

Natural Resources and Biodiversity Conservation

1. Purpose

This guidance provides examples of production practices that support conservation principles and demonstrate compliance with § 10200(b) of the OCal regulations.

This guidance also clarifies: 1) the certified operator's responsibility to select, carry out, and record production practices that "maintain or improve the natural resources of the operation;" and 2) the registered certifying agent's (certifier) responsibility to verify operator compliance with this requirement.

2. OCal Regulations, Title 3 California Code of Regulations (3 CCR)

3 CCR § 10000. Definitions.

3 CCR § 10200. General.

3 CCR § 10201. OCal system plans.

3 CCR § 10402. Application for accreditation.

3. Background

Conservation of natural resources and biodiversity is a primary tenet of organic production. The natural resources and biodiversity conservation requirement at § 10200(b) of the OCal regulations requires operations to "maintain or improve the natural resources of the operation, including soil and water quality, and respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity."

"Natural resources of the operation" is defined in § 10000 of the OCal regulations "as the "physical, hydrological, and biological features of a production operation, including but not limited to soil, water, wetlands, woodlands, and wildlife."

Compliance with the requirement to conserve biodiversity requires that a cultivator or distributor implement and incorporate into their OCal system plan (OSP) practices that support biodiversity and avoid, to the extent practicable, any activities that would diminish it.

Maintaining or improving the natural resources of an operation encompasses a range of conservation principles including, but not limited to: protecting riparian areas; supporting native species and habitat; minimizing invasive species; maintaining air quality; promoting crop diversity and plant condition; and improving soil condition.

3. Policy and Procedures

Role of Certified Operations

- Certified operations and applicants for certification must develop and submit an OSP to a certifier (§ 10201 of the OCal regulations). See OCal 2615, OSP, OSP Updates, and Notification of Changes for additional OSP information.
- Per § 10201(a)(6) of the OCal regulations, the OSP must include a comprehensive description of practices the certified operation will implement to maintain or improve the natural resources of the operation, including soil, water, wetlands, woodlands, and wildlife, and respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.
- Cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity may be listed together in one section or integrated into the other sections of the OSP.
- The OSP must also document the operation's approach to monitoring these activities (e.g., visual assessment of soil erosion, species counts for biodiversity, or testing for water quality).
- Certified operations may reference Appendix A - Examples of Activities (Plans, Practices, and Enhancements) that May Maintain or Improve Natural Resources and Biodiversity - for types of production practices that could be used to support natural resources conservation and biodiversity.
- For split operations or for operations that have non-certified portions of their property, the operation may also include in its OSP the practices implemented to maintain or improve natural resources or biodiversity on a portion of their land that is not certified but is adjacent to the certified land, if this practice directly benefits the certified land.
- The operation must implement and maintain the planned production practices as described in its OSP and maintain any records (e.g., activity logs for mowing; pest monitoring; reseeding; water or soil testing results; visual observations; or conservation maps) that would support a certifier's ability to verify compliance.

Role of Certifiers

- Pursuant to § 10201(a)(6) of the OCal regulations, certifiers must ensure that an operation's OSP includes a comprehensive description of practices it will implement to maintain or improve the natural resources of the operation, including soil, water, wetlands, woodlands, and wildlife, and respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.
- Certifiers can refer to Appendix A - Examples of Activities (Plans, Practices, and Enhancements) that May Maintain or Improve Natural Resources and Biodiversity for examples of activities (plans, practices, and enhancements) that may support compliance with § 10200(b) of the OCal regulations.
- A certified operation's monitoring plan could include the frequency of monitoring, the types of observations or testing the operation plans to conduct, and the method of documentation.
- Certifiers must verify compliance with § 10200(b) of the OCal regulations by ensuring that certified OCal operations are implementing the practices described in the OSP. As part of the onsite inspection, certifiers should ensure that inspectors observe the conservation practices implemented, or review records that support implementation of conservation practices.
- If a certified operation is implementing practices to conserve natural resources or biodiversity on a portion of its land that is not covered under its OCal certification but is adjacent to the certified land, and this practice directly benefits the certified land, then the inspector and certifier may consider such practices in the assessment of whether a producer is meeting requirements.
- Pursuant to § 10402 of the OCal regulations, certifiers should ensure that inspectors are sufficiently qualified to effectively assess compliance with the general natural resources conservation and biodiversity requirements in § 10200(b) of the OCal regulations. Qualifications may include, but are not limited to, knowledge, training, and experience observing and assessing conservation activities and monitoring in OCal or organic production.

