11 308:21	159:21 166:22	106:6 125:20	new 4:20,22 16:14	nominations 14:1,2
311:15 333:4	167:7,8 173:4	132:19 152:12	18:8,12,13 19:3	non 256:11
337:3 362:1	176:14 181:17	169:10 209:10,12	21:2 24:9,13 25:20	nonagricultural
374:10 380:7	184:1 188:18	233:6 316:6 317:6	35:13,13,16,19	47:7,19 50:11,13
392:13,20 399:4	194:12 203:11	340:3 346:10	39:20 61:14 82:14	51:3,7,12,15 57:4
400:5 446:6	205:8,18 210:7	362:21 378:16	105:11 110:17,17	57:21 58:2,8,22
478:21 498:7	222:11 224:5	380:7,8 413:19	111:2 112:6	60:20 62:1 63:9,12
513:22 537:14	233:7,7 236:21	419:10 422:17,20	118:20 127:3	63:14 64:6 68:6,18
naturally 267:14,17	239:2,4 242:5	429:3 487:1	128:15 131:13	70:10 71:9,17
401:16 464:7	245:15,16 259:2	505:17 508:21	132:1,8 151:7	72:18 73:1,4 74:4
471:13	264:3 269:17	522:4 523:21	154:16,19 157:17	74:14 75:20 79:21
naturals 217:6	280:11,11 281:8	525:1	158:2 160:11,15	80:4,5,8,11 81:10
nature 178:1,5	293:5 298:11	negative 539:11	185:11 189:18,18	270:9 308:13
221:1 475:11	302:1 303:8	neglected 20:19	190:2 193:4 201:9	354:5,9,19 358:3
near 132:4 310:20	306:10 311:19,21	negotiation 164:22	216:20 217:22	359:9
311:1	330:4 331:20	negotiations 164:19	219:2 221:9 223:6	nonanoate 214:22
nearly 441:15	338:6 396:14	neighborhood	223:16 224:17	215:3 217:19
442:18	397:4 401:20	350:5	227:6 241:17,17	nonbreak 100:15
Nebraska 417:21	410:8 411:3,6	neither 68:5,10	243:3 254:11,21	noncompliance
440:15 441:13	417:8 418:7 420:6	nervous 418:6	255:1 257:9	125:4,17 127:13
necessarily 32:3	421:17 422:7	net 230:18 239:22	269:13 295:8	130:19 155:17
49:5 86:19 113:5	425:7,10 427:10	241:4 243:7,21	308:3 320:19,20	156:22 176:3
140:9 319:12	430:5 438:16	244:4,5,7,7,11,19	374:21 379:6	noncompliances
359:17 460:4	446:11 451:6	244:21 245:16,18	405:6,12 406:1	124:21 125:13
549:12	455:1 460:4,5	245:20 246:8,11	415:18 417:18,18	153:4 175:16
	<u> </u>	-::::::::::::::::::::::::::::::::::::	l	

476.4	165 15 102 2	17.5.21.0.21.10	02 15 101 0	240.5.472.7
476:4	165:15 183:2	17:5 21:9 31:18	93:15 101:9	349:5 473:7
nonconditioned	199:2 221:7	40:10,21 41:2 45:7	102:12 123:5	nutritious 304:2
382:22	222:13 227:15	47:5,9 48:9 49:6	128:3,8 136:15	nutshell 9:16 50:4
Noncontroversial	231:19 353:16,17	49:19 70:14 79:13	140:2 143:19	217:7 277:4
65:9	354:14 356:1	79:14 80:13 81:21	155:6,15 156:1	NW 1:11
nonethylene 394:3	407:5 420:6	82:17 93:11 114:5	157:16 159:3,7	0
nonexistent 407:11	422:11 429:22	160:9 161:5	161:21 168:21	$\overline{\mathbf{O}}$ 3:1
nongovernmental	437:17 442:21	168:20 181:4	178:9 195:18	object 123:6
321:18 322:1	446:3 447:2	182:11 186:10	196:19 211:14	object 123.0 objected 202:19
nonorganic 51:13	448:10,11 452:3	219:21 220:18	212:18 215:1,3	objection 91:19
51:16 59:21 72:19	452:20 454:8	235:10 254:6	216:9 221:1,15,20	161:10
72:20 73:3 75:13	456:3,6 468:1	315:8,13 329:7	226:22 269:19	obligation 335:21
169:4,9 256:5	472:14 478:1,7,11	348:2 349:7	286:18 319:5,9	observation 123:9
290:9 309:8	478:20 479:19	353:12 356:1	323:15,18 324:18	123:18 124:1
334:18 359:2	480:7 483:21	409:6,11,12	324:19 329:15	179:4
420:10 451:10	486:2 495:6	417:22 428:18	405:11 408:9	obstacles 271:12
454:17,18 455:13	498:18 521:13	441:20 443:12	428:14 431:21,22	273:19 277:6
484:10 538:9	522:1 525:6 529:2	460:22,22,22	443:13 451:21	514:22
nonplant 53:8 56:11	529:9 532:3	462:5 476:10,19	487:2,12 511:11	obtain 15:3
66:2,21 234:17	534:14 536:3,18	477:2,13 478:9	512:18	obtained 278:21
nonprofit 418:10,14	537:1,4	492:18,18 524:6,8	numbering 224:12	
nonsynthetic 41:3	normal 291:2	530:3 534:17	numbers 120:18	283:17 402:11
44:18 45:20 47:7,8	355:13 374:2	535:7,10 536:2,8	173:7 203:12	obtaining 450:20 obvious 115:2
75:14,18 76:7,10	395:5 402:9	536:21 537:4	287:7 319:6	
81:11,17 85:16,20	469:21 470:9,19	NOSB's 400:19	numeral 468:13,13	obviously 77:21
98:22 264:17	470:21	476:8	474:18,18	85:3 115:18 170:5 324:8 331:9
265:18 266:3	normally 23:6	note 100:9 267:7	numerous 37:22,22	377:22 394:8
308:14,21 355:15	542:17	313:3 321:15	nutrient 245:6,7	421:22 448:20
356:4	north 68:1 145:13	447:16	263:22 264:7	530:18
nonsynthetics	272:18 377:5	noted 54:12 407:12	265:16,19 311:9	
265:22	492:9 500:4	notes 127:12 408:10	319:3 322:17	OCA 404:22
nontreated 443:20	Northeast 511:7	477:5	350:21,22 351:2,6	occur 45:13 57:3
non-A 65:3 66:3,22	northern 366:13	notice 235:6 320:5	465:15 466:15	58:17 105:17
non-ag 75:15 83:4	northwest 187:6	noticed 25:2 409:13	469:6 470:18,20	106:6 125:3
87:7	245:22 336:14	notified 219:20	nutrients 94:1	156:21 400:2
non-al 75:11	370:5,7 372:2,9	222:15	245:12 263:15	472:4
non-GMO 389:3,4	373:5 374:1,4,19	notify 448:11	279:18 323:7,9	occurred 33:11
noodles 276:18,19	375:17,18 376:8	notion 108:15 138:3	339:4 349:18	304:21
277:9,11 278:6	378:2 379:9	notwithstanding	350:18 464:8	occurring 267:17
noon 497:13	380:11 387:21	235:2	468:16 470:2,3,8	420:17
NOP 22:12 23:7	390:12 396:9	November 1:8 47:5	471:17	occurs 56:21 57:19
102:9 109:7	397:11,18 440:13	220:20 437:4	Nutrition 462:18,19	162:19
112:11,13 113:8	511:6	nuance 358:20	nutritional 233:6	ocean 239:18
113:10,10 140:14	Norway 336:15	360:8	263:1,1 273:7	262:16 273:1
146:16 152:6	nos 203:3 274:4	nuances 514:13	462:20	326:6 331:1
154:19 155:14	NOSB 3:21 5:22 6:5	number 28:21	nutritionally	359:22 360:7
156:3,6 159:16	6:6,10 7:10 9:15	41:19 43:3,16 45:5	233:13 304:5	464:7,10
161:5 164:17	10:1,1,10 11:11,15	70:6,7,19 82:22	nutritionist 348:20	oceans 326:4
	1	1	1	1

OCIA 440:7 441:1	318:19 351:13	314:10 315:7	512:12 513:14	499:18 517:4
441:12 442:3	389:22 482:19	317:22 325:7	Onee 93:6	521:19 533:12
octanoate 196:11,11	483:10 490:9	331:21 341:18	ones 22:14 24:13	operations 77:5
201:21,22 202:17	545:3	352:4,16,16	40:20 41:8 73:3,4	103:18 105:9
202:20 499:11,13	oils 234:1,1,6	381:18 383:14	74:20 84:2 126:12	103.18 103.9
500:17 504:2	235:15 339:5	386:7 388:9	128:15 148:8	121:21 155:21
October 261:18	okay 5:16 11:14	391:10 397:7	154:5 236:14	249:15 308:7
oddity 193:12	13:2 14:13 27:8	403:1 406:10	324:7,16 329:15	532:6,12 534:1
odor 299:9	31:5 42:9 43:18	413:8 426:16	390:11 468:21,22	operator 158:18
offer 82:1,3 357:8	46:18 49:20 50:12	433:18 438:5	483:5 516:5	434:9
416:17 437:5	51:9 53:20 57:17	460:7 462:9	one-dimensional	operators 404:16
539:4	58:4,10 60:7 61:18	467:12 471:12	386:3	456:8
offered 312:6	62:4 65:5 67:4,11	483:3 485:13	one-item 219:15	opinion 18:4 94:17
358:10 374:15	67:18 70:7,7 75:7	487:5 489:8,17	one-time 221:22	94:20 103:4
offering 65:6	76:14 78:16 79:11	490:6 501:11	223:5,15 226:11	110:16 111:1,5,8
488:16	79:12 82:21 94:12	504:14 515:20	one-to-one 542:9,20	118:10 131:12
offhand 300:3,7	94:21 108:2	516:17 517:18	542:22 549:13	153:19 195:6
324:18	119:20 120:19	527:22 534:12	ongoing 19:10	205:19 208:12
officers 13:1,5,8,14	125:6 126:4	536:15 539:15	20:15 80:21 92:15	405:6 432:17
13:15,20 24:8,9,13	141:13 145:12	544:4 546:11	150:15 156:13	520:5 521:8
official 97:1 353:17	146:22 150:21	549:6	221:18 222:2	524:18
525:18	151:6 154:17	okays 199:22	538:8	opinions 49:14
officially 40:22 42:5	171:18 173:8	okra 294:13 295:10	online 319:16	52:19 95:13
Officials 350:14	171:18 173.8	295:13,14,19	onset 398:21	opportunities 17:20
351:19 469:13	185:21 189:1	296:13,17,19	on-farm 418:15	319:17 435:2,21
offshore 365:6	190:6 192:20	old 38:2 39:7,19	on-site 104:17	opportunity 10:15
OFPA 17:16 29:7	196:2 197:11	42:15 43:4,11 54:4	372:22 451:16	12:4,15 31:9 117:4
32:16 57:6 65:14	199:22 200:10,15	82:17 260:12	on-the-farm 319:13	118:8 119:6
75:15,16 81:7	201:13,19 210:13	261:2 280:10	on-the-ground	148:17 170:14
90:14,15 168:3	214:12 218:14	285:3 286:20	105:4	235:6 281:19
202:10,13 208:10	219:9 225:16	287:3 304:2	open 34:6 45:9 47:3	287:16 295:7,17
209:18 234:12,18	226:8 230:2,7,15	346:21 361:11	82:8 122:8 188:10	350:4,8 369:16
234:22 235:14,16	231:22 232:9,19	366:20 382:2	241:2 244:19	397:15 430:1
236:18,21 304:10	233:3,18 234:8	541:11	246:9 248:7,19	436:17,18 440:4
355:6,10 456:6	235:21 236:12	olive 58:19	323:1 333:5	445:10 463:1
535:6,9,17 536:5	237:15,19 238:22	omega-3 351:8,12	336:12 337:1,3	480:10 509:2,9
oh 69:5 76:17 77:9	241:2 244:12,22	omitted 334:19	484:5,9	520:12
300:15 312:2,12	246:20,20 250:1	OMRI 224:15 438:6	opening 84:20	oppose 545:1
433:18 497:1	250:13 262:12	473:10	openly 409:12	opposed 9:1 179:8
516:10	266:6,14 268:20	onboard 110:18	opens 56:11	235:19 379:21
oil 7:5 58:15,20,20	270:5 272:9,15	once 56:15 63:1	operate 143:2	393:14 513:1
79:15 87:3,5,7	275:21 276:8,8	65:22 85:6 113:8	operates 370:19	opposes 334:10
216:18 217:22	278:12,13 281:15	119:13 121:6	389:2 403:11	opposite 441:10
233:7,9,15,21	282:14 284:19	133:1 243:11	operating 142:11	opposition 338:11
235:15 236:17	291:19 292:3,14	255:8 273:9 280:9	321:5 346:10	opt 307:17
237:3 239:12,16	293:16 299:20	282:3 366:16,17	441:14 494:15	optimistic 522:8
267:12 279:11,22	300:13 301:7	368:11 395:6	operation 110:8	option 59:10,22
281:7 317:5	307:21 312:16	405:4 506:11	125:19 290:7	69:3 70:8,12 72:11
				<u> </u>

	I	İ		I
72:17 74:8,10 75:6	78:20 81:3 85:17	285:12,14 286:6	400:18,20 401:4	484:18,18 485:5,7
75:7,10,21 76:4	90:2 92:22,22	287:8,13,16 288:7	401:19 402:1,2,13	485:13,17,18
77:18 78:7 87:5	102:18 106:18	288:12,13 289:10	402:15 403:5	486:1,22 488:3,14
94:18 95:1,20 96:2	108:8,10 109:20	289:10,12 290:17	404:8 406:17,19	488:16,18 489:18
222:4 223:4	111:22 116:7,12	290:21 292:10,22	406:22 407:4,4,11	490:6 492:6
493:17 505:21	116:15 125:13	293:5,6 294:4,8,14	407:15,16,18,22	493:20 494:2,14
optional 550:17	129:17 135:6	294:18 295:5,9,13	408:3,6,7,11,13,20	494:20,20 495:22
options 50:2 59:16	137:20 138:7,22	295:14,17,19	408:21 409:1,5,16	498:19,20 499:4
69:2 72:8 85:8	143:15 144:3,5,5,6	296:2,8,17 297:5	409:18 411:8,17	503:5 504:19,20
94:17,20 95:17	144:8,13 148:2	301:7 302:21	411:21 412:1,16	504:21 506:3,6
214:3 216:16	150:11,22 152:3	303:4,11,22 304:1	412:17,18 414:11	507:22 508:9,20
217:1 220:15	152:17,22 153:1,8	304:3 306:9,11	414:16 415:1,16	509:10 510:7,20
221:6 290:19	153:13,15,17,21	307:9,14 308:7	416:2 417:8,19	510:21 511:2,4,7
orange 276:3	154:4,4,6,8,22	309:10,11,18	418:11,13,19,22	512:21 513:15,15
282:16 283:2,5,22	155:7,10,20 156:2	311:3 327:18	419:4,6,7,8,10	513:17,20 514:1,2
284:9 285:2,12,12	156:4,12,14,17	328:1 329:9,17	420:1 421:2,4,11	514:14,15,18
285:14 286:5,6,14	157:5,7 158:4,7,11	335:14,17,18	421:14,14,22	515:10,17 517:3
286:17 287:1,22	158:16 159:2,5,8	336:5,6 337:6,20	423:1,19 424:3,4,5	517:20 518:2,6
288:21 289:3,9	159:10,12,20	337:22 338:4,10	424:8,20,21 426:8	520:8,19 522:2
292:22 295:20	160:15,17,21	338:16,20 339:10	427:4,10,15,18,19	524:22 528:5
296:19 297:13	162:2,2,8 163:15	339:17,22,22	428:1 429:16,19	529:16,17,20
299:4 507:6,7,8	163:21 165:4,7,9	340:15,20 341:3	430:3,3,14,20,21	530:4,9,11,18,20
oranges 283:22	166:11 168:1,7,13	342:7,14 343:4,5,5	431:14,16,16	531:6 532:14,15
289:19 290:10	168:13 169:8,17	343:8,22 344:5,7	432:10,13,13	532:19,22 533:16
296:18,18 297:5	171:2,4,8,14	344:13,14,22	434:1,6,7 436:7	534:13 537:13
orchard 370:20	173:16 174:2,7,16	345:9,16,22 346:4	438:1,8 439:6	538:1,2,8 539:2
373:22	175:5,20 178:12	347:1 348:1 349:8	440:5 441:3,4,8,17	547:19
orchards 538:7	179:21,22 181:15	350:4,10 356:10	441:18,21 443:18	organically 152:19
order 8:12 75:8	187:17 202:5	356:14,19,20,22	443:22 444:2,3,5	153:14 156:9
105:20 169:20	212:20 213:16	357:1,5 358:2,8	444:12 445:20,20	171:6 270:2
177:18 237:11	215:4 216:10	359:3 361:21	446:2,4,21 447:1,5	278:21 283:17
269:18 296:16	217:2 219:13	364:9,15,18	447:10 448:3,8,16	288:21 308:11,12
343:11 453:22	221:3 228:8	365:17 369:14,15	449:4,7,7,16,20,21	411:3 413:4
454:15 537:6	230:21 233:8,22	369:19 370:16,21	450:1,4,9,12,19,21	415:19,20 424:10
ordinarily 352:12	235:4,9 236:22	371:1,2,8,9,13,16	451:1,4,7,7,14	434:21 442:1
ordinary 514:21	237:7 238:20	371:19,21 372:3,8	452:8,9,18,22	449:16 485:12
Oregon 71:22	240:11,22 243:20	372:9 374:18	453:3,7,12 454:6	489:16 508:1,5
347:22 353:5,10	246:5 247:20	375:4,8,13,16,22	454:10,10,13,14	organics 92:8 246:3
353:22 357:14	254:3 255:5 256:3	376:1,1,5,7,9,11	454:16,22 455:8	341:14 346:12
397:20 398:3,10	256:8,14,16,18	376:14,18 377:4	456:7,10 457:4	352:18 417:18
402:5	257:6 261:10	378:15,22 379:1,9	459:1,7 460:6,15	431:6
organic 1:3 7:13,21	268:9,11,12 271:5	380:13 381:10,13	462:21 463:22	organic-first 483:20
23:2 45:6,12 47:2	271:9,10 273:20	381:20 383:18	464:1 468:2 469:9	organism 53:1 55:4
47:20 51:11 52:1,3	275:16 277:7,11	386:6 388:18	472:21 475:13	58:11 62:6 66:19
52:6 54:20 58:12	277:13 278:8	391:17,19 393:13	479:3 481:17	67:1 80:14 354:12
59:9 68:20,22 71:4	279:10 280:16	394:15 396:10,21	482:5,9,10,22,22	464:17 535:2
71:12,15 73:12,13	281:6 283:21	397:13 398:11,13	483:4,11 484:3,5,9	organisms 56:5,13
74:18 75:3 77:4	284:1,8 285:2,5,8	398:16 400:15,16	484:12,15,15,16	66:10 203:21
		<u> </u>		l ————————————————————————————————————

204:2 354:22	outgas 386:12	P	476:9,15 479:15	324:22 337:15
356:7	outline 15:19		481:1	423:13 430:15,19
organization	outlined 15:6 16:10	pace 396:14,17	paperwork 435:17	450:22 451:5,6
112:15 118:16	350:13	Pacific 187:6 248:9	447:7 450:22	458:8 469:9
126:13 419:11	outlines 13:19 14:16	272:18 273:1	paper's 477:6	490:18 492:10
429:21 475:9	16:4,17 181:22	336:13 359:22	paradigm 82:14	494:19 503:15
479:9	outlook 325:12	360:7 370:5 372:2	90:15 468:7	507:6,7
organizational	outset 340:21	376:8 390:11	paragraph 119:1	participants 48:4
403:15	outside 29:15 30:7,9	pack 372:7 395:6	123:14,16,21	participants 45:9
organizations	32:9 33:7 105:4	package 302:3	498:12	49:17
118:15 164:8	110:19,22 111:3	348:9	parallels 181:11	participated 98:8
331:9 510:22	127:8 136:3	packaged 115:6 273:2 456:21	paramount 233:18	98:14,15 101:15
organization's	144:22 310:15		239:6	participation 47:2
137:19 478:10	311:5 399:12	packaging 452:17	parentheses 188:21	85:4
orgg 280:20	528:21 534:22	packed 371:20 packer 372:21	parenthetical	particular 23:3
origin 52:13 70:20	535:20	packing 369:22	199:12	26:13,18 41:15,15
524:2	overall 25:3 151:12	370:6 371:8,9,13	parliamentary	45:1 77:17 97:14
original 25:20 26:11	174:21 421:14	packs 370:22	37:20 38:19,19	103:4 113:11
26:12 27:7,16,21	530:12 531:3	page 34:22 35:2,3	39:4	128:7 134:3 157:7
46:19 185:12	overburdensome	59:16 62:2 119:7	parse 65:16	167:11 176:10
192:21,22 199:3	36:11	120:4,18 123:6,15	parsed 305:12	185:4 208:5
200:1 202:10	overengaged 541:1	124:20,21 154:17	parsing 305:10	262:17 276:16
206:17 221:15	overly 132:20	160:7,8 168:19	part 4:12 5:8,11 9:2	284:4 319:9
346:19 353:21	438:20 439:1	277:4,21,21 280:9	13:13,15,18 17:14	322:20,21 323:15
462:2	520:1	307:18 310:17	17:21 18:2 44:13	469:18
originally 112:6	overriding 169:16	325:21 516:17,20	44:13,13 50:17	particularly 12:3
189:17 229:10	overseas 137:1	pages 48:16 106:2	54:15 57:22 60:19	119:4 151:22
262:10 345:1	oversight 124:13	250:20	62:22 65:11,13	166:22 182:7
474:12 491:12	546:21	paid 365:22 515:3	66:6 69:11,14 70:1	207:9 252:12
originate 66:7	overview 151:13	pain 162:16,18	74:17 83:10,20	399:19 417:12
ornamental 212:3	161:21	166:20 182:4	88:22 91:15 92:1	421:1 426:9
216:1	overwhelmingly	427:13	94:4 99:14 100:4	partly 123:4
OSGATA 419:3,5	336:4 340:16	painting 366:21	102:7,11 104:14	partners 165:16
OSP 123:15 142:10	owned 541:12	pair 138:20	112:8 127:7	partnership 247:19
142:11,12 143:2	owner 453:11	paired 538:11	133:22 135:12	partnerships
146:7 182:16	owns 370:19	pal 550:21	140:15,17 142:13	324:20
429:14 432:4	Owsowitz 419:17	pander 514:7	142:15 143:11	parts 17:7 78:9
495:4,7	oxide 362:18	panel 36:18 85:1	147:7 148:10	99:16 149:17
Ostiguy 186:15	oxygen 394:18,19	536:4	152:14 155:13	362:14 365:4
205:12 OTA 49:7,8	oxytetracycline	panels 534:13	156:6 157:17,19 161:8 167:1	368:15,16 400:9
· · · · · · · · · · · · · · · · · · ·	185:3,13,15	panic 276:5		520:2 522:18,18
OTCO 55:19 other's 537:6	188:21 o'clock 100:11	papaya 368:17	182:20 199:16 200:14 209:11	party 30:9 37:6 143:14 160:12
ourself 456:10	210:15,17,20	paper 10:12 47:14	215:6 224:17	438:6 486:8
outcome 49:12,18	250:8 550:14	59:15 68:13	233:20 236:16	534:21
116:3 167:17	551:8	381:11,20 382:3,5	239:17 243:8	pass 137:3 190:11
493:13	O'Rell 48:12	382:9,13,14	280:5 287:14	207:6 212:18
outer 276:15	O KUI TU.12	392:17 446:14	312:18 313:17	242:8 271:15
	<u> </u>	<u> </u>	312.10 313.17	2 12.0 2/1.13

