Conservation Planning on Organic* Farms

*Certified Organic, Transitioning-to-Organic, & Exempt from Certification

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Who am I?

• Oregon Tilth
• Diggin’ Roots Farm
• Joint Organic Specialist
• Not Programs staff
Presentation Outline

• Who can we work with?
• What is organic?
• What can we offer?
• How do we do it?
Who can we work with?

- **Certified Organic**

- **Exempt from certification**
  - An operation that sells agricultural products as ‘organic’ but whose gross agricultural income from organic sales totals $5,000 or less annually
  - Must comply with applicable organic production requirements

- **Transitioning**
  - No USDA definition
  - Generally understood as a producer who is in the 3 year wait period after the application of prohibited substances
What is Organic Agriculture?

- The production of crops and animals without the use of synthetic pesticides or fertilizers.

- “An organic farm, properly speaking is not one that uses certain substances and avoids others; it is a farm whose structure is formed in imitation of the structure of a natural system; it has the integrity, the independence, and the benign dependence of an organism.”

  - Wendell Berry

A marketing tool!
NOP Definition of “Organic Production”

• Positive definition: ‘A production system that is managed . . . by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity’ (7 CFR 205.2)

• “…maintain or improve soil and water quality…”

• Negative definition: Food produced and handled without synthetic substances (with specific, limited, well-defined exceptions), and excludes genetically modified organisms, sewage sludge, and irradiation (7 CFR 205.105)

-- Organic Food Production Act, 1990
Organic Production Standards

- Organic System Plan (OSP)
- Land requirements
- Soil fertility and nutrient management
- Seeds and planting stock
- Crop rotation
- Crop pest, weed, and disease management
- Livestock
- Commingling & Contamination

Standards combine science, tradition, politics, and pragmatism (for enforcement)
Organic System Plan (OSP) § 205.201

- Description of practices performed, including frequency which they are performed.
- List of each substance to be used as a production or handling input, indicating its composition, source, & location it will be used.
- Description of the monitoring practices and procedures to be performed and maintained, to verify the plan is effectively implemented.
- Description of the record keeping system implemented to comply with the requirements
- Description of the management practices and physical barriers established to prevent commingling and contamination.
Certification Process

Application

Review of Application

Inspection

Review & Decision

Resolution

Certification

This is an annual process!
Organic Recordkeeping

Records must:

• Be maintained for no less than 5 years
• Be sufficient to demonstrate compliance
• Fully disclose all activities and transactions in sufficient detail as to be readily understood and audited
• Be adapted to the particular business
1) Which of the following records do you keep for organic production?

<table>
<thead>
<tr>
<th>Type of Record</th>
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<tbody>
<tr>
<td>Field maps*</td>
<td></td>
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<tr>
<td>Field activity log(s)/records*</td>
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<tr>
<td>Field history sheets (previous three years)</td>
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<tr>
<td>Documentation of previous land use for rented and/or newly purchased land</td>
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<tr>
<td>Receipts for all purchased inputs (including seeds, soil and fertility amendments, and pest management materials). Keep all labels (copy or original) or ingredients list.*</td>
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<tr>
<td>Input applications that show date, material, location and rate of application*</td>
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<tr>
<td>Documentation of attempts to source organic seeds and/or planting stock*</td>
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<tr>
<td>Documentation of organic seedlings*</td>
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<tr>
<td>Seed labels/cans/packets*</td>
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<tr>
<td>Residue analyses of inputs (i.e., manure sourced off-farm)</td>
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<tr>
<td>Compost production records*</td>
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<tr>
<td>Monitoring records (soil tests, tissue tests, water tests, quality tests, observational)</td>
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<tr>
<td>Equipment cleaning records / clean-out log*</td>
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<tr>
<td>Harvest records that show field numbers, date of harvest and harvest amounts (including custom harvest records, transitional crop harvest, and/or buffer crop harvest) *</td>
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<tr>
<td>Labor records</td>
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<tr>
<td>Storage records that show storage location, storage identification, field numbers, amounts stored, and cleaning activities*</td>
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<td>Clean transport records</td>
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<tr>
<td>Sales records (purchase order, contract, invoice, cash receipts, cash receipt journal, sales journal, etc.)</td>
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<tr>
<td>Sales records must include quantity, date, crop/variety, and crop status (organic, transitional, or conventional)*</td>
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<tr>
<td>Buffer crop sales*</td>
<td></td>
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<tr>
<td>Farmers’ Market take in/return log</td>
<td></td>
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<tr>
<td>Shipping records (scale ticket, dump station ticket, bill of lading) *</td>
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</tr>
<tr>
<td>Lot numbers*</td>
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<tr>
<td>Transaction Certificates</td>
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<tr>
<td>Audit control summary</td>
<td></td>
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<tr>
<td>Complaint management system*</td>
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<tr>
<td>Other (please specify)</td>
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</table>

