

**FORMAL RECOMMENDATION BY THE  
NATIONAL ORGANIC STANDARDS BOARD (NOSB)  
TO THE NATIONAL ORGANIC PROGRAM (NOP)**

Date: 11-25-06

Subject: **Lime Mud – Crops.**

Chair: **Kevin O'Rell**

**Recommendation**

The NOSB hereby recommends to the NOP the following:

Rulemaking Action: \_\_\_\_\_

Guidance Statement: \_\_\_\_\_

Other: XXX

**Statement of the Recommendation (including Recount of Vote):**

The Crops Committee recommends that the NOSB reject a petitioners request for the addition of Lime Mud for use in Crop Production.

NOSB Vote:            Motion: Gerald Davis            Second: Nancy Ostiguy

Yes – 14

No – 0

Abstain – 0

Absent – 0

**Rationale Supporting Recommendation (including consistency with OFPA and NOP):**

The material is synthetic. Lime mud is too general of a term; it includes substances that differ from the material produced by petitioner. The Rule prohibits materials made in lime kilns 205.203(c)(d). There are wholly natural substitutes.

**Response by the NOP:**

## NOSB COMMITTEE RECOMMENDATION

Form NOPLIST1, Committee Transmittal to NOSB

For NOSB Meeting: _____	Substance: <u>Lime Mud</u>																								
<p><b>A. Evaluation Criteria (Documentation attached; committee recommendation attached)</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"></td> <td style="text-align: right; font-weight: normal;">Criteria Satisfied?</td> </tr> <tr> <td>1. Impact on humans and environment</td> <td style="text-align: right;">Yes    No <b>X</b> (see B below)</td> </tr> <tr> <td>2. Availability criteria</td> <td style="text-align: right;">Yes    No <b>X</b> (see B below)</td> </tr> <tr> <td>3. Compatibility &amp; consistency</td> <td style="text-align: right;">Yes    No <b>X</b> (see B below)</td> </tr> </table>			Criteria Satisfied?	1. Impact on humans and environment	Yes    No <b>X</b> (see B below)	2. Availability criteria	Yes    No <b>X</b> (see B below)	3. Compatibility & consistency	Yes    No <b>X</b> (see B below)																
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<p><b>B. Substance fails criteria?</b></p> <p>Criteria category: <u>1, 2, &amp; 3</u></p> <p>Comments: See section D, line 3</p>	<p><b>C. Proposed Annotation:</b> _____</p> <hr/> <p>Basis for annotation: _____</p> <p>To meet criteria above: _____ Criteria: _____</p> <p>Other regulatory criteria: _____ Citation: _____</p>																								
<p><b>D. Recommended Committee Action &amp; Vote:</b>    Motion by: <u>Nancy</u></p> <p style="text-align: center;">Seconded: <u>Kevin</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Vote:</td> <td style="width: 10%;"></td> <td style="width: 15%; border: 1px solid black; text-align: center;">Agricultural</td> <td style="width: 15%; border: 1px solid black; text-align: center;">Nonagricultural</td> <td style="width: 15%; border: 1px solid black; text-align: center;">Crops</td> <td style="width: 10%; border: 1px solid black; text-align: center;">X</td> </tr> <tr> <td>Yes:</td> <td style="text-align: center;"><u>5</u></td> <td style="border: 1px solid black; text-align: center;">Synthetic</td> <td style="border: 1px solid black; text-align: center;"><b>X</b> Not synthetic</td> <td style="border: 1px solid black; text-align: center;">Livestock</td> <td style="border: 1px solid black;"></td> </tr> <tr> <td>No:</td> <td style="text-align: center;"><u>0</u></td> <td style="border: 1px solid black; text-align: center;">Allowed<sup>1</sup></td> <td style="border: 1px solid black; text-align: center;">Prohibited<sup>2</sup></td> <td style="border: 1px solid black; text-align: center;">Handling</td> <td style="border: 1px solid black;"></td> </tr> <tr> <td>Abstain:</td> <td style="text-align: center;"><u>0</u></td> <td style="border: 1px solid black; text-align: center;">No restriction</td> <td style="border: 1px solid black; text-align: center;">Deferred<sup>4</sup></td> <td style="border: 1px solid black; text-align: center;">Rejected<sup>3</sup></td> <td style="border: 1px solid black; text-align: center;">X</td> </tr> </table> <p style="text-align: center;">1—substance voted to be added as "allowed" on National List</p> <p>Annotation: _____</p> <p style="text-align: center;">2—substance to be added to "prohibited" paragraph of National List</p> <p>Describe why a prohibited substance: _____</p> <p style="text-align: center;">3—substance was rejected by vote for amending National List</p> <p>Describe why material was rejected: <u>The material is synthetic. It is not mined. Lime Mud is too general of a term; it includes substances that differ from the material produced by the petitioner. The loading rate of contaminants is too high for an industrial waste product. The Rule prohibits the use of materials made in lime kilns. (205.203 (c)(d) There are wholly natural substitutes including ground limestone and ground oyster shells.</u></p> <p style="text-align: center;">4—substance was recommended to be deferred</p> <p>Describe why deferred, if follow-up is needed. If follow-up needed, who will follow up _____</p>		Vote:		Agricultural	Nonagricultural	Crops	X	Yes:	<u>5</u>	Synthetic	<b>X</b> Not synthetic	Livestock		No:	<u>0</u>	Allowed <sup>1</sup>	Prohibited <sup>2</sup>	Handling		Abstain:	<u>0</u>	No restriction	Deferred <sup>4</sup>	Rejected <sup>3</sup>	X
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EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST

