

# Overview of National Organic Program Requirements

by Jim Riddle, Organic Independents

Having trouble understanding the National Organic Standards? If so, you're not alone! This overview is intended to provide an understandable introduction to the regulation.

The National Organic Standards (NOS) were developed by the USDA to implement the Organic Foods Production Act of 1990 (OFPA). The NOS are based on recommendations of the National Organic Standards Board (NOSB), which was appointed by the Secretary of Agriculture to provide advice to implement OFPA and to review substances allowed in organic production and handling.

As you may recall, the USDA issued the first proposed rule in December, 1997. That proposed set of standards would have allowed genetic engineering, irradiation, sewage sludge, antibiotics, re-feeding of animal by-products, and other practices long prohibited in organic agriculture. That proposal received 275,603 comments and was withdrawn.

The second proposed rule was issued in March 2000. It was much more consistent with existing organic standards than the first proposed rule. It received about 40,000 comments and served as the basis for the "final rule", issued in December 2000.

The final rule contains the National Organic Standards, complete with an extensive list of definitions and the "National List" of allowed synthetic and prohibited natural substances. It also contains labeling, certification, accreditation, enforcement, and testing requirements. The regulation went into effect on October, 21, 2002. The text of the rule, along with policy statements, program updates, a list of accredited certifying agents, complaint procedures, and other related information can be found at the [National Organic Program website](#).

Under the regulation, any agricultural product can be produced using organic methods. The NOS covers all agricultural products labeled and sold as "organic" or "organically produced". The rule covers organic vegetable growers, orchardists, livestock producers, ranchers, processors, and handlers. Parts of the regulation even apply to retailers. As an organic operator, it is good for you to understand the requirements for other sectors, since these may affect your operation.

While the National Organic Standards are relatively new, organic standards and certification have existed in the United States since the mid-1970s, beginning with California Certified Organic Farmers. As the markets for organic products grew, so did the number of organic certification agencies. Though the standards of the different agencies, and the states which defined "organic" through legislation, were similar, there were differences. These differences sometimes resulted in trade difficulties and disputes between regions over whose standards were more "organic".

OFPA was passed by Congress in 1990 to begin the process of resolving the differences and establishing one set of national standards. Those standards are now in place. All certifiers who operate in the U.S., and all certifiers who certify products sold as “organic” in the U.S., must follow the NOS, and they must be accredited by the USDA to show that they have the competence and freedom from conflict of interest to certify organic products.

“Organic production” is defined by the regulation as “a production system that is managed ... to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.”

In simplified terms, the National Organic Standards require:

**For crop farms:**

- 3 years (36 months prior to harvest) with no application of prohibited materials (no synthetic fertilizers, pesticides, or GMOs) prior to certification
- distinct, defined boundaries for the operation
- implementation of an Organic System Plan, with proactive fertility systems; conservation measures; and environmentally sound manure, weed, disease, and pest management practices
- monitoring of the operation’s management practices
- use of natural inputs and/or approved synthetic substances on the National List, provided that proactive management practices are implemented prior to use of approved inputs
- no use of prohibited substances
- no use of genetically engineered organisms, (GMOs) defined in the rule as “excluded methods”
- no sewage sludge or irradiation
- use of organic seeds, when commercially available (must not use seeds treated with prohibited synthetic materials, such as fungicides)
- use of organic seedlings for annual crops
- restrictions on the use of raw manure and compost
- must maintain or improve the physical, chemical, and biological condition of the soil, minimize soil erosion, and implement soil building crop rotations
- fertility management must not contaminate crops, soil, or water with plant nutrients, pathogens, heavy metals, or prohibited substances
- maintenance of buffer zones, depending on risk of contamination
- prevent commingling on split operations (the entire farm does not have to be converted to organic production, provided that sufficient measures are in place to segregate organic from non-organic crops and production inputs)
- no field burning to dispose of crop residues (may only burn to suppress disease or stimulate seed germination – flame weeding is allowed)
- no residues of prohibited substances exceeding 5% of the EPA tolerance (certifier may require residue analysis if there is reason to believe that a crop has come in contact with prohibited substances or was produced using GMOs).