*This type of record keeping is required to demonstrate compliance. If you don’t have this in place currently, please develop a system to capture this information and present it to the inspector.
Land Requirement § 205.202

Land used for organic production must be free from prohibited materials for 3 yr before organic harvest.

Transition effect – 3 years for certification, more years for biological shift and improved economic performance
Any field or farm parcel from which harvested crops are intended to be sold, labeled, or represented as “organic,” must:

(c) Have distinct, defined boundaries and buffer zones such as runoff diversions 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.
Adequate Buffers

Common size: 25-30 feet
Common buffers: roads, grass, hay, trees, hedgerow

Size of the buffer is directly related to the risk posed by use of prohibited substances on neighboring lands.

Herbicide damage in the buffer zone along fence line.

Non-organic field

Organic field

Photos courtesy of MOSES
www.mosesorganic.org
Where can you look for approved substances?

• Third party sources that review materials for compliance with the NOP regulation:
  – OMRI, Organic Materials Review Institute
    http://www.omri.org/home
  – WSDA Materials List
Welcome to the Organic Materials Review Institute

Founded in 1997, the Organic Materials Review Institute (OMRI) provides organic certifiers, growers, manufacturers, and suppliers an independent review of products intended for use in certified organic production, handling, and processing. OMRI is a 501(c)3 nonprofit organization. When companies apply, OMRI reviews their products against the National Organic Standards. Acceptable products are OMRI Listed® and appear on the OMRI Products List. OMRI also provides subscribers and certifiers guidance on the acceptability of various material inputs in general under the National Organic Program.

How Can We Help You?

Find Products
OMRI® Listed products undergo a rigorous review to ensure that they comply with USDA organic standards. The online list of products is updated regularly to ensure the most comprehensive list of available products.

Get Listed
The OMRI review service verifies your credibility and allows customers to confidently choose your product for organic production. Application forms are available online.

Become a partner
OMRI was founded by organic certifiers and continues to serve certifiers and their clients with crucial information to ensure organic integrity. The OMRI List is a valuable tool for certifiers and consumers alike.

Search OMRI Lists

Search for products, materials, seeds, or articles related to organic materials.

News

OMRI Announces New Fees for 2011
(January 24, 2011) In order to continue providing the best possible service to the organic community, OMRI is introducing several changes to its fee structure for 2011. These changes will help ensure that the organization can continue to operate effectively and provide the comprehensive review service that has become the hallmark of OMRI. The new fees will be implemented for products listed with OMRI starting on January 1, 2011.
Generic Materials Search: straw

2 results
2 items found.

View the OMRI Generic Materials List Glossary in PDF format [here](http://www.omri.org/simple-gml-search/results/straw).

Click on the arrow or the material name to view more details about each material.

- **Straw**
  - Status: Allowed
  - Class: Crop Fertilizers and Soil Amendments, Crop Pest, Weed, and Disease Control
  - Origin: Nonsynthetic
  - Description: May be from nonorganic sources. Must be from nongenetically modified plants.
  - NOP Rule: 205.203(c)(3) Uncomposted plant materials.
What can NRCS offer?

