

Common Inputs Used in Organic Production



NRCS Educational Webinar
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The OMRI Mission

To support the growth and trust of the global organic community through expert, independent and transparent verification of input materials, and through education and technical assistance.

Agenda

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Basic Regulations

Fertilizers, soil amendments and
pesticides

Interpreting Labels

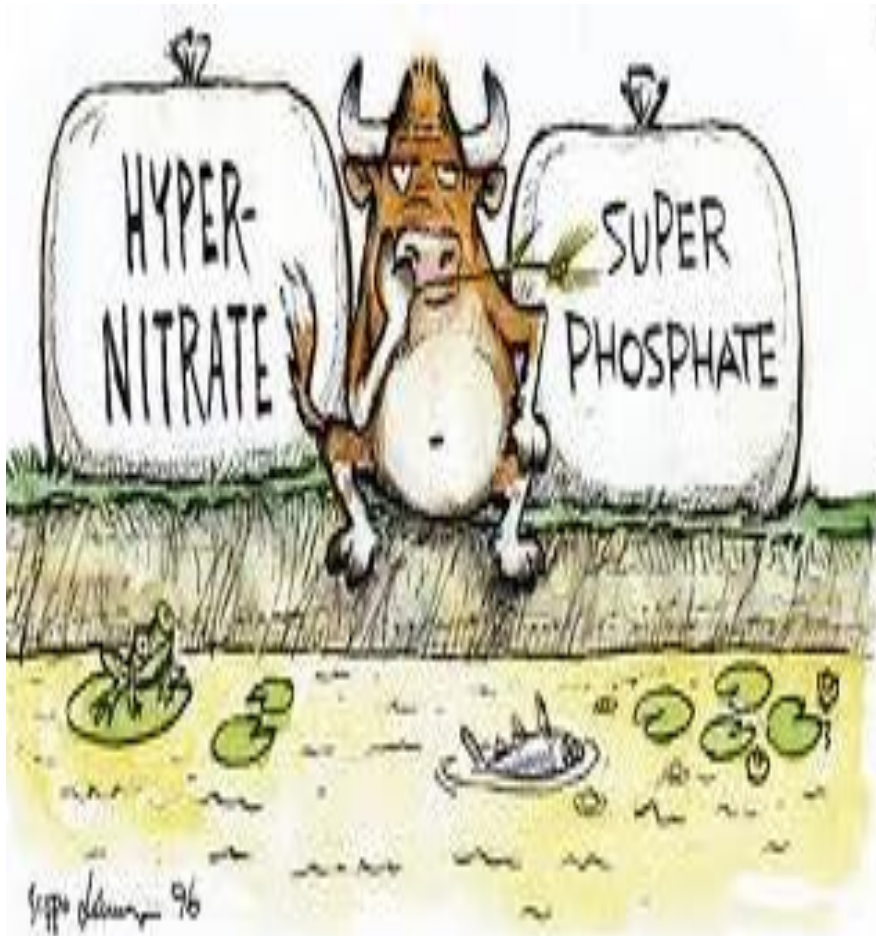
Using the OMRI List

Overarching Requirements

- Natural (nonsynthetic) substances are permitted (with few exceptions)
- Synthetic substances are prohibited (with exceptions on National List)



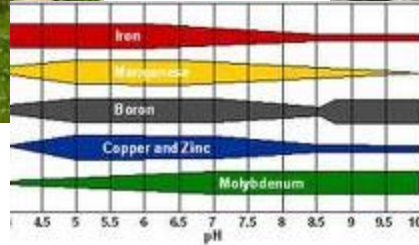
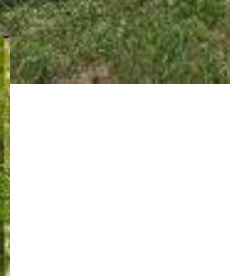
Synthetic/Nonsynthetic



A substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal, or mineral sources, except that such term shall not apply to substances created by naturally occurring biological

processes.

