DRAFT

EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST

Category 1. Adverse impacts on humans or the environment?	Substa
---	--------

t? Substance <u>Soy Protein Isolate</u>

Category 1. Adverse impacts on numan				Substance <u>Soy Protein Isolate</u>
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]			Х	
2. Is there environmental contamination during manufacture, use, misuse, or disposal? [§6518 m.3]		Х		Figure 1 shows the manufacturing process; little environmental contamination is expected from manufacture, use, misuse or disposal. (Ostiguy)
3. Is the substance harmful to the environment? [§6517c(1)(A)(i);6517(c)(2)(A)i]		Х		
4. Does the substance contain List 1, 2, or 3 inerts? [§6517 c (1)(B)(ii); 205.601m.2]		Х		Not listed as a list 1, 2, or 3 inert by EPA; several soybean oils are on List 3. TAP pg 5, 6
5. Is there potential for detrimental chemical interaction with other materials used [§6518 m.1]		Х		No potential for detrimental chemical interactions with organic farming system have been observed TAP pg 6
6. Are there adverse biological and chemical interactions in agro-ecosystem? [§6518 m.5]		Х		No potential for detrimental chemical interactions with organic farming system have been observed TAP pg 6
7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§6518 m.5]		Х		No detrimental effects are expected TAP 16
8. Is there a toxic or other adverse action of the material or its breakdown products? [§6518 m.2]		Х		No adverse or toxic actions are expected TAP pg 7, 8
9. Is there undesirable persistence or concentration of the material or breakdown products in environment? [§6518 m.2]		Х		Readily degradable organic material TAP pg 6
10. Is there any harmful effect on human health? [§6517 c (1)(A)(i) ; 6517 c(2)(A)i; §6518 m.4]		Х		Soy contains phytoestrogens. Controversy exists concerning the detrimental (estrogen mimic) and beneficial (cancer reduction and lowering of LDL/increasing HDL) impacts Ostiguy
11. Is there an adverse effect on human health as defined by applicable Federal regulations? [205.600 b.3]			Х	
12. Is the substance GRAS when used according to FDA's good manufacturing practices? [§205.600 b.5]			Х	
13. Does the substance contain residues of heavy metals or other contaminants in excess of FDA tolerances? [§205.600b.5]			Х	

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

DRAFT

Category 2. Is the Substance Essential for Organic Production? Substance <u>Soy Protein Isolate</u>

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]			Х	
2. Is there an organic substitute? [§205.600 b.1]			Х	
3. Is the substance essential for handling of organically produced agricultural products? [§205.600 b.6]			Х	
4. Is there a wholly natural substitute product? [§6517 c (1)(A)(ii)]	Х			Other plant soil amendments are available; other fertilizers are manure, composted plant and animal materials
5. Is the substance used in handling, not synthetic, but not organically produced? [§6517 c (1)(B)(iii)]			Х	
6. Are there any alternative substances? [§6518 m.6]	Х			Other plant soil amendments are available; other fertilizers are manure, composted plant and animal materials
7. Is there another practice that would make the substance unnecessary? [§6518 m.6]	Х			Soil fertility and crop nutrient management practices listed in 205.203

 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 Soy Protein Isolate

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? [§6517 c (1)(A)(iii); 6517 c (2)(A)(ii)]		Х		Soy protein isolate has been petitioned for use as a fertilizer TAP pg 1; producers on organic farms "shall not use any fertilizers containing synthetic ingredients" OFPA 6508 (b)(1) or "use as a source of nitrogen: phosphorous, lime, potash, or any materials that are inconsistent with the applicable organic certification program" OFPA 6508 (b)(2)
3. Is the substance compatible with a system of sustainable agriculture? [§6518 m.7]		Х		Soy protein isolate has been petitioned for use as a fertilizer TAP pg 1; producers on organic farms "shall not use any fertilizers containing synthetic ingredients" OFPA 6508 (b)(1) or "use as a source of nitrogen: phosphorous, lime, potash, or any materials that are inconsistent with the applicable organic certification program" OFPA 6508 (b)(2)
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]			Х	
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]			х	
7. Is the substance used in production, and does it contain an active synthetic ingredient in the following categories:				
a. copper and sulfur compounds b. toxins derived from bacteria;		X X		
c. pheromones, soaps, horticultural oils, fish emulsions, treated seed, vitamins and minerals?		X		
d. livestock parasiticides and medicines?	,	Х		
e. production aids including netting, tree wraps and seals, insect traps, sticky barriers, row covers, and equipment cleaners?	X	L		"Soy protein isolate is being petitioned for use as a fertilizer"

 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.

