Oregon Tilth Organic Land Care Policies & Standards

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Note: Glossary appear in italics the first time they appear in the document.

Introduction: Oregon Tilth Accredited Organic Land Care Program

Statement of Purpose

The Oregon Tilth Accredited Organic Land Care Program was developed in recognition of a general increase in awareness regarding the detrimental effects of conventional landscape practices and to enable a general shift to sustainable landscaping practices. The Program trains, tests and accredits Organic Land Care *Practitioners*. The objectives of the Program are to:

- Publish and evolve a standard of practice for OLC Practitioners,
- Administer a training program to further the knowledge of and build community among OLC Practitioners,
- Promote organic land care practices by offering widely recognized professional accreditation,
- Contribute to regional sustainable development by reducing the use of environmentally degrading substances and fossil fuels while raising public awareness of the Program.

Acknowledgements

Oregon Tilth would like to gratefully acknowledge all the effort and support from Jim Toler of Willamette Organics in Salem, Oregon. His commitment to organic land care has made this document possible.

The philosophy that supports these policies and standards has been inspired by the International Federation of Organic Agriculture Movement's (IFOAM) Principles of Organic Agriculture, which emphasize health, ecology, equity and care.

Further, we acknowledge the Society for Organic Urban Landcare (SOUL) of British Columbia, Canada and Gaia College for their important work in establishing both an Organic Land Care Policies and Standards and a number of training programs. The Oregon Tilth Organic Land Care Policies and Standards reflect the *holistic landscaping* perspective developed by the SOUL program.

We also acknowledge and thank the Northeast Organic Farmers Association (NOFA) Organic Land Care Program for their pioneering work in establishing organic land care standards and training. The NOFA program has been instrumental in the development of the Oregon Tilth Organic Land Care Program.

Principles of Organic Land Care

Organic Land Care is the design, construction and maintenance of landscapes using practices and products that preserve and support the health of ecosystems and human communities.

Landscapes include natural and created environments including home gardens, parks, campuses, woodlands etc., in urban, rural and suburban settings under human management, and includes the use of edible and ornamental plants.

The Organic Land Care Practitioner:

a. Works with natural systems and processes to encourage and enhance biological diversity and native habitats;

b. Optimizes and maintains the life supporting properties of soil, air and water;

c. Utilizes renewable, biodegradable and recycled materials from local sources and minimizes waste;

d. Considers the wider social and ecological impacts of landscapes and the practices and products used to create and maintain them.

These principles are shared by the NOFA Organic Land Care Program, the Society for Organic Urban Land Care, and Oregon Tilth OLC. Please reference each organization's policies and standards to learn how these principles are applied.

A Brief History of Oregon Tilth

The history of Oregon Tilth reaches as far back as the early 1970's, as the descendant of Regional Tilth, formed in 1974 at an Ellensburg, Washington gathering of farmers and concerned consumers. With chapters in Oregon, Washington, Idaho, Northern California, and Idaho, Regional Tilth was a conduit for some of the early discussions that have influenced local, regional and national sustainable and organic communities, policies and practices for nearly 40 years.

In 1984, the Willamette Valley chapter of Tilth began an organic certification program to serve the needs of growers looking to protect and promote organic farming. In 1986, Willamette Valley Tilth became independently incorporated as Oregon Tilth Inc. The following year, the first edition of *Standards and Guidelines For Oregon Tilth Certified Organically Grown* was published. These standards became the blueprint for organic certification programs in several other states. In June 1987, Oregon Tilth became a non-profit.

Although many private organic certifiers emerged in the 1980's, Oregon Tilth continued to offer certification as a part of a broader research and education effort, providing organic certification as a service to producers, yes, but also as a service to the general public, by way of making sure what consumers purchase is the real deal.

Oregon Tilth shared its model of certification with other organizations to implement programs in other parts of the country and the world. In the late 1980's, Oregon Tilth formed the Western Alliance of Certification Organizations in partnership with California Certified Organic Farmers (CCOF) and the Washington State Department of Agriculture's Organic Program to formulate materials list standards and further align the three Western Certification programs. This work informed West Coast input into the USDA National Organic Program.

