



## Guidelines for Organic Certification of Field Crops

Vermont Organic Farmers, LLC (VOF)

Northeast Organic Farming Association of Vermont (NOFA-VT)

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The following guidelines are based on the USDA National Organic Program Standards. In order to be eligible for organic certification, farms must be in compliance with the following standards.

### Transitioning fields to organic production

The NOP Standards state: Any field or farm parcel from which harvested crops are intended to be sold as organic, have had no prohibited substances applied to it for a period of three years immediately preceding the harvest of the crop. Prohibited substances include synthetic fertilizers, herbicides and insecticides and seeds treated with synthetic fungicides. In general, non-synthetic materials are allowed including manure, limestone (not hydrated lime), and other mineral amendments, provided they do not contain any synthetic additives. The VOF office has a list of materials that are approved as inputs on organic crops. If you are unsure if a material is allowed, call the office for confirmation before applying it. Use of a prohibited material would disqualify a field from organic production for three years.

If some of your fields qualify as organic, but others have had recent applications of prohibited products, your farm may still be able to get certified. Those fields that qualify could produce organic crops, while the fields that still have to go through the rest of their 3-year transition would be considered non-organic. First and second year transitional non-organic feed would be sold on the conventional market and records documenting these sales must be kept.

#### Example to determine if a field qualifies:

A farmer's last fertilizer application is on May 31, 2012

On May 31, 2013 first transitional year has ended

On May 31, 2014 second transitional year has ended

On May 31, 2015 third transitional year has ended

**This means crops harvested after May 31, 2015 can be certified organic.**

If you lease land from a neighboring farm and will continue to do so, that land may be certified as well. You may include the neighbor's land under your certification. **If you include another farm's field(s) in your application, you are taking responsibility for the management of that field and that crop can only be sold as organic by you. If that person wants to sell certified organic feed to other people, they must certify their farm under their own farm name.**

### Buffer requirements (205.202)

If an adjoining farm is applying prohibited substances to their land (such as pesticides, herbicides or synthetic fertilizers), an adequate barrier/distance between certified crops and the neighboring farm needs to be in place. The size of the required buffer depends on the method of application of the prohibited material and/or the physical nature of the border (open, hedgerow, etc.). The buffer needs to be sufficient to prevent prohibited substances used on the conventional farm from contacting the organic crops. VOF recommends a minimum 50 foot buffer zone, unless the buffer consists of a dense hedgerow. In this case, a 30 foot minimum buffer may be sufficient.

For example, an organic hayfield immediately adjacent to a conventional cornfield would have to create at minimum a 50-foot buffer that is left fallow or harvested and sold separately as non-organic hay. **Harvests of buffer hay must be stored separately from the organic hay and sales of buffer hay must be documented as non-organic.** Buffer crops cannot be fed to organic animals. Buffer zones must be maintained for at least three years after the last application of prohibited pesticides or fertilizers on the adjacent land.

If an organic hayfield is adjacent to a non-organic hayfield, but the neighboring landowner does not apply any prohibited substances, the current fence line can be maintained along the non-organic hay fields if a signed statement is obtained from the neighboring land owner that verifies prohibited materials have not applied in the last three years within 50 feet of the property line.

### **Other buffer considerations**

As development is increasing in rural areas, many fields also border residential properties. VOF has determined 15 feet to be an appropriate buffer distance between organic fields and residential properties. Again, if a signed statement can be obtained from the neighboring property owner that prohibited materials have not been applied during the last three years within 15 feet of the property line, no buffer is needed.

Railroads are often sprayed with herbicide applications for weed control on the tracks. The spray area generally extends 15 feet from the center of the tracks. VOF recommends a 50 foot buffer from the edge of the rail bed.

Guardrails, mile markers and road signs on state roads are sprayed with herbicide applications for weed control. Again, VOF recommends a 50 foot buffer where organic crops are adjacent to these areas. Your local municipality may be willing to broker an arrangement in which you assume responsibility for the maintenance of guard rails and road signs along the properties you manage. This maintenance may include regular mowing or string trimming of vegetation around guard rails and road signs to agreed upon specifications. You can contact your town garage to inquire about making such an arrangement and keep any documentation verifying the agreement on file for your annual inspection.

