NOSB COMMITTEE RECOMMENDATION Form NOPLIST1. Committee Transmittal to NOSB

| For NOSB Meeting: March 2007 Substance: Colors, Lycopene from Tomato | | | | | | | | | |
|---|--|-------------------------------------|-------------------|-------------------------|-------|------------------|--|--|--|
| Committee: Crops ☐ Livestock ☐ Handling X Petition is for: Inclusion of Colors, Lycopene from Tomato | | | | | | | | | |
| on the National List § 205.606 | | | | | | | | | |
| A. Evaluation Criteria (Applicability noted for each category; Documentation attached) 1. Impact on Humans and Environment 2. Essential & Availability Criteria 3. Compatibility & Consistency 4. Commercial Supply is Fragile or Potentially Unavailable as Organic (only for 606) B. Substance Fails Criteria Category: 4 | | | | | | | | | |
| C. Proposed Annot | ation (if any): | | | | | | | | |
| Basis for annotation | on: To meet criteria abo | /e: Otl | her regulatory cr | iteria: Citation: | | | | | |
| D. Recommended 0 §205.606 | Committee Action & Vo | te (State Actual | Motion): | Recommend Colors, Lyc | opene | e for listing on | | | |
| Motion by: <u>Julie Wei</u> s | sman Seconded: <u>Ar</u> | <u>drea Caroe</u> Ye | es: <u>1</u> No: | 4 Absent:0 | | Abstain: 0 | | | |
| | Crops | Agricultural | Х | Allowed ¹ | | | | | |
| | Livestock | Non-Synthetic | | Prohibited ² | | | | | |
| | Handling X | X Synthetic Rejected ³ X | | | | | | | |
| | No restriction Commercially Un- Available as Organic ¹ X Deferred ⁴ | | | | | | | | |
| Substance voted to be added as "allowed" on National List to § 205with Annotation (if any) | | | | | | | | | |
| 2) Substance to be added as "prohibited" on National List to § 205with Annotation (if any) | | | | | | | | | |
| Describe why a prohibited substance: | | | | | | | | | |
| 3) Substance was rejected by vote for amending National List to § 205. 606Describe why material was rejected Petitioner did not provide credible information regarding the lack of supply of organic raw materials and the ability to process them as organic 4) Substance was recommended to be deferred because If follow-up needed, who will | | | | | | | | | |
| follow up If follow-up needed, wno will | | | | | | | | | |
| E. Approved by Committee Chair to transmit to NOSB: | | | | | | | | | |

NOSB EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST

Category 1. Adverse impacts on humans or the environment? Substance - Colors, Lycopene from Tomato

| Category 1. Adverse impacts on nu | imans | or the | | Tent: Substance - Colors, Lycopene from Tomato |
|---|-------|--------|------|---|
| 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 | This is an agricultural product. |
| 2. Is there environmental contamination during manufacture, use, misuse, or disposal? [§6518 m.3] | | | X | This is an agricultural product. |
| 3. Is the substance harmful to the environment? [§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 agroecosystem? [§6518 m.5] | | | X | This is an agricultural product used as an ingredient in an organic processed food. It is no longer in the agro-ecosystem. |
| 7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§6518 m.5] | | | X | This is an agricultural product used as an ingredient in an organic processed food. It is no longer in the agro-ecosystem. |
| 8. Is there a toxic or other adverse action of the material or its breakdown products? [§6518 m.2] | | | X | This is an agricultural product used as an ingredient in an organic processed food. It is no longer in the agro-ecosystem. |
| 9. Is there undesirable persistence or concentration of the material or breakdown products in environment?[§6518 m.2] | | | X | This is an agricultural product used as an ingredient in an organic processed food. It is no longer in the agro-ecosystem. |
| 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 | | | Tomatoes are considered GRAS by the FDA (CFR 21 § 182.10) Color additives, in general, cannot, by definition qualify for GRAS status, as GRAS only applies to food additives. |
| 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 - Colors, Lycopene from Tomato

| 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 | 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)] | | | X | This is an agricultural product. |
| 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 | Petitioned substance is from a natural 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 | |
| 7. Is there a wholly natural substitute product? [§6517 c (1)(A)(ii)] | | | X | Petitioned substance is a wholly natural product. |
| 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 | |

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 - $\underline{\text{Colors, Lycopene from Tomato}}$

| Question | Yes | No | N/A ¹ | Documentation (TAP) |
|--|-----|----|------------------|--|
| 1. Is the substance compatible | | | | (TAP; petition; regulatory agency; other) |
| 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 | | | |
| 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] | | XX | | This material is not used to replace color lost during processing, but to enhance color of finished product to meet consumer expectations. |
| 7. Is the substance used in production, and does it contain an active synthetic ingredient in the following categories: 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? [86610, 6518, 6519, 205.2, 205.105.64), 205.600.632 205.105.643, 205.600.632

| Question | Vec | No | N/A | Comments on Information Provi |
|--------------|-----------------------|-----------|-------------|---|
| Substance | - <u>Colors, I</u> | ycoper | ne from T | omato |
| ~ - | ~ | | | |
| ınavailable? | [§6610, 6518, 6519, 2 | 205.2, 20 |)5.105 (d), | , 205.600 (c) 205.2, 205.105 (d), 205.600 (c) |

| Question | Yes | No | N/A | Comments on Information Provided (sufficient, plausible, reasonable, thorough, complete, unknown) |
|---|-----|----|-----|--|
| 1. <u>Is the comparative description</u> <u>provided</u> as to why the non-organic form of the material /substance is necessary for use in organic handling? | XX | | | Petition p.1 # 3 states that lycopene is necessary the formulation of organic processed food products to improve visual appeal. |
| 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? | | XX | | Petition presents no information describing inability to obtain material in appropriate form. |
| 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? | | XX | | |
| 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 | XX | | | Petition p.4 #12 "Petition Justification Statement" states there is an insufficient supply of organic tomatoes for use in producing natural colorants. No specific information is given to support this assertion. |
| handling? 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 | | |
| b. Number of suppliers and amount produced; | | XX | | |
| 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 | | |
| d. Trade-related issues such as evidence of hoarding, war, trade barriers, or civil unrest that may temporarily restrict supplies; or | | XX | | |
| e. Are there other issues which may present a challenge to a consistent supply? | | XX | | |