With a sound background of materials review, in 1997, Oregon Tilth helped form the Organic Materials Review Institute (OMRI), which continues to flourish in evaluating materials for use in organic farms and processors throughout the country. Oregon Tilth was one of the first to recognize that the standards of organic agriculture needed to be applied to the food processing environment in order to effect change on a national level and inspire the transition of millions of acres to sustainable, organic practices.

Today, Oregon Tilth is one of the largest certifiers in the country and undeniably the most balanced - roughly half of our certified operators are farms and the other half processors. This gives Oregon Tilth a unique and invaluable perspective on the entire supply chain, from seed to table, farm to fork, literally from the ground up.

Nearly 30 years after its inception, Oregon Tilth publishes the quarterly magazine *In Good Tilth*, co-sponsors the Organicology conference, collaborates with university researchers on sustainable agriculture, supports member chapters, and delivers educational programs linking urban and rural people in the support of a sustainable - and sustaining - course for agriculture and the planet.

Section I: Oregon Tilth Organic Land Care Policies

Program Scope and Authority

The *Oregon Tilth Accredited Organic Land Care Program* (*Policies and Standards*, *Oregon Tilth Accredited Organic Land Care Training*, and the *Organic Land Care Field Guide*) is solely for the promotion of organic practices in general landscaping and land care. Where standards or policies conflict with any jurisdictional laws, the laws shall prevail. The Standards define organic land care practices under the accredited program and all services offered by accredited professionals under the Program shall conform to the Standards. Oregon Tilth administers the Program and is the authoritative body in all issues of interpretation of the standards and in issuing or denying accreditation to practitioners. Accreditation is offered to practitioners who meet program requirements. All actions relating to the Program, including the *Policies & Standards*, *Field Guide*, education and training, as well as periodic reviews and revisions will be carried out by the Organic Land Care Standing Committee. The Committee will be broad based with representation from Oregon Tilth and the professional landscape industry as well as individuals and organizations with conservation interests. Oregon Tilth maintains final authority on all issues related to the Program including all actions carried out by the OLC Standing Committee.

Accreditation

Accreditation is offered to all individuals who attend the *Oregon Tilth Accredited Organic Land Care Training*, pay an examination fee, pass the examination and sign the *Professional Agreement* to abide by the Program requirements when providing Oregon Tilth Accredited Organic Land Care Program services. Accreditation is initially for a period of two years and may be renewed in two- year increments through twelve (12) hours of continuing education and paying a biennial fee. Oregon Tilth reserves the right to revoke accreditation where it is determined that a violation of program requirements has occurred.

Organic Land Care Program Sites

The OLC Program accredits practitioners. Oregon Tilth does not certify landscapes. However, the accredited practitioner may designate, advertise or otherwise indicate a site as organically managed under the Program when program requirements as set forth are met and the Standard Agreement has been signed by all parties (see below). When a site is publicly held to be managed under the Program, either through signage, advertisement or other means, the accredited practitioner is required to maintain certain records, as indicated in the Site Record (see below).

In all cases where a site is publicly held to be managed under the Program, the accredited practitioner shall have management authority to the extent necessary to ensure the requirements are met on the site; and Oregon Tilth shall have access, upon request, to the site and all required records and agreements. Accredited practitioners are free to offer conventional products and services. However, in order to claim, promote or advertise a site as one maintained by an accredited OLC Practitioner, all services offered on that site shall conform to the policies and standards.

Required Records and Agreements

- *Professional Agreement*: An agreement between Oregon Tilth and the accredited practitioner that all services offered under the Program will adhere to the Policies and Standards and the use of the Oregon Tilth logo will follow requirements indicated in the agreement. Once all parties have signed the Professional Agreement, the practitioner is officially accredited and may offer and advertise OLC services.
- *Standard Agreement*: When offering organic management services at a *Program Site*, the Oregon Tilth Accredited Practitioner shall enter into an agreement with the property owner or his/her agent. The contract shall require that both parties (and other landscape practitioners that work on the site) agree to abide by the standards.
- *Site Record*: The Site Record includes identifying information, history, management issues and plans. Significant inputs and cultural activities are documented in the Site Log. The Graphic Site Plan identifies landscape layout and management zones. Also included are all soil chemistry test reports and written recommendations.
- *Non-Organic Treatment Agreement*: Program policies allow non-organic practices when the accredited practitioner and the site owner or owner's agent agree that a threatened plant is of sufficiently high value to merit non-organic treatment to prevent its loss. A plant of significant value is any perennial plant or group of plants of historic merit, size, cost or aesthetic quality that cannot be replaced or for which replacement would cause a financial hardship ($500 or more). Non-organic treatment is defined as the use of any material or practice that is not allowed under the Policies and Standards of the Program. When the non-organic provision is utilized, a site enters *transitional status* and all signage or other means promoting the site as organically managed must be removed or

