

NOSB COMMITTEE RECOMMENDATION

Form NOPLIST1. Committee Transmittal to NOSB

For NOSB Meeting: May 2009

Substance: Myrrh essential oil (Commiphora myrrha)

Committee: Crops Livestock Handling Petition is for: The inclusion of myrrh essential oil (Commiphora myrrha) for use in perfume on the National List § 205.606

| A. Evaluation Criteria (Applicability noted for each category; Documentation attached) | Criteria Satisfied? (see B below) | | |
|--|---|-----------------------------|------------------------------|
| 1. Impact on Humans and Environment | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 2. Essential & Availability Criteria | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 3. Compatibility & Consistency | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 4. Commercial Supply is Fragile or Potentially Unavailable as Organic (only for 606) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |

B. Substance Fails Criteria Category: _____ Comments: _____

C. Proposed Annotation (if any): _____

Basis for annotation: To meet criteria above: _____ Other regulatory criteria: _____ Citation: _____

D. Recommended Committee Action & Vote (State Actual Motion): To include myrrh essential oil (Commiphora myrrha) for use in perfume on the National List §205.606

Motion by: G.Davis Seconded: S.DeMuri Yes: 4 No: 0 Absent: 2 Abstain: 0

| | | | | | |
|----------------|----------|---|----------|-------------------------|----------|
| Crops | | Agricultural | X | Allowed ¹ | X |
| Livestock | | Non-Synthetic | | Prohibited ² | |
| Handling | X | Synthetic | | Rejected ³ | |
| No restriction | | Commercially Un-Available as Organic ¹ | X | Deferred ⁴ | |

1) Substance voted to be added as "allowed" on National List to § 205.606. with Annotation (if any) No annotation

2) Substance to be added as "prohibited" on National List to § 205. _____ with Annotation (if any) _____

Describe why a prohibited substance: _____

3) Substance was rejected by vote for amending National List to § 205. _____ Describe why material was rejected: _____

4) Substance was recommended to be deferred because _____

_____ If follow-up needed, who will

follow up _____

E. Approved by Committee Chair to transmit to NOSB:

Steve DeMuri
Committee Chair

March 16, 2009
Date

NOSB EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST

Category 1. Adverse impacts on humans or the environment? Substance - Myrrh essential oil

| Question | Yes | No | N/A¹ | Documentation (TAP; petition; regulatory agency; other) |
|---|------------|-----------|------------------------|--|
| 1. Are there adverse effects on environment from manufacture, use, or disposal? [§205.600 b.2] | | X | | Petition |
| 2. Is there environmental contamination during manufacture, use, misuse, or disposal? [§6518 m.3] | | X | | Petition |
| 3. Is the substance harmful to the environment? [§6517c(1)(A)(i);6517(c)(2)(A)i] | | X | | Petition |
| 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 | | |
| 6. Are there adverse biological and chemical interactions in agro-ecosystem? [§6518 m.5] | | X | | Not intended for crop use |
| 7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§6518 m.5] | | X | | Not intended for crop use |
| 8. Is there a toxic or other adverse action of the material or its breakdown products? [§6518 m.2] | | X | | |
| 9. Is there undesirable persistence or concentration of the material or breakdown products in environment?[§6518 m.2] | | X | | |
| 10. Is there any harmful effect on human health? [§6517 c (1)(A)(i) ; 6517 c(2)(A)i; §6518 m.4] | X | | | Undiluted material may be irritant to the eyes |
| 11. Is there an adverse effect on human health as defined by applicable Federal regulations? [205.600 b.3] | | X | | FDA approved as a food flavor.(petition) |
| 12. Is the substance GRAS when used according to FDA's good manufacturing practices? [§205.600 b.5] | X | | | Petition |
| 13. Does the substance contain residues of heavy metals or other contaminants in excess of FDA tolerances? [§205.600 b.5] | | X | | |