202.10	201.10.10.21	! 170.67		490.0 501.4 5
283:10	391:19,19,21	penalize 178:6,7	people's 333:3	489:9 501:4,5
passed 186:11	392:7,16 393:2,4	penalties 532:5	pepper 276:2	505:2,6 506:10
206:18 207:3	394:10,22 395:2,3	penalty 532:20	278:14 279:10,16	530:11,18,20
208:4 231:8,17	395:6,11,13,16,18	pending 44:2	279:21,22 281:7,7	531:6 544:17
261:20 264:8	396:2,5,12 397:6	117:20	peptin 50:19	percentage 116:7
428:18 429:21	397:13,19 398:1,4	pens 230:18 239:22	Perault 498:14	121:7 127:18,19
477:3	398:6,8,11,16	241:4 243:8,21	perceive 345:4,5	155:8,12 158:16
passing 272:5	399:14,19,20	244:4,5,7,8,11,19	438:13	159:4 170:3,8
passive 222:9	400:5,9,11,13	244:21 245:16,18	perceived 205:8,18	173:8 176:2
pastas 282:19	401:1	245:20 246:8,11	345:14	285:13 292:20
pasture 172:9,10	pears 200:7 266:20	247:11 249:4	percent 52:2 59:21	322:20 407:18
308:18 346:2,20	267:3 268:9,10,13	323:1 543:17	68:21 77:3 92:21	412:16 422:14
461:2,13 472:2,4	362:11 363:15	545:17	93:1 101:11	459:1
519:14 520:3	364:10,13,16,19	people 11:13 12:3,3	113:17,19 115:5	percentages 116:15
521:15 523:6,10	365:6,10,14 367:8	26:17 27:6,9 31:17	116:12,13 120:22	120:8,8 172:4
523:12 531:21	367:14 368:17	33:1 45:6 48:18	121:14 127:16	436:5 450:18
Pasturing 522:14	369:1,19 370:12	50:5 53:22 62:19	143:16 144:1	perception 110:11
pasty 363:4	371:3,8 372:8,12	63:7,11,14 67:15	147:16 172:12,13	perceptions 513:21
Pat 48:12	372:17 373:7,12	83:2 87:10 89:11	173:5 174:6,15	percolate 22:8
patents 297:15	373:17,20,22	92:21 95:5 96:14	224:20 236:21	perfect 416:7
506:19	374:5,21 375:3,14	99:16,18 102:5,12	237:7 245:7,12	461:13
pathway 153:9	375:17 376:11,18	127:3 131:4,18	263:4,5 287:10,15	perform 31:19 32:1
patience 550:6	377:18 378:2,4,12	132:2 141:4,11	289:10 293:4	535:11
Patti 491:6 504:15	378:16 379:7,8,9	151:15 154:9	319:4 322:13,19	performance
504:18	379:11,13 380:3,4	165:18 171:14	323:15 336:4,6,10	239:21 240:2
pause 67:11 314:9	380:6,6,17 381:3	180:4 183:4 187:1	337:19,22 338:10	245:4 319:1,10,13
pay 135:17 339:18	382:16 385:10	211:15 213:17	339:22 340:4,11	331:3,5,10,12
339:19 344:3	386:1 390:14	225:17 240:8	341:16 342:14	546:13,16 547:1,2
479:3 532:20	392:5,6,11,19	244:14 245:6,8,11	343:17,19 347:1	547:7 548:1,3
PCBs 317:1	393:14,20 394:8	246:4,7,14 252:12	349:14 350:5,7	perimeters 212:3
PCO 72:1	394:11,14,14,19	255:2,22 256:6	370:6 372:9 387:6	period 127:14 157:1
PCOs 495:16	394:20 396:8,20	258:2 271:17	398:4,6,8 402:3	165:5 168:8
pear 187:5 363:12	396:21 397:1,17	297:18 298:10	404:19 405:1	178:13 254:2
363:14,22 364:21	398:16,19 399:6	301:16 302:21	407:15 412:7	268:1 284:4 345:1
365:3,18 366:12	399:10 402:7,13	303:1,22 306:5	414:8,17 415:13	378:8 380:14
367:2,21 369:14	529:10,12 539:13	310:1 312:16	415:14 432:12,15	381:17 393:5,6,15
370:5,7,9 371:6	Pearson 48:13	313:7 318:15	434:7 436:7,9,9,10	393:22 394:6
372:3,9,15,21	pear's 400:11	326:20 328:2,9,17	445:20 450:1	396:1 405:4
373:5,9,15 374:13	pectin 69:21 549:17	334:9 339:2 342:4	452:18,19 453:3,7	503:20 522:20
374:15,22 375:1	peer 536:4	342:7 368:6 390:5	453:12 454:10,13	545:2,3
375:11,18 376:8	pelargic 547:15	390:19 419:15,16	454:16,22 455:7	periodic 234:19
376:14 377:5	pelargonic 211:6,21	431:20 484:2	455:15 456:10,20	perishable 499:15
378:6,17 380:4,8	216:15 539:1	485:22 487:13	457:4,20 458:18	500:1,14
380:12,13,13	pen 248:11 249:1	489:20 492:21	459:7,9,13 460:1,4	permission 434:19
381:10,13,19,20	317:16 326:6,9,17	512:19 513:10	460:6 464:14	434:20
382:3,5,7,10,20,22	329:20 330:13	516:2 527:15	466:11,14,17,19	permitted 158:13
383:5,7,7,10,13	332:7 333:5 337:1	531:10 533:17	466:19 485:15	434:2,4
384:21 386:14	546:1,2	545:5	488:6,14,16,18,21	permitting 472:20