205.601 Allowed Synthetics



205.602-Prohibited Nonsynthetics



Basic Pesticide Regulations

- Active ingredients must be either:
 - Natural (e.g. microbe or plant extract)
 - A synthetic material on the National List at 7 CFR 205.601
- Inert ingredients must be from 2004 EPA List 4 or natural.



205.203-Soil Fertility...Crop Nutrient

Prohibits the use of plant and animal materials that have been chemically altered by manufacturing process

Establishes Compost Production Parameters



Allows for ash from plant and animal materials...as long as not combined with prohibited substances

Days to Harvest Rule

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Compost Feedstocks

- Plant and animal materials
- Mined minerals
- Inoculants
- Paper, cardboard



More municipal compost facilities are accepting compostable plastics into yard waste bins.

Compost Methods in the Rule

- In-vessel or static aerated piles
 - C:N b/w 25:1 and 40:1
 - Temp maintained 3 days b/w 131°F and 170°F
- Windrow Compost
 - C:N b/w 25:1 and 40:1
 - Temp maintained 15 consecutive days b/w 131°F and 170°F and turned >5 times during that time period.

Compost Restrictions



Restricted.

- Composts made to 205.203 specifications can be used w/o restrictions
- Uncomposted/partially composted plant materials have no restriction
 - OMRI places raw manure restriction if pathogen levels exceed 1000 MPN for fecal coliform or 3 MPN of Salmonella

Uncomposted materials

- All plant materials can be used w/o restriction
- Some risk of elevated pathogen content
- Municipal greenwaste source of pesticide residues



Mulches and Paper



- OMRI considers waxed boxes to be “glossy” coating – thus prohibited
- Look for fumigated boxes (i.e. conventional tropical shipments)
- Ingredients should be nonsynthetic/ synthetic on the NL

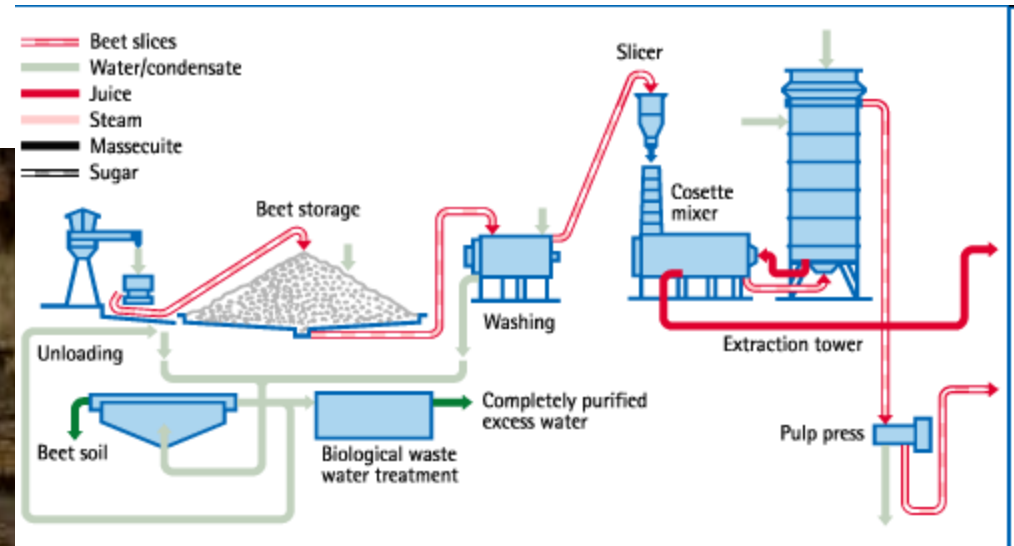
Biodegradable Plastic Mulches



- U.S.- pending rule-making (must conform to various ASTM standards)