**For livestock operations:**

- implementation of an Organic Livestock Plan
- monitoring of management practices
- organic management from last third of gestation for slaughter stock or 2nd day after hatching for poultry
- one year of organic management for dairy cows prior to the production of organic milk
- mandatory outdoor access for all species when weather is suitable
- mandatory access to pasture for ruminants
- 100% organic feed and approved feed supplements
- DL-methionine allowed through October 21, 2005
- no antibiotics, growth hormones, or GMOs
- operator must implement preventative health care practices
- vaccines are allowed
- parasiticides prohibited for slaughter stock and tightly regulated for dairy and breeder stock
- physical alterations (castration, beak trimming, etc.) are allowed, if done to promote animal's welfare and stress is minimized
- animals must not be rotated between organic and non-organic production
- operator must not withhold treatment in order to preserve an animal's organic status
- manure must be managed to prevent contamination of crops, water, and soil.

**For processing operations:**

- implementation of an Organic Handling Plan
- may use mechanical or biological processing methods
- no commingling or contamination of organic products during processing or storage
- no use of GMOs or irradiation
- must use proactive sanitation and facility pest management practices to prevent pest infestations
- must take steps to protect organic products and packaging from contamination if pesticides are used
- must keep records of all pesticide applications
- must not use packaging materials that contain fungicides, preservatives, or fumigants
- must use organic minor ingredients in products labeled "organic", when such ingredients are commercially available
- must use approved label claims for "100% organic" (100% organic ingredients, including processing aids), "organic" (at least 95% organic ingredients), "made with organic ingredients" (at least 70% organic ingredients) and proper use of the word "organic" in ingredient list (less than 70% organic ingredients).

All operations producing and/or selling organic products must keep records to verify compliance with the regulation. Such records must:

1. be adapted to the particular operation
2. fully disclose all activities and transactions of the certified operation in sufficient detail as to be readily understood and audited
3. be maintained for at least 5 years beyond their creation

4. be sufficient to demonstrate compliance with the regulation. The operator must make the records available for inspection

Organic System Plan forms are generally provided by certifying agents as part of the application process. The plans must be updated annually, and operators are required to notify their certifying agents of all changes to the operation which might affect the operation's certification status. Operations must be inspected at least annually.

All producers and handlers who sell over \$5000/year in organic products must be certified. Producers and handlers who sell under \$5,000/year do not have to be certified, but they still have to follow the NOS. Non-certified organic producers can sell their products directly to customers or to retail stores, but their products cannot be used as organic ingredients by other operations, and they cannot use the "USDA Organic" seal.

Though the National Organic Standards are similar to previous organic standards, there are some significant differences, and there are areas of continued controversy, confusion, and clarification. Despite the level of detail in the NOS, some interpretation is required for local variations and new conditions. It is always a good idea to check with certification agencies to get your questions answered, especially before purchasing or applying materials.

[Back to Organic Certification Guide](#)

This page last updated July 17, 2005.

## Comparison of Organic Certification Agencies

Compiled by [Molly Hamilton](#), North Carolina State University

[North Carolina Crop Improvement Association](#)

[Quality Certification Services](#)

[Clemson Certification](#)

	<b>North Carolina Crop Improvement Association (NCCIA)</b>
<b>Contact Information</b>	<a href="#">Dr. Myron Fountain</a> 3709 Hillsborough St Raleigh, NC 27607-5464 Phone: 919-515-2851 or 919-513-3444 Fax: 919-515-7981

<b>Pricing</b>	<p><b>Organic farm:</b></p> <ul style="list-style-type: none"> <li>• Administration fee: \$50</li> <li>• Application fee: \$20</li> <li>• Farm certification: \$200</li> <li>• Inspection-organic farm: \$5/acre</li> </ul> <p><b>Organic handler/processor: \$470 total</b></p> <p><b>Organic livestock: \$270 total</b></p>
<b>Inspectors</b>	All located in North Carolina. Do not have to pay inspector's travel expenses.
<b>Average turn-around time</b>	4 months (busiest times: May and September)
<b>Other organic certification</b>	Yes - livestock, processors/handlers, farmers
<b>Experience</b>	Certifying organic operations since summer 2002
<b>Activism</b>	Involved in state and federal level organic organizations. Mostly focused on NC though