perpetuity 178:8 persovere 355:22 185:2 188:15.17 person 11:17 21:16 192:12.13.22 24:19 170:13 179:6 186:14 194:2 195:4,9 185:1,11,11.9 personal 95:12 199:3,31.2 200:2.6 personal 95:12 219:12 200:15 253:10 377:12 215:2 253:15 256:2 1256:2 270:5,18 271:2,7 276:17 379:5 255:2 1256:2 270:5,18 271:2,7 276:17 379:16,19 personal 11:17 21:16 215:2 235:15 270:5,18 271:2,7 276:17 379:16,19 275:13 287:10,19 275:13 287:19 276:13 33:4,13 34:53:10 277:18 278:10,19 personal 95:12 276:13 377:5,10 276:13 379:14 275:13 287:19 276:13 377:5,10 276:13 379:14 276:13 376:3,10 379:16 277:18 278:10,18 276:12 30:22 129:1 280:6 282:16 230:21 29:11 280:6 282:16 230:21 29:12 280:6 282:16 230:21 29:12 280:6 282:16 230:21 30:21 230:3,18,21 303:5 223:8,17 260:15 238:1,3 484:11 221:2 224:7 222:6 228:1,2 54:11 21:12 221:10 221:6 232:21 334:11,12 239:13 334:13 343:11,12 239:17 89:17 89:9 308:10 309:18 308:10 309:18 308:10 309:18 310:6,10 311:7 312:21 334:11,12 271:7 272:22 233:17 274:22 233:41:19 271:7 272:22 233:19 33:11 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271:7 272:22 233:11 271	permutations 98:13	26:11,12 33:12	498:2 534:22	physiologically	273:13,15 314:7
Persevere 355:22 185:2 189:15,17 190:17,22 191:13 190:17,22 191:13 190:17,22 191:13 190:17,22 191:13 190:18,19,19 190:2 1,12 200:2.6 130:13 291:17 201:21 200:2.6 130:13 291:17 201:21 200:2.6 130:13 291:17 201:21 200:2.6 130:13 291:17 201:21 200:2.6 130:13 291:17 201:21 200:2.6 130:13 291:17 201:21 200:15 258:11,11 267:2 258:11,11 267:2 255:21 256:2 257:5.18 277:5.10 277:18 278:10,18 292:4.48:11.0,11 292:13 200:2.6 292:10 231:10 292:12 231:10 292:12 231:10 292:12 231:10 292:12 232:12 291:1 280:62 282:16 280:17 375:16,19 281:11 292:18 333:18 41:19 376:3.10 397:16 pertain 469:1 228:9.13 484:11 pertain 469:1 pertai	_	*			
persistence 417:15 190:17.22 191:13 petitioner's 273:11 pick 83:11 36:17 placing 404:10 plan (4:19) 15:2 24:19 170:13 179:6 186:14 194:2 195:4.9 193:18,19,19 242:5 269:12 366:17 16:6 83:11 36:17 22:10 23:11,13 541:9 198:5,11,14,19 509:13 276:17 379:5 136:10 306:22 108:10 143:15 136:10 306:22 108:10 143:15 238:12 253:8 22:10 23:11,13 23:11 25:3 23:11,12 30:16 238:12 253:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:12 25:8 23:17 24 447:1,11 45:14 47:1,11 45:14 47:1,11 45:14 47:1,11 45:14 47:1,11 45:14 47:1,11 45:14 47:1,11 45:14 47:1,11 45:14 47:1,11 45:14 47:1,11 45:14 47:1,11 45:14 47:1,11 45:14 <td>2 2</td> <td></td> <td>_</td> <td></td> <td></td>	2 2		_		
person 1:17 21:16 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 193:19, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 1919 193:18, 193:18, 1919 193:18, 193:19, 193:18, 193:19, 193:19, 193:18, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193:19, 193	_	,			
24:19 170:13	_	· · · · · · · · · · · · · · · · · · ·	1 -		
179:6 186:14	_		_	-	_
341:12 49:21 197:13,18 198:1,3 509:13 509:13 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,6 199:23,112 200:2,1 199:23,112 200:2,1 199:23,112 200:2,1 199:25,16,18 199:25,16,18 199:25,16,18 199:25,16,18 199:25,16,18 199:25,16,18 199:25,16,18 199:25,16,18 199:25,16,18 199:25,16,18 199:25,16,18 199:25,16,18 199:25,16,18 199:25,12,13 10,18 199:25,12,13 10,18 199:25,12,13 10,18 199:29,12 199:25,14 199:18,12 12,14 199:18,14 199:18,14 199:18,14 199:18,14 199:18,14 199:18,14 199:18,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14 199:19,14		, ,			,
541:9 198:5,1,1,4,19 509:13 picking 510:16 219:1/231:6 130:13 291:17 201:21 202:15 383:19 377:12 215:2 253:15 39:19 42:15 43:4 picking 510:16 238:12 253:8 personally 124:16 215:2 253:15 39:19 42:15 43:4 picture 54:4,5 402:6 446:21 447:1,11 451:14 275:22 128:1 267:15 269:15 258:11,11 267:2 298:17,127 258:14,10,17,18 picture 54:4,5 247:11 450:10 picture 51:4 53:13 452:8 479:9 personal 9:14:16 277:18 278:10,1274:1 269:20,20 274:9 229:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 249:10 256:6 54:17 242:11 45:4 54:17 242:11 45:4 54:17 242:11 42:4 5		,		, -	
personal 95:12 199:2,3,12 200:2,6 petitions 23:1,5 picks 389:14,15 238:12 253:8 130:13 291:17 201:21 202:15 383:9,17 39:7,15 383:9,17 39:7,15 picture 54:4,5 402:6 446:21 personally 124:16 258:11,11 267:2 194:19 253:16,18 pictures 51:4,53:13 452:8 479:9 255:21 256:2 270:5,18 271:2,7 259:4,4,10,17,18 53:21 177:4 494:21,21 495:4 518:14 548:15 273:10 274:1 269:20,20 274:9 249:10 256:6 504:22 533:16 518:14 548:15 273:10 274:1 269:20,20 274:9 249:10 256:6 504:22 533:16 518:14 62:10 277:18 278:10,18 292:4 481:10,11 388:18,19 425:5 462:7 542:5 504:22 533:16 320:21,1,2 329:18 283:20 292:7 278:19 279:12 481:15 490:19 425:9 462:7 542:5 plams 14:12,15 22:5 333:4 353:10 298:9 357:19 227:13,14 228:2 picces 384:3 510:17 plams 14:12,15 22:5 332:18 413:19 369:17 375:16,19 228:17.21 phase-in 545:2 picces 384:3 510:17 46:8 108:9 138:7 382:18 473:19 464:3 465:3,5,17 46:11 46:11		· · · · · · · · · · · · · · · · · · ·			
130:13 291:17 201:21 202:15 38:3 9,17 397.15 picture 54:4.5 447:1,11 451:14 452:10 255:11 256:2 270:5,18 271:2,7 273:10 274:1 269:20,20 274:9 249:10 256:6 274:11 282:13 277:18 278:10,18 277:18 278:10,18 277:18 278:10,18 277:18 278:10,18 277:18 278:10,18 277:18 278:10,18 277:18 278:10,18 277:18 278:10,18 292:4 481:10,11 388:18,19 42:5.5,6 perspective 31:20 280:6 282:16 283:20 292:7 278:19 279:12 280:6 282:16 283:20 292:7 278:13 279:12 278:13 29:18 335:30 337:19 278:13 29:18 335:30 337:19 278:13 29:18 276:17 20:15 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13 29:18 278:13					
353:10 377:12 215:2 253:15 39:19 42:15 43:4 174:21 450:10 447:1,11 451:14 personally 124:16 258:11,11 267:2 258:11,11 267:2 194:19 253:16,18 253:21 177:4 452:8 479:9 255:21 256:2 270:5,18 271:2,7 269:4,4,10,17,18 269:20,20 274:9 249:10 256:6 490:22 533:16 518:14 548:15 277:18 278:10,18 277:18 278:10,18 272:11 282:13 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 388:18,19 425:5,6 447:5,411 451:14 466:12 49:10,11 447:5,411 451:14 459:462:7 542:5 544:17 piece 46:9 198:22 49:10 256:6 249:10 256:6 447:1,11 451:14 504:22 533:16 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 345:11 76:10 447:1,11 451:14 504:22 533:16 447:1,11 451:14 504:22 533:16 504:22 533:16 447:1,11 451:14 504:22 533:16 447:1,11 451:14 504:22 533:16 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3 345:19 368:3	_		_	1 -	
personally 124:16 258:11,11 267:2 194:19 253:16,18 pictures 51:4 53:13 452:8 479:9 255:21 256:2 270:5,18 271:2,7 269:4,4,10,17,18 53:21 177:4 494:21,21 495:4 255:21 256:2 270:5,18 271:2,7 269:20,20 274:9 249:10 256:6 544:17 518:14 548:15 273:10 274:1 269:20,20 274:9 249:10 256:6 544:17 persons 10:14 11:12 275:13 277:5,10 277:18 278:10,18 292:4 481:10,11 345:19 368:3 345:19 368:3 perspective 31:20 278:19 279:12 280:6 282:16 pets 349:20 425:9 462:7 542:5 planning 42:22 320:11,12 329:18 383:18 413:19 369:17 375:16,19 2227:13,14 228:2 picces 384:3 510:17 449:13 447:5 49:15 383:18 413:19 369:17 375:16,19 2227:13,14 228:2 piggy-backed plans 14:12,15 22:5 46:8 108:9 138:7 pertine 277:22 pertine 277:22 pertine 277:22 phase-in 54:2 piggy-backing pire 86:18 pire 86:18 407:17 411:3 221:2 224:7 225:2 228:1,3 484:11 pertice 222:6:611 philosophical 5:14 pile 86:18 441:3 349:11				1 -	
174:22 218:1 267:15 269:15 254:17,19 255:3 53:21 177:4 494:21,21 495:4 255:21 256:2 270:5,18 271:2,7 269:20,20 274:9 249:10 256:6 544:17 persons 10:14 11:12 275:13 277:5,10 274:11 282:13 249:10 256:6 544:17 persons 10:14 11:12 275:13 277:5,10 274:11 282:13 345:19 368:3 388:18,19 425:5,6 491:13 292:4 481:15 490:19 425:9 462:7 542:5 491:13 292:19:1 280:6 282:16 298:9 357:19 238:20 292:7 248:15 490:19 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:17,21 228:18,369:21 221:2 224:7 225:2 54:11 211:21 221:2 224:7 225:2 54:11 211:21 221:2 224:7 225:2 228:8,13 484:11 223:8,17 260:15 223:8,17 260:15 223:8,17 260:15 223:8,17 260:15 233:11,22 304:4,5 302:3,18,21 303:5 303:11,22 306:1 303:11,22 306:1 303:11,22 306:1 303:11,22 306:1 303:10,309:18 308:10 309:18 308:10 309:18 308:10 309:18 308:10 309:18 308:10 309:18 310:6,10 311:7 334:19 347:19 349:7,13 283:15 285:20 270:6 281:5 270:16 334:1,320,21 334:1,132 279:6 281:5 270:61 283:14 382:13 334:11,12 277:7 272:22 334:19 347:19 347:19 349:7,13 283:15 285:20 279:6 281:5 270:61 283:14 283:15 285:20 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5 279:6 281:5					
255:21 256:2 518:4 548:15 270:5,18 271:2,7 273:10 274:1 273:10 274:1 273:10 274:1 26:0,20 274:9 275:13 277:5,10 274:11 282:13 275:13 277:5,10 277:18 278:10,18 292:4 481:10,11 481:15 490:19 233:22 129:1 280:6 282:16 283:20 292:7 283:28 292:7 283:28 292:7 283:28 292:7 283:28 292:7 283:18 413:19 369:17 375:16,19 340:13,14 221:2 246:3,10 397:16 401:9 463:4,11,20 278:13,14 228:2 283:10 256:1 227:13,14 228:2 288:17.21 298:9 357:19 227:13,14 228:2 288:17.21 298:9 357:19 227:13,14 228:2 298:9 357:19 227:13,14 228:2 298:9 357:19 227:13,14 228:2 298:17.21 298:9 357:19 227:13,14 228:2 298:17.21 298:9 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:16,19 369:17 375:17 369:17 369:17 369:17 369:17 369:17 369:17 369:17 369:17 369:17 369:17 369:17 369:17 36	_	· ·	*	, -	
518:14 548:15 273:10 274:1 269:20,20 274:9 249:10 256:6 544:17 544:17 planning 42:22 apersons 10:14 11:12 277:18 278:10,18 292:4 481:10,11 345:19 368:3 345:19 368:3 491:13 perspective 31:20 278:19 279:12 280:6 282:16 481:15 490:19 425:9 462:7 542:5 planning 42:22 320:11,12 329:18 283:20 292:7 283:20 292:7 7Peifer 226:1 Pierce 108:17 144:13 333:11 333:4 353:10 298:9 357:19 227:13,14 228:2 228:17.21 piggy 205:21 447:5 494:15 383:18 413:19 376:3,10 397:16 pH 41:6 205:17 55:22 65:17,19 pertain 469:1 401:9 463:4,11.20 phase-in 545:2 plase-in 545:2 piggy-backing 178:3 234:1 275:3 pesticide 219:10,14 503:13 509:7,12 pettitioned 33:6,21 phromone 222:9 phlosophicall 55:14 pile 86:18 407:17 411:3 228:1,7 222:2 223:8,17 260:15 359:6 463:15 phone 45:13 phone 45:13 pink e 70:11 pink e 70:11 pink e 70:11 48:12 49:13 471:4,22 21:17 223 04:4,5			ŕ		
persons 10:14 11:12 1:14 62:10 275:13 277:5,10 277:18 278:10,18 292:4 481:10,11 388:18,19 425:5,6 491:13 278:10,18 278:19 279:12 481:15 490:19 pets 349:20 pets 349:20 345:19 368:3 345:10 382:48 413:19 369:17 375:16,19 541:14 376:3,10 397:16 pertain 469:1 pertain 469:1 pertinent 277:22 464:3 465:3,5,17 pertinent 249:4,7 Peshastin 369:21 pesticide 219:10,14 221:2 224:7 225:2 228:1,5 444:9 541:12 petitioned 33:6,21 228:1,5 444:9 228:1,5 444:9 266:18 276:1 peti 303:3,18,21 303:5 303:1,22 304:4,5 303:1,22 304:4,5 303:1,22 304:4,5 303:1,22 304:4,5 303:1,23 306:1 307:1,0,17 305:12 306:1 307:9,14 308:2,8 308:10 309:18 308:10 309:18 308:10 309:18 308:10 309:18 308:10 309:18 310:6,10 311:7 312:21 334:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 273:34:11,12 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 271:2 2		, , ,		1 -	
11:14 62:10			, ·		
perspective 31:20 278:19 279:12 481:15 490:19 425:9 462:7 542:5 plans 14:12,15 22:5 32:21 129:1 280:6 282:16 283:20 292:7 Pfeifer 226:1 pieces 384:3 510:17 46:8 108:9 138:7 333:4 353:10 298:9 357:19 227:13,14 228:2 piggy-backed 144:13 333:11 383:18 413:19 369:17 375:16,19 228:17,21 piggy-backed plant 41:6 54:14 541:14 376:3,10 397:16 phase 321:2 358:11 piggy-backed plant 41:6 54:14 pertinent 277:22 464:3 465:3,5,17 phase 321:2 358:11 piggy-backed plant 41:6 54:14 pertinent 277:22 464:3 465:3,5,17 phase 321:2 358:11 piggy-backed 205:17 pertinent 277:22 496:1,9,9 497:21 phase -in 545:2 phase-out 237:10 pile 86:18 407:17 411:3 pesticide 219:10,14 221:2 224:7 225:2 223:8,17 260:15 249:11 30:3 322:6 421:17 423:19 228:1,5 444:9 260:18 276:1 213:6 222:6,11 philosophical 55:14 pineapple 366:16 366:17 368:8,10 349:14-40:18 303:11,22 304:4,5 303:1,22 304:4,5 39:	_	•			
32:22 129:1 280:6 282:16 320:11,12 329:18 288:20 292:7 333:4 353:10 298:9 357:19 227:13,14 228:2 228:17,21 229:13 333:1 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:5 494:15 447:15 447:13 447:5 494:15 447:13 447:13 447:13 447:13 447:13 447:14 457:12 447:13 447:13 447:14 457:12 447:13 447:14 457:12 447:13 447:13 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:14 447:		•	,	, , , , , , , , , , , , , , , , , , , ,	
320:11,12 329:18 283:20 292:7 298:9 357:19 227:13,14 228:2 piggy 205:21 pjagy-backed pjant 41:6 54:14 205:17 55:22 65:17,19 pjagy-backing 178:3 234:1 275:3 362:1,3 399:4 401:9 463:4,11,20 pertiant 469:1 401:9 463:4,11,20 phase 321:2 358:11 pjagy-backing 178:3 234:1 275:3 362:1,3 399:4 407:17 411:3 pjagy-backing 178:3 234:1 275:3 362:1,3 399:4 407:17 411:3 pilesticide 219:10,14 221:2 224:7 225:2 25:21 pilesticide 219:10,14 221:2 224:7 225:2 223:8,17 260:15 pilosophical 55:14 129:1,21 130:3 36:17 368:8,10 349:46:40:2 240:18 349:4,5 302:3,18,21 303:5 303:11,22 304:4,5 302:3,18,21 303:5 303:11,22 304:4,5 303:11,22 304:4,5 304:7,10,17 39:17 185:9 photosynthesizes 308:10 309:18 309:18 309:18 309:18 310:6,10 311:7 310:6,10 311:7 310:21 334:11,12 334:11,12 334:11,12 334:11,12 334:11,12 334:11,12 334:11,12 334:11,12 334:11,12 334:11,12 349:7,13 283:15 285:20 physically 283:8 physically 283:8 physically 283:8 plant-based 234:1 places 72:10 123:7 plant-based 234:1					
333:4 353:10 298:9 357:19 227:13,14 228:2 piggy 205:21 447:5 494:15 383:18 413:19 369:17 375:16,19 228:17,21 piggy-backed plant 41:6 54:14 pertian 469:1 401:9 463:4,11,20 phase 321:2 358:11 phase 321:2 358:11 piggy-backing 178:3 234:1 275:3 pertinent 277:22 464:3 465:3,5,17 phase -in 545:2 phase -in 545:2 <td< td=""><td></td><td></td><td></td><td>, -</td><td></td></td<>				, -	
383:18 413:19 369:17 375:16,19 228:17,21 piggy-backed plant 41:6 54:14 541:14 376:3,10 397:16 pH 41:6 205:17 55:22 65:17,19 pertian 469:1 401:9 463:4,11,20 phase 321:2 358:11 piggy-backing 178:3 234:1 275:3 pertinent 277:22 464:3 465:3,5,17 phase-in 545:2 205:21 362:1,3 399:4 pesticide 219:10,14 221:2 224:7 225:2 54:11 211:21 philosophical 55:14 322:6 421:17 423:19 pesticides 213:822 223:8,17 260:15 philosophical 55:14 129:1,21 130:3 366:17 368:8,10 344:6 450:5 219:17 222:6 260:18 264:3 347:8 jilosophicall 55:14 399:8 401:4 451:21 464:22 228:1,5 444:9 266:18 276:1 philosophy 122:12 phone 45:13 399:8 401:4 451:21 464:22 500:31,23 03:5 357:20 358:21 phone 45:13 74:3,17 77:4 143:4 486:12 pettioner 38:15 pohosynthesizes 270:16 357:7 360:6 425:3 450:8 308:10 309:18 198:4,8 200:10 54:14 270:12 415:22 465:8,10 359:5 361:22	· ·				
541:14 376:3,10 397:16 pH 41:6 205:17 55:22 65:17,19 pertain 469:1 401:9 463:4,11,20 phase 321:2 358:11 piggy-backing 178:3 234:1 275:3 pertinent 277:22 464:3 465:3,5,17 phase-in 545:2 pile 86:18 407:17 411:3 pesticide 219:10,14 petitioned 33:6,21 philosophical 55:14 pin 291:16 321:21 413:3 419:13 pesticide 219:10,14 petitioned 33:6,21 philosophical 55:14 pin 291:16 321:21 413:3 419:13 pesticides 138:22 223:8,17 260:15 philosophical 55:14 129:1,21 130:3 366:17 368:8,10 444:6 450:5 pet 300:21 301:21 357:20 358:21 philosophically 399:8 401:4 451:21 464:22 228:1,5 444:9 266:18 276:1 295:3 456:6 525:6 phone 45:13 phone 45:13 phosphate 490:17 place 20:6 59:14 plane 407:16 posticide 130:21 357:20 358:21 photosynthesizes 278:1 353:3 357:6 425:3 450:8 plane 407:16 202:3,18,21 303:5 359:6 463:15 phosphoric 41:5 phosphoric 41:5 phosphoric 41:5 249:14 259:14 429:15 425:3 450:8			· ·		
pertain 469:1 401:9 463:4,11,20 463:4,11,20 464:3 465:3,5,17 469:1,9,9 497:21 496:1,9,9 497:21 503:13 509:7,12 496:1,9,9 497:21 503:13 509:7,12 545:3 509:6,21 54:11 211:21 228:9,13 484:11 212:6 222:6,11 211:21 228:9,13 484:11 212:6 222:6,11 281:11 297:10 228:1,5 444:9 266:18 276:1 281:11 297:10 281:11 297:10 281:11 297:10 281:11 297:10 281:11 297:10 281:11 297:10 281:11 297:10 281:11 297:10 281:11 297:10 281:11 297:10 295:3 456:6 525:6 303:12,22 304:4,5 303:12,22 304:4,5 305:12 306:1 307:9,14 308:2,8 308:10 309:18 308:10 309:18 308:10 309:18 308:10 309:18 308:10 309:18 308:10 31:21 334:11,12 334:11,12 349:7,13 283:15 285:20 328:25 phase 321:2 358:11 phase in 545:2 phase-out 237:10 phase-out 237:10 phase-out 237:10 phase-out 237:10 phase-out 237:10 phase-out 237:10 phase-out 237:10 phase-out 237:10 phase-out 237:10 phase-out 237:10 phase-out 237:10 phase-out 237:10 phase-out 237:10 shase-out 237:10 phase-out 237:10 phase-out 237:10 shase-out 237:10 phase-out 237:10 shase-out 237:10 shase-o		•	· · · · · · · · · · · · · · · · · · ·	1 000	-
pertinent 277:22 perverse 149:4,7 464:3 465:3,5,17 496:1,9,9 497:21 503:13 509:7,12 posticide 219:10,14 221:2 224:7 225:2 228:9,13 484:11 posticides 138:22 228:9,13 484:11 posticides 138:22 229:17 222:6 226:6,11 posticides 138:22 229:17 222:6 226:18 266:18 276:1 post 238:1,5 444:9 266:18 276:1 post 300:21 301:21 302:3,18,21 303:5 303:11,22 304:4,5 305:12 306:1 307:9,14 308:2,8 305:12 306:1 307:9,14 308:2,8 305:12 306:1 307:9,14 308:2,8 305:12 306:1 307:9,14 308:2,8 305:12 306:1 309:18 310:21 336:1,3 296:10 309:18 310:21 334:11,12 271:7 272:22 349:7,13 phase-in 545:2 phase-out 237:10 pile 86:18 pin 291:16 321:21 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 413:3 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:13 419:1	pertain 469:1	· ·	_	piggy-backing	,
perverse 149:4,7 496:1,9,9 497:21 phase-out 237:10 pile 86:18 407:17 411:3 Peshastin 369:21 503:13 509:7,12 petitioned 33:6,21 petitioned 33:6,21 phromone 222:9 philosophical 55:14 322:6 421:17 423:19 421:17 423:19 228:9,13 484:11 212:6 222:6,11 222:8,17 260:15 philosophicall 55:14 366:17 368:8,10 344:6 450:5 444:6 450:5 228:1,5 444:9 266:18 276:1 281:11 297:10 347:8 philosophy 122:12 phore 45:13 phore 45:13 phore 20:6 59:14 74:3,17 77:4 143:4 469:13 471:4,22 46:12 planted 407:16 411:21 424:4,20 429:15 planted 407:16 411:21 424:4,20 429:15 planted 407:16 425:3 450:8 planted 407:16 425:3 450:8 429:15 planted 407:16 425:3 450:8 425:3 450:8 425:3 450:8 425:3 450:8 429:15 planted 407:16 425:3 450:8 425:3 450:8 425:3 450:8 425:3 450:8 425:3 450:8 425:3 450:8	_		_		
Peshastin 369:21 503:13 509:7,12 545:3 pin 291:16 321:21 413:3 419:13 pesticide 219:10,14 petitioned 33:6,21 545:3 pheromone 222:9 philosophical 55:14 322:6 421:17 423:19 221:2 224:7 225:2 54:11 211:21 212:6 222:6,11 129:1,21 130:3 366:17 368:8,10 444:6 450:5 228:17 222:6 260:18 264:3 347:8 philosophically 399:8 401:4 451:21 464:22 228:1,5 444:9 266:18 276:1 281:11 297:10 295:3 456:6 525:6 phone 45:13 Phone 45:13 phone 45:13 phone 45:13 phone 407:16 411:21 424:4,20 302:3,18,21 303:5 303:11,22 304:4,5 39:17 185:9 phosphate 490:17 phosphoric 41:5 photosynthesizes 270:16 357:7 360:6 425:3 450:8 plants 52:20 274:11 307:9,14 308:2,8 193:2 196:10 photosynthesizing 365:10 393:12 45:3 49:13 425:3 450:8 plants 52:20 274:11 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 34:19 34:19 34:19 348:1,3,20,21 279:6 281:5 physically 283:8	_			pile 86:18	· · · · · · · · · · · · · · · · · · ·
pesticide 219:10,14 petitioned 33:6,21 pheromone 222:9 322:6 421:17 423:19 221:2 224:7 225:2 54:11 211:21 philosophical 55:14 129:1,21 130:3 366:17 368:8,10 444:6 450:5 228:9,13 484:11 212:6 222:6,11 philosophically 366:17 368:8,10 444:6 450:5 219:17 222:6 260:18 264:3 philosophically 399:8 401:4 451:21 464:22 228:1,5 444:9 266:18 276:1 philosophy 122:12 295:3 456:6 525:6 phone 45:13 Phone 45:13 Phosphate 490:17 phosphate 490:17 phosphoric 41:5 phosphoric 41:5 193:18 222:13 429:15 planted 407:16 41:21 424:4,20 429:15 302:3,18,21 303:5 359:6 463:15 phosphoric 41:5 phosphoric 41:5 249:14 259:14 planted 407:16 41:21 424:4,20 429:15 304:7,10,17 39:17 185:9 photosynthesizes 270:16 357:7 360:6 planting 421:1 425:3 450:8 429:15 308:10 309:18 198:4,8 200:10 272:17 359:5 physical 146:2 359:16 469:22 470:9,19 469:22 470:9,19 348:1,3,20,21 279:6 281:	_			, -	413:3 419:13
221:2 224:7 225:2 228:9,13 484:11 54:11 211:21 21:6 222:6,11 213:23 philosophical 55:14 129:1,21 130:3 366:17 368:8,10 366:17 368:8,10 399:8 401:4 444:6 450:5 451:21 464:22 471:4,22 469:13 471:4,22 471:4,22 471:7, 7 348:1,3,20,21 349:7,13 philosophically 129:1,21 130:3 399:8 401:4 444:6 450:5 445:21 464:22 446:18 444:6 450:5 444:6 450:5 444:6 450:5 445:13 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 31:22 440:18 444:6 450:5 444:6 450:5 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 399:8 401:4 31:21 464:22 469:13 471:4,22 469:13 471:4,22 469:13 471:4,22 469:13 471:4,22 469:13 471:4,22 471:4,20 471:4,22 471:4,20 471:4,22 471:4,20 471:4,22 471:4,20 471:4,22 471:4,20 471:4,22 471:4,20 471:4,22 471:4,20 471:4,22 471:4,20 471:4,22 471:4,20 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22 471:4,22	pesticide 219:10,14	•	pheromone 222:9	, -	421:17 423:19
228:9,13 484:11 212:6 222:6,11 129:1,21 130:3 366:17 368:8,10 444:6 450:5 pesticides 138:22 223:8,17 260:15 philosophically 399:8 401:4 451:21 464:22 219:17 222:6 260:18 264:3 347:8 pink 147:2,3 469:13 471:4,22 228:1,5 444:9 266:18 276:1 philosophy 122:12 Pioneer 410:11 486:12 511:1 281:11 297:10 295:3 456:6 525:6 place 20:6 59:14 place 20:6 59:14 planted 407:16 302:3,18,21 303:5 359:6 463:15 phone 45:13 74:3,17 77:4 143:4 411:21 424:4,20 303:11,22 304:4,5 39:17 185:9 photosynthesizes 278:1 353:3 357:6 425:3 450:8 305:12 306:1 188:15 190:9 270:16 357:7 360:6 plants 52:20 274:11 307:9,14 308:2,8 193:2 196:10 photosynthesizing 365:10 393:12 318:6 344:19 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 34:19 347:19 276:17,21 277:8 283:4 physically 283:8 76:12 470:22 471:7,7 348:1,3,20,21 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1 <td>221:2 224:7 225:2</td> <td>_</td> <td>_</td> <td>pineapple 366:16</td> <td>431:22 440:18</td>	221:2 224:7 225:2	_	_	pineapple 366:16	431:22 440:18
219:17 222:6 260:18 264:3 347:8 pink 147:2,3 469:13 471:4,22 228:1,5 444:9 266:18 276:1 philosophy 122:12 pink 147:2,3 469:13 471:4,22 511:1 281:11 297:10 295:3 456:6 525:6 place 20:6 59:14 planted 407:16 pet 300:21 301:21 357:20 358:21 phone 45:13 phosphate 490:17 planted 407:16 411:21 424:4,20 302:3,18,21 303:5 359:6 463:15 phosphate 490:17 phosphoric 41:5 phosphoric 41:5 phosphoric 41:5 phosphoric 41:5 photosynthesizes 270:16 278:1 353:3 357:6 425:3 450:8 planting 421:1 425:3 450:8 plants 52:20 274:11 307:9,14 308:2,8 193:2 196:10 photosynthesizing 357:7 360:6 plants 52:20 274:11 318:6 344:19 308:10 309:18 198:4,8 200:10 54:14 270:12 415:22 465:8,10 359:5 361:22 310:6,10 311:7 213:5 214:18 272:17 359:5 physical 146:2 359:16 469:22 470:9,19 348:1,3,20,21 279:6 281:5 283:4 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological<	228:9,13 484:11	212:6 222:6,11			444:6 450:5
228:1,5 444:9 266:18 276:1 philosophy 122:12 Pioneer 410:11 486:12 511:1 281:11 297:10 295:3 456:6 525:6 phace 20:6 59:14 planted 407:16 pet 300:21 301:21 357:20 358:21 phone 45:13 74:3,17 77:4 143:4 411:21 424:4,20 302:3,18,21 303:5 359:6 463:15 phosphate 490:17 phosphoric 41:5 249:14 259:14 429:15 304:7,10,17 39:17 185:9 photosynthesizes 270:16 357:7 360:6 planting 421:1 307:9,14 308:2,8 193:2 196:10 photosynthesizing 365:10 393:12 415:22 465:8,10 270:12 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 348:1,3,20,21 279:6 281:5 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1	pesticides 138:22	223:8,17 260:15	philosophically	399:8 401:4	451:21 464:22
511:1 281:11 297:10 295:3 456:6 525:6 place 20:6 59:14 planted 407:16 pet 300:21 301:21 357:20 358:21 phone 45:13 phone 45:13 phone 45:13 phosphate 490:17 planted 407:16 411:21 424:4,20 302:3,18,21 303:5 359:6 463:15 phosphate 490:17 193:18 222:13 429:15 303:11,22 304:4,5 39:17 185:9 photosynthesizes 278:1 353:3 357:6 425:3 450:8 305:12 306:1 188:15 190:9 270:16 357:7 360:6 plants 52:20 274:11 307:9,14 308:2,8 193:2 196:10 photosynthesizing 365:10 393:12 318:6 344:19 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 348:1,3,20,21 279:6 281:5 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1	219:17 222:6	260:18 264:3	347:8	pink 147:2,3	469:13 471:4,22
pet 300:21 301:21 357:20 358:21 phone 45:13 74:3,17 77:4 143:4 411:21 424:4,20 302:3,18,21 303:5 359:6 463:15 phosphate 490:17 193:18 222:13 429:15 303:11,22 304:4,5 petitioner 38:15 phosphoric 41:5 phosphoric 41:5 photosynthesizes 305:12 306:1 188:15 190:9 270:16 357:7 360:6 plants 52:20 274:11 307:9,14 308:2,8 193:2 196:10 photosynthesizing 365:10 393:12 318:6 344:19 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 348:1,3,20,21 279:6 281:5 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1	228:1,5 444:9	266:18 276:1	philosophy 122:12	Pioneer 410:11	486:12
302:3,18,21 303:5 359:6 463:15 phosphate 490:17 193:18 222:13 429:15 303:11,22 304:4,5 petitioner 38:15 phosphoric 41:5 249:14 259:14 planting 421:1 304:7,10,17 39:17 185:9 photosynthesizes 278:1 353:3 357:6 425:3 450:8 305:12 306:1 188:15 190:9 270:16 357:7 360:6 plants 52:20 274:11 307:9,14 308:2,8 193:2 196:10 photosynthesizing 365:10 393:12 318:6 344:19 308:10 309:18 198:4,8 200:10 54:14 270:12 415:22 465:8,10 359:5 361:22 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 348:1,3,20,21 279:6 281:5 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1	511:1	281:11 297:10	295:3 456:6 525:6	place 20:6 59:14	planted 407:16
303:11,22 304:4,5 petitioner 38:15 phosphoric 41:5 249:14 259:14 planting 421:1 304:7,10,17 39:17 185:9 photosynthesizes 278:1 353:3 357:6 425:3 450:8 305:12 306:1 188:15 190:9 193:2 196:10 357:7 360:6 plants 52:20 274:11 308:10 309:18 198:4,8 200:10 54:14 270:12 415:22 465:8,10 359:5 361:22 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 348:1,3,20,21 279:6 281:5 physically 283:8 placement 51:18 470:22 471:7,7 349:7,13 283:15 285:20 physically 283:8 places 72:10 123:7 plant-based 234:1	pet 300:21 301:21	357:20 358:21	phone 45:13	74:3,17 77:4 143:4	411:21 424:4,20
304:7,10,17 39:17 185:9 photosynthesizes 278:1 353:3 357:6 425:3 450:8 305:12 306:1 188:15 190:9 357:7 360:6 357:7 360:6 plants 52:20 274:11 307:9,14 308:2,8 193:2 196:10 photosynthesizing 365:10 393:12 318:6 344:19 308:10 309:18 198:4,8 200:10 54:14 270:12 415:22 465:8,10 359:5 361:22 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 348:1,3,20,21 279:6 281:5 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1	302:3,18,21 303:5	359:6 463:15	phosphate 490:17	193:18 222:13	429:15
305:12 306:1 188:15 190:9 270:16 357:7 360:6 plants 52:20 274:11 307:9,14 308:2,8 193:2 196:10 photosynthesizing 365:10 393:12 318:6 344:19 308:10 309:18 198:4,8 200:10 54:14 270:12 415:22 465:8,10 359:5 361:22 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 348:1,3,20,21 279:6 281:5 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological places 72:10 123:7 plants 52:20 274:11	303:11,22 304:4,5	petitioner 38:15	phosphoric 41:5	249:14 259:14	planting 421:1
307:9,14 308:2,8 193:2 196:10 photosynthesizing 365:10 393:12 318:6 344:19 308:10 309:18 198:4,8 200:10 54:14 270:12 415:22 465:8,10 359:5 361:22 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 334:19 347:19 276:17,21 277:8 283:4 placement 51:18 470:22 471:7,7 348:1,3,20,21 279:6 281:5 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1	304:7,10,17	39:17 185:9	photosynthesizes	278:1 353:3 357:6	425:3 450:8
308:10 309:18 198:4,8 200:10 54:14 270:12 415:22 465:8,10 359:5 361:22 310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 334:19 347:19 279:6 281:5 279:6 281:5 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1	305:12 306:1	188:15 190:9	270:16	357:7 360:6	plants 52:20 274:11
310:6,10 311:7 213:5 214:18 272:17 359:5 placed 5:21 11:17 362:2 431:1 468:8 312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 334:19 347:19 276:17,21 277:8 283:4 placement 51:18 470:22 471:7,7 348:1,3,20,21 279:6 281:5 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1	307:9,14 308:2,8	193:2 196:10	photosynthesizing	365:10 393:12	318:6 344:19
312:21 334:11,12 271:7 272:22 physical 146:2 359:16 469:22 470:9,19 334:19 347:19 276:17,21 277:8 283:4 placement 51:18 470:22 471:7,7 348:1,3,20,21 279:6 281:5 physically 283:8 76:12 472:8 349:7,13 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1	308:10 309:18	198:4,8 200:10	54:14 270:12	415:22 465:8,10	359:5 361:22
334:19 347:19 276:17,21 277:8 283:4 placement 51:18 470:22 471:7,7 472:8 physically 283:8 physiological places 72:10 123:7 plant-based 234:1	310:6,10 311:7	213:5 214:18	272:17 359:5	placed 5:21 11:17	362:2 431:1 468:8
348:1,3,20,21 279:6 281:5 physically 283:8 76:12 472:8 physiological places 72:10 123:7 plant-based 234:1	312:21 334:11,12	271:7 272:22	physical 146:2	359:16	469:22 470:9,19
349:7,13 283:15 285:20 physiological places 72:10 123:7 plant-based 234:1	334:19 347:19	276:17,21 277:8	283:4	placement 51:18	470:22 471:7,7
	348:1,3,20,21	279:6 281:5	physically 283:8	76:12	472:8
petition 16:13 23:11 286:14 497:4,14 399:17 127:22 183:21 plate 438:10	349:7,13	283:15 285:20	physiological	places 72:10 123:7	plant-based 234:1
	petition 16:13 23:11	286:14 497:4,14	399:17	127:22 183:21	plate 438:10
		I	l	I	l

10.11.12.0	10.5.10.100	101101111	116011010	207.0.200.1.2
play 40:14 42:8	126:5 131:1,22	10:1 13:16 15:18	116:3 143:13	287:9 288:1,2
played 60:14 62:13	133:7 138:12	22:2 25:2 28:5,11	208:21 220:16,21	294:19,21 297:7
player 149:14	149:16,19 157:17	28:17 34:18 145:4	221:6 222:18	372:7
players 515:1,2	158:9 167:11	219:12 222:5,10	245:2 255:11	powder 262:21
playing 60:6 194:3	168:6,10 169:14	222:14 274:19	280:2 319:2	270:21 276:2,6,12
348:7 462:1 523:9	173:20 177:12,15	327:22 397:22	341:16 344:1	276:13 278:14
plays 77:3	184:14 185:10	418:18 482:9	353:12 416:21	powerful 509:4
please 4:17 5:13 9:6	189:2 196:18	483:21 484:3	446:18 514:16	PowerPoint 18:14
16:22 19:5 56:14	201:13 210:1	polls 336:11	515:10 522:10	practical 480:3
58:3 60:19 67:4	226:17 235:14	pollutants 543:4,11	527:1,16,18 543:8	practice 104:3
79:11 103:7 120:3	237:16 240:19	polluting 340:13	549:8,8,12,20	133:16 213:16
180:21 196:7	241:22 243:15	pollution 336:12	possibly 115:21	360:1 404:22
198:10 211:8,12	267:20 272:7	Pollux 347:22 352:8	140:11 141:22	practiced 90:4
211:19 218:15	280:13 296:16	352:12	156:21 257:5	practices 116:1,9
226:5,9 227:11	304:22 313:2	pond-raised 332:7	268:11 451:11	187:12 207:8
237:18 251:13	316:15 318:18,21	Pooler 2:14 197:5	post 232:15 361:16	216:12 304:9
268:20 274:18	321:4 340:5 343:7	poor 163:4 539:6	361:19 458:7	318:16 326:2,3,10
286:1,12 305:6	354:7 355:4	popular 100:5	posted 8:15 109:7	370:16 400:18
314:14,16 315:2	358:20 379:22	324:9	214:14 218:20	preagriculture
319:14 387:19	391:12 408:9	populations 544:11	233:3 252:22	88:19
417:2,4 432:18	409:4 413:4,15	portion 334:18	315:12 353:17	preamble 8:14
439:15 445:4	416:19 436:13,15	464:9 517:3	posting 160:16	97:14 202:14
456:13 466:22	437:14 439:9	Portland 347:21	223:3	precedent 255:14
498:3 505:7 519:6	474:3 477:20	pose 148:5	postponed 525:20	338:7,13 346:8
535:14 539:21	478:1 490:2 496:2	posed 245:20	post-harvest 115:14	preclude 245:17
pleased 22:9 449:5	498:10 507:11	posing 259:18	115:18 145:22	454:21
481:12	530:9 533:2	position 24:10	267:19 369:18	predator 319:18
plenty 336:16	543:15	298:15 371:14	397:17 457:6	330:6 543:22
426:10 440:11	pointed 125:20	381:5 396:2 448:2	458:12 516:11,14	544:2,8
plots 141:13,17	129:13 136:6,7,21	456:20 485:8	517:1	predators 330:7 543:18 544:6
plug 88:7 147:2	143:6 148:9 176:21 425:12	518:7 520:11	post-publishing 122:3	
plugged 74:10 76:1		positions 518:3	potential 26:17	predict 177:21,22 prefer 32:5 124:17
plunge 260:3 plus 16:14 441:16	pointing 164:20 194:17	positive 112:12 255:22 320:22	36:12 59:17	151:16 313:5
pluses 428:13	points 10:3,4 11:9	424:14 464:17	173:14 174:3	515:4 518:7
podcast 328:6	14:8 15:5 68:3	477:1	181:22 256:17	513:4 518:7
podium 305:1	130:15 139:11	possibilities 84:9	278:3 293:8	preference 199:19
314:14,17,20	232:22 304:6	98:13	528:17	217:5 256:9,16
498:3	315:17 318:3	possibility 27:14	potentially 147:10	493:20 494:2
point 10:7,8,13,16	333:8 359:13	33:5 34:2,7 82:14	233:22 235:14	508:20
10:19,22 11:1,6,11	366:2 407:7	94:2 123:7 156:19	239:6 240:7 263:9	preferences 508:10
10:19,22 11:1,6,11	446:17,18 454:3	160:4 183:15	263:11 270:9,13	preferred 274:15
14:2,3,4,5 23:1	476:11 543:17	242:10 261:21	290:18 300:4	313:2
28:10 31:13 36:17	polar 485:8	294:7 508:4 515:9	381:3 532:10	premature 358:6
37:12 67:22 72:6	1 -	possible 30:4 33:11		1 -
73:1 82:6 86:6	policies 183:3 policy 3:2,4,6 4:16	35:18 38:14 60:4	poultry 234:14 347:9	premium 335:16 339:14 341:1
99:1 102:1,2,20	4:18,19,21,22 5:3	69:7 95:20 98:2	poulty 61:17 347:6	
123:13 124:19	5:17 7:10 8:22 9:2	102:19 109:2	pounds 286:19	342:1,2,4,6
123.13 124.19	3.17 7.10 8.22 9.2	102.19 109.2	pounus 200:19	preparations