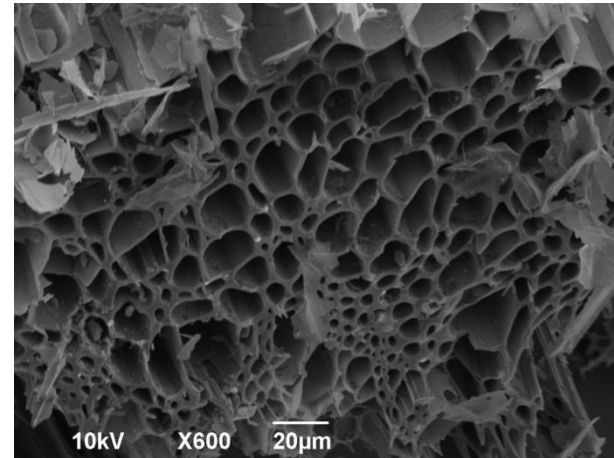
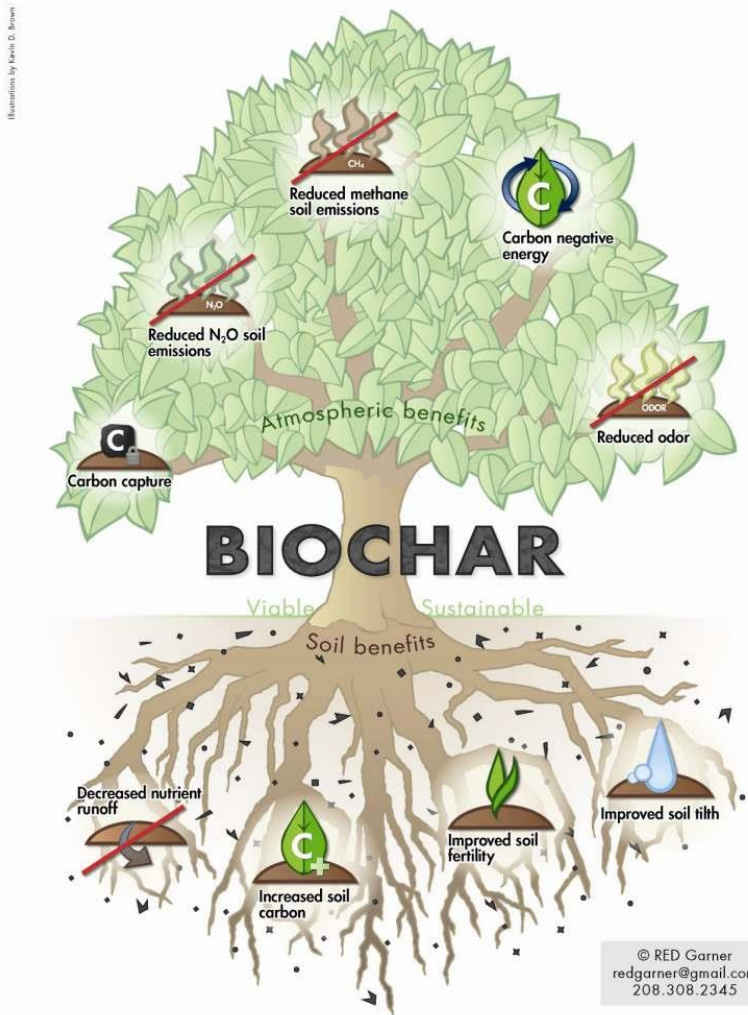
Lime

Limestone (CaCO_3)



Limestone (CaCO_3)