Utility companies often incorporate herbicide spraying to manage plant growth around utility poles. All producers should know what company is responsible for the utility poles that run through their property. All poles should have a metal tag identifying the company that is managing their lines. After evaluating the practices of relevant utility companies, VOF recommends the following buffers.

- Areas around utility poles that run through agricultural land in active use are not sprayed. In these instances, no buffer is needed.
- Areas around utility poles that run adjacent to agricultural land are often treated with an herbicide applied directly to woody growth. In these instances, VOF recommends a 15-foot buffer from the utility pole to the organic crops. VOF has confirmed the herbicide spray program of VELCO and CVPS, two prominent electric companies in VT. These particular companies do use herbicides around poles in areas adjacent to land in agricultural use. Producers with utility poles that do not belong to VELCO or CVPS who do not maintain buffers must verify that utility poles have not been sprayed with an herbicide.
- Poles identified as belonging to the Washington Electric cooperative (WEC) do not need a buffer. The cooperative does not utilize chemicals including herbicides to control vegetation in its utility right of ways.

### **Soil Fertility (205.203)**

The primary management goal for organic farmers should be to build healthy soils on their farms. A healthy soil is the foundation for healthy plants, healthy animals, and therefore a healthy farm.

The NOP Standards state: "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." [205.203 (a)]

**Producers must meet the above standard to qualify for certification.**

If a field requested for certification hasn't had any inputs applied in several years, this field would be considered certifiable, but it is VOF policy that once a field is certified, the producer must manage the soil fertility. An added benefit of fertility management will be a higher quality feed.

Fertility should be managed through rotations, cover crops, manure, compost, plant residues and applications of approved soil amendments:

- Non-synthetic mineral amendments with non-synthetic additives, such as rock phosphate, bone and blood meal, limestone, and sul-po-mag are allowed
- Wood ash is allowed from approved sources
- Synthetic soluble fertilizers and hydrated lime are prohibited
- Whey from approved sources is allowed, but is prohibited if the material is mixed with the grey water of the processing facility or other prohibited materials
- Manure (including off-farm sources) is allowed
- Synthetic micronutrients (boron, zinc) are restricted and can be used only when soil deficiency is documented by soil or tissue testing, or when there is documentation that they are not applied in excess

**The VOF office can provide a listing of allowed and prohibited fertilizers and soil amendments.** If you are unsure if a material is allowed, call the office for confirmation before applying it. Use of a prohibited material would disqualify a field from organic production for three years.

VOF strongly recommends soil testing for monitoring soil fertility. If soil tests are not used, a producer must demonstrate that they are adequately monitoring the fertility of their soils through other methods.

**Soil Erosion and Water Quality (205.203)**

A farm with erosion or other conservation problems must demonstrate a program which halts and/or corrects the damage to maintain their organic certification. Producers with erosion issues on the farm must submit a written plan along with a timeline for coming into compliance. Assistance is available through the Natural Resource Conservation Service, the Farm Service Agency, the Vermont Department of Environmental Conservation or the US Fish and Wildlife Service.

A producer must select tillage and cultivation practices that maintain or improve the physical, chemical and biological condition of the soil and minimize erosion.

**Crop Rotation (205.205)**

Crop rotations are a required part of the farm plan. Continued production of one type of crop in the same field (ex. corn) leads to depletion of specific nutrients and encourages disease and pest problems. The producer must implement a crop rotation including, but not limited to: sod, cover crops, green manure crops, and catch crops that provide the following functions:

- Maintaining or improving soil organic matter
- Providing pest management
- Managing plant nutrients
- Providing erosion control

Other crop rotation possibilities may include:

- Nitrogen fixing crops
- Deep rooting crops/shallow rooting crops
- Alternation of heavy and light feeders
- Plants with allelopathic or mineral accumulation properties
- A diversity of plant families

Perennials are an exception to the crop rotation rule. Perennial cropping systems should employ strategies to introduce biodiversity such as:

- Alley cropping
- Intercropping
- Hedgerows

### **Seeds (205.204)**

Producers of organic crops are required to source certified organic seed if it is commercially available. 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, quality or quantity the producer needs. By equivalent form, a producer should look at size, grade, hot water treated etc. By quality a producer should look for cleanliness, germination, etc. By equivalent variety, a producer should look for growing habits, days to maturity, insect and disease resistance, etc.