217:17	11:1 315:1 492:22	339:15 408:7	5/2.19 5/7.2 16	56:22 70:2 98:11
			543:18 547:3,16	
prepare 409:7	presenting 31:7	primacy 304:13	problem 61:11	98:14,15 115:1
481:1	101:20 183:8	primarily 356:8	104:4,5,14 105:2	117:7 123:1
prepared 36:21	190:1 247:14	394:12 421:11	114:7 122:21	124:14 157:13,19
156:5 228:18	301:9 475:6	513:17	123:19 127:9	170:14 179:5
229:21 276:5	presents 181:19	primary 45:2 52:10	134:21 153:17	193:4 198:1,2
prerequisites	189:16 455:14	55:16 335:1 354:5	166:11 179:15,16	221:19 222:3
403:15	preservation 446:1	380:2,13 502:2	179:19,21 224:22	224:4 254:7
preripened 382:20	preservatives 291:3	principal 229:18	271:1,4 279:2	256:20 259:4,15
prescribed 341:8	509:1	principally 481:22	408:12 459:8	267:18 269:13,16
prescription 513:1	preserve 446:5,6	principle 163:22	472:1 478:14	273:3 280:17
prescriptive 125:22	president 369:21	204:12 369:4	493:22 494:1	281:21 283:1,4,9
126:2 131:2,10	440:6 504:19	403:21	507:16 520:3	293:21 294:9
132:17,20 168:5	presiding 1:12	principles 187:12	problematic 69:20	296:14 298:1
330:12	pressing 311:18,21	335:13 337:6	72:21 116:18	309:2 321:7
presence 296:9	pressure 58:17	356:19 376:4	531:7 538:14	329:13 344:19
present 1:13 2:4 5:5	137:13,18 149:14	print 517:6	problems 109:22	357:21 363:20
5:13 12:1 15:20	536:2	printed 315:18	122:17 135:3	364:12,13 368:22
16:22 17:11 19:5	pressures 404:10	319:15	201:5 336:15	374:9 386:19
117:16,19 156:5	Presumptions	prior 8:7 169:2	470:5 519:13	387:2 388:13
168:2 248:2	51:12	248:12 372:21	537:18 538:22	390:8,12,16 391:2
262:10 266:21	pretty 12:20 16:3	441:11 532:8	procedural 188:14	392:8,13 393:3
276:6,11 279:8	86:3 101:9,19	priorities 537:6	191:11	395:22 399:18
280:3 281:5	102:5 164:9	Prioritize 14:22	procedurally 111:6	401:1,18 402:11
282:10 304:4	202:17 241:11,18	prioritizing 22:17	192:15	402:14,17 428:21
419:14 420:22	247:1 248:11	priority 23:12	procedure 4:22	431:12 447:3,6,13
460:22 476:13	249:13 250:3,4	104:11 537:2	13:17 15:19 16:6	463:10,13 464:18
presentation 9:7	262:4 283:8	private 160:19	25:3 34:18 35:2	476:18 477:17
28:3,14 46:2,4	328:14 350:11	168:22	37:20 38:20 39:5	482:2 495:19
92:11 118:3	367:10 386:3	proactive 544:2	192:2 194:19	500:21 503:16
150:17 230:4,10	416:1 426:5 494:8	probable 109:3	201:6 274:20	509:8 513:2
250:5 271:21	prevent 121:17	probably 42:13	536:8	520:17 522:4
300:22 388:7	421:8 526:15	52:14 82:11 88:12	procedures 7:11	524:12,22 525:3
462:16 467:20	544:9,13,13,14	94:14 120:13	9:14 14:5 16:8	531:15 537:4
486:16 490:18	prevention 88:1	157:8 175:3	253:2 378:6	processed 57:9,11
497:7	360:6	181:16 182:12	proceed 9:10	70:20 78:12,13
presentations 5:10	previous 16:12	189:14 205:15	117:22 191:16	279:18 282:20
249:1 306:9,11	21:12 127:6 151:2	216:8 258:10,15	210:18 211:19	355:11,20 356:14
486:20	157:21 158:3,8	261:2 272:12	214:12 218:14	442:10 460:5
presented 8:5 33:8	267:7 269:21	300:8 315:13	230:12 237:18	processes 58:21
47:14 82:13	272:20 283:13	323:11 350:6	417:4	78:15 176:17
103:17 192:22	409:9 437:16	367:8 368:15	process 13:4,19	261:12 294:18
205:5 248:6 285:2	448:21 449:10	387:16 392:22	16:11,18 19:15,19	361:22 400:2
345:12 375:17	455:20	395:17 402:3	25:18,19 27:15	401:8 537:15
476:11 494:9	previously 27:11	413:1 481:21	29:4,20 30:1,14	processing 57:12,18
518:4 537:11	268:5	484:1 501:19	31:7 32:3,15 38:6	70:22 71:20 76:22
presenter 314:19	pre-Harvey 93:15	502:17 530:1	38:17 39:6 40:8	77:6 78:18,19 79:1
presenters 10:8,19	price 156:8 335:16	540:15 541:13	43:5 44:22 46:6	79:3 88:4 99:18
	I	l	I	ı

			1	1
279:11 280:2	401:13 420:15	110:2,6,6 113:21	508:17 514:5	241:11 244:15
283:3 290:7	464:4 517:5	136:20,22 264:17	517:2	254:6 264:21
294:16 296:21	producer 59:8	270:10 271:22	productions 396:14	274:13 301:7
297:3 316:8,10	172:9 177:17	279:14,20 288:2	productive 527:19	305:11 307:17
353:4 355:9,13,17	283:6 284:4	288:16 291:1,8	products 33:10	312:6 320:7,12
391:21 452:17	377:15 413:17	294:9 295:9	51:11 63:2,3 71:4	325:16 329:4
454:11,17,19	415:4 424:18	302:18 340:9	71:12 115:6	332:12 335:14
455:3 457:1 458:9	443:19 444:12	344:19 354:11	116:11 137:20	339:12,12,18
458:12 500:16	505:4 511:16	355:19,20 356:15	234:21 235:3	342:11,11 345:13
514:2 529:18	531:7	362:1 364:2	240:5,6 254:13	346:9 347:12
542:7,11,21	producers 108:22	376:17 387:8	263:10 285:15	365:22 427:1
processor 109:11	154:4 160:22	402:15 453:13	295:5,15 296:8	432:21 434:1,6,12
294:18	169:4 235:11	454:10,13,15,21	299:8 308:11	435:9,12,14 437:6
processors 59:5	290:22 321:10	455:9 457:3 459:1	309:9 317:8 344:7	437:21 438:2
60:6 147:6 148:10	322:17 323:8,14	459:8,9 466:8,9	358:10 359:3	525:5 528:4 536:6
148:17 159:19	323:21 324:17,18	482:2,22 483:8,10	365:17,17 396:16	544:2,8 546:9,10
179:22 235:11	325:9,11 329:4,8	483:14 485:5,6	402:2 421:3 423:2	programmatic
287:1 297:12	329:15,21 330:16	487:14 496:7	424:8 427:21	307:16
517:17 520:20	331:19 390:20	500:8 501:1,12,13	452:17 455:12	programmers
542:15	401:22 419:13,18	502:6 507:3,5,13	456:21 459:16,22	435:10
process-based	419:19 420:6	507:17,19 508:5	460:5 479:3 481:9	programs 155:2
513:5	421:12 441:18	509:1,3 530:21	483:17,17 499:7	228:8
produce 283:22	442:6,17 443:15	538:12,17	504:7 514:3,15	progress 157:22
284:8 297:19	443:22 444:3	production 54:7,19	517:4 529:19	170:6 173:15
329:8 330:1	451:13 511:6	54:22 55:8 65:12	530:2 532:19	180:12
339:21 340:20	516:22 520:8	73:8 90:3 92:12	538:13,19	prohibited 7:2 25:6
344:14 346:3	528:21 531:16	104:17 106:10	professional 252:20	25:16 308:7,8
348:1,9 360:18	produces 361:7,9	125:18 127:5,19	261:7 302:2	317:20 318:13
362:9,15 373:10	385:12 392:7	128:10 134:8	professor 349:2	338:1 347:12
376:15 378:22	406:18 419:20	149:5 152:22	profiles 351:3	442:20 523:14
384:10 398:3	producing 14:18	153:15,21,22	profit 408:7 422:1	547:18
400:13 408:5	62:9 90:4 329:16	154:7,8 157:3,12	program 8:4,6,8,12	prohibiting 25:9
427:18 441:7	343:8 382:7	177:21 178:1	8:13 15:4 22:20	prohibition 310:11
442:9 454:9	392:11,12,16,18	187:5,9,13,15	23:2 28:20 29:8	project 19:10 20:15
459:18 464:21	393:7 400:10	204:3 205:9 215:5	30:11 38:11 39:14	333:13
498:22 508:11	416:2 419:19	234:15 277:1	39:14,19 43:7,8	promise 506:4,5
509:10	424:6 425:13	292:10,12 317:11	71:7 93:7 104:4,8	promote 152:21
produced 71:18	427:21 507:2,12	344:13,22 356:8	104:12 108:6	265:16 475:10
73:21 154:2 235:4	507:19	370:21 372:3,10	111:8,11,17 122:2	promotes 400:20
262:15 267:10,14	product 26:13	374:18 375:8	131:9 133:4 135:7	419:6
270:17 278:1,6	33:18 50:13,16,21	376:5 385:5 390:7	158:12 159:16	promptly 444:21
285:3 288:21	50:22 55:2 57:6,8	392:20 396:6	167:1 176:7	promulgate 337:15
289:20,21 290:4,9	57:18 61:1,13	399:3 401:19	177:10,15 178:16	337:16 351:1
298:20 308:12	62:18 69:18 71:16	403:12 407:4	193:12 201:2	547:7
336:5 362:2 384:8	73:7,9,12 75:21	420:20 442:19	219:20 227:16	promulgated 235:6
384:20,21 389:3	78:20 79:15,20	448:4,8 456:4	228:9,9 229:7,17	promulgating
389:11 396:9,11	80:3,10 83:16	468:2 469:10	229:18 231:20,22	231:16 235:14
398:4,7,9,15	92:19 109:21	495:22 498:20	233:11 237:14	337:12 546:20
	I	I	I	I

	074.40.400.40	212 21 21 12	1	100 5 100 1 1 5	
pronouncing	371:12 420:18	213:21 214:19	punish 173:13	428:6 433:1,16	
272:11,13	442:11,14 458:5	220:13,18,20,22	purchase 371:19	438:21 448:1,20	
proper 40:13 78:10	466:8,14 480:2,10	224:14 225:20	373:19 376:18	465:6 483:9,14	
properly 29:6 381:4	505:7 549:6	235:6,12 236:4,9	382:20 383:1	490:21 503:13,16	
381:6 450:11	provided 38:9 45:12	236:16 237:20	387:5 391:18	508:10,12 509:8	
properties 507:9	66:8 67:7,9 70:17	238:9,10,14	442:7	510:5 512:10	
proportion 449:15	106:13 218:3	245:20 246:10,21	purchased 442:15	520:7 535:15	
proposal 55:19	277:5 309:10	247:2 257:15	442:19 451:17	540:13 542:17,18	
246:1 429:7	353:18 376:17	258:20 259:5,15	purchasing 387:8	544:15	
478:16 519:16	480:20 537:17	261:5 267:5,22	390:15 449:19	puts 38:21 534:17	
proposals 100:18	provides 479:14	281:20 284:3,12	455:12	putting 107:16	
propose 34:7	providing 58:8	284:22 314:8,11	pure 513:22	153:2 180:7	
189:21 201:9,11	64:15 288:15	314:22 315:8	purely 37:20	293:21 304:16	
307:13	402:14 407:22	338:19 353:16	purpose 50:17	312:17 363:17	
proposed 97:10	442:16 479:19	409:8 425:21	65:10 114:2	391:7 392:8	
105:8 112:6	482:16 487:6	426:10 428:22	222:19	394:10 462:16	
115:17 304:15	provisions 215:13	445:4 455:20	purposely 429:10	465:9	
305:10 308:18	453:6 473:12	476:11 493:1	pursue 182:1	puzzle 306:14	
315:20 453:18	520:14	505:17,21 527:16	pursuit 446:7	puzzles 488:1	
461:12 520:6	proviso 335:19	532:8 536:8,21	push 255:21 294:4	pyrolysis 267:10	
523:19 524:3	proximity 145:11	550:6	428:3	P-R-O-C-E-E-D	
531:21	145:21 403:17	publication 261:19	pushback 436:1	4:1	
proposing 241:22	533:15	475:14 476:1	pushed 253:3	p.m 210:21,22	
329:10	proxy 11:17 416:16	publicly 480:17	435:15	211:2 551:10	
proposition 521:4	450:16 452:13	520:16 521:5	put 18:15 20:7		
proprietary 293:21	491:18 519:1,2	publish 334:8	27:18 32:22 38:17	Q	
296:14	proxying 491:8	published 8:3,17	60:5 63:9 64:19	qualified 62:8	
proprionic 260:17	public 3:21 9:5,15	97:11,13 114:20	71:5 73:14 75:1	qualifies 213:9	
261:16	10:1,3,9,21 11:13	120:12 361:17	77:4 84:15 87:6,9	qualify 146:12	
protect 162:7,8	11:22 12:6,12,14	418:14 480:2	91:12 95:7 107:20	215:9 317:12	
443:2 446:5 515:5	12:21 16:15,19	pull 174:9 179:6	108:3,8 110:14	339:14 459:19	
protects 160:18	20:20 30:22 31:8	276:15 521:2	111:4 132:19	qualifying 66:12	
419:5 475:11	34:16 37:22 38:8	pulled 41:20 77:1	146:4 163:3,4,11	qualities 440:17	
protocol 106:2	40:9,18 45:6 85:4	117:10 289:1	163:12 169:19	441:6	
120:16 513:2	96:8,9,11 98:21	424:17	172:19 202:13	quality 59:7 278:22	
protocols 120:6	101:22 107:22	pulling 131:17	215:1,11 217:10	283:18 346:12	
144:14 154:21	108:14 109:16	368:9	223:13 227:7	358:17 374:7	
496:15 512:16	114:13,22 115:11	pulls 303:16	237:1 238:1 243:9	380:7 395:15	
proven 364:20	120:13 122:14	pulp 276:3 282:16	250:7,11,16,18	396:17 397:6	
provide 15:18 17:4	129:5,13 140:7	284:1,9 285:12	256:13 277:4,18	402:8,15 419:8	
61:14 69:7,15,22	142:22 147:5	286:5,15,17	280:11 281:17	427:21 443:19	
77:19 130:8	148:7 151:14	287:22 288:1,4,6,8	295:15 309:2	487:2,13,21	
160:13 211:11	159:18 160:13	288:22 289:3,22	318:11,15 322:19	537:18	
246:13 268:3	161:8 163:8,10	290:1,17 293:1	343:3 349:6 361:4	quantities 160:17	
276:21 278:19	166:7 171:10	295:21 296:20	363:19,22 375:5	281:3	
281:19 283:15	181:6 191:8 193:2	297:13 298:21	381:11,13 383:8	quantity 59:7	
314:12 328:4	198:6 203:22	506:14 507:4	389:5 391:22	278:22 283:18	
335:5,21 357:3	207:16,17 211:14	509:14,14	396:2 412:1 427:5	358:17	
				<u> </u>	

grandian 10:22	146.20 166.14	504.12 505.22	240.14.257.12	220.22 261.15
question 19:22	146:20 166:14	504:13 505:22	249:14 357:13	328:22 361:15
20:21 21:15 23:22	171:18 179:1	506:15 509:20	ramifications	362:16 375:15
29:6 35:21 44:17	180:15 183:11	515:13 518:21	244:11 525:2	427:6 445:7
44:18 79:2 87:19	184:7,10 188:11	525:17 526:4	ran 140:1	480:22 483:11
88:11 97:4 98:5	193:15 200:9,13	527:9 533:5 534:3	random 120:7	498:12 513:8
99:4,22 117:10	203:4 210:13	539:17 545:10,14	121:15 127:22	546:8
124:20 177:14	214:9,10,11	548:6,19 550:1	128:1,6,6,13 136:7	readers 419:13
188:19 190:13,18	217:11,12 218:13	quick 36:16 91:17	136:9 139:11	readily 216:22
192:4 198:10	218:14 222:21	98:7 185:9 228:7	randomly 121:3	reading 15:11 64:5
200:16 213:10,14	227:18 228:14,19	285:9 318:3 396:4	randomness 128:12	94:11 178:19
224:3 227:19	229:22 230:1,8	465:2 515:15	Rangan 314:15,18	226:20 306:15
239:1 257:17	237:18 241:5,6	525:7 545:14	333:21 334:1,6	450:19 513:11
258:5 260:13	243:5 246:17,18	quickly 9:13 136:13	339:11 341:21	521:1
271:22 272:2	249:22 250:1,1	154:20 216:6	343:9 345:3	ready 59:11 80:22
284:6,21 286:4	257:10,13 258:18	307:6 341:16	347:11	100:16 112:15
291:18,21 292:1	259:18 264:11	420:3 423:9	range 52:22 141:4	149:16 211:8,17
292:20 310:15	266:15 268:18,19	439:16 489:4	143:21,22 290:3	314:6,10 340:8
326:19 327:9	269:2 273:4 274:5	quite 88:14 108:21	326:9 523:11	399:13,14 438:12
329:13 332:2	275:10,19 278:11	109:7 130:1	rapid 395:11	real 59:12 98:7
346:15 351:16	281:14 284:19	143:13 236:1	RASTGOUFARD	142:19 151:9
352:5,17 368:4	299:13,22 300:12	264:13 301:21	2:20	186:3 306:4 310:8
381:10 383:15	305:3,18,19	319:7 324:8 330:9	ratchet 177:19	367:11 420:3
384:2,6,18 386:11	310:12 312:1	343:14 428:7	rate 121:7,10	465:2 481:21
387:11,16 388:8	313:17 320:2	463:12 481:11,12	374:14 405:13	502:13 545:14
388:10 389:2	321:12 328:9,11	529:20	500:19	reality 104:6 106:15
394:6 412:15	328:12,14 332:18	quo 50:1,10 51:10	rates 144:15 172:17	134:10,17 379:7
434:11 436:19	333:19 338:22	51:17 52:8 77:16	ratio 507:18,20	514:1 543:19
439:9 458:20	347:13 348:13	96:6 153:16 220:2	542:10,20 543:1	realize 140:1 168:11
459:2 468:19,20	351:22 352:1	quote 197:6	raw 30:5 33:14 57:9	193:10 240:21
489:2 497:12	360:10,11 366:3,4	quotes 220:7	94:3 288:1 355:11	246:4 256:12
502:3,8 506:18	369:9 381:7 386:8	quoting 272:21	507:16	383:15 433:11
509:13 510:2	388:4 389:16		Ray 443:17	461:4 533:13
527:6 533:7 534:7	393:17 399:5	<u>R</u>	reach 123:12	realized 116:2
546:16 548:8	402:22 406:7,8	radar 345:20	401:22	199:8 257:3
549:7	413:6,7 416:8	radical 34:8	reached 41:19 78:4	realizing 33:17
questioned 270:7	417:3 423:5,6	radically 495:20	210:14	really 6:6 12:1,9,17
questioning 88:1	425:19 426:14,15	RAGONESI 2:11	reaches 91:2 334:9	20:3 22:9 25:6
213:4 240:5	433:5 444:17	rainfall 522:19	react 114:16	34:1,6 48:20 49:10
questions 9:6 14:9	446:8 447:4	raise 67:16	reacted 80:4	52:11 53:10 55:13
19:8 20:18 21:8,14	449:17 456:16	raised 21:8 53:2	reaction 225:15	55:17 56:1,4,11
21:19,21 22:2	457:8 460:8	66:10 91:20	386:21	57:7 59:2 63:3
30:15,15 31:4,14	462:13 463:19	107:13 109:16	read 12:17 18:14	64:1,9,12 66:17
34:11,14 36:14	467:10,11 473:21	248:14 249:6	48:4 49:13 62:17	67:20 71:6,14
37:10 40:15,16	475:1 480:15	272:6 354:12	103:7 152:13	72:19 73:8 74:6
42:11,17 43:19	481:5 486:15	389:8,10 476:14	154:20 157:18	75:4 78:1 85:14
78:8,10 82:5 97:20	488:11,22 490:13	506:15	175:13 182:12	93:3 94:16 95:10
98:18 118:4	490:22 491:2	raises 271:19	183:5 188:7	95:14,21 96:6,7,18
119:13,21 122:9	496:19 497:16	raising 62:9 89:14	220:16 315:14	98:16 104:4,20
		<u> </u>	<u> </u>	l

107 (100 7				1
105:6 108:5	530:5,15 531:8	recipe 364:10,12	303:12,17,21	reconsider 292:18
109:18 112:14	532:8 533:19,22	recognition 351:7	304:12 312:9	455:21
115:7 118:17,22	534:1 547:5 548:4	recognize 29:14	313:9 334:12	reconsidered 39:11
119:2 123:6	550:9	66:14 176:8	337:11 343:3	241:18
125:16 126:19	realm 310:16	356:16 408:17,21	405:17 413:12,14	reconvene 210:22
130:11 131:5	366:12 475:12	421:17 450:20	413:18 414:19	reconvened 47:16
132:7,13 135:4,17	rearranged 76:5	540:12,20 541:4	422:10 428:6,17	record 98:21 176:15
136:12 139:19	reason 95:16 104:7	recognized 157:3	429:2 432:19	198:7 226:15
161:4,22 162:13	194:7 209:11,17	195:19 407:12	433:22 439:7,19	227:12 232:1
166:10,21,21	213:1 237:1	recognizing 73:6,17	442:4 446:18	250:16 251:21
169:20 171:15	239:17 421:10	73:19 74:12 540:8	449:10,13 455:2	255:20 266:8
181:10 187:19	426:12 434:22	recommend 7:9,19	455:22 456:2	281:17 315:3
188:4 190:13	467:21 486:5	26:1 27:20 168:7	467:5 476:19	records 43:10,11
202:18 218:22	496:12 503:9	183:14 201:14	477:11 494:8	recover 440:2
224:4 229:11,14	504:6	275:1 405:22	511:14,15 512:6	recovering 500:17
245:21 247:5	reasonable 296:7	465:16	512:14,17 518:9	recovery 500:22
266:3 273:22	reasoning 121:16	recommendation	524:6,8 528:10	recused 281:13
274:10 284:6	188:8 209:9 392:1	5:22 6:8,16 7:7	530:12 531:3,12	recyclable 245:13
285:6 294:15	reasons 6:6 8:14	8:18 9:16,22 10:6	538:3,16	recycle 323:8
295:1 302:1 303:8	91:20 115:3 274:2	12:21 13:3,7,12,14	recommendations	recycling 245:8
303:18 311:16,18	278:4 287:20,21	13:19 14:10,14,16	4:12,20 8:2,5 9:12	322:13 323:7
312:7 316:19	311:13 372:16	15:7 17:2,4,9,12	10:11 15:10 16:21	542:7 544:17
317:6,12 318:2,22	404:1,17 420:1	17:15,18,22 18:1,9	17:6 18:7,8 19:1,9	red 270:15,15
320:21 321:8,10	504:4	19:12 21:1 25:21	20:8 22:14 31:8,11	272:16,17 406:19
324:7,11,15	reassessment	27:21 54:13 93:16	37:14 47:9 93:9	426:10 464:5
325:16 328:15	221:18 222:2	97:5,7 101:11,12	101:10 152:11	redefined 254:12
330:21 331:14	228:6 229:12	101:14 102:5	183:8 231:9,14,16	redid 19:17
333:2 338:6 340:8	recall 493:5	104:12 106:11	235:22 236:11	reduce 123:8,17,22
344:15 346:11,11	receive 20:20	107:15 108:19	252:5,10,14	322:17
348:6 351:5 360:3	114:21 248:7	110:13 111:5,7	261:19 262:1,7	reduced 394:19
362:12 363:5	267:21	112:12 113:9,15	281:18 282:4	404:14
367:4 368:5	received 38:4	113:18,22 114:2	301:9 311:9	reduction 319:3
377:10,18 395:20	108:13 151:14	114:14,19 115:10	334:14 336:21	322:20,20 323:16
409:3 410:10,14	181:6 241:19	115:16 116:6	337:14 420:9	red-letter 233:2
410:16 411:2,3,5,8	248:18 254:17	117:5,15 134:4	422:6,9 425:16	red-lining 119:15
411:13 413:12	260:22 261:17	145:5 146:16	494:5 536:16,20	236:8
414:6 416:2,14	320:21 363:10	147:7,10 148:11	536:22 537:7	reestablish 43:14
421:9,13 422:6	366:7 448:21	151:3 161:3	recommended 6:5	reevaluate 302:11
423:9 437:7	463:19 477:11	164:10,13,14	93:11 158:9	412:22
438:20 457:18	495:15 503:1	166:5 177:14	188:16 242:12	reevaluation 29:3
459:19 461:18	receiving 161:9	178:10 182:1,21	312:5 349:10	reevaluations
462:11 466:15	receptor 363:9	183:14 222:18	356:2 358:22	222:12
474:14 484:3,17	receptors 393:2,6	230:18 233:2	452:16 454:1	refer 277:13 321:17
488:7 491:16,22	393:11 395:7,21	243:10 259:22	467:9 493:17	471:3,4
493:15 495:1,5	396:1	261:15 264:2	recommending	reference 41:4
496:6,14,17 513:6	Recess 100:12 314:5	271:15 276:11	7:12 307:15	72:19 74:5 75:11
527:3 528:22	445:2	278:16 300:21	recommends 160:9	133:10 160:1,8
529:6,16,21 530:4	recessed 210:22	301:18 302:11,14	168:20 313:4	221:9 223:16
	<u> </u>	<u> </u>	<u> </u>	<u> </u>

