

# NOSB COMMITTEE RECOMMENDATION

Form NOPLIST1. Committee Transmittal to NOSB

For NOSB Meeting: March 2007

Substance: Hops

Committee: Crops  Livestock  Handling  Petitioned for \_\_\_\_\_  
 on the National List § 205. 606

<b>A. Evaluation Criteria</b> (Applicability noted for each category; Documentation attached)	<b>Criteria Satisfied?</b> (see B below)
1. Impact on Humans and Environment	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" 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 type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
4. Not or Inconsistently Available as Organic	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 Motion):** Addition to section 205.606 of National List

Motion by: Julie Weisman Seconded: Joe Smillie Yes: 3 No: 0 Absent: 1 Abstain: 0

Crops		Agricultural	<b>X</b>	Allowed <sup>1</sup>	x
Livestock		Non-Synthetic		Prohibited <sup>2</sup>	
Handling	<b>X</b>	Synthetic		Rejected <sup>3</sup>	
No restriction		Commercially Un-Available as Organic <sup>1</sup>	<b>X</b>	Deferred <sup>4</sup>	

1) Substance voted to be added as "allowed" on National List to § 205. 606 with Annotation (if any) \_\_\_\_\_

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:**  
Julie Weisman \_\_\_\_\_ December 13, 2006 \_\_\_\_\_  
 Committee Chair Date

**NOSB EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST**

**Category 1. Adverse impacts on humans or the environment?**      Substance -     Hops    

Question	Yes	No	N/A <sup>1</sup>	Documentation (TAP; petition; regulatory agency; other)
1. Are there adverse effects on environment from manufacture, use, or disposal? [§205.600 b.2]			XX	This is an agricultural product.
2. Is there environmental contamination during manufacture, use, misuse, or disposal? [§6518 m.3]			XX	
3. Is the substance harmful to the environment? [§6517c(1)(A)(i);6517(c)(2)(A)i]			XX	
4. Does the substance contain List 1, 2, or 3 inerts? [§6517 c (1)(B)(ii); 205.601(m)2]			XX	
5. Is there potential for detrimental chemical interaction with other materials used? [§6518 m.1]			XX	
6. Are there adverse biological and chemical interactions in agro-ecosystem? [§6518 m.5]			XX	
7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§6518 m.5]			XX	
8. Is there a toxic or other adverse action of the material or its breakdown products? [§6518 m.2]			XX	
9. Is there undesirable persistence or concentration of the material or breakdown products in environment?[§6518 m.2]			XX	
10. Is there any harmful effect on human health? [§6517 c (1)(A)(i) ; 6517 c(2)(A)i; §6518 m.4]			XX	
11. Is there an adverse effect on human health as defined by applicable Federal regulations? [205.600 b.3]			XX	
12. Is the substance GRAS when used according to FDA's good manufacturing practices? [§205.600 b.5]			XX	
13. Does the substance contain residues of heavy metals or other contaminants in excess of FDA tolerances? [§205.600 b.5]			XX	

<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 - Hops**

Question	Yes	No	N/A <sup>1</sup>	Documentation (TAP; petition; regulatory agency; other)
1. Is the substance formulated or manufactured by a chemical process? [6502 (21)]			XX	This is an agricultural product.
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)]			XX	
3. Is the substance created by naturally occurring biological processes? [6502 (21)]			XX	
4. Is there a natural source of the substance? [§205.600 b.1]			XX	
5. Is there an organic substitute? [§205.600 b.1]			XX	
6. Is the substance essential for handling of organically produced agricultural products? [§205.600 b.6]			XX	
7. Is there a wholly natural substitute product? [§6517 c (1)(A)(ii)]			XX	
8. Is the substance used in handling, not synthetic, but not organically produced? [§6517 c (1)(B)(iii)]			XX	
9. Is there any alternative substances? [§6518 m.6]			XX	
10. Is there another practice that would make the substance unnecessary? [§6518 m.6]			XX	

<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 - Hops**

Question	Yes	No	N/A <sup>1</sup>	Documentation (TAP; petition; regulatory agency; other)
1. Is the substance compatible with organic handling? [§205.600 b.2]			XX	This is an agricultural product.
2. Is the substance consistent with organic farming and handling? [§6517 c (1)(A)(iii); 6517 c (2)(A)(ii)]			XX	
3. Is the substance compatible with a system of sustainable agriculture? [§6518 m.7]			XX	
4. Is the nutritional quality of the food maintained with the substance? [§205.600 b.3]			XX	
5. Is the primary use as a preservative? [§205.600 b.4]			XX	
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]			XX	
7. Is the substance used in production, and does it contain an active synthetic ingredient in the following categories:			XX	
a. copper and sulfur compounds;			XX	
b. toxins derived from bacteria;			XX	
c. pheromones, soaps, horticultural oils, fish emulsions, treated seed, vitamins and minerals?			XX	
d. livestock parasiticides and medicines?			XX	
e. production aids including netting, tree wraps and seals, insect traps, sticky barriers, row covers, and equipment cleaners?			XX	

<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 4. Is the agricultural substance inconsistently or not commercially available as organic?**  
**Substance - \_\_\_\_\_**

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?	XX			See comments below for #'s 2 and 3.
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 <b>form</b> to fulfill an essential function in a system of organic handling?	XX			Pages 4 and 5 of petition describe in detail the different varieties of hop used to create different varieties of beer, as well as the need for different types of hops to be added at different stages of the brewing process for a particular beer (e.g. hops are not interchangeable.) Not all varieties are available yet as organic.
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 <b>quality</b> to fulfill an essential function in a system of organic handling?		XX		The petitioner does NOT claim that the quality of organic hops is inferior to conventional hops.  NOTE: The last paragraph of the petition, states that conventional hops must be used “when organic hops are commercially unavailable, or available in sub-quality form.
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 <b>quantity</b> to fulfill an essential function in a system of organic handling?	XX			Page 5 of the petition describes in detail the current growing regions. In the U.S. the growing areas are so concentrated that there cannot be sufficient separation between conventional and organic crops to prevent the organic crops from being plagued by pests and fungal diseases, making the U.S. supply fragile. New Zealand, because of it’s isolation is still free of such challenges, however, the long distance the hops must travel to the U.S. are easily contaminated if not packaged properly.
5. Does the industry information provided on material / substance non-availability as organic, include ( but not limited to) the following: a. Regions of production (including factors such as climate and number of regions);	XX			See comment above.
b. Number of suppliers and amount produced;		XX		No mention is made in this petition of number of suppliers, acres under organic cultivation or global demand or supply of organic hops.
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;		XX		No information was given regarding recent or past climactic events that have destroyed or reduced crops.
d. Trade-related issues such as evidence of hoarding, war, trade barriers, or civil unrest that may temporarily restrict supplies; or		XX		Petition gives no indication that trade-related issues play a role in reducing the supply of organic hops.
e. Are there other issues which may present a challenge to a consistent supply?	XX			Page 5 describes this crops high susceptibility to the damson hop aphids, two-spotted spider mite and the soil-born fungal disease, Verticillium. It also describes the difficulty of protecting the U.S. organic crop from such infestations.  In addition, petitioner describes that “regulatory challenges’ are also an obstacle to a consistent supply.