• #1: Assistance with resource concerns
• EQIP Organic Initiative
• Regular EQIP
• CSP
• Organic producers are not excluded from any of our programs!
What are common resource concerns on organic farms?

• The same as conventional producers!
• Specific challenges might be more common:
  – Emphasizing Soil Quality (and fertility) when transitioning from chemical based to biologically based soil fertility management
  – Maintaining Plant health under higher pest pressures
  – Water & air quality on their farm will likely improve but the risk of contaminants from offsite will need to be addressed
  – Organic pest management relies on prevention and avoidance so Wildlife and Pollinator habitat will be a priority
Conservation on Organic Farms
Considerations for Implementation

• CAP 138
• Nutrient Management
• Pest Management
• Soil Quality related practices:
  – Conservation Crop Rotation
  – Conservation Cover
  – Cover Crops
  – Mulch
  – Compost Facility
• Wildlife & Pollinator Habitat
• Irrigation
• High Tunnels
• Livestock
• CSP
CAP 138

- Basically a conservation plan written by a TSP
- Is NOT required for Transitioning producers
- Does not replace an OSP
- Only 7 TSPs nation wide
- States can offer training to assist in getting more local TSPs qualified to write the 138 CAP
Support for Transitioning Producers

• National Organic Program (NOP) [http://www.ams.usda.gov/AMSv1.0/nop](http://www.ams.usda.gov/AMSv1.0/nop)
  – The USDA NOP develops, implements, and administers national production, handling, and labeling standards.

• Rodale Institute [http://www.rodaleinstitute.org/new_farm](http://www.rodaleinstitute.org/new_farm)
  – Rodale Institute is a nonprofit dedicated to pioneering organic farming through research and outreach. They host the longest-running side-by-side U.S. study comparing conventional chemical agriculture with organic methods.
  – The Rodale Institute’s 15-hr FREE Organic Transition Course: [http://www.rodaleinstitute.org/course](http://www.rodaleinstitute.org/course)

  – The ATTRA project has served as the premier source of information about sustainable agriculture for U.S. farmers and other agriculturists for twenty years.

  – MOSES is an education-outreach organization working to promote sustainable and organic agriculture. They host the largest organic agriculture conference in the country, as well as field days, and a variety of fact sheets related to organic. Organic Info Line: 1-888-551-4769

  – Tools for Managing Pest and Environmental Risks to Organic Crops in the Upper Midwest. This publication will help growers who are contemplating adopting organic production practices understand the risks that are associated with organic production and make choices that will minimize those risks.

* Certifiers are unable to provide consultation
Nutrient Management 590

• Relatively slow release (biologically based)
• Soil, compost, and manure testing
• NOP requirement to maintain or build SOM & minimize erosion
• Crop rotations & cover crops are required by NOP
• Phosphorus can be an issue in manure-based systems
• SOM mineralization rates & cover crop N credits
• [URL: WNTSC is developing an organic 595 jobsheet]
• Before applying anything a producer should _______.
• Many associated practices
Integrated Pest Management 595

- Relies on Prevention & Avoidance
  - Sanitation, variety selection, crop rotation, beneficial insect habitat, physical barriers, good soil health
- What does NRCS policy allow? Pesticide mitigation
- Utilize university-recognized IPM plan
- WNTSC Organic 595 job sheet
- Before applying anything a producer should ________.
- Many associated practices
Pest Management
Soil Quality Practices:
Conservation Crop Rotation, Conservation Cover, Cover Crop, Mulch, Residue Management

- Organic matter building is required in organic systems
- Increase level of management with already implemented practices with NRCS technology
- No-till is possible on organic farms!!!
- Use organic seed and inputs
Weeds, Cultivation & RUSLE2