226.11.10.22	1 45.15	256.6.449.6	196.12 265.11 12	
226:11,18,22	regular 45:15	356:6 448:6	186:12 265:11,13	reporting 125:3
298:8 380:21	222:12 304:2	reject 195:3 217:9	276:9 290:15	420:9 422:13,16
referenced 492:7	350:17 393:16	538:3,16	410:19 443:13	422:17 429:11
references 142:1	regulated 358:15	rejected 39:15	remind 31:6 180:18	430:8 433:8
219:14 335:5	469:10	97:17 112:10	314:20 349:12	434:12
375:21 516:18	regulates 362:4	194:11	505:20	reports 334:8
referencing 40:17	regulation 56:6	related 52:19 200:7	reminded 44:4	338:18 389:18
458:22	57:6 65:15,18	255:19 329:19	reminder 36:17	446:8
referred 108:17	72:10 74:4 81:5	476:4 477:17	removal 34:20	represent 161:16
359:4 366:7	89:4 104:6,15,22	538:5	195:7 199:20	164:6 285:15
referring 107:9	106:15 131:2	relates 349:7	254:17 257:19	287:10 352:14
134:7 138:14	137:3 146:17	relating 47:10 468:1	258:7,11 357:17	372:8 462:18
192:8 433:8	165:2,2,20 181:13	relation 196:12	358:5 477:16	478:19 506:22
refers 65:11 74:11	183:22 184:1	relationship 176:4	remove 61:12 73:1	541:10,14
123:7 276:14	187:18 215:10	259:13 293:12	87:6 190:17,22	representative
316:16	249:11 304:16	relationships 321:9	194:19 254:20	328:16 369:14
refine 257:14	307:14 322:2	325:13	255:4 299:6 538:5	376:7 406:15
reflect 229:6 303:12	354:7 450:15	relative 97:6	removed 61:5 75:14	representatives
reflects 103:3	453:21 454:8	relatively 185:22	147:8,8 186:22	473:17
refraction 51:1	455:4 468:11	212:13 216:3	199:14 299:17	representing 67:12
REGALADO 2:8	470:11	296:13	357:20 543:4	86:8 137:4 208:20
regard 97:4 180:6,8	regulations 16:7	release 325:17	removes 75:11	398:8 517:15,19
223:11 479:18	88:6 181:3 183:20	released 320:19	485:15	represents 46:22
regarded 102:10	212:20 224:11	releases 391:2	removing 191:22	250:21 290:2
regarding 34:17	235:5 248:1 265:9	releasing 421:5,5	192:8 539:9	350:1 397:19
47:19 150:10	265:13,14,21	relevant 17:13,14	renewal 191:15	reputation 370:3
235:1 236:16	301:21 302:6	36:10 158:4	repeat 128:3 268:20	490:20 506:7
286:16 287:9	306:12 348:4,6	reliable 287:7	373:19 423:13,14	request 23:15 36:4
289:16 290:1	350:12 427:16	relic 154:3	489:7	39:20 42:13 99:14
319:3 407:7 447:5	446:4 447:14,18	relied 234:18	repeatedly 167:12	158:11 159:7
463:9	454:5 456:4	relies 85:5 356:8	437:20	426:1 434:1,5
regardless 193:22	478:20	relist 70:14	repeating 114:20	527:17
231:13 384:8	regulations.gov	rely 70:2 113:8	replace 290:18	requested 32:11
454:14	122:4	relying 194:9	replacement 549:16	37:21 71:22
regards 235:14	regulatory 59:17	405:19 450:14	replacements 487:9	157:10 160:17
247:16 249:20	70:5 221:9 233:1	483:20,21,22	549:8,9,12,13,20	161:1 198:19
352:8 463:10	234:11 312:18	534:21	replies 248:17	214:18 264:21
region 523:8	316:17,18,21	remain 256:19	report 8:1,11 19:7	309:19
regional 373:2	353:13 354:1	258:16 259:16	21:16 36:21 43:11	requesting 11:12
442:13	425:5,9 469:8	358:16 380:7,8	102:21,22 103:3,8	72:1
regions 374:4	485:21	remained 254:3	103:8 125:7,8	requests 10:19 23:7
Register 5:22 6:9	REI 499:7,12	remaining 121:1,13	127:2 247:17	429:2
7:8,16 8:1,3	reincluded 430:9	442:16	248:2,6 424:12	require 6:17 39:9
registered 340:16	reintroducing	remains 10:7 74:1	429:12 438:22	44:19 128:14
496:7,8 502:12,19	93:22	remark 139:10	451:2	165:17 234:19
registration 496:13	reinventing 304:10	remember 24:15	reported 125:1,14	316:10 319:20
503:1,12,20	reiterate 133:2	90:1 96:15 142:10	126:1 401:9	337:21 399:15
registry 421:21	188:13 191:21	142:18 170:19	424:16	446:4 450:21
	I	ı	ı	ı

453:15	residue 234:20	350:15	496:16 502:5	right 21:17 37:11
required 12:19 16:6	resistance 538:7	rests 118:17	534:13 535:21	37:21 44:14 45:22
29:2,7 124:22	resolution 81:6,22	resubmitted 478:15	534.13 555.21	46:17 49:4 51:8
125:3 152:7	resolve 8:20 45:4	result 7:1 36:4	reviewed 7:4 29:10	53:15 54:6,18 65:5
176:18 253:22	resolved 41:3 53:11	78:14,18 262:21	30:10 34:4 40:9	87:1,22 99:3 101:3
351:14 404:18	80:6	299:18	465:12 495:13	104:9 109:3
424:11 425:1	resolving 44:21	resulting 374:14	reviewer 353:5	117:10 121:9
451:3 452:21	resource 239:10	results 62:15 158:1	reviewer 333.3	123:15,21 129:16
494:2 505:4 523:6	resources 437:10	177:12,22 178:21	39:7 463:4 494:15	141:20 146:11
535:17 536:5,6	446:6 478:21	178:22 412:3	494:22,22 495:19	150:9 154:17
requirement 32:16	480:12	resume 24:9 211:3	reviews 30:19 32:16	170:6 171:1,6,8
75:1 172:22 235:2	respect 233:5	retail 92:19 115:6	33:13 35:3 155:14	175:2 209:21
254:12 261:5	315:21 332:3	147:17 371:22	257:18 258:1	210:15 224:13
337:20 338:10	354:4 355:18	372:14 373:6	260:9 534:15	230:12 231:11
342:16 349:18	356:21 357:16	456:21 528:11,13	revise 70:10 248:15	230.12 231.11
351:8 430:8 505:2	359:20 526:14	528:15,18	303:11 478:3	234:8 236:12
543:4 544:17	543:21	retailer 363:21	revised 61:4 72:11	234.8 230.12 239:11 243:7
requirements 81:2	respectfully 145:18	365:22 371:18	200:6 248:2 249:4	247:11 251:11
126:9 156:2 181:3	541:21 543:5	373:2 402:18	Revising 477:18	255:15 262:13
254:7,14 285:9	respiration 398:20	retailers 108:22	revising 4/7.18	266:5 272:11
349:15 350:22	399:2 400:1	109:4,9,10 111:19	520:1	278:17 291:19
351:7 357:3		147:6,14,18 148:9	revisions 151:1	293:7,9 300:18,20
371:22 403:16	respond 109:15 124:5 125:11	147.0,14,18 148.9	448:22 478:18	303:19 311:17
	196:8 205:1,2	372:14 517:17	Revocation 532:21	315:4 326:20
429:12 448:5,9,13 453:10 460:1	328:7 430:12	518:9 520:21	revoked 532:6	329:4 331:6
515:3		retain 70:8	revotes 24:18	332:17 333:15
requires 42:7	439:13,15 487:18 536:18	retain 70.8	reward 149:12	340:18,19,20
105:10,11 191:22	responding 90:19	retains 288:22	542:15	346:21 347:14
438:18 463:18	335:9	retardation 473:9	rewards 149:1,11	348:14 364:18
543:22	response 19:8 49:16	retention 282:17	rewording 537:10	385:18 390:5
requiring 127:2,4	91:17 114:4	retired 490:16	rewrite 521:15	412:5 416:12
127:10,12 222:5	128:20 137:5	reveal 425:1	rewrites 520:15	425:20 427:11
235:3 342:13	139:7 145:17	reversal 317:19	Reynolds 498:5,6	433:15 443:14
420:9 447:4	203:8 213:6	reversals 365:13	502:11,15 503:2,8	449:2 459:4 465:9
451:18 512:10	392:21 549:7	review 7:22 10:10	502.11,13 503.2,8	474:1,15 483:13
531:5	responsibility 152:9	25:11,20 27:15	re-review 26:10	490:7 497:9 498:8
reread 169:16	159:15 535:12,16	29:5,13,22 30:7,10	ribbon 85:1	503:21 514:7
resale 442:10	responsible 4:5	30:12,14,16,17	Rich 46:15 68:1	525:7,22 534:10
research 19:22	326:14 405:11	32:10,10,14 33:7	91:18 462:14	551:2
332:20 333:11	409:14	34:1 35:16 36:2,20		rights 212:2 296:14
350:21 373:21	responsibly 233:16	37:2 110:21	Richard 2:13 29:9	Rigo 16:1 207:15
379:10 401:8	rest 116:14 124:15	126:16 236:3,10	48:13 67:21 97:2	250:4 274:9
418:14 453:15	246:16 280:6	254:13 261:1,17	144:17 274:12	Rigoberto 1:12,14
538:8	327:4 464:14	307:4 359:10	505:16	rigor 22:9 130:8
researchers 402:5	526:18 543:20	451:16 452:5	Richardson 198:17	rigorous 108:11
reserved 74:20	restores 475:11	460:17 463:10,13	198:17 200:3,12	130:6 541:2
317:7	restricting 421:20	463:18 476:17	Rick 416:12	ripe 373:9 399:7
residual 404:9	restrictions 143:4	478:2 480:10	Riddle 444:10	499:19
1 Coluual 404.7	1 CSH ICHUIIS 143.4	770.2 700.10	Muuic +++.10	7//.1/

ripen 361:12,13	roadsides 539:10	rough 462:11	running 77:12 92:5	Saturday 364:4
368:17 374:2	roadways 212:2	roughly 141:12	180:19 211:9	save 10:11 149:6
380:10 381:17	215:22	287:10 364:22	416:20	saved 94:10
382:16 383:17	ROBERT 2:14	365:9 372:8	710.20	Savoy 1:11
ripened 362:9 363:8	Robin 445:5,13	round 15:17 332:15	$\overline{\mathbf{S}}$	saw 50:5 59:12
373:7 379:3,14	Robinson 2:10	route 132:20,20	S 1:22 3:1	132:12 298:4
381:5,6,14 382:9	104:11 177:11	routine 202:11	Saavedra 48:15	307:2 497:21
382:10 383:5	265:5,8 266:6,13	row 410:4,6	safety 116:1,9	saying 23:5 37:8
392:5,6 393:20	291:11,19 292:14	Rubik's 20:4	254:22 371:22	63:7,11 64:22 67:1
402:8	293:7,15 294:2	rubric 302:1	397:22 456:3	78:16 89:10 90:12
ripening 267:3,15	525:4	RUIHONG 2:16	511:1	132:16 161:10
360:21 361:1,5,18	robust 494:14	rule 8:15 20:10	sail 522:9	162:16 165:19
362:6,13 368:7	rocked 163:9,10	51:10 53:6 72:13	salad 282:19	173:8 175:4
369:18 372:22	role 48:20 129:17	74:7 77:19,22 79:6	sales 350:3	173.8 173.4 178:10 192:17
373:1 374:9,13,14	135:13 154:19	79:8 95:19 97:10	salmon 244:5,11	194:3 241:15
375:16,22 377:12	155:22 159:1	97:10,12 105:10	245:22 324:5	255:20 264:18
377:17 382:5,6,14	164:9 175:20	153:6,13 154:19	327:3,5 337:2	293:19 296:12
383:7 387:7	182:7 183:2	168:3 187:20	545:21 546:1	339:8,21 342:21
392:13,18 393:3	433:11 437:18	208:11 221:8	salt 189:10 190:4	393:9 414:9
*	479:19	242:21 304:15	215:17,18	434:14 438:2
393:12 395:12,21			salts 189:5 211:6	
397:17 398:21	rolling 54:4 139:16 rolls 544:18	361:12 420:5,6	214:20	439:18 458:22
399:1,18 400:1,11		421:14 423:14,17	Salvador 508:15	459:18 462:17
401:1,18 529:10	Roman 468:13,13	423:18 425:2	salvage 310:9	473:4 485:20
529:12 539:13	474:18,18 Pop 260:14 260:11	431:19 461:12,15	sample 120:21	486:21 487:22,22
ripens 373:11 risk 106:5 110:10	Ron 360:14 369:11	462:2 468:4	127:20 131:21	491:17 497:19
112:19 114:20	369:20 390:5 391:15 397:9	470:14 471:2 472:14 473:12	328:17 404:1,6,18	502:16 516:2 532:2 549:3
118:21 121:10,11	401:21	485:9 489:11	405:2,8 414:15	
121:20 130:14,20	room 10:15 23:9	490:3 519:10,10	samples 121:13	says 35:10 57:7 64:19 103:1
131:20 130:14,20	33:2 46:11 53:15	519:15,17 520:6	512:10	124:11 158:10
139:2 141:18	108:18,20 147:3	520:13,21 521:9	sampling 120:5,7	163:13 165:4,20
143:7 147:13	181:17 253:19	520.13,21 321.9	120:16 121:7,10	174:1 185:6
148:14 149:2,4,13	302:14 328:21	522:3,8 524:1,4,10	136:8 138:16,19	188:21 197:13
167:10 173:1,14	351:10 412:12	524:20 525:1,10	139:4,11 403:20	209:1 215:2
174:3 178:5,7,8	482:8 540:8	524.20 525.1,10	405:13	296:19 298:20
		*	sand 165:1	
220:6,7,10 221:10 221:21 404:5,7	rooms 372:22 root 270:20 403:19	rulemaking 96:4 97:17 244:16	sanitizer 454:20	342:7 343:12,16 343:19 454:9
· ·			456:19	
405:13 408:5	Rose 48:13 96:16 Rosen 48:10 84:10	461:2,18 462:1,7 rules 17:15 39:4	sanitizers 76:3,15	469:3 516:10 517:3
412:11 541:16			76:20 77:1 455:3	
risks 132:8 149:10	225:22 305:1	215:13 308:19	456:20 457:5	scale 284:8 292:2,9
River 406:16,17	306:7,21 307:22	312:15 318:19	458:16	292:16 339:17
410:11 411:13	309:20 310:2	349:6 350:12	Santa 426:21	377:14,22 378:1
419:15 424:6	312:2,12,17	421:7 422:3	445:16	382:16 385:1
441:2,17 443:8	516:17	513:16 514:22	sat 186:16 461:3	400:21 415:19
491:9,14 492:5,8	rot 443:3	ruminants 472:3	satisfied 185:19	419:15
492:13	rotate 546:4	run 69:1 172:18	212:14	scamming 484:2
rivers 544:20	rotation 546:6	239:13 396:20	satisfy 38:2 212:21	scary 431:10
road 153:18 540:16	rotting 362:10,11	489:20	Sausiy 30.4 414.41	scenario 148:22

191:16 502:22	393:13 395:1	307:13 308:1	477:3 486:18,19	428:5 430:3,20
522:8	396:19 440:16	314:11 335:21	502:4 503:10	432:10,14,20
schedule 4:10,15	500:2 522:11,15	429:11 433:8	511:10 533:12	434:7,18 435:22
14:3 24:9 44:3,5	522:16	446:17 454:8	539:20 540:16	436:4,7 438:1,8
149:20 230:3	seasons 365:14	468:3 531:4	549:1 550:9 551:5	439:6 440:18,21
251:11,12,15	426:21	sections 119:16	seed 150:11,18,22	441:3,4,6,7,18,21
252:8 314:3	seat 161:14	154:18 159:15	152:3,17,22 153:5	442:6,6,7,8,11,13
scheduled 210:18	seaweed 83:7,10,10	474:18	152.3,17,22 153.5	442:17,18,19
314:22	83:17,18,20 84:13	sector 60:5 148:15	153.8,10,13,21,22	443:2,2,3,10,15,17
scheme 400:17	84:17 262:9,14,16	153:21,22 277:16	154.2,4,7 155.7,10	443:18,20,22
523:17	262:19 264:2	422:1 512:21	155.12,20 150.4,8	444:1,1,6,7,8,12
SCHMALE 2:18	463:8,17 464:4,16	sectors 164:20	150:10,14,17	444:14 445:20
school 417:21	464:19	secure 409:1	157.4,0,0,7,9,12	448:16 449:4,7,15
science 232:4 319:8	Sebastian 527:1	see 13:4 16:9 22:9	159:5,5,8,10,11,13	449:17,19,21
336:20 357:12	539:19,21,22	22:11 51:4 56:10	160:15,20,21	450:1,4,6,9,12,19
sciences 90:16	545:7,13 548:9	60:15,22 62:22	161:22,22 162:6,8	
349:3	second 6:15 13:18	63:16 74:6 76:9,12	161:22,22 162:6,8	450:21 451:4,7,10 451:11,17,22
science-based	60:19 61:5 65:13	88:21 93:7 96:1	162:21 163:3,13	451:11,17,22
462:20	66:3,17 69:11,14	98:16 100:11	165:9 166:2	seeding 449:20
scientific 234:5	70:1 86:1 102:20	107:19 118:20	167:13 168:2,7,14	seeds 152:19 153:12
336:16 375:20	113:15,15 118:22	119:12 125:2,6	169:18 171:4	155:1 156:2,4
scientist 334:7	124:19 150:12	126:18,20 127:4,9	172:8 173:16	160:18 407:16
381:22	169:14 205:7	120:18,20 127:4,9		
Scientists 511:9	209:17 269:8	148:12 151:9	174:2,16,17 175:4 175:5,20 178:13	415:12,16 419:16 441:18 442:1
	355:4 370:9	155:5 160:4	*	443:18 451:14
scope 69:8 112:6 113:4 378:13	420:11 438:4	161:11 165:18	179:8,11,21 180:13 181:11	
	440:6 448:14		182:2 406:18	531:2,6,17
Scotland 336:15 scrambling 109:5	487:4 488:4 496:2	166:1,2 171:13 174:11 177:1,7	407:1,4,11,19,22	seeing 91:6 126:7 128:7 320:17
screen 151:8	500:15 527:9,13	181:11 182:20	407.1,4,11,19,22	510:9 512:13
scroll 120:17	527:13	187:1 195:15,20	408:3,4,6,11,13,14	530:13
se 304:11	seconded 307:8	210:20 213:20	409:16 410:3	seek 544:13
sea 324:10,10 464:8	Secondly 288:4	220:13,13 239:18	411:8,12 412:7,16	seek 344.13 seeking 220:12
470:7	487:16	240:4 259:8	412:18 413:17	450:12 451:14
seafeed 343:4	seconds 261:5	274:10 280:5	414:11,16 415:1	450:12 451:14
seafood 235:1,7	secretary 6:1 7:19	281:1 293:3 310:1	415:22 416:2	seen 38:10 111:17
324:1 326:12	8:9,11 22:20 235:5	311:1 313:8	417:8,18 418:10	128:13,17 129:4
324.1 320.12	235:10 473:16	327:19 328:17	418:10,11,13,19	135:20 372:2,12
seafoods 325:21	section 17:10 22:18	332:7 334:16	418:22 419:4,6,8	375:2 379:10
seal 93:2 148:3	36:6 66:6 72:13	335:4 343:2	419:13,14,18	380:16 494:17
sealed 270:19	87:21 104:15	400:17 410:4,4,5	420:1,7,10,15,20	511:22
search 75:2 158:1	153:6 156:1	414:6,11,21 420:4	420:1,7,10,13,20	sees 388:14,14,16
159:7,9 163:15	157:14,15 158:22	420:16 422:16	420.22 421.3,4,7	segment 313:21
279:5 280:8,22	157.14,15 138.22	426:12 427:14	423:18,20 424:4,5	segments 47:1
searching 269:22	202:1 218:21	428:5 430:19	423.18,20 424.4,3	select 217:4
season 268:12	220:8 234:12,18	438:5 449:5	424.7,9,11,13,17	select 217.4 selected 121:2,15
365:12,13 367:4,6	237:5,6 241:16	456:13 465:22	424.21,22.423.3	136:9,12 176:11
379:17,20,21	242:2,21 243:4	466:1,10,13	425:10,14,15	selection 128:1,1
380:1 381:4	264:8 304:18	474:13 475:16	420.1,2,2,7 427.2	selections 102:14
300.1 301.4	40 1 .0 304.10	7/7.13 4/3.10	741.7,10,13,10,19	Sciecuons 102.14