NOSB RECOMMENDED DECISION

Form NOPLIST2. Full Board Transmittal to NOP

For NOSB Meeting: <u>May 2004</u>			Substance: Soy Protein Isolate				
A. Evaluation Criteria (Docume	A. Evaluation Criteria (Documentation attached; committee recommendation attached)						
 Impact on humans and environment Availability criteria Compatibility & consistency 				Criteria Satisfied? Yes I No I (see B below) Yes I No I (see B below) Yes I No I (see B below)			
B. Substance fails criteria? Criteria category: Comments:	Basis for annota	Proposed Annotation:					
	(Other regulatory	criteria:	_ Citation:			
D. Final Board Action & Vote:	Motion by: _		Sec	ond:			
	ricultural	Nonagricul		Crops	X		
	nthetic	Not synthe		Livestock	+		
	owed ¹	Prohibited		Handling			
Abstain:	restriction	Deferred4		Rejected ³			
1—substance voted to be added as "allowed" on National List Annotation:							
3—substance was rejected by vote for amending National List Describe why material was rejected:							
4-substance was recommended to be deferred Describe why deferred; if any follow-up is needed. If follow-up needed, who conducts follow- up							
E. Approved by NOSB Chair to transmit to NOP: Dave Carter, NOSB Chair Date							
F. NOP Action: Include in FR to amend National List: Return to NOSB Reason:							
Richard H. Mathews, Program Manager Date							

NOSB COMMITTEE RECOMMENDATION Form NOPLIST1. Committee Transmittal to NOSB

For NOSB Meeting:Apr		Substance: <u>Soy Protein Isolate</u>						
Committee: Crops X Livestock 🛛 Handling 🗌								
A. Evaluation Criteria (Do	cumentation attache	ed; committee r	ecommendati	on attached)				
1. Impact on humans and environment Yes No (see B below) 2. Availability criteria Yes No (see B below) 3. Compatibility & consistency Yes No (see B below)								
B. Substance fails criteria? C. Proposed Annotation: Basis for annotation: Basis for annotation: Criteria category: To meet criteria above: Criteria: Comments: Other regulatory criteria: Citation:								
D. Recommended Comm	ittee Action & Vote:	Motion by: _	Nancy (Dstiguy				
Reject TAP; the	TAP did not	Seconded: address ເ			oil amendment			
<u>Vote</u> :	Agricultural	Nonagricul	tural	Crops	X			
Yes: <u>3</u>	Synthetic	Not synthet		Livestock				
No: <u>0</u>	Allowed ¹	Prohibited ²		Handling				
Abstain: <u>0</u>	No restriction	Deferred4	X	Rejected ³				
Abstain: 1—substance voted to be added as "allowed" on National List Annotation:								
Describe why a prohibited	substance:							
Describe why material was	3—substance was r s rejected:		for amending	g National List				
4-substance was recommended to be deferred Describe why deferred; if follow-up is needed. If follow-up needed, who will follow up_ <u>Reject TAP; TAP did not</u> address use of material as soil amendment; revise TAP to focus on the use of this material in/on soil; delete all information on soy protein isolate as a food; is soy protein isolate synthetic or non-synthetic? (Look at other materials that has been determined to be non-synthetic; is soy protein isolate processed more or less than other materials that have been determined to be synthetic or non-synthetic); FDA information needed (do not need information on use as a food); address its use as a soil amendment; what percent of soy is genetically modified; what is the genetic modification; if some soy is genetically modified, how is cross-contamination handled; if soy is genetically modified could the protein from the genetic modification be concentrated during processing into soy protein isolate; Figure 1 shows the basic manufacturing process, discuss the impact on the environment of an acid and a base used for neutralization during manufacturing (answer Category 1, question 1); Answer Category 1, question 5 – soy protein isolate is being used as a soil amendment – what action would this material have in soil, in the agroecosystem? Answer Category 1, question 8 – is soy protein isolate persistence? Can in concentrate? What are its breakdown products? Can these break-down products persist or concentrate in the environment? Revise remaining category 1 and 2 questions to address the use of material as a soil amendment and delete information on use as a food.								
E. Approved by Committee Chair to transmit to NOSB:								
Committee Chair Date								