

**National Organic Standards Board
Handling Committee
Petitioned Material Proposal
Giberellic Acid**

March 20, 2012

Summary of Proposed Action:

This is a non-synthetic material that is allowed already for crop production and is being petitioned for post-harvest use to delay ripening of bananas, citrus, and pineapple. The need for it in bananas is also partially to delay or prevent development of the disease Black Sigatoka during transport to market.

Two issues are of concern to the Handling Committee that we are seeking public comment on. The first is whether there are cultural practices that would serve the same function in bananas to reduce the disease pressure after harvest. The second is the effect of post-harvest treatment on the nutritional content of the fruit. For this reason, it is being recommended for bananas, where the nutritional profile remains the same, and not recommended for other uses.

Evaluation Criteria

(Applicability noted for each category; Documentation attached)
“B” below)

Criteria Satisfied? (see

1. Impact on Humans and Environment

☒ Yes ☐ No ☐ N/A

2. Essential & Availability Criteria

☒ Yes ☒ No ☐ N/A

3. Compatibility & Consistency

☒ Yes ☒ No ☐ N/A

4. Commercial Supply is Fragile or Potentially Unavailable
as Organic (only for § 205.606)

☐ Yes ☐ No ☒ N/A

Substance Fails Criteria Category: Essential and Compatible Comments:

The Handling committee recognizes the lack of alternatives in bananas and acknowledges that the research that its use does not harm nutrition of bananas. But for citrus there is evidence that it harms the nutritive value and its essentiality was not shown convincingly. Very little support was provided for the use in pineapple.

Proposed Annotation (if any): for post-harvest use on bananas only.

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

Notes: There was not sufficient evidence in either the petition or the TR that the material is necessary for citrus and pineapple. Furthermore, there is some evidence that the use in citrus can decrease nutritional content.

Recommended Committee Action & Vote, including classification recommendation (state actual motion):

Classification Motion: Move to determine that Giberellic Acid is non-synthetic

Motion by: Zea Sonnabend

Seconded by: Harold Austin

Yes: # 5 No: # 0 Absent: # 1 Abstain: # 0 Recuse: # 0

Listing Motion: Move that Giberellic Acid be added to the National List section 205.605(a) for post-harvest use on bananas only.

Motion by: Zea Sonnabend Seconded by: Tracy Favre
 Yes: # 5 No: # 0 Absent: # 1 Abstain: # Recuse: #

Crops	☐	Agricultural	☐	Allowed¹	☐
Livestock	☐	Non-synthetic	☐	Prohibited²	☐
Handling	☐	Synthetic	☐	Rejected³	☐
No restriction	☐	Commercial unavailable as organic	☐	Deferred⁴	☐

¹Substance voted to be added as “allowed” on National List to § 205. with Annotation (if any):

²Substance to be added as “prohibited” on National List to § 205. with Annotation (if any):

Describe why a prohibited substance:

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

⁴Substance was recommended to be deferred because
 If follow-up needed, who will follow up:

Approved by Committee Chair to Transmit to NOSB

John Foster, Committee Chair

March 20, 2012

NOSB Evaluation Criteria for Substances Added To the National List

Category 1. Adverse impacts on humans or the environment? Substance: Gibberellic Acid

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		
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		active ingredient only under consideration. Formulations are unknown.
5. Is there potential for detrimental chemical interaction with other materials used? [§6518 m.1]		X		
6. Are there adverse biological and		X		

chemical interactions in agro-ecosystem? [§6518 m.5]				
7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§6518 m.5]			X	does not come in contact with soil, crop or livestock.
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		
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		it is unclear whether the FDA regulates this as post-harvest material. The TR states it is not GRAS but it is an approved food additive used in malting barley. (TR, 2011, page 4)
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.

NOSB Evaluation Criteria for Substances Added To the National List

Category 2. Is the Substance Essential for Organic Production?

Substance:

Question	Yes	No	N/A ¹	Documentation (TAP; petition; regulatory agency; other)
1. Is the substance formulated or manufactured by a chemical process? [6502 (21)]		X		
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		
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			the fungus <i>Gibberella fujikuroi</i> is the source.
5. Is there an organic substitute? [§205.600 b.1]		X		
6. Is the substance essential for handling of organically produced agricultural products? [§205.600 b.6]	X	X		it does seem essential for bananas to prevent large amounts of loss in shipping. Sufficient evidence was not shown for essentiality for citrus or pineapple. (petition, 2011)
7. Is there a wholly natural substitute product? [§6517 c (1)(A)(ii)]		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]				maybe waxes are alternative substances for citrus. No alternatives in bananas.
10. Is there another practice that would make the substance unnecessary? [§6518 m.6]				Perhaps there are cultural practices for bananas that would reduce the disease incidence and thus make the substance less necessary. The Handling committee seeks input on this issue.

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

NOSB Evaluation Criteria for Substances Added To the National List

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

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)]	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		while the TR states that bananas will ripen to their full nutritional profile, in other fruits (including citrus) there is some evidence that GA treatment can decrease flavonoids and polyphenols. (TR, Evaluation Question #7, 2011)
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;				
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.

NOSB Evaluation Criteria for Substances Added To the National List

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: Name**

Question	Yes	No	N/A ¹	Documentation (TAP; petition; regulatory agency; other)
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			Non-agricultural
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	
5. Does the industry information provided on material / substance non-availability as organic, include (but not limited to) the following:			X	
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			X	

production or destroy crops or supplies;				
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	

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