	<b>Quality Certification Services (QCS)</b>
<b>Contact Information</b>	<p><a href="#">QCS Office</a>  P.O. Box 12311  Gainesville, FL 32604  Phone: 352-377-0133</p>
<b>Pricing</b>	<p><b>First time applicant fee: \$75</b></p> <p><b>Standard Farm Certification:</b></p> <ul style="list-style-type: none"> <li>• Inspection fee (is based on how far away farm is from inspector and how long it takes the inspector)</li> <li>• Fee for size of operation: <ul style="list-style-type: none"> <li>○ 0-100 acres: \$175</li> <li>○ 101-500 acres: \$225</li> <li>○ 201-300 acres: \$300</li> </ul> </li> </ul> <p><b>Assessment fee: 0.5% of gross sales (max annual assessment \$5000) due twice a year</b></p> <p><b>Contract Producers:</b></p> <ul style="list-style-type: none"> <li>• Flat rate fee: \$1000 per contract producer</li> <li>• Inspection fee (varies)</li> </ul>

<b>Inspectors</b>	Three NC inspectors located in Maconville, Pittsboro, and Asheville
<b>Average turn-around time</b>	About 90 days
<b>Other organic certification</b>	Yes - livestock, processors/handlers, farmers, wildcrafting
<b>Experience</b>	Certifying organic operations for 16 years - formerly Florida Organic Growers (FOG)
<b>Activism</b>	Involved in many state and federal level organic committees and advisory boards

	<b>Clemson Certification</b>
<b>Contact Information</b>	<a href="#">Dr. David Howle</a> Department of Plant Industry Clemson University 511 Westinghouse Rd Pendleton, SC 29670 Phone: 864-646-2140
<b>Pricing</b>	<b>Initial application fee:</b> \$500 (non-refundable)  <b>Annual renewal fee:</b> \$400  <b>Inspection fee</b> (based on acreage): <ul style="list-style-type: none"> <li>• first 20 acres (minimum 10 acres): \$10/acre</li> <li>• above 20 acres: \$5/acre</li> </ul> <b>Out-of-state travel for inspectors:</b> mileage and expenses at Clemson rate
<b>Inspectors</b>	None located in NC. Most at Clemson, with one in Columbia, SC and one on contract basis in Greensboro, NC
<b>Average turn-around time</b>	About one month
<b>Other organic certification</b>	Yes - livestock, processor, farmers
<b>Experience</b>	Certifying organic operations since April 2002
<b>Activism</b>	Involved with some local organic organizations such as CFSA

Notes:

- If a farmer wants to market product outside of the US, certifying agencies with more international experience and involvement such as QCS, [Organic Crop Improvement Association](#), or [Oregon Tilth, Inc.](#) should be considered.
- NCCIA fees will probably be raised slightly in the next few years.
- Farmers who want to work with a certifier that has more experience with conventional and/or large farmers often choose NCCIA.
- Farmers who wish to work with a certifier that has a lot of experience with organic certification and organic philosophy often use QCS.
- Farmers located nearer to Columbia or Clemson, SC sometimes choose Clemson University as a certifier.
- Turn-around time: It is recommended that farmers send in completed applications to make turn-around time as short as possible. It is also recommend that a farmer back off from the date that certification is needed by the length of the turn-around time to turn in the completed application.

[Back to Organic Certification Guide](#)

This page last updated July 17, 2005.

## How to Pick a Certifier

by Tony Kleese, [Carolina Farm Stewardship Association](#)

Choosing a certifier is just like choosing any other service provider. You will be the most satisfied if you do a little research up front to ensure that you are getting the most for your hard earned money. We recommend using the following criteria to evaluate which certifier is right for you.