Role of Inspectors

- Inspectors must be qualified to assess compliance with § 10200(b) of the OCal regulations. More specifically, inspectors must be able to recognize and evaluate areas where: 1) natural resources and biodiversity are already conserved; 2) conservation projects are planned; and 3) improvement is needed.
- During the onsite inspection, inspectors must verify the accuracy and implementation of the operation's activities (plans, activities and enhancements) and the monitoring approaches described by the operation in its OSP.
- During the onsite inspection, inspectors may note exceptions to the conservation requirement such as extreme climatic conditions, or damage to the ecosystem beyond the control of the operation. The inspector should communicate this information to the certifier for consideration as part of its review and certification decision.

4. References

Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq.

OCal Handbook

OCal 2615 OSP, OSP Updates, and Notification of Changes

Appendix A
Examples of Activities (Plans, Practices, and Enhancements) that May Maintain or Improve Natural Resources and Biodiversity

The following examples outline beneficial activities within certain ecological contexts that certified OCal operations may use to maintain or improve biodiversity in their operations. This is not an exhaustive list. There are many other activities in varied ecological settings that operations can use to reach the same compliance goal.

a. Soil Composition

1. Adding organic matter through the diversity of crops and inputs, to the soil to increase the diversity of soil organisms and to improve nutrient cycling, competitive exclusion of plant pathogens, long-term storage of soil carbon, and adaption to extreme climatic conditions and water holding capacity.
2. Conserving and restoring forests, shrublands, woodlands, grasslands, riparian and wetland areas, which sequester carbon in soils and aid in cycling soil nutrients.

b. Soil Stability and Water Quality

1. Creating, conserving, and restoring vegetative covers (forests, shrublands, woodlands, grasslands, riparian areas, and wetland areas) that control erosion and filter nutrient, pesticide, and pathogen pollutants. Minimizing disturbances, maximizing diversity, living roots and cover.
2. Using no-till or permanent cover, conservation tillage, terracing, contour farming, micro-irrigation, windbreaks, cover crops, grass waterways and soil health practices.
3. For lands coming into production for the first time or returning to production (e.g. Conservation Reserve Program (CRP) lands leaving the federal program and requesting organic certification), a new conservation plan can examine and implement a range of alternative practices to enhance the natural resources of the land.

c. Water Quantity

1. Using water conservation techniques that save water for crops, livestock, wildlife, and riparian ecosystems.
2. Choosing crops and other plants that are appropriate for the climate and landscape with water conservation in mind.
3. Using suitable irrigation systems and schedules and monitoring them for water conservation.

4. Conserving or restoring forests, shrublands, woodlands, grasslands, riparian habitat, and wetland areas that absorb and hold water for long periods as part of a healthy water cycling process.
5. Using managed systems to “bank” soil moisture if fields are drained using tiles.

d. Wildlife Benefits

1. Maintaining or improving diverse mixtures of plants to provide food, habitat, or shelter for pollinators, insects, spiders and other beneficial organisms such as arthropods, bats, and raptors.

