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Title 7 - Agriculture

Subtitle B - Regulations of the Department of Agriculture

Chapter I - Agricultural Marketing Service (Standards, Inspections, Marketing Practices),

Department of Agriculture

Subchapter M - Organic Foods Production Act Provisions

Part 205 - National Organic Program

Subpart G - Administrative

The National List of Allowed and Prohibited Substances The National...

Authority: 7 U.S.C. 6501–6524.

Source: 65 FR 80637, Dec. 21, 2000, unless otherwise noted.

§ 205.601 Synthetic substances allowed for use in organic crop production.

In accordance with restrictions specified in this section, the following synthetic substances may be used in organic crop production: *Provided*, That, use of such substances do not contribute to contamination of crops, soil, or water. Substances allowed by this section, except disinfectants and sanitizers in paragraph (a) and those substances in paragraphs (c), (j), (k), (l), and (o) of this section, may only be used when the provisions set forth in § 205.206(a) through (d) prove insufficient to prevent or control the target pest.

- (a) As algicide, disinfectants, and sanitizer, including irrigation system cleaning systems.
 - (1) Alcohols.
 - (i) Ethanol.
 - (ii) Isopropanol.
 - (2) Chlorine materials—For pre-harvest use, residual chlorine levels in the water in direct crop contact or as water from cleaning irrigation systems applied to soil must not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act, except that chlorine products may be used in edible sprout production according to EPA label directions.
 - (i) Calcium hypochlorite.
 - (ii) Chlorine dioxide.
 - (iii) Hypochlorous acid—generated from electrolyzed water.
 - (iv) Potassium hypochlorite—for use in water for irrigation purposes.
 - (v) Sodium hypochlorite.
 - (3) Copper sulfate—for use as an algicide in aquatic rice systems, is limited to one application per field during any 24-month period. Application rates are limited to those which do not increase baseline soil test values for copper over a timeframe agreed upon by the producer and accredited certifying agent.
 - (4) Hydrogen peroxide.
 - (5) Ozone gas—for use as an irrigation system cleaner only.

- (6) Peracetic acid—for use in disinfecting equipment, seed, and asexually propagated planting material. Also permitted in hydrogen peroxide formulations as allowed in § 205.601(a) at concentration of no more than 6% as indicated on the pesticide product label.
 - (7) Soap-based algicide/demossers.
 - (8) Sodium carbonate peroxyhydrate (CAS #-15630-89-4)—Federal law restricts the use of this substance in food crop production to approved food uses identified on the product label.
- (b) As herbicides, weed barriers, as applicable.
- (1) Herbicides, soap-based—for use in farmstead maintenance (roadways, ditches, right of ways, building perimeters) and ornamental crops.
 - (2) Mulches.
 - (i) Newspaper or other recycled paper, without glossy or colored inks.
 - (ii) Plastic mulch and covers (petroleum-based other than polyvinyl chloride (PVC)).
 - (iii) Biodegradable biobased mulch film as defined in § 205.2. Must be produced without organisms or feedstock derived from excluded methods.
- (c) As compost feedstocks—Newspapers or other recycled paper, without glossy or colored inks.
- (d) As animal repellents—Soaps, ammonium—for use as a large animal repellent only, no contact with soil or edible portion of crop.
- (e) As insecticides (including acaricides or mite control).
- (1) Ammonium carbonate—for use as bait in insect traps only, no direct contact with crop or soil.
 - (2) Aqueous potassium silicate (CAS #-1312-76-1)—the silica, used in the manufacture of potassium silicate, must be sourced from naturally occurring sand.
 - (3) Boric acid—structural pest control, no direct contact with organic food or crops.
 - (4) Copper sulfate—for use as tadpole shrimp control in aquatic rice production, is limited to one application per field during any 24-month period. Application rates are limited to levels which do not increase baseline soil test values for copper over a timeframe agreed upon by the producer and accredited certifying agent.
 - (5) Elemental sulfur.
 - (6) Lime sulfur—including calcium polysulfide.
 - (7) Oils, horticultural—narrow range oils as dormant, suffocating, and summer oils.
 - (8) Soaps, insecticidal.
 - (9) Sticky traps/barriers.
 - (10) Sucrose octanoate esters (CAS #s-42922-74-7; 58064-47-4)—in accordance with approved labeling.
- (f) As insect management. Pheromones.
- (g) As rodenticides. Vitamin D₃.

