

# **Guidelines for Organic Crop Certification**

The following guidelines are based on the USDA organic regulations (7 CFR §205). In order to be eligible for organic certification, farms must be in compliance with the following standards.

# Land requirements (§205.202)

Land or greenhouses used for crop production must qualify for organic certification. The organic regulations state that any field or farm parcel, from which harvested crops are intended to be sold as organic, must have had no prohibited substances applied to it for a period of three years immediately preceding the harvest of the crop.

Example to determine if a field qualifies:

A farmer's last fertilizer (or other prohibited substance) application is on May 31, 2011.

On May 31, 2012 first transitional year has ended.

On May 31, 2013 second transitional has ended.

On May 31, 2014 third transitional year has ended.

This means after May 31, 2014 crops harvested can be certified organic.

If you lease land or greenhouses and will continue to do so, that field or farm parcel may be certified as well. You must include the leased field or farm parcel under your certification if you wish to use it for organic crop production. If you include leased field or farm parcels in your application, you are taking responsibility for the management of that field and that crop can only be sold as organic by you.

# <u>Buffer requirements</u>

Land that is certified as organic must have distinct, defined boundaries and buffer zones to prevent the unintended application of a prohibited substance to the crop or contact with a prohibited substance applied to adjoining land that is not under organic management.

If you are unsure if the buffer or boundary in place on your land is adequate, please contact your certifier for clarification. If there is no buffer in place but you have confirmed with your adjacent land owner/manager that their land management does not pose a risk of contamination, please contact your certifier for clarification of how they prefer that this agreement is documented to allow for inspector verification.

Examples of adjacent land use that may pose a risk: conventional agriculture fields (pesticides, GMOs, etc.), industrial properties, residential properties, roadsides (guardrails, mile markers, road signs, etc.), railroads, utility poles, flood zones, etc.



# Greenhouse requirements

Greenhouse management must comply with all aspects of previously stated soil management (with the exception of crop rotations for tabletop production). Certified organic growers who make their own potting soil mix must use approved materials. Purchased commercial potting mixes must be approved and not contain synthetic fertilizers, wetting agents or other prohibited substances.

#### Treated wood

Lumber treated with arsenate or other prohibited material is prohibited to contact the soil when used for new installations or replacement purposes.

# Soil fertility and crop nutrient management practice (§205.203)

The organic regulations state that a producer must select and implement tillage and cultivation practices that maintain or improve the physical, chemical, and biological condition of the soil and minimize soil erosion. Required crop nutrient and soil fertility management practices:

- Crop rotations (perennials as an exception)
- Cover crops
- Application of plant and animal materials

# Accepted plant and animal materials:

- Raw animal manure applied to land (See below for restrictions. Note, there are no time restrictions for crops not intended for human consumption)
- Composted plant and animal materials, with production documentation that shows a C:N ratio and temperature records that meet the organic standards
- Uncomposted plant materials

## Accepted crop nutrient and soil amendments:

- Nutrients or soil amendments included on the National List of synthetic substances allowed for use in organic crop production
- A mined substance of low solubility
- A mined substance of high solubility; the application of the substance must be in accordance with those established on the National List of nonsynthetic materials prohibited for crop production
- Ash obtained from burning of a plant or animal material
- A plant or animal material that has been chemically altered by the manufacturing process
- Burning used to suppress the spread of disease or to stimulate seed germination

#### Prohibited:

- Application of raw manure less than 120 prior to harvest of a product whose edible portion has direct contact with soil surface or soil particles or 90 days prior to harvest of product whose edible portion does not have direct contact with soil surface or soil particles
- Any fertilizer, crop nutrient, soil amendments or composted plant and animal material that contains a synthetic substance that is not included on the National List of synthetic substances allowed for use in organic crop production





- Sewage sludge (bio solids)
- Burning as a means of disposal for crop residues produced on farm

Plant and animal materials and crop nutrients and soil amendments must be managed to improve soil organic matter content. Producers may not apply plant and animal materials and/or crop nutrients and soil amendments in a way that contributes to the contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances.

If you are unsure if a material is allowed, contact your certifier for clarification.

# Crop rotation (§205.205)

To maintain soil fertility and crop nutrient management, it is required that producers implement a crop rotation including but not limited to sod, cover crops, green manure crops and catch crop that provide the following functions as applicable to your operation:

- Maintaining or improving soil organic matter content
- Providing pest management in annual and perennial crops
- Managing deficient or excess plant nutrients
- Providing erosion control

## Seeds and planting stock (§205.204)

Producers of organic crops are required to source certified organic seed, annual seedlings and planting stock. If organic seeds are not commercially available, non-organic untreated seeds may be used. Commercial availability means that the seed is available in the appropriate variety (growing habits, days to maturity, insect and disease resistance, etc.), quality (cleanliness, germination, etc.), form (size, grade, hot water treated etc.) or quantity the producer needs. Confirm your method of documenting your search for organic seed with your certifier. Organically produced seedlings must be used for the production of an organic crop.

#### Accepted:

- Non-organically produced, untreated seeds and planting stock may be used to produce an organic crop when an equivalent organic produced variety is not commercially available.
- Seeds and planting stock treated with a substance included on the National list of synthetic substances allowed for use in organic crop production.
- Non-organically produced planting stock used to produce a perennial crop may be sold, labeled, or represented as organically produced only after the planting stock has been maintained under a system of organic management for a period of no less than 1 year.

# Prohibited:

- Non-organically produced, untreated seeds and planting stock used to produce an organic crop when an equivalent organic produced variety is readily commercially available.
- Seeds and planting stock treated with a substance NOT included on the National list of synthetic substance allowed for use in organic crop production.
- Nonorganic seed used for edible sprout production.