Cost cannot be used to determine commercial availability. **The producer must document that purchased untreated seed was not available in organic form.**

There is no allowance for seed treated with prohibited materials. Captan, Thimet, Thiram and similar chemical fungicides are not permitted. If your seed is covered in a pink or orange powder, it is a good indicator it is prohibited. Crops grown from treated seeds cannot be sold as organic and the use of treated seed disqualifies the field from organic production for a period of three years.

Seed treatments such as inoculants on legumes must be approved for use in organic production. Some inoculant products are not allowed for use due to the presence of genetically modified bacteria in the product.

**Contact the VOF office for a list of organic seed suppliers. The VOF office can also provide a complete listing of allowed inoculant products.**

### **Vertebrate Animal Control (205.206)**

Please note, vertebrate repellants may only be used as labeled. Growers must use management practices to prevent pest problems.

#### Accepted practices

- Providing habitat for natural predators
- Habitat modification to discourage vertebrate pests
- Trapping to control mammals and birds using any legal trap
- Shooting of mammals and birds in accordance with VT State Law
- Physical barriers such as fencing, netting and row covers
- Repellants derived from natural sources (blood meal, hot pepper, hair, predator scents, provided synthetic additives are not used).

Only when the above practices are insufficient, a producer may use biological or botanical substances or a synthetic substance from the National List, including:

- Vitamin D3 – It cannot be the sole means of rodent control and other methods must be documented.
- Ammonium soaps (as large animal repellent only), no contact with soil or crops allowed.

### **Post-Harvest Handling (205.270 – 205.272)**

#### Accepted practices

- Drying and curing of field crops to appropriate moisture levels by natural field drying, aeration, or other mechanical drying apparatus.
- Non-synthetic materials, such as rock powders, diatomaceous earth, and herbal preparations to repel storage pests, consistent with the National List.
- Forage preservatives must be approved by VOF. **The VOF office can provide a complete listing of allowed forage inoculant products.**
- Treated baling twine is allowed as alternatives are not yet widely available.

#### Prohibited practices

- Propionic acid as a hay preservative
- Forage preservatives with prohibited ingredients

### **Commingling and contact with prohibited substances (205.272)**

Washing protocol for sprayers previously used in conventional production – used equipment must be cleaned so that organic crops will not be contaminated with prohibited substances. VOF recommends that organic farmers using equipment previously used for conventional production replace all plastic and rubber hoses and tips. All tanks, valves and metal parts should be washed with detergent and triple rinsed.

With the advent of commercial fertilizer companies supplying both approved and prohibited fertilizers, farmers are required to secure a written statement (known as a clean truck affidavit) that provides evidence that the delivery truck has been sufficiently cleaned to prevent the commingling of prohibited and approved materials. Please contact the VOF office for a blank form.

If crops are to be custom harvested by another producer who also harvests crops on non-organic fields, a written statement must be obtained that verifies the equipment was cleaned and/or purged prior to harvesting organic crops.

Producers using equipment for both organic and non-organic crops need to address how to minimize and/or eliminate contamination and commingling. Please refer to the VOF Certification Guidelines book for recommendations on shared equipment cleaning protocol.

### **Record Keeping (205.103)**

Written field records must be kept on an ongoing basis. **You will be required to supply a years worth of records when you reapply for certification each year.** Records are essential, as organic certification is about verifying your farming practices to a third party. It is believed that keeping records can help producers improve their management. VOF has record keeping forms available or you can use your own system.

Records required for organic certification include the following:

- Three year history and signed affidavit for all new fields
- Field production logs that include crops planted, dates and rates of manure or other input applications, and harvest yields
- Current and updated farm maps with all boundaries, buffer areas and natural features
- Purchase records for all inputs (ex. lime, organic fertilizers)

- Receipts for all purchased seeds
- If untreated non-organic seed is purchased, documentation must be available that organic versions were commercially unavailable
- Untreated and/or inoculated seed labels (to verify that the product has not been treated with prohibited substances)
- Signed statements from neighboring landowners regarding their management practices
- Production, harvest and/or sales records for buffer crops, transitional or conventional crops

**Please refer to the VOF Certification Guidelines book for a more detailed explanation of the National Organic Program Standards. If you have any questions regarding the standards or the application process, please call the office.**