revised at the discretion of the OLC Program Manager. The site will be eligible to claim management under OLC practices one year after the last non-organic application, if all other program requirements have been met during that period, or at the discretion of the OLC Program Manager.

Signage

- Sites managed under the Oregon Tilth Program may display organic land care signage. Signs must contain the phrase "Oregon Tilth Accredited Organic Land Care" and the Oregon Tilth logo.
- Signs must only be in or on areas managed under the Program.
- Signs may contain the name or logo of all parties to the Standard Agreement.

Program Violations

Clear evidence of program violations is cause for revocation of accredited status. The Program Manager receives and investigates complaints of violations of program policies and standards. Substantiated violations may result in a warning, suspension of accredited status or revocation of accredited status.

Audits

A limited number of randomly selected audits of Program Sites may be carried out each year by the Program Manager. Practitioners whose sites are selected for audit will be contacted to arrange for a site visit. Audits are a primary tool for program improvement as well as quality control.

Section II: Oregon Tilth Organic Land Care Standards

The standards are intended to act as a reference for allowable practices and materials used on any site that is managed under the Program. The standards are based on the USDA National Organic Program (NOP) regulations as set forth in 7 *CFR* Part 205.203. The standards are not prescriptive in that they do not generally instruct the practitioner on how to achieve any given objective. The *Organic Land Care Field Guide* offers such assistance. It is intended that the standards, training and practical guide will enable the practitioner to effectively provide organic land care. The standards, training and field guide will undergo annual review and evolve to reflect new products and technologies.

The Standards are divided into two sections:
• **Organic Practices**
• **Organic Products and Materials**

About Organic Practices

The Standards for Practices set forth *required, preferred* and *prohibited* practices under the Program. With few exceptions, specific methods, applications and/or protocols are not prescribed, as the uniqueness of each site should dictate to the experienced OLC Practitioner the best possible choices for design, installation and care. The Practices portion of the Standards are based on fundamental principles of conservation in that they are designed to utilize natural resources and processes to the greatest extent possible while minimizing the need for off-site inputs.

The practices regulated under the Standards are presented in three (3) sections:

- General Requirements
- Resource Management
- Landscape Management

General Requirements

These are fundamental requirements of organic land care to which all practices must correspond. Chief among these is the requirement of 7 CFR, §205.200 that states "practices….must maintain or improve the natural resources of the operation, including soil and water quality."

Natural systems tend to achieve a dynamic balance leading to equilibrium. These systems are highly diversified, complex and resistant to insect damage and disease. The relative non-complexity of the typically installed urban/suburban landscape can present a challenge to many plants requiring higher levels of support and/or protection. The Program's intent is to inform and equip the Practitioner to work at the foundational level to mimic natural systems where possible and to provide direct plant support using organic options where necessary.

With the introduction of system *complexity* as a natural resource, the successful accredited practitioner will give thought to the effects of cultural practices that affect, for example, soil biodiversity or loss of soil organic matter. Many of the required, preferred and prohibited practices in the Standards reflect this axiom.

Additionally, OLC Practitioners must understand and follow any appropriate land-use ordinances and/or license requirements for design, construction and installation. Check with local municipal and state land-use and planning agencies for current requirements. Often, certain requirements are set forth in regards to environmental zoning laws, tree removal, building requirements, plumbing codes and storm water management.

Resource Management

The OLC Practitioner is responsible for the conservative management of soil, water and air.

Soil Management

Soil is the primary mediator of plant nutrition in an organic system. As such, a healthy soil will support a full spectrum of mineral nutrition in plants, making them naturally hardy and resistant to insect damage and disease. For this reason, the successful OLC Practitioner will be chiefly concerned with building and maintaining healthy soil. Healthy soils work with and for plants in a way that enhances and promotes the microbial life of the soil. Without thriving soil biology that includes bacteria and other microscopic life forms, the soil chemistry will be compromised and unable to support plant health. Again, complexity is an important concept in a natural system since complex systems resist attack from pests and disease.