(1) Mulching with fully biodegradable materials;
(2) Mowing;
(3) Livestock grazing;
(4) Hand weeding and mechanical cultivation;
(5) Flame, heat, or electrical means; or
(6) Plastic or other synthetic mulches:

Provided, That, they are removed from the field at the end of the growing or harvest season.
Choose appropriate operations & plant profiles...
Cover Crops 340

- Use with other practices for site prep
- Cover crops can host or discourage pest populations
  - Oilseed radish, phacelia, and some vetch host root-knot nematodes
  - Clubroot and verticillium wilt can decline after buckwheat
  - Ryegrass reduces clubroot infection more than other cover crops
- Different priorities (ex: smother crops for weeds)
- Biofumigants- sudan, brassicas
- Break pest cycles
Composting Facility 317

• Generally smaller scale
• Used for vegetative and animal waste
• Designing on non-livestock farms
• No pressure treated lumber
• Essential for meeting new food safety certification programs
Wildlife & Pollinator Habitat
Buffer strips, Hedgerows, Field border, Filter strips, Riparian Plantings, etc

• Thorough site prep & maintenance is crucial
• Be creative with planting layout and design
• Include plants that provide pollen and nectar sources & have complimentary bloom periods
• See Pollinator Habitat Assessment Guide
Irrigation Practices

• Water quantity is now allowed as a secondary resource concern in the Organic Initiative

• Smaller, diversified growers will focus on micro-irrigation
  – Dripworks is a fantastic resource

• Only NOP restriction is on cleaning materials
  – Chlorine is allowed with restrictions
High Tunnels

• Assist with site selection
  • Soils
  • Sun exposure
  • Runoff and drainage
  • Irrigation

• Crop rotation is a big consideration

• Pest & disease pressure will vary
Livestock

Waste management, Water facility, Fence, Prescribed grazing, Pasture & Hay planting, etc.

• Almost identical needs
• Consider NOP requirements: Outdoor access, DMI
• NRCS has extensive technical expertise with pasture and grazing
• Cannot use pressure treated lumber
Conservation Stewardship Program

• Numerous enhancements for organic producers
• Organic Crosswalk

§205.205 Crop rotation practice standard

NOP rules require a crop rotation be followed and documented in the Organic System Plan. A crop rotation includes but is not limited to sod, cover crops, green manure crops, and catch crops that provide the following functions that are applicable to the operation:

- maintain or improve soil organic matter content;
- provide for pest management in annual and perennial crops;
- manage deficient or excess plant nutrients; and
- provide erosion control

A conservation crop rotation plays a pivotal role in developing a conservation plan. It can help mitigate the negative effects of tillage, increase soil organic matter, provide nutrients and control erosion, all criteria that the NOP rules require of the crop rotation. CSP evaluates the crop rotation in the resource inventory process. CSP offers enhancements that will encourage a higher environmental benefit and that can be implemented during the organic transitioning period. These enhancements are:

- CCR99 – Resource-conserving crop rotation
- SOE03 – Continuous no till organic system
- SQL02 – Continuous cover crops
- SQL04 – Use of cover crop mixes
- SQL05 – Use of deep rooted crops to break up soil compaction
- WQL10 – Plant an annual grass-type cover crop that will scavenge residual nitrogen
- WQL16 – Use of legume cover crops as a nitrogen source
- WQL17 – Use of non-chemical methods to kill cover crops
- WQL20 – Transition to organic cropping system
- WQL21 – Integrated pest management for organic farming
Work in Progress

• Their perception & familiarity of NRCS
• Adequate outreach
• Largely small-scale
• Appropriateness of NRCS practice standards
• Lack of technical assistance for NRCS staff - you need support!
Summary

• Organic farmers are eligible for ALL of our programs
• Organic farmers have many similar resource concerns as conventional
• All ‘normal’ conservation planning principles/methods/tools apply
• Main considerations include: Prohibited substances, land use requirements, site prep, planning with a holistic approach
• It is NOT your responsibility to write an OSP or determine what materials are allowed in organic systems
Please be in touch!

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