¹If 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 – Myrrh essential oil

| Question | Yes | No | N/A¹ | Documentation (TAP; petition; regulatory agency; other) |
|--|------------|-----------|------------------------|---|
| 1. Is the substance formulated or manufactured by a chemical process? [6502 (21)] | | X | | Essential oil produced by steam distillation of oleoresin material exuded as sap from the plant Commiphora myrrha. |
| 2. Is the substance formulated or manufactured by a process that chemically changes a substance extracted from naturally occurring plant, animal, or mineral, sources? [6502 (21)] | | X | | Substance is extracted from natural plant source without chemical change. |
| 3. Is the substance created by naturally occurring biological processes? [6502 (21)] | | X | | |
| 4. Is there a natural source of the substance? [§205.600 b.1] | | | X | Substance is natural. |
| 5. Is there an organic substitute? [§205.600 b.1] | | X | | Petitioner claims that no organically produced myrrh oil is available. HC member internet search produced no organic sources. |
| 6. Is the substance essential for handling of organically produced agricultural products? [§205.600 b.6] | X | | | Petitioner claims substance is a vital component of certain perfumes. |
| 7. Is there a wholly natural substitute product? [§6517 c (1)(A)(ii)] | | X | | Fragrance is specific to this plant material. |
| 8. Is the substance used in handling, not synthetic, but not organically produced? [§6517 c (1)(B)(iii)] | X | | | See question 10 |
| 9. Is there any alternative substances? [§6518 m.6] | | X | | |
| 10. Is there another practice that would make the substance unnecessary? [§6518 m.6] | X | | | Fair trade marketing efforts to work more directly with indigenous harvesters could potentially produce a certified organic (wild harvested) product. |

¹If 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 - Myrrh essential oil

| Question | Yes | No | N/A ¹ | Documentation (TAP; petition; regulatory agency; other) |
|--|-----|----|------------------|--|
| 1. Is the substance compatible with organic handling? [§205.600 b.2] | X | | | As long as the substance used as a component of organically certified perfumes is part of the 5% non-organic portion and resultant perfume product is not designated with myrrh in the name. |
| 2. Is the substance consistent with organic farming and handling? [§6517 c (1)(A)(iii); 6517 c (2)(A)(ii)] | X | | | As a wild harvested material and extracted and/or diluted with natural solvents only. |
| 3. Is the substance compatible with a system of sustainable agriculture? [§6518 m.7] | X | X | | Limited information raises concern of potential over-harvesting of the native shrubs from which myrrh is derived. |
| 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 | |

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

Category 4. Is the commercial supply of an agricultural substance as organic, fragile or potentially unavailable? [§6610, 6518, 6519, 205.2, 205.105 (d), 205.600 (c) 205.2, 205.105 (d), 205.600 (c)]

Substance - Myrrh essential oil

| Question | Yes | No | N/A | Comments on Information Provided (sufficient, plausible, reasonable, thorough, complete, unknown) |
|--|------------|-----------|------------|---|
| 1. <u>Is the comparative description provided</u> as to why the non-organic form of the material /substance is necessary for use in organic handling? | X | | | Plausible |
| 2. Does the current and historical industry information, research, or evidence provided explain how or why the material /substance cannot be obtained organically in the appropriate form to fulfill an essential function in a system of organic handling? | | X | | |
| 3. Does the current and historical industry information, research, or evidence provided explain how or why the material /substance cannot be obtained organically in the appropriate quality to fulfill an essential function in a system of organic handling? | | X | | |
| 4. Does the current and historical industry information, research, or evidence provided explain how or why the material /substance cannot be obtained organically in the appropriate quantity to fulfill an essential function in a system of organic handling? | X | | | Plausible |
| 5. Does the industry information provided on material / substance non-availability as organic, include (but not limited to) the following: | X | | | Plausible |
| a. Regions of production (including factors such as climate and number of regions); | | | | |
| b. Number of suppliers and amount produced; | | X | | |
| c. Current and historical supplies related to weather events such as hurricanes, floods, and droughts that may temporarily halt production or destroy crops or supplies; | | X | | |
| d. Trade-related issues such as evidence of hoarding, war, trade barriers, or civil unrest that may temporarily restrict supplies; or | X | | | Petitioner makes the case for the difficulty of establishing a certified organic supply due to the inherent civil unrest of the main regions of production such as Somalia, Yemen, etc. |
| e. Are there other issues which may present a challenge to a consistent supply? | | X | | |