The condition of soil can be evaluated in many ways, including structure, ambient moisture level, relative compaction or density, odor, color, texture, chemistry and biology. Experienced OLC Practitioners can usually evaluate the general health of soil via a site inspection and simple examination of the soil. Chemical and biological properties, however, require a lab test. Microbiological evaluation of soils has become a useful tool in agriculture only recently. A number of independent soil testing laboratories in the United States have established optimum biological profiles for healthy soils in cropping systems and general land care. While not required, microbiological evaluations

can be useful in establishing the relative health of the soil when identifying problems with soils or when converting to organic care. The same holds true for soil chemistry.

Fertility management through the use of natural substances is preferred. Mulches and composts tend to contain a broad spectrum of mineral nutrients which, when broken down by the soil organisms, will afford plants access to a balanced diet through *natural nutrient cycling*. The soil is the principle mediator of nutrition to plants; in effect, it is the plant's digestive system. Healthy plants require a balanced diet of major, secondary and trace nutrients. Application of *processed fertilizers* without first determining the levels of the plant available nutrients already in the soil may upset the balance of available nutrients and block the uptake of essential minerals and/or be leached into ground and surface waters. For this reason, the use of processed fertilizers is prohibited without first obtaining a *soil chemistry test* that measures the level of plant available nutrients. Soil chemistry tests must be done by an independent soil laboratory and they must measure, at minimum, the level of nutrients intended to be applied via a processed fertilizer application. If trace nutrients are being prescribed, lab tests must indicate the level of the trace nutrient. Soil chemistry tests can also indicate when elements are low or approaching toxic levels.

Water Management

The sustainable use of water is a principle aim of organic land care. Water conservation can be attained both through design and cultural practices. Water management also requires attention to proper drainage in the landscape. Cultural practices that lead to improved soil structure will allow for better water holding capacity and drainage, as well as deeper rooting in plants.

Examples of water management through design are: plant selection and placement, site contouring, subsurface drainage and drywell collection, *hardscape* choices and rainwater storage, infiltration and retention systems, including *rain gardens*. Water management cultural practices also include insuring that irrigation systems work properly and deliver focused and appropriate amounts of water.

Water management also includes restrictions on fertilizer over-application to prevent nutrient leaching and subsequent pollution of surface and groundwater. The Program requirement for a *soil chemistry test* before application of *processed fertilizers* allows the Practitioner to ensure water quality will not be harmed in such a manner.

Air Quality Management

Clean air, well circulated in the landscape, is essential to plant and ecosystem health. Air management is primarily a concern addressed by design and maintenance. Good plant and hardscape selection and placement can encourage free air movement. Proper care, including pruning, can ensure air movement is maintained. Site design and choice of cultural methods can also help reduce the use of power tools and equipment that pollute the air and cause noise pollution. Moving toward *closed system management* can reduce

the need to purchase fertilizers that require factory processing and transportation that pollutes the air. Finally, understanding the carbon cycle can lend itself to practices that actually improve a plant's ability to process CO_2 on site, thereby freshening the air, a process that contributes to *carbon sequestration*.

Landscape Management

Landscape management includes design, installation, maintenance and *Integrated Pest Management* (IPM). The Standards regulate practices for the purpose of attaining the Program objectives, not only organic land care but also environmental improvements through sustainable practices. For instance, through purposeful design of a low maintenance landscape, fewer visits are required by maintenance personnel. As another example, in lawns, maintaining a *height-of-cut* that allows deep rooting achieves the purpose of the Program by reducing water usage and disease incidence.

As with soil management, soil biodiversity is fundamental to landscape management. For this reason, practices that degrade the soil are prohibited. This includes utilization of potted or balled and burlapped plants that have been treated with prohibited substances.

Landscape Design

The underlying principle of the Program requires designing for *sustainability*. The Practitioner should balance a client's desires with a design that incorporates sustainable principles. These include low maintenance, naturally hardy landscapes that include locally grown native species where they are available. Attention to topography, water demands, drainage and soil conditions are essential to a successful organic land care design. Organic land care design requires the preservation of biodiversity and natural ecosystems where possible.