### Location

First recognize that it is not necessary for the certifier to be located in your state. Any certifier accredited by the USDA can certify anywhere in the country. They may self-limit their range but

they do not need to have an office in your state. The location of the inspectors they use is an issue. Some certifiers may require that you use inspectors that are not located near you. You will have to pay their travel expense, so this can have a major impact on your cost. Ask the certifier about who their inspectors are and how far away they are from your farm.

### **Price**

The USDA does not regulate fees for certification. Some certifiers charge a flat rate based on acreage, some charge a base fee and then charge an assessment based on sales. Both fee structures are intended to make it scale-specific so a small operation is not charged the same as a large operation. Shop around and see what works for you. Remember to factor in inspector costs.

### **Turnaround Time**

We suggest that you budget a minimum of 3 to 4 months for the first time through the system. It can take as much as 6 months if your operation is complicated or there are other delays in the process. Ask the certifier what their average turnaround time is and be very thorough in your application/farm plan as this will reduce the need to collect additional information. It may also be helpful to ask the certifier if they have recommendations on the times of year when their load is lighter and they can move faster.

### **Service Area/History/Activism**

Certifiers are accredited to perform certification services for the USDA for crops, livestock, and handling. Some certifiers may not offer services in all of these areas. Some may be more oriented to the manufacturer market instead of the small farmer market. Make sure you are very clear about what products you want to have certified so you can ensure that the certifier can meet your needs. Some certifiers are just getting into organic certification and some have been at it for years. You may find that this impacts the service you receive. Some certifiers, especially the older ones, are very active at the federal and state level by participating on committees and advisory boards. If this activism is important to you, you may want to support a certifier who participates in these activities.

### **End Product Issues**

If the crop you are certifying will end up in a manufactured product, you may want to consider being certified by the same certifier as the final product. Technically, this should have no impact because in the eyes of the USDA, all certifiers and certifications are equal, but it may make the sale and distribution of your product go smoother if they are the same.

## **Organic Certification Recordkeeping**

### **National Organic Program Recordkeeping Requirements for Certified Operations:**

(a) A certified operation must maintain records concerning the production, harvesting, and handling of agricultural products that are or that are intended to be sold, labeled, or represented

as "100 percent organic," "organic," or "made with organic (specified ingredients or food group(s))."

(b) Such records must:

- (1) Be adapted to the particular business that the certified operation is conducting;
- (2) Fully disclose all activities and transactions of the certified operation in sufficient detail as to be readily understood and audited;
- (3) Be maintained for not less than 5 years beyond their creation; and
- (4) Be sufficient to demonstrate compliance with the Act and the regulations in this part.

(c) The certified operation must make such records available for inspection and copying during normal business hours by authorized representatives of the Secretary, the applicable State program's governing State official, and the certifying agent.

**Recordkeeping Templates** - all of these templates were designed to comply with the requirements of the USDA's National Organic Program

**Farm Recordkeeping Form Templates** - includes multiple forms:

- List of Organic Certification Records
- Field History Sheet
- Newly Purchased Land or Rented Land Verification
- Seed Verification Form
- Field Activity Log
- Input Use Record
- Compost Production Record
- Neighbor Notification Letter
- Verification of Adjoining Land Use
- Buffer Crop Usage
- Crop Harvest Record
- Crop Harvest & Storage Record
- Clean Transport Affidavit
- Split Operation or Parallel Production Crop Record
- Audit Control Summary
- Complaint Log

**Vegetable Recordkeeping Templates/Examples**

**Livestock Recordkeeping Templates/Examples**

## [Grain Recordkeeping Templates/Examples](#)

### The National List in the Final Rule

#### Subpart G - Administrative

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

##### **§ 205.600 Evaluation criteria for allowed and prohibited substances, methods, and ingredients.**

The following criteria will be utilized in the evaluation of substances or ingredients for the organic production and handling sections of the National List:

(a) Synthetic and nonsynthetic substances considered for inclusion on or deletion from the National List of allowed and prohibited substances will be evaluated using the criteria specified in the Act (7 U.S.C. 6517 and 6518).