444:4	265.16 400.11	ghoon 472.2 4	shut 363:10	403:11 431:13,15
	365:16 409:11	sheep 472:2,4 shelf 92:22 342:21	sick 334:2	431:17
selenium 471:1,18	seriously 112:14			
472:5,5	167:10 238:10	372:15 391:22	side 129:10 132:12	single-producer 110:8
self-imposed 513:16	463:6,14 541:19	394:20 402:9	149:12 238:11	
self-limiting 401:11	serve 29:11,12	482:3 483:9	245:11 294:16	singular 36:22
sell 327:16 328:1	94:18 406:5	508:22 509:2	322:16,22 333:7	sir 184:18 320:4
sellers 235:11 439:3	served 11:16	529:14,15	363:13 364:21	417:4
selling 298:10 332:4	services 360:19	shell 277:5 366:21	367:7 411:19	sit 232:14 305:22
363:18 381:3	511:4 537:17	shellfish 248:9	472:9 535:14	360:22 368:6
421:6	serving 30:3	545:21 547:14	541:18	395:22 465:4
sells 377:6	session 100:15	shelves 486:18	sides 232:5 332:19	546:19,21
send 83:12 196:20	211:1,13 417:7	shelving 38:20	435:7	site 18:17 19:17,18
231:9 363:20	531:22 550:3	shifted 120:18	sign 11:13	20:7 104:18
465:5 475:20	sessions 155:16	495:19	signed 11:15 12:3	105:15,21 106:4,6
sends 538:12,20	set 15:1 19:18 48:21	shifting 345:7	211:15 416:12	109:7 124:12
senescence 362:5	48:21 76:8,13	ship 402:6	526:1	134:8,10 214:14
senior 334:7	115:21 130:6,8	shipments 372:22	significant 342:9	268:5 315:13,13
sense 30:3 143:5	297:1 340:3 342:1	shippers 375:5	372:2,12 378:15	325:20 326:22
169:6 209:15	342:2 371:4 400:8	397:20	408:1	327:1 353:17
279:3,15 294:11	404:21 512:16	shipping 370:6	significantly 29:4	363:9 384:22
356:12 380:5	sets 306:12 338:6	ships 370:22	373:12	387:5,8 390:18
384:17 395:11	545:4	shocking 82:12	sign-up 10:18	391:8 427:6
sensible 331:15	setting 52:21 131:3	shoehorn 337:18	silage 172:11,11	475:20 478:17
sent 265:9,12	338:12	shore 409:19	173:21	539:7
381:21 389:7	seven 11:1 235:18	short 77:12 180:22	Silk 460:15	sites 546:2,5
498:11	252:5 307:20	255:11 440:2,16	similar 179:12	siting 245:16 249:2
sentence 124:22	334:9 343:6	shortage 498:20	194:22 195:11	249:14
sentences 505:1	368:15 395:18	shortbread 304:1,3	196:5,12 203:1	sits 249:7
sentiment 340:16	495:16	shortcut 147:22	209:1 212:7	sitting 27:3 67:19
separate 84:16	seven-and-a-half	short-cuts 532:16	221:14 279:3	86:8 144:18 251:2
112:8 147:9	364:7	shots 159:20	382:14 507:8	305:21 368:11
148:13 190:2,22	seven-month 378:8	shoulders 535:16	similarities 195:17	situation 33:9 82:11
193:1,10 195:5,7	severely 202:11	show 18:2 67:17	243:1	109:18 140:12
195:19 196:18,20	sex 317:19	88:12 120:14	simple 18:12 33:14	141:8 154:1 158:6
197:9 223:12	sexy 109:19 548:2	141:17,19 151:8	33:19 273:3 283:8	168:2 180:10
308:9 368:22	SHANNON 2:15	280:15 303:17	simpler 499:5	202:21 237:11
518:10,11,13	share 118:8 149:3	304:7 331:5	500:20	244:18 411:14
separated 76:2,20	162:17 164:1	338:13 345:6,10	simplest 361:21	416:5,6 444:12
154:18	166:12 257:13	430:3 465:21	simplifed 15:20	489:20
separately 195:6	437:1 457:18	549:9,18	simplifying 455:17	situations 29:16
263:19 509:16	548:16	showed 297:6	simply 134:18	122:16 125:6
separates 63:1	shared 166:20	showing 17:19	188:16 225:14	173:20
separating 241:9,15	427:13,15 452:2	414:22	229:5 401:15	six 10:22 17:7 45:20
September 448:17	shares 167:15 171:9	shown 18:5 167:12	469:1 526:14	85:7 107:20
465:11	sharing 436:22	373:21	sincere 156:13	128:11 188:10
series 131:3 164:19	SHAUNTA 2:22	shows 265:20 297:8	single 111:13,13	281:12 301:13
serious 137:1	Shea 48:12 460:11	302:19 466:6	125:18 139:15	343:6 364:22
168:12 338:15	460:13,14	shrimp 324:6	143:2,17 152:5	378:8 383:5
		<u> </u>	l	I

122.16 526.12	smallholder 107.12	goil 52:20 55:2	106.11 201.21 22	400.3 440.20
432:16 526:12	smallholder 107:12 109:14 512:9	soil 52:20 55:2	196:11 201:21,22	400:3 449:20
527:5		61:16 62:5 63:7	204:4 207:2,5	sourcing 150:11
sixth 18:2 494:6	smallholders	66:13 87:16 216:5	495:10,17,20	233:14 442:6
six-month 365:13	103:20 107:3,7	354:18 468:7	496:12 497:2,7	Sourdough 54:21
size 289:11 403:20	111:20 129:17	470:7 471:3	499:13 500:20,20	southern 272:19
404:2,18 405:1,9	smallholding	472:22 485:3	501:6,18 502:17	290:5,6
405:16,18	141:13	539:12	503:11 504:3	Southwest 523:5
skeleton 262:15	Smille 3:14	soilless 218:18	538:15	soy 51:5 460:15
skip 537:8	Smillie 1:21 3:10	soils 146:1	sorry 106:12 126:19	481:9 485:14
slanted 411:19	84:22 86:13,17	soil-producing	142:14 231:21	487:6 490:15
slicing 57:16	87:13,21 100:19	61:17	261:21 274:14	soybean 411:9
slide 52:9 56:14	100:20 101:6	sold 277:12 346:4	290:4 295:5,14	440:17
58:3 63:21 64:16	112:3 118:2 119:9	408:6 452:18	300:6,15 304:17	soybeans 51:5
67:4,6,10 79:11	119:20 122:7	sole 397:2	332:1 489:3	406:18,19 410:9
80:17 290:12	130:10 133:11	solid 118:12 119:3	497:13	484:10 492:9
464:2 465:1,13	141:1 145:18	solubility 203:21	sort 20:12 22:7 29:3	soy-based 488:7
466:5,22 471:18	146:15 150:18	solution 221:6	58:20 116:19	so-called 544:20
slides 46:14 49:21	161:13 165:7	solutions 220:16,21	117:17 129:22	space 372:15 525:20
81:19 465:20	176:20 193:16	425:18	138:4,13 151:9	spawners 547:14,16
sliding 339:16	197:11 204:15	solve 493:22	163:2 172:21	speak 10:15 11:2,18
slight 429:1	207:15 209:7	solved 225:13	176:14 182:2,9	12:4,4,15 55:7
slightly 5:20 329:11	210:3 231:19	solvent 79:21 484:7	225:11 296:22	208:12 218:10
slippery 426:5	278:15,17 321:14	500:21,22	310:21 340:6	225:18 228:22
slope 146:1 426:5	413:10 433:7,19	solvents 71:19 79:3	343:11 345:19	329:14 366:6
slot 11:16	434:15 457:15	500:18	382:1 413:1	369:16 397:15
slow 171:22 301:11	459:4,10 473:22	somebody 75:2	510:15	398:2 403:8 410:8
489:4,7	486:16 490:14	136:4 142:20	sorted 23:18	457:11 491:8
slowing 173:15	510:3 515:22	165:12,13 174:5	sorts 166:6	speaker 387:22
slowly 175:6 187:12	516:9,13 517:8	178:6 208:22	sought 156:18	speakers 416:22
423:13,15 510:5	550:7,15	295:20 357:20	sound 334:1 542:4	441:11 444:20
small 103:10 126:10	snowflake 144:3,11	359:12 361:1	sounds 115:21	525:18 526:1,20
134:10,12 143:16	soap 213:7,9 215:9	390:10 436:14	131:12 326:18	speaking 12:13
143:19 168:1	215:9	482:20	Soup 145:9	228:17 327:4
172:18 173:11	soap-based 213:3	someplace 97:17	source 84:11 87:10	349:8 489:4 497:3
208:15 287:19	215:8,15	somewhat 63:22	146:1 178:12	519:7
288:19 380:21	soba 276:18 277:8	219:12 234:9	216:7 228:13	speaks 375:19
382:7,12 390:10	277:11 278:6	520:10	285:8 287:2 294:4	special 23:1,5,11
415:18 428:7	social 90:16 141:15	Sonnebend 48:15	294:8 326:12	48:2 99:14 181:7
449:15 451:21	societies 90:10	soon 149:20 438:13	365:10 384:12,17	specialist 353:5
453:11 466:3	society 88:18	499:9 522:9	386:2,3,4,19 400:5	specialty 440:16
513:15 514:20	181:18	sooner 6:14 365:1	466:9,13,18 467:2	species 233:22
515:1 533:14,22	sociology 90:7,14	374:16 380:3,5,6	473:9 482:5	235:16 244:6,12
541:12	socked 500:10	380:18 393:11,14	534:22 540:18	275:6 311:12
smaller 119:4 284:8	sodium 260:14	529:15	sourced 317:4	324:13 407:10,13
285:7 291:14	261:1 471:15	SOP 178:11	sources 66:16	519:18 545:19
292:2,11,17 377:6	soften 399:11	sophisticated	156:17 233:15	547:6,8,9
377:15 508:16	soft-bodied 204:13	538:10	278:7 351:13	specific 6:21 19:21
smallest 105:2	207:9	sorbitol 195:20	366:13 384:13	30:15 31:3 37:13
	<u> </u>	I	ı	I

0.4.00.4.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1	l	l
86:20 133:19	spell 278:5 481:21	squash 216:22	331:18 332:5,14	191:21 237:12
185:12 188:22	spelled 183:2 188:6	stabilize 283:6	332:15 335:15	344:18 388:2
191:13 192:1,13	spend 60:7 69:13	stabilizer 299:2	336:1 338:16	482:4
192:18 198:10	453:4,20 536:21	stabilizers 291:4	343:22 349:10	starting 4:3 55:9
214:21 215:20	spending 332:22	stabilizing 298:22	355:1,9 356:14	125:15 159:15
227:17 229:21	spent 252:13 301:16	stable 358:6	357:4 360:1,4	195:16,21 385:6
245:3 265:1,2	332:20 456:11	staff 2:4 49:8 406:2	369:16 371:21	385:15 391:5
266:7,9 270:3	490:16	531:9,10	376:10 431:17	419:12 510:7
296:20 297:10	spirit 118:9 421:14	staffs 515:4	452:22 454:7	starts 56:16 57:14
299:16 319:19	455:7 456:5 460:2	stage 110:14 371:4	459:19 469:14,18	129:2 168:19
350:16 381:2	541:21	399:7 540:15	478:6 499:12	233:11 293:13
413:11 427:19	spite 28:6 477:10	stagnate 153:16,21	513:16,20 514:2	485:18
430:21 434:12	split 46:13 58:18	stake 111:16	514:16 515:5	start-up 339:4
447:4,15 452:11	304:21	stakeholder 259:14	536:16 542:11	state 10:20 104:9
468:16,20 476:2,6	Spokane 377:2	535:7	543:20,21 546:16	181:13 197:19
478:12 479:21	spoke 144:21 148:8	stakeholders 254:3	546:19,20,21	198:6,14 247:16
494:5 515:18	205:13 208:6	258:15 428:14	547:1,3,8,19 548:1	256:7 270:11
518:16 522:12	213:22 229:13	429:3 439:20	548:3	273:15 281:17
526:6 536:16	274:8 328:22	453:9	standing 507:11	286:11 349:3
539:7,8 547:6	435:17 477:20	stamina 467:17	standpoint 411:9	370:11 377:6
551:1,5	496:22	stand 94:22 142:7	502:17	383:11 387:18
specifically 40:18	spoken 218:5	143:8 190:16	stands 93:8 474:14	402:6 408:14
144:21 148:15	515:18	195:1	stand-alone 201:1	450:19 498:15
151:12 182:11	spokesman 154:13	standard 86:3,12,14	starch 363:11,16	511:7 546:3
183:3 188:20	spot 142:2 214:16	86:20 88:7 250:19	367:10 368:1	stated 110:17 137:4
196:14 199:11	412:2,2	290:9 316:16	398:22	198:14 226:19
217:18 220:8	spotlight 170:16	319:7 321:16,18	starch-to-sugar	403:14 440:11
225:20 267:2,16	spots 307:1	322:1,21 323:12	362:22	443:10 446:13
273:14 326:17,18	spotted 125:17	329:17,20 340:6	start 4:11,15 36:19	461:22
329:19 331:19	spray 217:3 483:10	392:14 453:14	55:17 58:7,9	statement 34:16
375:20 383:15	499:8,18 500:6,9	470:8,15 471:21	100:14,15 101:2	83:1 90:20 152:14
384:1 392:22	sprayer 142:17	472:7 476:5 479:8	101:13 113:1	192:7 193:1
439:10 446:9	spraying 142:16	479:11 480:5	120:7 128:22	202:14,16 224:19
458:15 465:7	sprays 482:19	543:8,12 544:7,18	130:2 131:16	241:8 269:22
549:21	spray-dried 270:20	standards 1:3 7:21	166:10 168:17	273:11 391:16
specification 190:4	spread 152:9 544:9	73:12 74:19,22	180:4 231:15	392:2 430:16
316:13	spreads 282:20	75:4 87:2,4,8,12	260:5 270:4 296:6	443:4,9 491:14
specificity 315:22	spreadsheet 19:14	88:3,4 230:21	314:8,10 315:4	495:10 496:21
317:15 319:17	420:18	239:21 240:2	340:6 341:15	511:20
330:4	spring 45:21 182:2	246:8 272:3	393:7 394:3	statements 154:9
specifics 123:5	183:9 222:18	315:21 316:1,9	395:21 400:10,13	155:17 157:1
318:10,13 320:8	259:6,21 262:5	317:1 318:14	445:3 462:17	413:22 492:12
specified 316:7	419:1 465:5	319:2,18,22	485:13,17 489:8	states 1:1 10:8,13
specify 260:14	spurns 295:4 296:5	320:19 321:1,6	489:18 490:5	11:1 51:10 104:16
spectrum 47:1	spurs 256:2 295:4,8	322:5,12 324:3,14	550:11,11,13	126:10 134:7
218:7,11 354:16	296:4 510:6	324:15 325:3,6,10	started 33:3 54:21	140:13 144:22
speed 113:1,6 321:7	squad 162:20	329:6,7,9,22 330:6	58:15,19 60:10	145:4,7 289:21
342:21	square 403:19,21	330:14,17 331:7	96:16 130:4	301:22 302:4
L	1	1	1	1

349:21 365:7	389:17	158:10,12	129:6 189:18	128:16 142:10
376:3 398:5,9,14	Steve's 146:10	stringent 135:5	315:12 319:16	143:10 405:15
		stringent 155:5 strive 232:7	353:22 389:19	
400:19 443:18	Stewardship 317:9		409:9 460:18	success 118:15
449:13 473:8	stick 90:15 341:19	strives 534:18		371:15 404:15 successful 427:20
state-by-state	stimulated 400:2	strong 115:22	481:10 493:5,6	
469:11 static 257:5	stock 317:20,21,22	118:13,17 184:2	496:9 503:6 543:10	succinctly 12:7 sucker 261:3
	402:18 441:6	238:11 248:21		
stating 8:13 statistical 143:16	442:18 443:10	403:16,18 477:11	submitting 503:5 505:22 532:1	sucrose 196:11 202:17,20 204:6,7
statistics 295:4	444:1,8,14 492:6 stood 356:6	533:16		202:17,20 204:6,7
		stronger 501:17,22	subpar 106:20,22	
stats 220:3 status 20:13 38:13	stop 163:21 367:8 424:22 532:10	strongly 245:21 357:2 376:12	subparagraph 474:20	207:3 495:21 496:4 497:2
41:10 43:2,15	stopped 332:4	429:5 430:14,16	subparagraphs 469:1	499:11 500:17,19
49:22 50:10 51:10	stops 56:17 168:22 355:5	448:11 449:22		501:18 502:1,10
51:17 52:8 56:18 69:13 77:16 82:10	storage 363:17	450:13 477:22 493:17 494:6	subpart 53:4 subsequent 7:16	502:11,19 503:12 504:2
	C		_	
93:9 96:6 153:16	374:2,7 380:8,9,14 390:17 391:10	struck 434:3	152:19 153:1	sudden 161:13 Sue 48:14
156:4 158:16 220:2 366:10		structural 83:10,20 494:1	250:22 442:1	
	393:4,16,22 394:1		461:5	suffice 163:18
434:7 535:22	394:9 395:4,5,14	structurally 495:13	substance 25:10	sufficient 15:14
statute 90:2	395:17 399:16	structure 17:3	44:22 45:1 50:18	236:10 276:21
stay 102:17 173:8	storages 390:14	93:17 126:13	80:5,9 215:12	278:19 281:3
394:1 491:21	store 344:20 367:14	144:12 242:15,16	262:21 338:2	283:16
stayed 241:13	367:15 391:18	242:18 384:9	355:15 358:4	sufficiently 407:14
stays 10:22 11:6	394:4,8,11,14,14	structured 199:4	464:13	458:11
393:4 484:5,9	394:19,22 395:19	struggling 404:3	substances 35:17	suffocant 204:12
steelhead 324:5	482:2 483:5,8 stored 390:15	stuck 65:7 66:4 322:5	51:22 72:20 73:3 74:18 75:13 77:4	sugar 363:2,11 368:1 398:22
step 28:8 178:16 255:13 258:19				
279:20 308:3	stores 320:6,10	studied 204:17 studies 334:22	308:14,15 498:18	504:8,9,10
401:11 408:11	327:10,11 368:6,7 373:6	336:17	529:13,18 530:7 530:22	suggest 25:12,22 65:2 354:1 400:14
438:1,4,10 449:1	store's 320:11		substandard 335:15	455:16 458:1
455:14,17 478:19	story 427:11	study 194:8 stuff 42:4 283:1	408:11	519:22 523:13
478:22 481:18	straightforward	297:1	substantial 251:22	524:7 541:19
539:21	437:8 535:20	style 421:20	515:6	suggested 70:18
		subindustry 303:6	substantially	72:8 74:1 221:7
stepped 436:16 stepped-down	straight-up 189:8 stream 94:5 288:16	subject 51:20 82:2	117:16 495:13	524:5
237:10	strengthens 10:2	94:13 208:8	substantive 238:8	suggesting 523:20
steps 7:18 13:21	strengths 17:19	222:12 334:21	substitute 282:18	suggesting 323.20 suggestion 136:14
14:18 15:6 16:3	strenuous 523:21	subjects 445:18	substituted 434:4	161:3 183:12
135:12 279:19,21	stress 334:6	submission 248:16	524:9	479:18
477:14	stretching 415:15	submit 10:9 158:11	substitution 221:7	suggestions 11:8
step-down 237:2	stricly 200:6	158:15 433:22	substrate 58:12	23:15 476:2
341:8,8,17	strict 371:20 525:13	434:5 503:19	subunit 124:11	479:10,16 480:3
sterility 547:18	543:21	531:5	127:12 128:4,8,10	511:14,21 512:1,7
Steve 1:16 145:8,12	strictly 366:19	submits 359:12	139:12 405:17,18	suggests 111:1
146:4,5 266:20	378:12 379:18	submitted 39:20	subunits 106:5	suggests 111.1 suitable 156:14
282:10 297:20	strikethrough	48:16 55:19,21	121:1,12,15 127:5	358:13
202.10 271.20	su ikeun ough	40.10 33.13,41	121.1,12,13 121.3	330.13

Suites 1:11	407:10 409:1	458:21 465:8,9	91:5,9,11 98:22	539:3,7
summarize 9:12	427:4 438:18	489:6 498:5 504:5	202:8 208:16,17	337.3,1
11:10 180:20	480:6	512:11 525:2	213:15 214:4	
summarizes 9:20	supplying 293:13	542:3 543:11	221:1 265:18	t 3:1,1 111:13
14:10	support 82:3 154:6	surely 110:8	266:19 267:13,16	table 37:19 38:21
summary 16:17	154:7 171:14,21	surface 22:8	268:16 308:14	39:1,2,5,10 40:2
17:8 80:18 118:1	213:7 331:10			113:16 201:18
467:1		surprise 97:22 surprised 246:19	355:8,12,14,19 356:3 454:16	502:6
= 1 1	354:10 357:17	487:5		tabled 39:8 40:12
summed 130:11 summer 254:16	369:17 376:11		468:18 471:13 484:7	40:22 42:1,5,20
	397:16 421:20	surrounding 47:6 47:19 544:10		tables 4:6
257:12 309:21	422:10,13 428:17		synthetically	tabling 41:21
371:3	448:6 449:3 467:8	surveillance 110:20	362:16	tackle 166:10
sunset 15:10,13	477:11,22 478:5	survey 50:2 62:15	synthetics 32:6	332:15 495:6
16:4,5,5 20:19	479:9 506:16	345:6,10	44:19 202:12	tail 322:6 379:21
21:3,9 25:1,11,18	507:15 509:18	survival 162:1	209:18 216:21	take 22:12 28:8
25:19 26:10 27:2	511:13 512:13,15	survive 163:5 173:3	217:5 264:20	37:19 38:2,22 39:3
27:15 186:9	514:6 516:3	Susan 48:14	265:21 266:1	39:10 40:1,2,13
221:18 222:3,12	517:15 518:15	suss 111:9	538:20	42:2 52:15 57:13
227:4 538:5	533:20 537:10	sustainability	synthetic-nonsynt	
sunsetting 477:17	542:22	233:17 239:5	99:6	74:7 77:10 87:5,14
superior 304:5	supported 484:16	311:1 321:16,18	system 45:11 54:1	90:15,22 95:18
supervision 534:2	supporting 319:8	321:21 322:4,7	61:15 62:4 66:7,9	96:11,11 107:1
supervisor 445:14	326:2 408:21	327:12,20 328:11	106:17 107:10	112:13,16 118:8
452:15	426:7 457:16	332:21 333:15	108:9,10 110:21	124:11 146:18
Superzoo 302:19	512:5	sustainable 317:8	118:13 127:5	147:22 157:8
supplement 30:12	supportive 129:7	326:1,13 464:18	128:10 135:12,14	172:12 173:13,22
170:12	supports 403:19	500:15 501:1	138:4,7,9,14	175:7 178:14,15
supplemented	442:3 446:1	511:4	143:15 144:3,5,6,7	178:17,20 193:11
472:21	511:20	sustainably 233:16	144:8,13 146:5,10	208:3 210:9,16
supplements 308:16	supposed 64:17	239:3 317:4	228:3,4,11 249:17	236:5 238:13
supplier 157:6,6	87:10 238:5	sustaining 397:2	272:1 337:2,3	243:20 246:15
175:4 358:8	262:10 489:11	sweeping 520:1	347:5 385:5 404:4	250:15 253:12
462:19 481:17	sure 12:2 18:13	525:1	433:12 446:21	299:11 311:20
484:19 489:21	21:5 22:16 49:17	sweet 424:14,21	447:1,5,10 452:6,8	313:8 314:7 321:3
506:7 507:20	67:13 120:6	swiftly 111:17,20	479:9 484:2,21	353:2 360:6,8
suppliers 159:13	124:18 164:6	swine 234:14	485:16,22 489:5	363:15,18 364:12
324:21 325:14,15	218:4 226:3,14	swirling 272:4	494:14,21 495:1	365:15 382:20
326:21 327:3	233:12,14 240:21	switch 137:3 294:20	513:5,16 533:1,16	383:1,7,10 388:17
408:22 415:22	254:5 255:12,17	409:17 492:16	533:17 537:14	393:12 394:18
506:8	262:2,3,4 276:7	sympathies 540:4	538:2 543:7	446:11 447:21
supplies 277:1,14	285:4,15 286:19	symposium 239:20	544:12	460:19 463:6
281:7,7 407:17	289:14 307:5	245:1 461:7	systems 108:15	464:20 474:20
432:10	310:1 319:8,11	synthetic 41:3 44:17	123:22 135:22	475:17 477:13
supply 277:17 278:3	326:1 330:12,18	45:19 47:8 56:20	137:18 218:19	485:3,9 492:15
286:5 288:20	330:22 333:12	57:20 58:1 71:2,19	244:15 323:2,11	519:20 522:10
289:15,16 293:13	360:2,5 361:4	71:19,20 75:14,17	337:1 340:13	526:18 530:16
295:5,8 296:5	363:2 388:5 429:9	76:11 79:3,3,20	446:2,12 479:5,12	531:9 532:16
358:7 396:22	437:3 457:10	81:11,16 85:15,20	494:15 538:22	541:22 542:16
	•	1	1	•