Please contact your certifier for assistance sourcing organic seed and planting stock.

# Crop pest, weed, and disease management practice (§205.206)

Producers must implement management practices to prevent crop pests, weeds, and diseases that include but are not limited to the following:

# Accepted pest controls:

- Crop rotation and soil and crop nutrient management practices as outlined above.
- Sanitation measures to remove disease vectors, weeds seeds and pest organisms.
- Cultural practices to enhance crop health such as plant species and variety selection with regard to suitability for site-specific conditions and resistance to pests, weeds, and disease.
- Mechanical and physical methods for controlling pest problems, such as:
  - o Biological controls (natural predators and parasites, habitat to promote biodiversity)
  - o Nonsynthetic controls such as lures, traps, fencing and repellants

# Accepted weed controls:

- Mulching with fully biodegradable materials
- Mowing
- Livestock grazing
- Hand weeding or mechanical cultivation
- Flame, heat, or electrical means
- Plastic or synthetic mulches if removed from the field at the end of the growing/harvest season

# Accepted disease controls:

- Management practices which suppress the spread of disease organisms. Examples include plant spacing, choosing resistant varieties, and crop rotations. In greenhouses, this can also include the proper control of environmental factors such as ventilation, humidity and temperature.
- Application of nonsynthetic biological, botanical, or mineral inputs

When the above pest, weed and disease preventative management practices are not sufficient, the following practices are accepted:

- Application of a biological or botanical substance
- Application of a substance included on the National List of synthetic substances allowed for use in organic crop production

# **Prohibited controls:**

- Synthetic mulches or remnants left to photo-degrade in the field
- Synthetic herbicides, pesticides or fungicides with the exception of those included on the National List of synthetic substances allowed for use in organic crop production
- Newspaper with color inks
- Biodegradable plastic mulch films not compliant with the NOP guidance





 Nonsynthetic substances included on the National List of nonsynthetic substances prohibited for use in organic crop production

Contact your certifier for clarification on the allowance of a specific material for use for pest, weed, or disease control on your operation.

# Post-Harvest Handling (§205.270 – 205.272)

#### Sanitation

Proper sanitation is required at all levels of handling, transport and storage. The use of disinfectants (chlorine materials, hydrogen peroxide) applied to storage containers and handling equipment must be consistent with the National List.

## **Irrigation and Wash Water**

Ground and surface waters are a potential source for a wide range of contaminants. Verify your certifier's recommendations for water testing of irrigation and wash water.

Water used in direct post-harvest crop or food contact is permitted to contain chlorine materials at levels approved by the Food and Drug Administration or the Environmental Protection Agency for such purpose. However, rinsing with potable water that does not exceed the maximum residual disinfectant limit for the chlorine material under the Safe Drinking Water Act (4ppm) must immediately follow this permitted use. Certified operators should monitor the chlorine level of the final rinse water, the point at which the water last contacts the organic product. The level of chlorine in the final rinse water must meet limits as set forth by the Safe Drinking Water Act (4ppm).

## Commingling and contact with prohibited substances

It is required that producers implement measures to prevent the commingling of organic and nonorganic products. It is also required that organic producers protect organic products from contact with prohibited substances.

# **Split Operations**

Operations that choose to produce organic and non-organic livestock products or to hire services from custom operators that may service non-organic and organic clients, must implement measures necessary to prevent the commingling of organic and non-organic crop products.

#### Accepted practices

- Mechanical or biological methods including but not limited to cooking, baking, heating, drying, preserving, dehydrating, freezing, and chilling crop products.
- Non-synthetic materials, such as rock powders, diatomaceous earth, and herbal preparations to repel storage pests, must be consistent with the National List of nonsynthetic substances prohibited for use in organic crop production.



• The use of synthetic materials, such as floating agents, must be consistent with the National List of synthetic substances allowed for use in organic crop production.

# **Prohibited practices**

- Re-use of bags or containers that have been used in contact with a substance in such a manner as to
  compromise the organic integrity of any organically produced product placed into the container (such
  as conventional citrus or soft fruit that are likely to have been treated). Re-used bags or boxes must be
  thoroughly cleaned and pose no risk of contact between the organic product and any prohibited
  substance.
- Use of forage or crop preservatives that contain prohibited synthetic ingredients.
- Use of sprayers and other equipment (custom harvesters, truckers, etc.) previously used with prohibited substances and/or conventional crops in organic production without a thorough and documented cleaning protocol. Verify your cleaning protocol with your certifier.
- Use of packaging materials and storage containers or bins that contain a synthetic fungicide, preservative or fumigant.

# Record Keeping (§205.103)

Records must be kept on an ongoing basis. Records are essential, as organic certification is about verifying your farming practices to a third party. Maintaining records can also help producers improve their management. Records must be "readily auditable" (accessible, organized, complete) and must be maintained for five years. In general, your record keeping system must allow a third party to trace your management from birth/purchase to death/sales. Many certifiers provide record keeping templates but also accept farm-specific systems, so long as they include the necessary information.

## Records that must be kept by certified crop producers include:

- Three year history verification for new crop fields
- Field production logs that include crops planted, dates and rates of manure, compost, fertilizer or other input applications
- Greenhouse records
- Spray records
- Harvest yields for each crop
- Sales records
- Current farm maps
- Purchase records for all inputs (ex. amendments, pest controls)
- Receipts for all purchased seeds (If untreated non-organic seed is purchased, documentation must be available that organic versions were commercially unavailable)
- Production, harvest and/or sales records for buffer crops, transitional or conventional crops

Please refer to your certifier's guidelines for a more detailed explanation of the USDA organic regulations. If you have any question regarding the standards or the application process, please contact your certifier.