(b) In addition to the criteria set forth in the Act, any synthetic substance used as a processing aid or adjuvant will be evaluated against the following criteria:

(1) The substance cannot be produced from a natural source and there are no organic substitutes;

(2) The substance's manufacture, use, and disposal do not have adverse effects on the environment and are done in a manner compatible with organic handling;

(3) The nutritional quality of the food is maintained when the substance is used, and the substance, itself, or its breakdown products do not have an adverse effect on human health as defined by applicable Federal regulations;

(4) The substance's primary use is not as a preservative or to recreate or improve flavors, colors, textures, or nutritive value lost during processing, except where the replacement of nutrients is required by law;

(5) The substance is listed as generally recognized as safe (GRAS) by Food and Drug Administration (FDA) when used in accordance with FDA's good manufacturing practices (GMP) and contains no residues of heavy metals or other contaminants in excess of tolerances set by FDA; and

(6) The substance is essential for the handling of organically produced agricultural products.

(c) Nonsynthetics used in organic processing will be evaluated using the criteria specified in the Act (7 U.S.C. 6517 and 6518).

##### **§ 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:

(a) As algicide, disinfectants, and sanitizer, including irrigation system cleaning systems

(1) Alcohols

(i) Ethanol

(ii) Isopropanol

(2) Chlorine materials - Except. That, residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.

(i) Calcium hypochlorite

(ii) Chlorine dioxide

(iii) Sodium hypochlorite

(3) Hydrogen peroxide

(4) Soap-based algicide/demisters

(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))

(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) Boric acid - structural pest control, no direct contact with organic food or crops

(3) Elemental sulfur

(4) Lime sulfur - including calcium polysulfide

(5) Oils, horticultural - narrow range oils as dormant, suffocating, and summer oils.

(6) Soaps, insecticidal

(7) Sticky traps/barriers

(f) As insect attractants

Pheromones

(g) As rodenticides

(1) Sulfur dioxide - underground rodent control only (smoke bombs)

(2) Vitamin D3

(h) As slug or snail bait

<None>

(i) As plant disease control

(1) 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.

(2) Copper sulfate - Substance must be used in a manner that minimizes accumulation of copper in the soil.

(3) Hydrated lime - must be used in a manner that minimizes copper accumulation in the soil.

(4) Hydrogen peroxide

(5) Lime sulfur

(6) Oils, horticultural, narrow range oils as dormant, suffocating, and summer oils.

(7) Potassium bicarbonate

(8) Elemental sulfur

(9) Streptomycin, for fire blight control in apples and pears only

(10) Tetracycline (oxytetracycline calcium complex), for fire blight control only

(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, floatation agent

(5) Magnesium sulfate - allowed with a documented soil deficiency

(6) Micronutrients - not to be used as a defoliant, herbicide, or desiccant. Those made from nitrates or chlorides are not allowed. Soil deficiency must be documented by testing.

(i) Soluble boron products

(ii) Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt,

(7) 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

(8) Vitamins, B1, C, and E

(k) As plant growth regulators

Ethylene - for regulation of pineapple flowering

(l) As floating agents in postharvest handling

(1) Lignin sulfonate

(2) 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

(n)-(z) [Reserved]

#### **§ 205.602 Nonsynthetic substances prohibited for use in organic crop production.**

The following nonsynthetic substances may not be used in organic crop production:

(a) Ash from manure burning

(b) Arsenic

(c) Lead salts

(d) Sodium fluoaluminate (mined)

(e) Strychnine

(f) Tobacco dust (nicotine sulfate)

(g) Potassium chloride - unless derived from a mined source and applied in a manner that minimizes chloride accumulation in the soil.

(h) Sodium nitrate - unless use is restricted to no more than 20% of the crop's total nitrogen requirement.