(h) As slug or snail bait.

- (1) Ferric phosphate (CAS # 10045-86-0).
- (2) Elemental sulfur.

(i) As plant disease control.

- (1) Aqueous potassium silicate (CAS #-1312-76-1)—the silica, used in the manufacture of potassium silicate, must be sourced from naturally occurring sand.
- (2) Coppers, fixed—copper hydroxide, copper oxide, copper oxychloride, includes products exempted from EPA tolerance, *Provided*, That, copper-based materials must be used in a manner that minimizes accumulation in the soil and shall not be used as herbicides.
- (3) Copper sulfate—Substance must be used in a manner that minimizes accumulation of copper in the soil.
- (4) Hydrated lime.
- (5) Hydrogen peroxide.
- (6) Lime sulfur.
- (7) Oils, horticultural, narrow range oils as dormant, suffocating, and summer oils.
- (8) Peracetic acid—for use to control fire blight bacteria. Also permitted in hydrogen peroxide formulations as allowed in § 205.601(i) at concentration of no more than 6% as indicated on the pesticide product label.
- (9) Potassium bicarbonate.
- (10) Elemental sulfur.
- (11) Polyoxin D zinc salt.

(j) As plant or soil amendments.

- (1) Aquatic plant extracts (other than hydrolyzed)—Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount used is limited to that amount necessary for extraction.
- (2) Elemental sulfur.
- (3) Humic acids—naturally occurring deposits, water and alkali extracts only.
- (4) Lignin sulfonate—chelating agent, dust suppressant.
- (5) Magnesium oxide (CAS # 1309-48-4)—for use only to control the viscosity of a clay suspension agent for humates.
- (6) Magnesium sulfate—allowed with a documented soil deficiency.
- (7) Micronutrients—not to be used as a defoliant, herbicide, or desiccant. Those made from nitrates or chlorides are not allowed. Micronutrient deficiency must be documented by soil or tissue testing or other documented and verifiable method as approved by the certifying agent.
 - (i) Soluble boron products.

- (ii) Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt.
- (8) Liquid fish products—can be pH adjusted with sulfuric, citric or phosphoric acid. The amount of acid used shall not exceed the minimum needed to lower the pH to 3.5.
- (9) Vitamins, C and E.
- (10) Squid byproducts—from food waste processing only. Can be pH adjusted with sulfuric, citric, or phosphoric acid. The amount of acid used shall not exceed the minimum needed to lower the pH to 3.5.
- (11) Sulfurous acid (CAS # 7782–99–2) for on-farm generation of substance utilizing 99% purity elemental sulfur per paragraph (j)(2) of this section.
- (k) As plant growth regulators.
 - (1) Ethylene gas—for regulation of pineapple flowering.
 - (2) Fatty alcohols (C6, C8, C10, and/or C12)—for sucker control in organic tobacco production.
- (l) As floating agents in postharvest handling. Sodium silicate—for tree fruit and fiber processing.
- (m) As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances.
 - (1) EPA List 4—Inerts of Minimal Concern.
 - (2) EPA List 3—Inerts of unknown toxicity—for use only in passive pheromone dispensers.
- (n) Seed preparations. Hydrogen chloride (CAS # 7647–01–0)—for delinting cotton seed for planting.
- (o) Production aids.
 - (1) Microcrystalline cheesewax (CAS #'s 64742–42–3, 8009–03–08, and 8002–74–2)—for use in log grown mushroom production. Must be made without either ethylene-propylene co-polymer or synthetic colors.
 - (2) Paper-based crop planting aids as defined in § 205.2. Virgin or recycled paper without glossy paper or colored inks.
- (p) –(z) [Reserved]

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