546:10 549:11	337:1,2 346:18	279:13 303:20	103:21 116:15	133:11 149:16
taken 39:22 78:9	347:2 351:10	353:5 360:18	136:17 183:16	165:8 166:16
147:19 167:9	423:12 460:2	391:12 397:21	289:19 304:14	193:7 200:10,12
238:10 362:19	466:21 470:11	534:12 541:22	306:2 310:16	227:9 230:2,11,15
428:20 455:20	471:6 489:5 500:1	546:9	315:22 317:10	250:2,16 251:2,5
485:3 503:10	500:14 517:11	technicalities	318:7 319:12	253:10 266:16,22
takes 9:22 95:1	519:9 524:19	191:11	320:22 322:16	268:1 269:1
117:18 135:12	525:5 544:5	technically 42:7	323:6,7 324:17	284:13,15 289:5
157:4,11 259:14	talks 22:12,18 56:6	83:8 91:11 542:4	332:16 336:20	290:14 300:16
304:12 343:6	119:1 429:11,12	technologically	464:17 466:6	313:18 314:1
365:7 373:8	470:7,8	538:10	469:17 512:8	320:1 323:19
	TAMMIE 2:19			
381:16 463:5	tank 55:5 333:6	technology 361:16 425:13	terrestrial 318:20	333:18,20 334:1
522:6			territory 255:9	338:21 347:14,17
talk 10:5 31:17	tanks 54:8 270:17	teeth 125:9	257:10	348:2,11,15 352:2
49:22 50:1,2	TAP 29:13 30:3,12	teleconference	test 424:12	352:3,19 353:7
100:18 135:7	31:19 32:1 37:7,8	47:22	tested 218:1,9	360:9,16 369:6,9
141:9 172:2 208:5	196:20 268:3	tell 34:22 48:17	424:14	369:10,15 377:1
231:3 239:22	359:10 389:18	108:4 135:8 282:1	testimony 204:1	397:9,15 402:21
278:15 286:22	534:15 535:21	300:8 346:10	208:13 210:4	403:1 406:10,11
287:5 298:16	TAPs 16:13 257:17	360:22 361:6	475:6 478:9,16	407:2 416:9,10
301:4 325:22	260:8 534:21	367:13 368:8	492:12	417:11,13 426:16
326:2,21 331:7	535:3	381:22 384:3,3	testing 136:9 234:20	426:18,22 428:8
353:8 366:15	TAP'd 29:7	440:17 483:16	358:11 373:4	433:4 439:22
368:6,7 392:22	target 203:21 204:2	486:13 497:1	411:15,17	440:3 444:15,16
410:6,9 419:22	217:18 319:10	telling 301:10	tetracycline 185:2,3	444:17 445:9
427:2,3,7 429:22	targets 319:1	443:15 486:22	185:7,8 186:8	456:15 457:15
440:17 467:21	task 17:13 50:9	temperature 363:9	188:16,17 189:4,4	460:9,10,21
472:10 475:5	301:13,17 302:12	389:8,9 394:13	189:5,8,10 190:5	461:10 462:9,12
491:13 493:4	303:11,12 307:10	temperature-reg	190:10,12,20	462:22 463:2
494:11 506:5	347:19 348:3	55:6	191:4,7,9 192:12	467:13,16 473:20
509:15 524:11	349:6,11 425:10	tempered 243:19	192:14 194:1	474:22 480:8,14
551:4	taste 366:18 410:21	template 446:20	195:2 198:20,21	480:17 485:14
talked 34:21 81:13	tasting 363:4,22	tend 326:13 399:10	199:10 200:8	489:1 491:3 492:2
112:17 226:18	368:3	tended 140:6	538:2	492:2 496:18,20
302:20 311:16	Taw 198:17 200:1	tendency 131:22	texture 374:11	498:5 504:14
320:8 428:15	team 5:2,7,8 18:20	tends 25:5	410:21	505:19 509:19,21
493:9 547:2	18:21 22:2 23:12	tenets 456:2	textures 373:11	510:10,12 515:12
talking 23:10 25:15	493:14	term 65:19 72:18	thank 4:5,7 5:14 9:4	517:13 518:20,22
58:7 87:2 120:8	technical 5:13,18,18	73:1 74:4 199:11	15:8 20:17 24:3	525:15,16,17
124:12 134:16	6:13 29:22 30:11	234:13,13 239:3	28:3,15 31:5 37:11	529:2,7 532:2
135:13 136:18,21	30:16,17 32:6,10	274:18 310:20	37:16 43:18,21,22	533:4,6 534:4,5
144:20 161:20	32:10,14 33:7,13	317:4,8 326:12	44:10 47:20 76:17	540:7 545:9
176:7 179:9	33:22 35:2,16 36:2	341:11 355:8,12	77:7 81:20 82:21	546:15 548:9,18
183:18 191:12,17	36:18,20 37:2,7	355:14 456:9	85:1 94:8 96:14	548:20 550:2,5
223:4 250:8	48:18 102:6	544:9	97:19 98:5,17	Thanking 548:11
296:18 304:8,16	112:21 113:13	terminology 238:3	100:20 101:6	thankless 505:12
316:20 318:8	257:18 258:1	274:16 344:12	103:14 120:2	thanks 48:2 85:6
324:4,9 331:3	260:9,22 261:16	terms 65:15 90:6	122:10 128:21	100:7 112:3 119:9
	l	l	I	l

	1 1		1	
122:11 291:9	168:16 170:12	166:5,8,11 167:15	422:6,15 426:4,5,9	229:1 248:13
331:21 427:12	171:15 172:18	168:9 169:1,12	434:15 438:16	291:12 301:11
462:13 467:12	179:18 180:7,8,11	170:18 171:2	439:5,19,21	318:21 459:13
476:8 481:2	192:17 210:5	173:14 174:22	443:13 450:17	473:16,18 474:2
486:14 545:12	223:1,13 225:5	175:9 176:6,22	456:18 457:21	508:4 514:3 518:1
thereof 60:16	242:11 254:14	177:11,13,14	458:1 459:21	538:4
Theuer 48:14 67:22	256:22 261:13	178:19 180:2,9	460:1,2 461:14,19	thoughtful 114:22
68:1 91:16,18	278:8 279:4	181:5,14,16	461:21 462:15	thoughts 521:3
462:14 467:15,16	280:18 283:19	182:13,20 183:5	468:9 473:22	thought-out 306:6
467:19 474:17	296:20 308:6	184:2 185:6	495:11,15 496:14	threading 302:8
They'd 475:21	317:2 319:18,19	193:22 195:14	497:19,21 499:7	threats 17:20
thickener 290:17	320:15 321:20	203:11 210:8	506:17 510:7,8	three 7:18 8:16 9:1
thicker 501:13	328:18 330:3,10	218:8 226:16	511:22 517:10	10:13 11:9 12:16
thing 7:10 11:4 83:8	409:22 410:7,20	228:18 231:7	518:6 523:6,21	14:18 15:1 63:15
86:1,6 92:1 93:18	417:9 418:15	235:16 236:9	524:14 525:9	155:15 156:12
112:4 114:5	427:7 435:4 458:1	238:4,7 239:2,8,15	527:2 540:2 542:4	159:9,11,14
135:22 140:2	462:22 465:19	240:1 242:3 244:1	542:13,14 543:8	168:16 186:6
141:2 144:3 158:2	469:20 495:9	244:3,10 245:14	543:14,18 544:18	187:16 202:20
172:7 173:2,2	504:7 508:11,21	245:19 247:5	545:4 548:2	212:19,22 221:20
175:1,12 177:19	510:17 528:8	249:9 251:3 252:1	thinking 73:16	223:3,4 275:22
188:14 193:11	529:13,22 530:22	252:6,17,19 253:1	127:17 149:22	279:1,18 283:11
213:12,20 238:16	542:6 543:2	257:8 258:2	229:2,12 253:21	287:12 307:6
239:18 274:15	think 15:22 16:9,11	259:12 261:9,18	259:20 412:10	327:3 347:1
275:11 288:3	20:4 21:10 23:16	262:12 265:9,12	thinner 501:12	381:19 406:1
303:21 305:15	24:5,6,18 25:3,17	269:11 270:6	third 11:18 12:11	408:9 420:3
309:6 311:19	26:15,19 27:7,19	272:6,10 273:2,13	17:14 22:22 30:9	445:18 478:12
312:4 318:22	31:2 32:4 36:2	282:11 292:3	37:6 63:19,20	482:12 483:17
334:5 341:22	40:7 41:11 48:5	293:18,19 295:8	103:16 107:2	488:1 493:18
347:4 350:19	59:11 65:9 71:6	296:7 298:8	143:13 144:20	502:2 523:13,17
355:19 410:19	74:15 77:11 79:5,7	299:15 306:4,7,15	157:9 170:15	526:12 543:17
412:6,7 416:12	80:21 81:18 82:11	310:20 311:14	346:22 415:13,16	three-and-a-half
429:8 470:12	84:4 85:10,10,16	313:12 315:19	421:9 423:1 438:6	547:3
474:10 488:4	89:22 92:11 93:3	316:6,12,14 317:6	479:7 486:8 501:2	three-day 381:17
498:10 500:15	94:18 95:13,20	317:14,18 319:9	524:9 533:13	three-year 546:5
501:2 514:7 521:7	96:3,7,21 98:1	321:8 323:5,11,12	534:20 546:4	throw 222:16
things 24:5 25:2,7	109:2 110:11	326:8,11,16 327:6	third-generation	311:13
26:9,16 29:1,1	113:1,7 115:12	329:12 330:9,13	370:9	thrown 542:17
30:5,18,21 32:7,8	117:3,12 118:19	331:14,15 332:18	third-party 33:7,13	thrust 205:11
32:22 33:12 34:8	122:18 124:7	335:11 337:9	33:22 36:19,21	thumbnail 228:6
36:13 37:21 38:16	125:9,14 126:22	339:8 341:6,7,10	131:15 534:15	ticket 517:11
39:2 58:4 59:1	127:16 128:8,22	342:20 348:7	thorough 280:7	tie 61:15 131:10
	· ·		454:2 463:12	
64:3 68:14 70:5,13	130:10,16 131:6,7 132:5 136:18	354:6 357:19,22		490:19
72:5 80:12 82:9,12		359:15 364:14	thoroughness 463:9	tied 71:13,13 486:3
91:22 92:22 93:6	137:2 140:6	365:18 377:21	thought 33:20 88:17 94:12 117:12	ties 24:17 79:4
94:3 101:22 102:1	147:12,18 148:6,9	378:12,16 387:10		tight 261:8 495:1
108:4 115:13	148:11 149:15	394:21 411:18	161:11 188:3	tighten 245:2,3,17
122:16 140:2	152:12 164:10,19	413:18 414:10	199:8,15,20	249:3
141:22 147:12	164:21 165:3	415:14 418:7	212:13 224:16	tightening 246:9

514.22	449.12 10 452.4	419,20 427,0	107.14 109.22	410.46
514:22	448:12,19 453:4	418:20 427:9	107:14 108:22	419:4,6
tighter 515:5	453:20 456:11,15	445:17 452:1	149:21 151:16	trades 431:3
tilapia 244:7 324:5	460:17 463:5	463:2 465:14	180:18 219:7	traditional 52:21 54:2 73:7 356:12
tilt 129:18 Tilth 72:1 353:6,10	478:12 481:22	467:22 475:5	241:6 249:20	
,	483:19,19 486:12	476:13 482:8	251:11 294:12	361:3 374:20
353:22 357:14	491:18 496:13	485:22 497:9,13	340:18 409:10	462:21
Tim 498:14 time 10:17 11:19,21	497:13 503:1,7,12 507:13 513:14	498:21 499:9	433:13,14 476:16 477:18 479:7,16	traditionally 154:2 trailer 382:16
11:22 12:13 16:8	518:4 519:5	502:12,20 508:20 509:5 510:14	482:21	trailers 373:1
16:14 21:20 26:12	522:21 523:17			train 108:7
29:13 32:4 34:5	526:5 527:17	514:8 519:5	topics 445:12 476:14 492:16	train 108.7
44:21 46:6 47:13	531:9 539:14	today's 253:17 375:6		112:17,18 113:4
49:9 50:10 60:8	540:12 544:21	told 32:1 155:3	topography 146:1 total 155:12 159:5	112.17,18 113.4
69:13 77:12 80:21	545:7 551:1,5	199:5 239:10	287:11 289:19	119:3 132:18
82:4,7 85:22 91:6	timed 481:15	320:15 339:2		155:2,16 182:13
95:19 103:16	timeline 15:1	437:19 497:5	290:2,3,8 370:7 372:9 405:8	405:21 406:5
109:13 112:10	107:18 261:9	507:22	416:22	473:7 479:18,19
117:14,18,20	536:18	Tolerance 220:9	totally 15:13 134:13	529:2,6,9
123:10 124:3	timelines 48:22	Tom 48:14	262:3 330:16	trainings 479:22
126:6 128:18	253:3	tomato 146:6 411:2	386:15	480:7 529:4
129:6 135:9	timely 258:22	411:4	touch 218:8 419:1	531:14
153:19 157:11	times 6:3 37:22 38:1	tomatoes 398:18	420:3 464:19	transcript 41:16
161:2 167:7 171:8	218:6 256:10	tomorrow 99:8	touched 135:4	43:10
183:7 184:15	270:7 284:3	201:18 218:21	touching 464:22	transcripts 40:9
186:9 200:5	287:22 361:8,9	219:4 247:8	tough 85:8,9 492:16	transfer 242:6
205:14 210:18	482:13 484:1	300:10 429:6	tougher 92:20	transference 335:2
211:9 231:4	523:14 548:15	430:9 439:18	toughest 514:15	transference 535.2
236:10 241:20	Tina 86:7 196:15	497:16 526:15	toxic 420:19	transgenic 420:12
243:14 252:18,22	205:1 206:1 208:1	550:10,12,13	toxicity 255:1	420:21 423:12,17
254:2,18 255:3	230:3	tone 417:9	toxicology 229:14	423:20 424:1
256:14 260:10	tissues 362:2	tonight 250:12	to-apples 368:19	425:3
261:14 263:12	title 102:16 516:18	509:22 550:15,21	track 41:13,14	transition 344:13
272:6 274:10	titled 220:9 446:17	tons 398:15	114:11,12 323:3	398:12 515:10
275:22 282:11	448:15	tool 118:14 155:18	436:11	transitioned 344:22
297:2 300:8 302:2	titles 516:15	177:1,7,8 375:4	Tracy 1:21 22:3,22	375:7 378:11
303:7 322:3	tobacco 369:3	376:13 404:2	24:1 102:3 103:12	397:1
330:13 332:22	today 4:10 88:18	405:15,21 406:6	112:3 120:1	translate 344:6
354:1 364:17,18	90:4,9 99:7 117:14	413:1 414:7,9,12	122:11 124:6	translation 169:3
365:5,7 367:4	117:21 134:12	tools 180:10 397:5	128:20 130:10	transmissions
373:15 376:20	189:17 244:9	535:11	135:2 136:22	213:22
379:17 380:14	249:7 262:1 263:9	top 53:21 123:16	137:6 294:10	transparency
391:21 393:7	282:15 285:21	188:20 289:18	301:1,2 310:15	438:18 439:2,7,9
394:1,4 399:12	301:9 349:15	302:6 324:1	312:1 381:8	524:21
402:19 413:5	352:13 353:2	415:11 515:19	438:15 515:14	transparent 536:5
417:1,14,17	369:17 385:10	516:6	526:9	537:3
422:15 423:3	407:15 408:22	topic 11:19 12:13	Tracy's 19:8 133:22	transportation
432:6 436:16	411:10 415:22	44:6 85:3 88:10	trade 45:12 47:21	296:22
437:5 445:7 447:9	416:6 417:6	103:19 104:1	397:22 418:19,22	trap 384:20 543:13
	<u> </u>			1.5.1.20 0 10.120

542.14	4	227.16.220.16	226.10.240.22	505.0
543:14	trip 548:14	337:16 339:16	336:10 349:22	unambiguous 505:8
trapped 383:16	triploi 547:17	343:10,15 371:4	354:5 363:17	518:8
392:17	trod 138:20	383:17 423:10	384:2 394:7	unanimously
trapping 382:11	tropical 267:8	428:3 436:4 460:3	399:16 410:4	269:11
traveled 252:12	375:22	509:6 521:2,6	411:5 428:8,16	unavailability
treat 18:20 283:6	trouble 209:8,8,9	524:15 541:22	429:10 432:11	276:20
415:21 422:21	323:16 325:4	542:16	435:4 438:21	unavailable 309:11
519:20	391:15	Tuesday 1:8 250:8	439:12 443:11	unbearable 29:17
treated 426:1	troublesome 116:19	turn 58:21 100:16	465:20 468:13	unbleached 357:17
442:19 444:2,7,14	trout 317:22	121:4 161:7	469:20 470:5	uncertainty 200:21
492:5	truckload 286:18	247:11 261:15	475:14 477:18	unclear 316:20
treatment 372:20	true 110:12 215:9	297:2,6 300:22	481:10 486:6,20	uncomfortable
374:12 391:21	293:9,9 399:19	305:16 335:6	487:11 492:4,8	128:12
394:9	407:10 432:1	396:7	494:4 498:1 499:6	uncontrollable
treatments 442:21	truly 246:1 343:4	turned 78:10	501:3 502:9 504:6	501:11
443:7	378:2 529:21	turning 510:5	504:7 505:1	undergo 78:20
treats 442:14	530:5	turnover 528:18	526:11 528:11	undergoes 57:18
tree 353:18 365:9	trust 463:22 513:4	tweaked 30:22	530:15 538:4	79:16
369:22 370:14	try 15:18 20:14	tweaking 7:7 24:7	545:13	undergone 463:17
371:1,5,16	34:19 36:9,10	29:21 413:19	two-month 522:20	underlined 310:3
trees 91:12 399:10	37:20 42:15 43:1	tweaks 303:15	two-way 160:11	undermine 344:4
tremendous 93:19	48:22 53:18 64:12	Twenty 550:11	413:17 422:20	undermining
93:22 111:21	88:6 114:2 117:6	Twenty-five 120:22	type 73:7 109:11	346:12
250:21 251:4	131:1 208:20	twice 140:16 461:6	112:16 125:19	understand 22:18
302:15 303:2	232:7 243:20	482:14	188:14 204:13	42:3 89:6 90:5
350:8	272:16 286:4	two 4:3,9 8:4 10:8	220:6 228:18	126:17 135:11
tremendously 93:21	318:15 324:19	20:21 21:7 36:22	237:10 244:18	141:4 150:2 191:5
triage 20:11	331:11 334:3	41:4 61:2 65:6	341:4 391:20	193:17 198:1
trial 172:18	338:9 342:4 353:7	70:7,8 72:2 82:9	501:1	200:4 203:7,17
trials 172:14,15	373:17 383:10	82:22 85:13 87:15	types 141:5 324:1	236:22 252:11
418:16	412:5 415:8,17,18	91:22 101:10	359:18 518:17	264:15 288:19
tried 40:4 41:11	415:19 435:1	102:1 103:11	typical 38:20	292:12 294:19
81:7 106:21	445:7 482:11	110:1 115:13	typically 276:15	298:13 310:19
175:10 178:22	520:21 523:2	123:5,6 136:8,9	288:22 349:16 405:1	312:16 333:3
189:21 245:2	527:15 542:15	150:8 155:6 156:8	405:1	334:15 336:7
249:3 304:10	543:10	157:1 159:7	U	343:14 350:10
319:1,5 330:2	trying 12:8 38:12 40:13 42:16 44:2	178:13 186:6	UC-Davis 361:17	358:21 362:8
362:8		202:20 209:16	UK 334:22	387:1 421:18
trigger 380:10	45:15 81:13 85:21	212:15 216:9	Ulery 48:14	428:11 453:16
392:8,21 393:11	104:21 109:5	221:15 253:18	ultimate 256:4	454:12 499:8
395:21 401:15	119:2 133:17	260:7,13 268:17	ultimately 313:11	503:22 514:12
triggered 395:10 399:2	136:19 147:22	268:22 269:3,7,21	371:18 378:18	537:5
	153:5 162:18	271:17 272:5	unacceptable	understanding
triggering 392:19	163:5 173:13	274:4 278:8	521:16	145:2 197:13
393:1	174:7 178:20	279:21 283:19	unadulterated	384:7 453:18
triggers 400:9,12,22	232:15 242:20	287:21 289:15	455:9 459:16	497:8,10 503:15
trimmings 240:7	292:12 309:5	290:5 306:12	488:17,19	503:19 507:12
241:1 316:7,10	323:6 329:6	314:11 332:20	700.17,17	513:21

understands 499:15	University 349:3	348:2 461:8,21	443:22 449:7	239:20 431:4
understood 226:15	402:6 490:15	462:6 484:12	450:3,21 451:4,6	value 36:7 127:19
284:5 489:6	unnecessary 454:7	492:21	451:10 452:16	148:3 181:19
529:21	530:7	USDA's 229:16	453:10,12 455:10	194:2 263:1 288:5
underway 521:16	unparalleled	use 7:1 41:5 47:22	456:19 457:5	288:15 339:15,17
underway 321.10	514:17	53:3 59:9 65:15	464:11 472:21	Vanderick 521:19
311:14	unprecedented	71:3 84:14,15,18	484:6 488:2 490:6	vapor 385:13 391:2
undisputed 61:21	258:19	94:4 109:1 135:6	499:1 500:18,19	variations 172:15
84:1	unprocessed 455:9	145:8 148:18	500:21 523:10	172:16,17
undue 153:2	unqualified 138:8	155:20 156:2	547:17	varied 106:16
unduly 451:20	unrealistic 444:11	159:2 165:4,7,9	useful 418:16	475:13
unequivocally	unrecognizable	168:1 169:17	473:18	varietal 370:14
109:8	50:22	175:22 187:14,21	user 292:4	varieties 154:6
uneven 377:12,17	unregulated 228:9	199:17 200:2	uses 158:17 351:12	156:14 158:13
462:1	unripe 366:10	206:4,7,14 207:6	386:4 405:1	159:21 160:15,17
unfair 126:20	untangling 453:21	211:21 212:1	414:16 485:6	169:4,8 179:20
147:18 412:20	untreated 411:22	213:2 215:14,21	usual 273:15	370:12 372:15
unfolds 180:10	421:18 442:17	215:22 216:6	usually 13:8 23:8	374:20,21 399:20
unforeseen 6:16	443:22 444:6	237:2 238:5	163:10 327:14	399:20 410:7,9
unfortunate 253:1	unwanted 7:1	239:12,17 240:2	utilize 20:6 94:3	415:5,7,9,11
unfortunately	unworkable 547:9	241:14 247:7	utilized 156:19	419:20 422:18
109:10 145:1,10	upcoming 351:6	262:18 263:14,20	utilizing 173:16	427:19 429:15,19
341:22 550:20	update 19:4 31:9	264:5 266:11	utmost 408:20	430:4,21 431:21
uniform 182:19	114:17 219:1	267:8,19 268:8	U.S 144:4 277:12	432:1,4,5 434:2,3
374:13	351:2	271:11,13 276:17	278:7 350:2	434:13,19 442:8
uniformity 182:22	updating 19:16	279:9 288:10	372:14 376:2	450:6,7 451:19,22
unintended 8:17	upheaval 111:21	295:7 299:3	398:6 441:16	452:12 492:9
543:19	uphold 335:13	308:22 316:12	499:12 528:21,22	variety 52:18 174:1
Union 334:7,10	upper 51:8 404:20	318:7,11 326:12	U.S.A 511:8	174:8 175:6
511:8	up-front 119:3	330:7 334:10		290:10 380:4
unique 291:5	urge 102:7 448:11	337:9 341:1,4	V	399:17 418:15
370:17 381:1,2	462:6	346:8 350:17	vague 275:9	419:15 422:21,22
452:19	Urvashi 314:15,18	361:6 364:15	vagueness 330:14	424:14,16 431:13
unit 104:18 105:22	333:21 334:6	367:5,22 368:14	Val 433:15	431:17 451:10
125:18 126:16	339:1 344:9	368:16 369:18	Valerie 2:7,18	various 38:8,18
127:19 134:8,11	usable 365:3	372:18 373:7	18:15,21 19:4 35:1	103:21 221:4
134:13 139:12,15	usage 152:3,20	375:3,16 376:11	72:15 120:3	320:10 328:5
140:7 142:11	153:1 155:7,8,11	378:20 379:6,19	123:16 151:5	442:9
270:19 403:11	155:12 156:4	382:15 385:10,11	227:9 237:21	vary 400:4
517:2	158:7,16 159:4,5,5	387:6 390:1,4,5,12	251:2 281:10	vast 420:14
United 1:1 126:10	172:1 200:8 207:2	390:21 391:16	303:16 307:19	vector 335:1
140:13 144:22	239:9 421:20	393:21 397:16	312:22 462:15	veg 420:15
145:3,7 289:21	434:7,8 442:2	400:17 401:3	515:16 519:4	Vegas 302:19
349:21 365:7	549:14	403:19 405:15	valid 108:11 116:22	vegetable 58:20
398:5,9 473:8	usages 205:16	409:15 412:16	124:10	79:15 415:5
units 106:10 139:20	USDA 92:22 144:8	415:20 420:1,7,10	validation 157:19	483:10
143:16 403:13,17	148:2 227:14	422:12,14 426:1	validity 449:17	vegetables 409:21
universe 36:1 327:5	337:15 342:7	430:21 432:4,5	valuable 114:22	409:21 410:5,20
	•	•		•

