

**Formal Recommendation by the
National Organic Standards Board (NOSB)
to the National Organic Program (NOP)**

Date: **October 28, 2010**
Subject: **Response to Yeast Petition**
Chair: **Daniel G. Giacomini**

The NOSB hereby recommends to the NOP the following:

Rulemaking Action X

Statement of the Recommendation (Including Recount of Vote):

The recommendation is to retain yeast on section 205.605(a) of the National List, rather than move it to section 205.606 as requested by the petitioner, due to concerns of the livestock industry and the debatable agricultural nature of yeast. However, the NOSB recommends that organic forms, when commercially available, be required for human consumption. The listing for yeast in Section 205.605(a) of the National List is recommended to read as:

Yeast – When used as food or a fermentation agent, yeast must be organic if it's end use is for human consumption. Non-organic yeast may be used when equivalent organic yeast is not commercially available. Growth on petrochemical substrate and sulfite waste liquor is prohibited. For Smoked yeast non-synthetic smoke flavoring process must be documented.

The NOSB vote for this recommendation was 13 Yes, 0 No, 0 Abstentions, 0 Absent, and 1 Recusal.

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

Yeast can be certified as organic and many organic forms are available. Creating a commercial availability annotation for this 205.605 is not prohibited by OFPA or the NOP.

NOSB Vote:

Moved: Joe Smillie		Second: Steve DeMuri		
Yes: 13	No: 0	Abstain: 0	Absent: 0	Recusal: 1

NOSB COMMITTEE RECOMMENDATION

Form NOPLIST1. Committee Transmittal to NOSB

For NOSB Meeting: October 2010

Substance: Yeast

Committee: Crops Livestock Handling **Petition is for moving Yeast from National List § 205.605(a) to § 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 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |

B. Substance Fails Criteria Category:

Comments: The petitioner requested that yeast be moved to 606 so that organic production methodology would be required. While this may well be suitable for human consumption it would cause hardship to livestock producers who are required to use organic agricultural materials with no commercial availability option. The question of its agricultural nature is also controversial so the Handling Committee has crafted a compromise that keeps yeast on 205.605(a) but adds an annotation that requires organic if available for human consumption.

C. Proposed Annotation (if any): Yeast – When used as food or a fermentation agent, yeast must be organic if its end use is for human consumption; nonorganic yeast may be used when equivalent organic yeast is not commercially available. Growth on petrochemical substrate and sulfite waste liquor is prohibited. For Smoked yeast; non-synthetic smoke flavoring process must be documented.

Basis for annotation: To meet criteria above: _____ Other regulatory criteria: Livestock feed requirements

D. Recommended Committee Action & Vote (State Motion):

Classification of the material: Non- synthetic; Absent: 1; Abstain: 0

Motion by: Joe Smillie; Seconded: John Foster; Yes: 6; No: 0; Absent: 1; Abstain: 0

Recommended Committee Action & Vote

Motion by: Joe Smillie; Seconded: John Foster; Yes: 6; No: 0; Absent: 1; Abstain: 0

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

1) Substance voted to be added as “allowed” on National List to § 205.605 with Annotation (if any): Yeast – When used as food, a fermentation agent, or supplement, yeast must be organic if its end use is for human consumption; nonorganic yeast may be used when equivalent organic yeast is not commercially available. Growth on petrochemical substrate and sulfite waste liquor is prohibited.

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: _____

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

September 9, 2010
Date

EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST

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

Question	Yes	No	N/A ¹	Documentation (TAP; petition; regulatory agency; other)
1. Are there adverse effects on environment from manufacture, use, or disposal? [§205.600 b.2]	X			On the National List 205.605 One of the benefits of organic production is that it eliminates adverse effects on the environment
2. Is there environmental contamination during manufacture, use, misuse, or disposal? [§6518 m.3]		X		
3. Is the substance harmful to the environment and biodiversity? [§6517c(1)(A)(i);6517(c)(2)(A)i]		X		
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		
7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§6518 m.5]		X		
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)l; §6518 m.4]		X		
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		

¹ 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: Yeast

Question	Yes	No	N/A ¹	Documentation (TAP; petition; regulatory agency; other)
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			
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		
7. Is there another practice that would make the substance unnecessary? [§6518 m.6]		X		
8. Is the substance used in handling, not synthetic, but not organically produced? [§6517 c (1)(B)(iii)]	X			
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		

¹ 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 Yeast

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			
2. Is the substance consistent with organic farming and handling, and biodiversity? [§6517 c (1)(A)(iii); 6517 c (2)(A)(ii)]	X			
3. Is the substance compatible with a system of sustainable agriculture? [§6518 m.7]	X			
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		

¹ 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 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 - Yeast

Question	Yes	No	N/A	Comments on Information Provided (sufficient, plausible, reasonable, thorough, complete, unknown)
1. <u>Is the comparative description provided as to why the non-organic form of the material /substance is necessary for use in organic handling?</u>	X			See Attachment
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			See Attachment
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			“
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);		X		
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		

e. Are there other issues which may present a challenge to a consistent supply?	X		There may be supply eventually for all Human consumption uses and possibly feed but other livestock uses are not possible in the foreseeable future. See attachment
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Committee Summary

Petition is for moving Yeast from National List § 205.605(a) to 205.606

The petitioner requested that yeast be moved to § 205.606 so that organic production methodology would be required. There has been a long history to this petition. Clearly the petitioner has pointed out the ecological differences between organic and conventional production methodology. The issue of whether yeast production is agricultural is controversial with vocal adherents on each side. This makes its placement on § 205.606 problematic. Organic yeast is now available in many forms for human consumption so the committee wants the industry to use these organic sources. The NOP has recently allowed yeast to be certified after examining the certification of the process and the product. In discussion with members of the Livestock committee another concern became clear. Moving yeast to § 205.606 would cause hardship to livestock producers because they are required to use only organic agricultural materials with no commercial availability option. While there is a strong possibility that organic yeast may be available for feed the other uses of yeast in livestock health preparations could not comply with the organic requirement. Taking these policies, concerns, and needs into consideration, the Handling Committee has crafted a compromise that keeps yeast on § 205.605 but adds an annotation that requires organic if available for human consumption. It is the intent of the Handling Committee that this recommendation apply to all yeast products used as ingredients in organic food products, including, but not limited to, Autolysate, Bakers, Brewers, Nutritional and Smoked as listed in the previous recommendation.