(i)-(z) [Reserved]

**§ 205.603 Synthetic substances allowed for use in organic livestock production.**

In accordance with restrictions specified in this section the following synthetic substances may be used in organic livestock production:

(a) As disinfectants, sanitizer, and medical treatments as applicable

(1) Alcohols

(i) Ethanol - disinfectant and sanitizer only, prohibited as a feed additive

(ii) Isopropanol - disinfectant only

(2) Aspirin - approved for health care use to reduce inflammation

(3) Chlorine materials - disinfecting and sanitizing facilities and equipment. Residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act

(i) Calcium hypochlorite

(ii) Chlorine dioxide

(iii) Sodium hypochlorite

(4) Chlorohexidine - Allowed for surgical procedures conducted by a veterinarian. Allowed for use as a teat dip when alternative germicidal agents and/or physical barriers have lost their effectiveness

(5) Electrolytes - without antibiotics

(6) Glucose

(7) Glycerin - Allowed as a livestock teat dip, must be produced through the hydrolysis of fats or oils

(8) Iodine

(9) Hydrogen peroxide

(10) Magnesium sulfate

(11) Oxytocin - use in postparturition therapeutic applications

(12) Parasiticides

Ivermectin - prohibited in slaughter stock, allowed in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. Milk or milk products from a treated animal cannot be labeled as provided for in subpart D of this part for 90 days following treatment. In breeder stock, treatment cannot occur during the last third of gestation if the progeny will be sold as organic and must not be used during the lactation period of breeding stock. (13)

Phosphoric acid - allowed as an equipment cleaner, Provided, That, no direct contact with organically managed livestock or land occurs.

(14) Biologics

Vaccines

(b) As topical treatment, external parasiticide or local anesthetic as applicable.

(1) Iodine

(2) Lidocaine - as a local anesthetic. Use requires a withdrawal period of 90 days after administering to livestock intended for slaughter and 7 days after administering to dairy animals

(3) Lime, hydrated - (bordeaux mixes), not permitted to cauterize physical alterations or deodorize animal wastes.

(4) Mineral oil - for topical use and as a lubricant

(5) Procaine - as a local anesthetic, use requires a withdrawal period of 90 days after administering to livestock intended for slaughter and 7 days after administering to dairy animals

(6) Copper sulfate

(c) As feed supplements

Milk replacers - without antibiotics, as emergency use only, no nonmilk products or products from BST treated animals

(d) As feed additives

(1) Trace minerals, used for enrichment or fortification when FDA approved, including:

(i) Copper sulfate

(ii) Magnesium sulfate

(2) Vitamins, used for enrichment or fortification when FDA approved

(e) As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or a synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances.

EPA List 4 - Inerts of Minimal Concern.

(f)-(z) [Reserved]

**§ 205.604 Nonsynthetic substances prohibited for use in organic livestock production.**

The following nonsynthetic substances may not be used in organic livestock production:

(a) Strychnine

(b)-(z) [Reserved]

**§ 205.605 Nonagricultural (nonorganic) substances allowed as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food group(s))."**

The following nonagricultural substances may be used as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food group(s))" only in accordance with any restrictions specified in this section.

(a) Nonsynthetics allowed:

(1) Acids

(i) Alginic

(ii) Citric - produced by microbial fermentation of carbohydrate substances

(iii) Lactic

(2) Bentonite

(3) Calcium carbonate

(4) Calcium chloride

(5) Colors, nonsynthetic sources only

(6) Dairy cultures

(7) Diatomaceous earth - food filtering aid only

(8) Enzymes - must be derived from edible, nontoxic plants, nonpathogenic fungi, or nonpathogenic bacteria

(9) Flavors, nonsynthetic sources only and must not be produced using synthetic solvents and carrier systems or any artificial preservative.