e. Native Species and Natural Areas of the Operation

1. Conserving high conservation value areas that have outstanding biodiversity importance or mitigating/restoring these areas elsewhere on the farm.
2. Conserving and restoring wildlife and native plant communities specific to the site (forests, shrublands, woodlands, grasslands, riparian habitat, and wetland areas).
3. Documenting rare, threatened, and endangered terrestrial and aquatic plants and animals and ecologically at risk ecosystems and taking steps to protect them.
4. Conserving wildlife corridors and large blocks of habitat that reduce fragmentation.
5. Making improvements to streams, lakes, and rivers, enhancing habitat for fish and other aquatic species.
6. Allowing degraded riparian areas, prairies, and wetlands to be recolonized through natural processes.
7. Actively restoring degraded land to its native habitat using species adapted to and historically present in the area.

f. Invasive Plants and Animals

1. Closely monitoring invasive plants and animals threatening natural areas.
2. Controlling invasive species before they spread.
3. Avoiding seed, planting stock, soil amendments, and mulches that may import weed seeds and other pests.

g. Soil Stability and Water Quality

1. Using nutrient budgets to protect water quality by managing crop nutrients.

2. Designing grassed waterways, filter strips, terraces, and other non-crop vegetation, and managing them to help control erosion and filter pollutants before they reach water bodies.
 3. Using stream crossings, brush mattresses, and other engineered features to prevent erosion where year-round or intermittent water flows.
 4. Using sediment basins to capture eroded or disturbed soil before it leaves the farm.
- h. Co-existing with Wildlife
1. Taking measures to minimize total habitat loss on adjacent land when wildlife is restricted from entering the production area.
 2. Designing and using management strategies as much as possible to repel, rather than destroy, intended and unintended species.
- i. Supporting Wildlife
1. Using strategic mowing, tilling, and harvesting methods to preserve sites where wildlife raises their young.
- j. Crop Diversity
1. Growing a variety of crop types, heirloom crops, or several genetic strains of the same crop.
 2. Growing locally-adapted seed varieties or those suited to site-specific conditions.



Compost and Vermicompost in OCal Production

1. Purpose

This guidance explains allowed compost and vermicompost composition, production, and use in OCal production and clarifies the certifying agent's role in permitting use of compost and vermicompost.

OCal 5006, Processed Animal Manures, explains how heat-processed animal manures may be used in OCal production.

2. OCal Regulations, Title 3 California Code of Regulations (3 CCR)

3 CCR § 10000. Definitions.

3 CCR § 10203. Soil fertility and crop nutrient management practice standard.

3. Policy

3.1. General

Certifying agents may allow the use of compost if they review the OCal system plan (OSP) and records and are assured that all production methods and source materials meet the requirements below and in § 10203 of the OCal regulations.

a. Compost Requirements

1. Made from allowed feedstock materials (either nonsynthetic substances not prohibited for use or synthetic substances approved for use as plant or soil amendments on the National List of Allowed and Prohibited Substances (National List), title 7 of the Code of Federal Regulations (7 CFR) § 205.602.
2. Managed in accordance with § 10203(c)(2) of the OCal regulations.
3. The type and source of all feedstock materials, a log of the temperatures and timeframe, and practices used to achieve temperatures must be documented in the OSP.
4. Certifiers must ensure compliance with 1 through 3 during the site visit.

b. Vermicompost Requirements



Code of Federal Regulations, title 40 § 152.25. Exemptions For Pesticides of a Character Not Requiring FIFRA Regulation.

United States Code, title 7 § 136. Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

United States Code, title 7 § 136. Definitions. "Pesticide"

Other References

October 1995 National Organic Standards Board (NOSB) Technical Advisory Panel Review on Pressure Treated Lumber.

Chromated Copper Arsenate. US Environmental Protection Agency (US EPA), July 2011. Web. 30 Sept. 2015.

Read, Deborah. "Report on Copper, Chromium and Arsenic (CCA) Treated Timber." New Zealand Environmental Risk Management Authority, April 2003.

Rinehart, Lee. "Pressure-Treated Wood: Organic and Natural Alternatives." National Center for Appropriate Technology, Sept. 2011.