		l		
411:1 412:19	visited 298:2	260:8 462:8	409:3,17 411:16	wants 45:9 90:22
414:18,21 432:13	vis-a-vis 249:11	wait-listed 417:1	412:12 413:1	164:2 192:14
499:17 500:13	vital 221:2 264:14	Walden 48:11	415:14,17 416:11	271:7 298:9 303:6
vendors 159:11	vitamins 242:12	walk 103:12 391:18	417:11,13 419:22	303:6 411:2
Venezuela 140:16	263:15 265:19	483:7,9	420:2 422:3	525:12
verbiage 41:1	vociferous 338:11	Walter 443:5	423:11 430:4,16	warm 301:4
verge 186:21	voice 67:12	want 22:16 39:18	435:19,20 437:22	warrant 498:19
verification 505:2	volatile 484:6	60:7,8 67:12,13	438:22 440:3	warranted 253:14
verify 156:12	volume 344:18	72:6 82:5 84:15	457:15 460:21	wash 83:12
164:15 479:6	350:3 378:4 379:9	85:1 86:21 87:13	461:19 462:22	washed 262:20
verifying 494:22	379:12 392:19	89:19 94:8,19	463:2 467:3	464:11
vernacular 199:13	volumes 378:9,11	96:14 97:3 98:8	480:17,19 488:20	washing 298:21
version 45:1 221:16	378:15 379:8	99:1,22 102:17,20	489:6 492:17,22	299:6
255:5 284:8	396:12 401:21	104:8 111:9	498:10,12,15	Washington 1:12
294:14 296:2	voluntarily 147:19	113:17 116:19	506:16 507:15	369:21 370:11
341:4 437:16	volunteer 535:18	117:3,22 119:10	512:2 513:7,8	371:10 387:22
448:21 449:1,9,10	vote 14:4,6 18:3,5	132:7 133:1,3	514:14 515:8	397:20 398:3,10
489:10	41:21 43:6 111:6	145:15 148:1,5	517:6 524:11	419:18 498:15
versions 409:9	112:12 186:13,14	152:4,4,9 154:19	525:13 529:17	wasn't 26:3 147:8
479:15	186:18,18 188:9	157:7 160:4	539:4 541:4,6,7	261:20 271:11
versus 81:10 115:14	189:8 190:10	162:17,18 165:17	545:17	279:20 312:7
155:12 159:5	191:4,7 201:3	166:1,2,9 171:12	wanted 21:11 32:21	319:7 345:15
200:22 238:2	203:2 231:15	175:4 176:22	78:21 99:5 108:14	493:19 495:22
377:15 382:2	247:8 264:9	177:7 191:14,20	109:15 119:11	496:12 497:11
431:12 500:20	268:16,20,21	196:9 198:15,16	120:5,14 127:21	502:13 508:3
vetted 97:8 520:16	271:16 274:3	201:18 204:16,18	151:12 154:16	waste 322:12 337:7
522:6	278:9 284:17	204:22 205:3	161:7 166:18	542:8,12 544:16
viable 106:17 130:5	313:16 429:6	209:18 216:15	167:22 179:3	wastes 316:11
153:7 154:6	430:9 432:19	217:2,4 223:7,14	188:7 193:9 201:8	Watch 511:2
269:18 475:10	496:4 502:4	232:3,20,21	201:10 219:19	watching 92:3
vice 1:15 8:8,10	voted 6:9,17 7:15	233:12,13 235:21	222:16 223:2	water 7:5 63:7
44:4 307:9 440:6	8:5 186:10 189:7	238:17,19 239:17	226:6,14 233:4	66:14 146:1
Victoria 48:15	202:19 214:7	240:3,12,14,21	240:18 242:6	244:19 298:21,22
view 25:4 106:16	216:11 217:8	241:3 242:1 244:3	253:13 281:16	299:12 323:1
132:1 209:5	235:18 248:5	250:15 252:1,7,8	282:2 293:3	333:5 354:18
413:16 437:14	260:20 271:14	252:15,17 267:6	303:19 305:8	362:18 389:10,14
538:1 543:15	428:16	270:3 271:18	312:15 315:18	511:2
viewed 27:11	votes 24:17 186:16	275:7 282:6 293:8	317:3 321:14,20	waterways 420:17
176:11	voting 14:3 24:8	295:22 311:13,16	329:2 343:22	Wave 460:14
viewing 28:22	281:9 292:15	313:9,16 319:12	347:4 348:2 362:7	way 21:5 23:7 32:14
views 238:11 258:14	526:16	328:15 330:11	363:3 416:16	32:15 38:3,20 39:2
vigor 367:20	vulnerable 112:1	334:5 340:14	465:8 482:8,9	40:6 49:4 60:4
violations 522:1		342:2 344:3 345:6	509:17 510:19	73:14 76:12 94:5
virgin 255:8	<u>W</u>	345:21 346:16,20	511:18 512:3	111:9 121:5
virtual 483:4	W 1:15	349:9,12 350:19	515:22 540:10	132:21 134:19
vision 514:18	wait 9:7 297:2	358:19 361:15	549:6	137:3 140:11
visit 131:14 139:12	393:15 499:20	364:2 379:6	wanting 171:14	141:12 148:3
486:11	waiting 11:18 41:2	387:11 407:2	258:22	151:9 165:11
	Į	ı	1	ı

167.16 160.6 10		200.6 270.14	222.11.242.10.20	500.5 6 516.0 14
167:16 169:6,18	weeds 172:17 217:3	208:6 279:14	232:11 242:19,20	500:5,6 516:9,14
172:8,21 173:10	217:18 539:3,10	307:10 417:20	243:3 246:9,21	whatsoever 240:20
178:18 186:18	548:4	423:4,8 425:17	250:10 251:10,11	whichever 197:15
192:2,18,19 193:6	week 99:10 473:10	438:8 490:14	252:20 257:7,8,15	white 62:20 98:17
196:6 197:21	522:21	496:4	261:11 262:4	460:14 504:8,10
198:2 199:4,21	weekly 47:12,17	weren't 283:20,21	264:15 270:11	507:7
200:19 201:11	weeks 303:15 365:1	292:15,15 325:10	272:9 294:15	wide 50:4 52:18
206:11,13 212:2	weigh 258:14 412:3	438:12 465:8	295:1 296:5,18	141:4
220:14 225:4	520:13 521:6	529:6	300:14,16 304:16	widely 344:1 376:5
228:6,7 249:16	weighed 6:7	West 397:14 398:7	304:18 306:10	475:22
256:20 259:5	weight 26:22	we'll 9:8 21:13 99:8	313:12 314:6,10	widen 129:2
261:11,13 302:11	weighted 99:18	100:11,15 114:2	320:15 323:13	wider 549:18
304:19 306:2	412:20	119:21 122:8	324:4,9 327:2,4	widespread 336:14
311:4 314:19	Weisman 1:22 3:20	125:8 149:20	333:15 347:7	wife 135:20 410:1
332:10 339:3,8	4:4 32:20 48:11	150:8 163:12,12	353:11 360:5	415:8
342:15,18 346:9	89:22 90:12 98:7	163:15 183:19	379:4 386:17,18	wife's 137:8
346:21 348:8	114:18 179:3	184:5 192:6	387:7,8 392:18	wild 62:10 87:21
364:5 389:2 394:5	191:20 192:10	210:17,18 231:5	394:9 396:22	89:3 181:8 234:16
394:13,14 395:11	217:15 251:12,15	247:8 255:17	424:2 425:4 436:3	235:1,7 239:4,5
406:4 423:21	251:19 253:9,11	259:8 262:12	436:16 457:22	272:22 273:5,18
429:11 430:22	266:17 269:3	288:13 293:22	460:1,3 462:7	316:4,5 333:14,16
431:19 432:22	272:15 275:21	298:16 333:12	486:6 490:1,2	336:9 337:10
436:6 446:18	276:8 278:13	348:16 438:11	500:14 507:3	341:2 354:15
450:3,18 481:12	282:8 291:15	440:1 458:14	510:7,9 512:22	360:1 446:3 475:6
482:20 490:4	292:1 293:10	480:21,22	516:5 517:10	475:8,11 476:7,18
493:3 494:8 501:9	300:14,20 313:22	we're 4:10 12:2	524:19 528:1	477:5 478:8 480:1
505:5 532:9 542:3	423:8 456:18	22:1 23:10 24:17	529:3 532:9	480:17 537:12
545:2 547:16	550:19 551:2	25:7,9 27:17 30:2	533:18 544:19	542:9,20 547:12
550:21	Weisman's 481:16	40:6 42:16 44:4,5	548:21	wildlife 170:20
ways 16:18 38:18	welcome 4:9 99:2	44:6,12 46:1,12,13	we've 28:20 42:13	546:18
130:12 256:21	99:20 100:13	48:20 49:5,6,7,22	49:11,15 53:20	wild-caught 233:17
297:18 323:8	340:1 369:7 491:4	50:1,2 65:6 68:19	54:4 56:6 58:6	235:15 236:17
362:9 394:7	welcomed 131:14	69:5 77:12 80:22	61:19 65:7 72:8,9	237:3 240:7,13,22
528:12 547:12	welfare 250:6	85:7 86:9 87:2,22	72:9,11,12 74:10	339:5
wayside 38:4	332:11 333:1	88:3 89:16,17,17	75:14 76:4 78:9	WILLBURN 2:19
weak 122:21	well-articulated	100:1,9 101:13,20	80:21 81:7 85:12	willful 522:1
weaker 275:14	260:1	107:15 110:13	97:5 101:18	willing 193:6
Weakley 48:9	well-considered	114:11 122:13	109:17 117:8	198:11 226:3
weaknesses 17:19	259:22	124:12 126:21	134:20 163:21	243:13 344:3
Web 18:16 19:17,18	well-deserved	128:14 129:7	170:1 175:10	436:14 451:2
20:7 109:7 214:14	100:10 444:18	132:1 149:15	181:12 210:3	457:17 460:19
233:3 268:5	well-known 273:12	151:18 154:11	237:14 254:11	523:2
325:20 326:22	well-managed	162:16 164:7,20	261:7 264:12	winning 136:11
353:17 427:6	404:13	165:10 168:9	303:10 308:3	wins 484:14,20,20
475:19 478:17	Wenatchee 371:10	171:20 172:21	321:9 325:13	winter 371:2 372:12
529:5	went 60:9 67:5 84:1	173:6,7,10,12,14	339:1 416:22	372:17 374:5
weed 214:3 216:12	107:14 120:11	195:16,21 210:14	428:14,15 430:1	399:20
539:8	134:19 185:17	224:9 225:13	473:22 480:22	Wisconsin 1:11
	<u> </u>	<u> </u>	<u> </u>	ı

			1	1
wisdom 146:17	28:4,12 43:7 47:6	20:15 25:5 38:7,11	wouldn't 98:4	year 15:11 28:5
197:15 199:15	48:3,21 49:11	45:8,14 46:16,20	146:12 157:8	45:4,18 82:15
548:16	52:14 55:18 65:6	46:21 47:4,22 85:2	176:17 241:13	107:19 139:16
wish 11:18 486:11	81:9 82:2 85:5	90:20 91:2 99:15	337:21 506:20	142:6 143:17
489:15 490:21,22	87:17 90:22 95:13	101:8 150:14,22	508:2 517:20	157:5,9 172:12,16
withdraw 24:20	96:9,18 98:21 99:5	151:1,13 159:11	530:1	172:16,19 173:4,5
withdrawn 212:7	100:2 102:18	166:19 183:7	wow 95:18 343:12	174:15,18 176:18
withdrew 200:5	108:5,9 131:16	204:8 230:22	wrap 376:21	205:6,7,7 301:17
withholding 6:3	137:12 138:16	234:4 239:11	wraps 250:4	302:15 374:16
witness 406:3	150:13,15 152:6	243:12,19 247:19	wrestle 249:9	380:18 402:4
witnessed 406:2	154:6 166:3,4,13	250:22 251:1	write 89:1 98:3	415:4,13 424:13
Wolf 481:6 491:5,7	166:22 167:17,18	261:13 271:21	131:1 163:16	424:22 432:7,7,8
491:11,20 492:4	174:8 175:6 176:5	303:10 318:4	348:22 432:3,5	437:4,4 442:10,11
496:21 510:14	181:8,10 182:17	319:6 321:10	436:8 513:1	450:2,2,6,9,10
518:14	184:12 212:8	323:22 324:21	writer 165:19	472:15 489:14
Wolf-DiMatteo	218:21 219:1	325:4 327:2 353:9	writing 432:8	493:12 500:10
493:16	222:17 227:15	355:22 363:14	448:12 494:14	512:4 528:16
wonder 487:15	228:7 231:5 241:8	414:22 458:14	written 21:6 213:21	529:1 531:17
wonderful 4:6	241:17 243:14,16	475:9 481:3	237:21 240:9	533:12 541:11
23:22 28:4 100:4	248:11,17 249:10	493:18 534:18	267:6,22 302:12	546:3
114:10 149:17	250:18,21 251:4	548:10	316:19 328:22	yearly 157:2
472:3	251:22 253:8	workload 29:16	413:22 429:20	years 38:1 44:16
wondering 26:8	306:2,5 331:11,20	152:10	446:4 456:7,13	55:19 72:2 80:2,7
31:19 133:14	337:21 352:7,11	works 18:22 20:5	460:18 478:16	128:7,9,11,11
188:14 217:16	360:20 361:1	135:20 294:17	479:14,22 505:22	136:15 139:18
225:11 238:1	417:12 422:4,7	364:5 501:9	532:1 537:3	157:4,21 158:8
322:11 435:8	425:8,8,18 426:17	514:20 537:20	writtencomments	174:10 178:9,14
545:13	432:20,21,21,22	541:9 549:21	281:22	202:20 222:14
wonders 453:2	435:7,16 436:15	worksheet 20:2	wrong 23:4 49:4	253:20 254:9,10
woods 420:14	438:7 439:19	worksheets 19:20	85:14 125:19,19	287:12 301:8
Woody 418:21	445:11 461:1,5	world 56:5,8 59:3	139:5 431:14	332:20 343:6
word 23:4 105:15	463:3,6 468:6	66:17 90:11	434:16 538:13,20	351:4 356:7
124:11,11 183:18	478:1 480:11,18	102:18 107:2	WSDA 371:21	363:15 364:7
262:18 433:9	487:13 499:9	112:1 134:14	Wyard 46:3 53:18	371:9 372:1,13
506:11 530:9	505:11 513:18	144:20 162:10	65:5 68:12 76:17	396:20 402:4
wording 5:20	518:18 526:5	280:21 310:9	83:5,17,22 84:4	416:4,5 432:11,16
158:14 160:15	533:8,10,18	311:15 361:19	87:1,19,22 89:3,6	441:14 443:11,13
265:11,14 312:10	534:20 539:2	365:5,11,14 469:8	89:16 92:13 95:2,6	,
447:5 515:19		488:7 533:14	307:8 353:1,4	
	540:12,19 545:6 545:15 547:8		307.6 333.1,4	486:3 503:10 512:12 519:12
words 160:20		543:6,7 544:12 546:18	X	
164:14 177:2	548:5		$\frac{1}{X}$ 500:19	521:15
280:15 355:14	workable 20:4	world's 420:15	xanthan 549:17	year's 158:6 170:2
469:3 525:8	461:14	486:7	XYZ 410:11	297:2
wordsmithing 26:8	worked 31:1 45:17	worried 102:13	23.1.2.1 7.1 0.11	year-and 106:12
work 8:12 14:12,15	96:15,22 97:1	worse 208:9	Y	year-and-a-half
14:18 17:13 20:11	152:1 172:19	worth 167:18 453:4	Yakima 387:22	105:7
20:13 22:5,10,17	181:5 298:1 364:6	456:11 458:3	yeah 163:11	yeast 52:4 54:18,19
22:21 23:10,12,13	working 14:17 20:3	worthwhile 497:19	J	54:20 56:3 58:10

59:3,12 68:20,20	\$5,000 127:6 140:8	530:18,19	20,000 286:18 287:9	205606 70:19
73:5,15,21 87:15	\$5,000 127:0 140.8 \$5,001 126:11	101 3:10	294:21	21 358:15 365:7
88:2 92:16 356:5,7	140:13	104.2 465:16	20-to-1 507:18	465:16
356:11,12,19,21	140.13	11 60:11,12	200 290:8 370:1	2102 234:12,12
357:1,6,13 488:20	1	110 410:17	409:20 412:17	335:21
506:5,11	1 63:13 210:17,20	110 410.17 112 410:18	413:3 414:16	2107(a) 234:19
yesterday 19:7	221:17 277:4	12 127:6 210:15	2000 221:16 461:6	2107(a) 234.19 2107(a)(1)(a) 235:3
22:13 29:9 31:16	287:10 293:4	301:16 345:1,9	2000 221.10 401.0 20007 1:12	2107(a)(1)(a) 233.3 2107(c) 234:22
42:11 104:10	432:12 468:17	363:14 367:15	2000 7 1.12 2001 443:14 461:6	22nd 448:17
105:14 108:17	485:4 516:17	372:1	2001 443.14 401.0 2004 55:20 182:8	23rd 519:16
109:16 112:18	1:00 210:22	12:03 210:21	353:22 476:21	230 3:18
114:13 117:3	1:08 211:2	12.03 210.21 120 410:14 522:15	482:16	237(b) 308:6
148:8 204:1	10 4:20 9:13,18 11:2	523:1	2005 151:3 160:6	237(c) 307:22
208:14 214:19	100:11 128:7	14 522:1	356:1 420:8 461:6	24 126:1 381:15
224:15 240:8	144:1 172:6 174:5	14 322.1 140 541:11	496:5	499:13,16
244:13 240.8	174:6 287:15	15 172:6 404:19	2006 301:19 302:10	25 121:14 127:16
267:6 268:1	361:7 367:16	466:19 492:20	350:20,22 356:3	25 121:14 127:16 25(b)s 228:10
	372:7 402:4	526:19	461:8	25(b)s 228:10 2505 1:11
282:22 284:3,14 284:22 290:16	416:22 436:9	150 3:12 541:11	2007 47:5 231:10,18	250 5 1:11 251 3:19
	437:8 445:1	150 5:12 541:11 1500 441:15	,	251 3:19 252 237:5
291:16 305:9	466:11,14 500:18		243:9 244:17	25 2 257.5 27 416:22
444:10 463:8	526:19	17,000 398:15	398:14 465:5	
495:11 496:22	10,000 521:19	170 349:20	2008 1:8 47:16	278 78:15
497:8,12 525:5	10,000 321.17 10-minute 100:10	18 1:8 107:18 371:2	220:20 261:14	28 3:4
yield 64:7 100:19	100 77:3 92:18,21	180.95 223:6	320:20 372:5	29 149:19
York 528:4,5	93:1 101:11 103:5	180.950 220:9	398:14 465:11	3
531:16	113:16,19 115:5	221:10,22 223:10	2009 222:19 419:12	3 72:17 78:7 154:17
you-pick 499:18	116:12,13 136:8	184 3:16	485:4	202:3 222:8 250:8
$\overline{\mathbf{z}}$	147:16 172:13	184.1400 358:15	2010 522:11	506:10
ZAHA 2:21	174:15 236:21	19 129:6	204 444:14	30 380:9,14 393:5
Zea 48:15	237:7 288:1 297:7	1982 417:19	205 76:18 413:4	393:15,21 394:11
zeolite 389:6,6,13	335:1 336:6,10	1994 461:5	444:13 469:9	394:11,12 395:3
389:13	337:19,21 338:9	2	205.2 70:21 183:16	395:22 505:2,6
zero 9:1 188:10	339:22 340:3,11	2 63:17 123:6,15	205.270 357:3	30th 261:3
203:2 214:7 217:8	341:15 342:14	202:3,3 310:17	205.301 454:8	30,000-foot 106:16
235:19 268:17,22	343:17,18 347:1	446:16 468:17	205.403 106:14	30-day 524:13
271:16 274:3	349:14 368:16	2,000 398:11	134:7,14	30-day 324.13 30-degree 394:10
281:11 284:17	387:6 400:9 403:7	2.69 290:12	205.403(a)(1)	315 3:22
543:17 544:7	403:22 436:7,8	2.09 290:12 2.7 289:20	104:15	313 3:22 32 394:11
547:10	405:22 450:7,8	2. 7 289:20 20 80:1 129:6 172:6	205.601 185:5 471:3	35 315:1
zinc 469:4	452:18,19 453:3,7	172:12,12 173:5	472:6	37 3:8
ziiic 469:4 zoo 310:19 311:9	452:18,19 453:5,7	172:12,12 173:3	205.601(b)(1) 212:4	31 3.0
351:17	453:12 454:9,13	287:22 290:3,5,5	215:16	4
zoos 311:2	· ·	371:9 372:8	205.601(e) 202:2	4 3:2 59:16 75:7,10
ZUUS 311.2	455:15 456:10,20		205.601(j) 468:4	160:7 219:8,10,14
<u> </u>	457:4,20 458:18	398:17 402:3	205.605(b) 264:8	221:8 228:2
\$15 350:1	459:7,9,13,22	405:1 441:14	267:4 465:19	229:10 279:2
\$30 350:2	460:4,6 488:13,16	444:21 466:11,18	205.606 282:17	284:11 506:10
ψ υ υ υυ.Δ	488:17 489:8	527:14 550:10	205605 51:22 71:3	20 1 .11 J00.10
	•	•	•	

516:20 4-A 221:16 4-B 224:16,21 40 220:8 221:9,21 266:18 308:15,20 312:6,10,20 359:14,16 493:21 549:10 750 370:19 78 419:20 8 312:420:01.550.14
4-B 224:16,21 40 220:8 221:9,21 359:14,16 493:21 549:10 8
40 220:8 221:9,21 549:10 8
40 220.0 221.9,21
228:12 349:16,17 605(a) 263:19 8 124:20,21 550:14
415:13 501:4 264:18 265:1 8th 260:21
546:2 269:6 8-to-1 507:19
40-day 393:5 605(b) 91:9 260:15 8:00 1:12
401(c) 165:4 260:18 263:16 80 172:12 177:3
45 314:21 380:9,14 264:19 265:3 800 142:3
393:21 395:3 266:19 82 417:22
45-day 393:15 606 7:3 29:5 30:5 83 227:1,2
396:1 32:8,9,17 33:4,21 84 398:3
47 419·14
48 499:11.16.20 59:1.12.19.20 — 9
69:21.21 70:9 71:1 9th 261:18
5 71:18 72:5 74:1,19 90 336:4 395:16
5 59:21 160:7,8
263:5 350:5 76:19 79:4 91:12 95 52:2 68:21 263:4
414:17 432:14 92:13 93:17 461:6 464:14
5(b) 172:2 179:14 210:8,10 488:20
5(d) 433:15,17
5,000 138:17,18,20 256:1 257:4 269:7 98 398:6,8 410:13
143:10 269:12,17 270:14 461:6
50 224:20 245:7,12 276:1 278:10 99 485:15
301:22 302:4 282:12 295:7,15
319:3 322:13,19 295:21 296:9
323:15 414:7 305:9,10,14 307:1
415:14 436:9 309:2,9 312:6,10
544:17 358:1,21 359:6,11
51 371:1 360:4 508:10
54 48:16 509:9 510:6
549:10
6 609 242:2
6 234:19 432:15 610 242:2
474:20 499:19 611 242:2 611 242:2
60 181:6 349:16,17 612 237:9 242:2
407.14
601 36:8 612(a) 237:4 65 407:15
603 241:13,14
308:15,20
605 36:8 44:20 7 120:4 309:17
58:10 69:20,21 370:6 466:17
70:9 72:18,22 7:22 551:10
73:19 74:5,12,17 7:40 550:16
75:10 76:18 87:7 7:40 330.10 70 144:1 482:21
92:12 93:12,17 701 398:12 441:16
97:6 256:10 260:5 75 414:8
75414.0