(10) Kaolin

(11) Magnesium sulfate, nonsynthetic sources only

(12) Nitrogen - oil-free grades

(13) Oxygen - oil-free grades

(14) Perlite - for use only as a filter aid in food processing

(15) Potassium chloride

- (16) Potassium iodide
- (17) Sodium bicarbonate
- (18) Sodium carbonate
- (19) Waxes - nonsynthetic
  - (i) Carnauba wax
  - (ii) Wood resin
- (20) Yeast - nonsynthetic, growth on petrochemical substrate and sulfite waste liquor is prohibited
  - (i) Autolysate
  - (ii) Bakers
  - (iii) Brewers
  - (iv) Nutritional
  - (v) Smoked - nonsynthetic smoke flavoring process must be documented.
- (b) Synthetics allowed:
  - (1) Alginates
  - (2) Ammonium bicarbonate - for use only as a leavening agent
  - (3) Ammonium carbonate - for use only as a leavening agent
  - (4) Ascorbic acid
  - (5) Calcium citrate
  - (6) Calcium hydroxide
  - (7) Calcium phosphates (monobasic, dibasic, and tribasic)
  - (8) Carbon dioxide
  - (9) Chlorine materials - disinfecting and sanitizing food contact surfaces, Except, That, residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.
    - (i) Calcium hypochlorite
    - (ii) Chlorine dioxide
    - (iii) Sodium hypochlorite

- (10) Ethylene - allowed for postharvest ripening of tropical fruit
- (11) Ferrous sulfate - for iron enrichment or fortification of foods when required by regulation or recommended (independent organization)
- (12) Glycerides (mono and di) - for use only in drum drying of food
- (13) Glycerin - produced by hydrolysis of fats and oils
- (14) Hydrogen peroxide
- (15) Lecithin - bleached
- (16) Magnesium carbonate - for use only in agricultural products labeled "made with organic (specified ingredients or food group(s))," prohibited in agricultural products labeled "organic"
- (17) Magnesium chloride - derived from sea water
- (18) Magnesium stearate - for use only in agricultural products labeled "made with organic (specified ingredients or food group(s))," prohibited in agricultural products labeled "organic"
- (19) Nutrient vitamins and minerals, in accordance with 21 CFR 104.20, Nutritional Quality Guidelines For Foods
- (20) Ozone
- (21) Pectin (low-methoxy)
- (22) Phosphoric acid - cleaning of food-contact surfaces and equipment only
- (23) Potassium acid tartrate
- (24) Potassium tartrate made from tartaric acid
- (25) Potassium carbonate
- (26) Potassium citrate
- (27) Potassium hydroxide - prohibited for use in lye peeling of fruits and vegetables
- (28) Potassium iodide - for use only in agricultural products labeled "made with organic (specified ingredients or food group(s))," prohibited in agricultural products labeled "organic"
- (29) Potassium phosphate - for use only in agricultural products labeled "made with organic (specific ingredients or food group(s))," prohibited in agricultural products labeled "organic"
- (30) Silicon dioxide
- (31) Sodium citrate
- (32) Sodium hydroxide - prohibited for use in lye peeling of fruits and vegetables

(33) Sodium phosphates - for use only in dairy foods

(34) Sulfur dioxide - for use only in wine labeled "made with organic grapes," Provided, That, total sulfite concentration does not exceed 100 ppm.

(35) Tocopherols - derived from vegetable oil when rosemary extracts are not a suitable alternative

(36) Xanthan gum

(c)-(z) [Reserved]

**§ 205.606 Nonorganically produced agricultural products allowed as ingredients in or on processed products labeled as organic or made with organic ingredients.**

The following nonorganically produced agricultural products may be used as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food group(s))" only in accordance with any restrictions specified in this section.

Any nonorganically produced agricultural product may be used in accordance with the restrictions specified in this section and when the product is not commercially available in organic form.

(a) Cornstarch (native)

(b) Gums - water extracted only (arabic, guar, locust bean, carob bean)

(c) Kelp - for use only as a thickener and dietary supplement

(d) Lecithin - unbleached

(e) Pectin (high-methoxy)

**§ 205.607 Amending the National List.**

(a) Any person may petition the National Organic Standard Board for the purpose of having a substance evaluated by the Board for recommendation to the Secretary for inclusion on or deletion from the National List in accordance with the Act.

(b) A person petitioning for amendment of the National List should request a copy of the petition procedures from the USDA at the address in § 205.607(c).

(c) A petition to amend the National List must be submitted to: Program Manager, USDA/AMS/TMP/NOP, Room 2945, South Building, P.O. Box 96456, Washington, DC 20090-6456.