Biochar



Top 5 Animal Ingredients



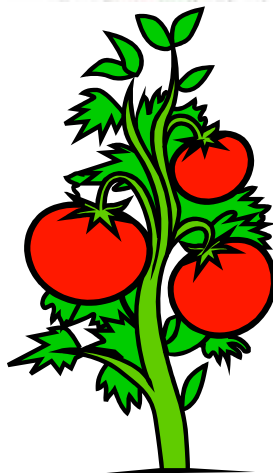
Bone Meal

Blood Meal



Feather meal

Bone and meat meal



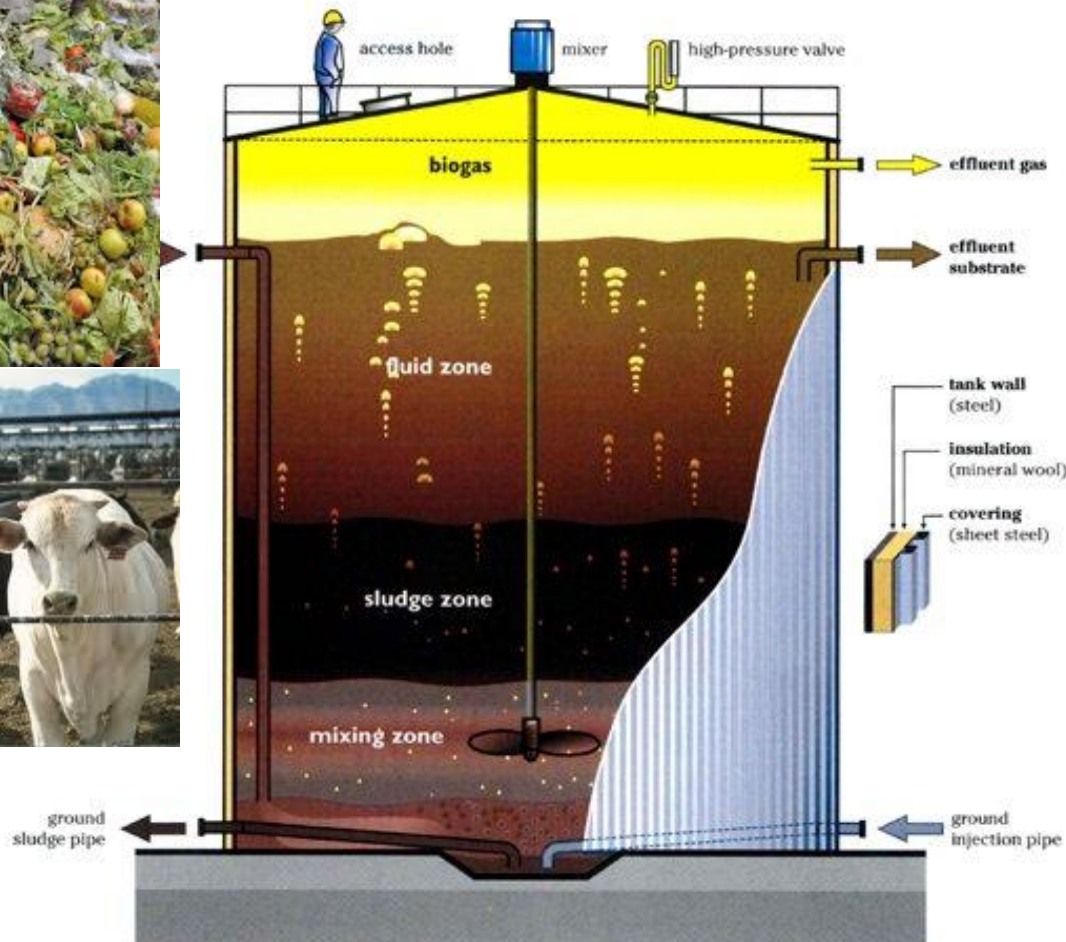
Fish Meal



Manure Based Products

- Manure feedstocks in compost
 - Restrictions depend on whether compost was made to 205.203
- Processed manures
 - Heated to at least 65° C for one hour
 - Moisture level of 12% or less
 - Or equivalent heating and drying method such that it meets pathogen thresholds

Anaerobic Digestion



Fish Products

Phosphoric acid is the most common stabilizer, followed by sulfuric and citric acids