Category 1. Adverse impacts on humans or the environment? Substance Lime Mud

1. Are there adverse effects on environment from manufacture, use, or disposal? [§205.600 b.2]			X	
2. Is there environmental contamination during manufacture, use, misuse, or disposal? [§6518 m.3]	X			Inorganic contaminants could be concentrated levels with repeated applications (TAP Table 1, pg 2 lines 82-82)
3. Is the substance harmful to the environment? [§6517c(1)(A)(i);6517(c)(2)(A)]	X			Inorganic contaminants could become bioactive as pH decreases (TAP Table 1)
4. Does the substance contain List 1, 2, or 3 inerts? [§6517 c (1)(B)(ii); 205.601(m)2]			X	
5. Is there potential for detrimental chemical interaction with other materials used? [§6518 m.1]			X	pH= 12.06 (TAP Table 1); For the intended use, adverse chemical reactions would not be expected.
6. Are there adverse biological and chemical interactions in agro-ecosystem? [§6518 m.5]	X			pH=12.06 (TAP Table 1); The MSDS states that calcium carbonated should not be allowed to enter waterways or wetlands. (TAP Line 224) Some materials called Lime Mud may have detrimental impacts while others would not be expected to have an adverse impact depending upon the material's origin and content.
7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§6518 m.5]	X			pH= 12.06 (TAP Table 1); if material comes in direct contact with soil organisms, crops or livestock then detrimental physiological effects are possible. Some materials called Lime Mud may have detrimental impacts while others would not be expected to have an adverse impact depending upon the material's origin and content.
8. Is there a toxic or other adverse action of the material or its breakdown products?[§6518 m.2]			X	No, the breakdown products are Calcium and other salts.
9. Is there undesirable persistence or concentration of the material or breakdown products in environment?[§6518 m.2]	X			Concentration of inorganic matter will increase as number of applications increase; inorganic minerals, e.g., Al, As, Cd, Hg, Se, do not biodegrade.
10. Is there any harmful effect on human health?§6517 c (1)(A)(i); 6517 c(2)(A); §6518 m.4]	X			Material is extremely caustic (pH=12.006); caution must be used.
11. Is there an adverse effect on human health as defined by applicable Federal regulations? [205.600 b.3]			X	
12. Is the substance GRAS when used according to FDA's good manufacturing practices? [§205.600 b.5]			X	
13. Does the substance contain residues of heavy metals or other contaminants in excess of FDA tolerances? [§205.600 b.5]			X	

<sup>1</sup>If the substance under review is for crops or livestock production, all of the questions from 205.600 (b) are N/A—not applicable.

Category 2. Is the Substance Essential for Organic Production? Substance Lime Mud

1. Is there a natural source of the substance? [§205.600 b.1]		X	
2. Is there an organic substitute? [§205.600 b.1]		X	
3. Is the substance essential for handling of organically produced agricultural products? [§205.600 b.6]		X	
4. Is there a wholly natural substitute product? [§6517 c (1)(A)(ii)]	X		Yes, there are wholly natural substitutes including ground limestone and ground oyster shells. (TAP pg 7, lines 303-320)
5. Is the substance used in handling, not synthetic, but not organically produced? [§6517 c (1)(B)(iii)]		X	
6. Is there any alternative substances? [§6518 m.6]	X		Yes, there are alternatives including ground limestone and ground oyster shells. (TAP pg 7, lines 303-320)
7. Is there another practice that would make the substance unnecessary? [§6518 m.6]	X		Yes, using ground limestone and ground oyster shells would make Lime mud unnecessary. (TAP pg 7, lines 303-320)

<sup>1</sup>If the substance under review is for crops or livestock production, all of the questions from 205.600 (b) are N/A—not applicable.

Category 3. Is the substance compatible with organic production practices?

Substance Lime Mud

1. Is the substance compatible with organic handling? [§205.600 b.2]			X	
2. Is the substance consistent with organic farming and handling? [§6517 c (1)(A)(iii); 6517 c (2)(A)(ii)]		X		Other non-synthetics are available to achieve the same goal.
3. Is the substance compatible with a system of sustainable agriculture? [§6518 m.7]		X		There is potential for heavy metal contamination with long-term use. Lime Mud contaminate level varies by source.
4. Is the nutritional quality of the food maintained with the substance? [§205.600 b.3]			X	
5. Is the primary use as a preservative? [§205.600 b.4]			X	
6. Is the primary use to recreate or improve flavors, colors, textures, or nutritive values lost in processing (except when required by law, e.g., vitamin D in milk)? [205.600 b.4]			X	
7. Is the substance used in production, and does it contain an active synthetic ingredient in the following categories:		X		
a. copper and sulfur compounds;		X		
b. toxins derived from bacteria;		X		
c. pheromones, soaps, horticultural oils, fish emulsions, treated seed, vitamins and minerals?		X		
d. livestock parasiticides and medicines?		X		
e. production aids including netting, tree wraps and seals, insect traps, sticky barriers, row covers, and equipment cleaners?	X			pH adjustment; The material is a production aid. The pH of some soils needs to be increased due to either the natural properties of the soil or acid rain.

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