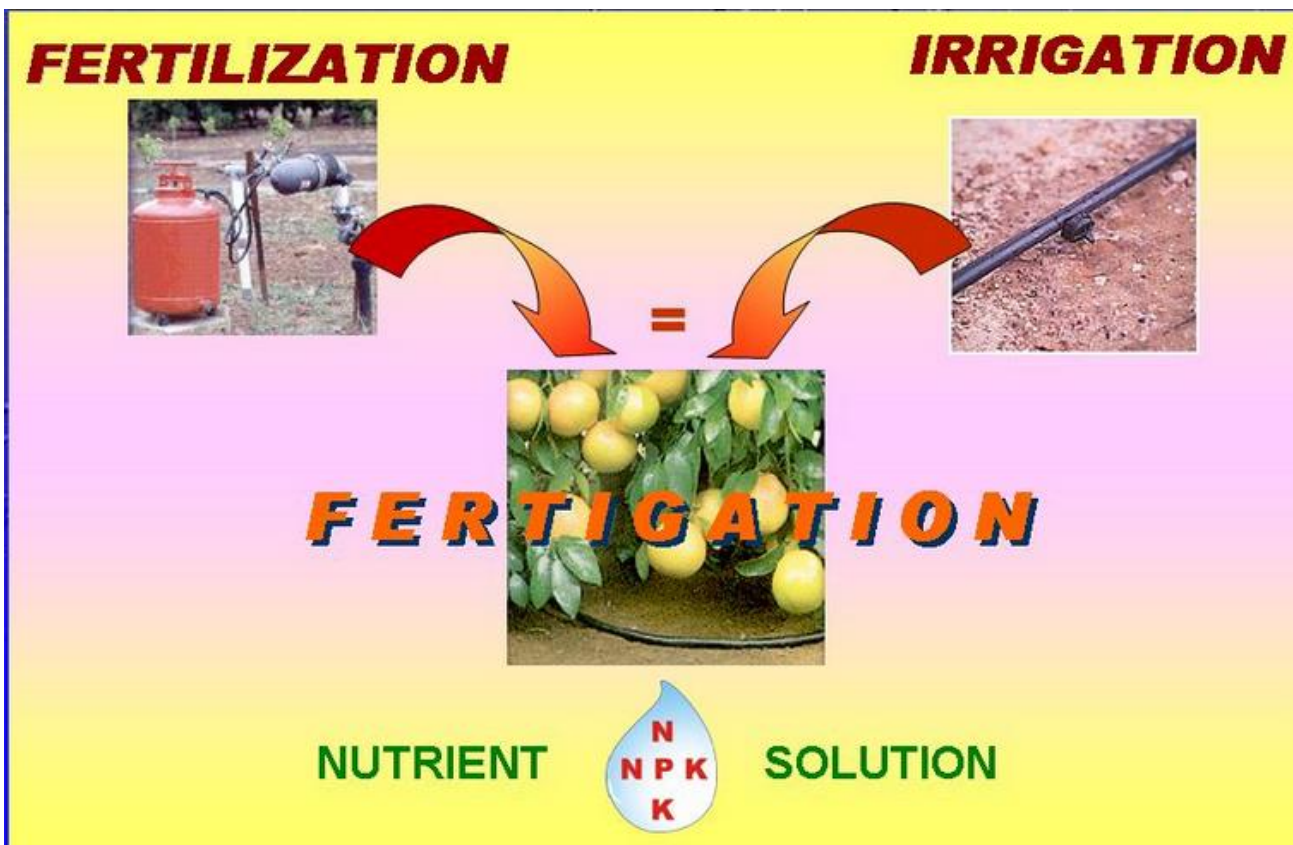
Fish contain high amounts of fats and oils—causing rapid rancidity. Ethoxyquin is most common preservative. Look for it on the MSDS.



Fish products are made from rendered fish parts (bones, guts, heads, etc)

Almost all liquid fish fertilizers with OMRI are stabilized with some acid component

Fertigation



High N Liquid Fertilizers

TRUE 402

ALLOWED FOR USE IN ORGANIC PRODUCTION

4-0-2

GUARANTEED ANALYSIS:

Total Nitrogen (N).....4.0%
3.68% Water Soluble Organic Nitrogen
0.32% Water Insoluble Organic Nitrogen

Soluble Potash (K₂O).....2.0%

DERIVED FROM:

Reduced Sugar Molasses and Acidulated Fish Solubles

Density.....10.1 lbs/gallon

DESCRIPTION:

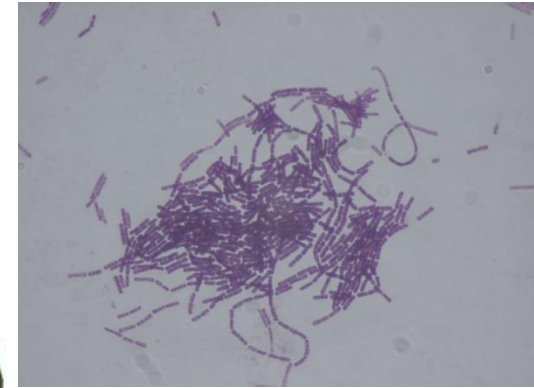
True 402 is a liquid fertilizer specially formulated for organic fruit and vegetable crop production.

Greater than 3%
nitrogen analysis

Must undergo 2
inspections per
year

Common Pesticides

- Spinosad (fermentation product)
- Pyrethrum (plant extract)
- Bacillus thuringiensis (microbe)
- Soaps
- Sulfurs





Questions?

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Labeling Concerns

- Ingredient statement vs. derived from statements
- Higher than expected nutrient values
- False or unverified compliance claims, or misuse of the word “organic”

“Derived from” does not include full ingredients

GUARANTEED ANALYSIS

Magnesium (Mg)	1.0%
Sulfur (S)	4.0%
Iron (Fe)	1.0%
Manganese (Mn)	1.0%
Zinc (Zn)	3.0%

Derived from ferrous sulfate, magnesium sulfate, manganese sulfate and zinc sulfate, complexed with lignosulfonate.

Complexed = Chelated

PRODUCT X—Red Flags

Liquid 5-10-5

- **About:** PRODUCT X 5-10-5 is a natural, fast-acting high phosphorous combination of the two oldest forms of fertilizer known, with micronutrients. The odorless concentrated liquid encourages early growth, greater flowering, and better fruit set. Great for increasing germination rates and overcome stress caused by natural or chemical damage.
- **Uses:** Soak seeds for higher germination rates. Encourages early growth, greater flowering and better fruit set.
- **Content:** fish solubles, feather meal & colloidal phosphates. Micronutrients are derived from seaweed extracts, borax and complex sugars.

High P content—is it stabilized with phosphoric acid?

Has this been inspected by OMRI or other ACA?

In order to be liquid, feather meal needs to be hydrolyzed first—what's the hydrolyzing agent?

This statement is too vague—what are the micronutrients and how are they derived?



[DTE DISTRIBUTORS Organic Fertilizer~All Purpose~6 Lbs](#)

\$12.95 from Rodale's

This boxed fertilizer is organic and packaged in recycled, compostable paper printed wi



[5-4-3 Organic Compost Fertilizer](#)

\$16.95 from natureslawn.com

5-4-3 is a very rich organic fertilizer and soil conditioner derived solely from composted



[Jobe's Organic Tree Fertilizer Spikes](#)

\$9.70 from gemplers.com

These unique Jobe's spikes are the most effective way to deliver organic fertilizer to you



[Foxfarm Organic 3 Pack Fertilizer Nutrient Soil Fox Farm Trio 32oz ...](#)

\$48.45 from eBay - htgsupply

FoxFarm Liquid Soil 3-PACK in Quart Size Bottles (1) GROW BIG Qt.* (*Regular formula,



[Azomite A to Z Organic Trace Mineral Fertilizer - 2 Lbs. - Garden, Gar](#)

\$6.95 from Wheatgrasskits.com ★★★★★ 552 seller reviews

A to Z Minerals- A Complete Organic Fertilizer A Source of Minerals & Trace Elements

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The Generic Materials List

Category

Material entry that corresponds to main ingredient or product function. Also called “listing”

Class:

One of 12 product use types: CF, CP, CT

Citation:

Gives regulatory reference from which compliance and annotation was derived

Compost Tea

Class: CF, CP

Compost tea used as a fertilizer or soil amendment is subject to the same restrictions as raw, uncomposted manure. It may only be (i) applied to land used for a crop not intended for human consumption; (ii) incorporated into the soil not less than 120 days prior to the harvest of a product whose edible portion has direct contact with the soil surface or soil particles; or (iii) incorporated into the soil not less than 90 days prior to the harvest of a product whose edible portion does not have direct contact with the soil surface or soil particles. See also MANURE – RAW, UNCOMPOSTED; COMPOST – IN-VESSEL OR STATIC AERATED PILE (PLANT AND ANIMAL MATERIALS); COMPOST TEA; and MANURE TEA. Compost tea made on the farm may be used to suppress the spread of disease organisms. Compost tea sold for disease suppression must comply with all pesticide regulations. See Glossary for definition of “compost tea.”

NOP Rule: 205.203(c) & 205.206(d)(2)

Allowed with Restrictions

Nonsynthetic

Status:

Attribute that describes compliance

Classification

Describes synthetic/nonsynthetic classification

Use annotation and descriptor:

Describes restriction and/or OMRI Standards

Tying GML to Products List

Copper Sulfate

Allowed with Restrictions

Class: CP

Synthetic

For use as an algicide in aquatic rice systems with documented need and for tadpole shrimp control in aquatic rice systems; use is not to exceed 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 time frame agreed upon by the producer and accredited certifying agent. When used for plant disease control must be used in a manner that minimizes accumulation of copper in the soil. May only be used as an algicide, insecticide, or disease control if the requirements of 205.206(e) are met.

When used as a plant or soil amendment it may be used as a micro-nutrient fertilizer, but may not be used as a defoliant, herbicide, or desiccant. Soil deficiency of copper must be documented by testing. See also COPPERS – MICRONUTRIENT.

NOP Rule: 205.601(a)(3), 205.601(e)(4), 205.601(i)(3) & 205.601(j)(6)(ii)

Describes restriction on
brand name

Describes generic restriction

▼ Triangle Brand® Copper Sulfate Crystal

Classification: [Crop Pest, Weed, and Disease Control](#)

Category: Copper Sulfate →

Search for more details on [Copper Sulfate](#) in our Generic Materials List

Restriction: For use as an algicide in aquatic rice systems and for tadpole shrimp control in aquatic rice systems; use is not to exceed 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 time frame agreed upon by the producer and accredited certifying agent. When used for plant disease control must be used in a manner that minimizes accumulation of copper in the soil. May be used as an algicide, insecticide, or disease control if the requirements of 205.206(e) are met, which requires the use of preventative, mechanical, physical, and other pest, weed, and disease management practices.

Company: [Freeport-McMoRan Sierrita, Inc.](#)

Products List Search: spinosad



18 results

Click on the arrow or the product name to show more details about each product.
The OMRI Products List data was updated 05/15/2014.

[print page](#)

[Open All](#) | [Close All](#)

▼ Conserve Naturalyte Insect Control

Classification: [Crop Pest, Weed, and Disease Control](#)

Category: Spinosad →

Search for more details on [Spinosad](#)
in our Generic Materials List

Restriction: May be used as a pest lure, repellent, or as part of a trap, or as a disease control.
May be used for other pesticidal purposes if the requirements of 205.206(e) are met,
which requires the use of preventative, mechanical, physical, and other pest, weed,
and disease management practices.

Company: [Southern Agricultural Insecticides Inc](#)

▶ [Conserve® Fire Ant Bait XT](#)

▶ [Conserve® Fire Ant Bait](#)

▶ [Entrust® Naturalyte® Insect Control](#)

▶ [Entrust® SC](#)

▶ [GF-120® NF Naturalyte® Fruit Fly Bait](#)

▶ [Green Light® Lawn & Garden Spray with Spinosad® 2 \(Concentrate\)](#)

▶ [Green Light® Lawn & Garden Spray with Spinosad® 2 \(Ready-to-Spray\)](#)

▶ [Justice™ Insect Control](#)

▶ [Monterey Garden Insect Spray](#)

▶ [Natular T30](#)

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NPK, keyword

Thank you! Questions?

Contact:

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