Consideration of human sensitivities should be considered when specifying landscape plants. For instance, balancing male and female plant genii may be desirable to reduce pollen loads in the air at certain times of the year.

As the fundamental resource of the OLC Practitioner, *soil quality* is critical to a successful design. Organic Land Care designers should specify soil testing and only specify fertilizers where a need is indicated.

Landscape Installation

When working to design specifications, installers shall ensure that all program policies and standards are met. It is also incumbent on the installer to communicate with the designer when site conditions make design specifications impractical.

Landscape Maintenance

Ongoing site maintenance includes plant direct activities such as fertilizing, trimming, mowing, watering, weeding and pruning plus monitoring and treating for insect damage, diseases and conditions leading to these problems. The accredited Practitioner should be able to identify emerging problems and develop solutions through an Integrated Pest Management or *Plant Health Care* approach. Accredited Practitioners are responsible for Site Log entries and Graphic Site Plan updates on Program Sites.

Integrated Pest Management (IPM) Plan

Among the goals of organic land care is elimination of the use of pesticides not approved for use in the Program. Learning to cultivate the inherent abilities of plants to resist insect damage and diseases represents the first step in this process. However, it is likely that a certain amount of damage (due to disease, insects or weeds) will occur in any landscape. Through utilizing a disciplined and multifaceted approach to controlling or treating problems, it is most likely that *least impact practices* can be maintained. An effective Integrated Pest Management plan will require site monitoring as well as set *tolerance* limits for pest damage on the site. The plan also serves as an agreement between the accredited Practitioner and the owner or manager as to monitoring policies and when tolerance/threshold limits are exceeded. The IPM plan may be as simple as a written agreement requiring periodic monitoring and consultation or it may contain formal protocols. This will depend on the requirements of the site and the agreement between the accredited practitioner and the client.

About Organic Products and Materials

The OLC Practitioner will encourage closed system management as much as possible by utilizing on-site resources. However, where purchases are necessary, least impact practices should be applied. The impact and *embodied energy* of products and materials should be considered when selecting the best options. The Program Standards are based on the National Organic Program requirements in 7 CFR 205.600, 601 and 602. No specific list of materials that are approved for use are included in the Standards, however, OMRI and the Washington State Department of Agriculture (WSDA) listed materials are approved with restrictions (see *Restricted Use* in the glossary). The Standards especially prohibit the use of "materials which degrade the health of organisms necessary for healthy soil" and some of these are specifically noted. *Synthetic* pesticides and some synthetically treated materials belong in this group. Non-organic fertilizers are also included in this group because they are ionic, water-soluble chemicals that directly feed plants and interrupt the essential symbiotic relationship between plants, microbes and soil minerals – thus degrading the soil.

Organic Practices

Practices regulated under the Standards are classified as **required**, **preferred** and **prohibited**.

Required: means that the Practitioner must employ these practices in the provision of Organic Land Care.

Preferred: means that the Practitioner should give preference to these practices over others available at this time in the provision of Organic Land Care.

Prohibited: means that the Practitioner must not employ these practices under any circumstances in the provision of Organic Land Care.

General Requirements

Required:

- Use of least impact practices as a first preference.
- Educate landowners on the principles of OLC.
- Incorporate complexity in all aspects of land care to confer greater pest and disease resistance.
- Maintaining tools and machinery in optimal working condition.
- Complete and comprehensive equipment and tool clean-out when changing from conventional to organic landscape methods when edible plants are involved.
- Maintaining required records and agreements when providing accredited organic land care services.
- Informing adjacent (or otherwise affected) landholders of any proposed action that may adversely affect their properties.
- OLC Practitioners must understand and follow any and all appropriate land-use ordinances and/or license requirements, including CCR's (Conditions, Covenants and Restrictions) and zoning ordinances, for landscape design, construction and installation.

Preferred:

- Complete and comprehensive equipment and tool clean-out when changing from conventional to organic landscape methods; or, maintaining a separate set of equipment and tools reserved solely for use on organic landscapes maintained under the *Standards*.
- Using low-voltage, energy saving landscape lighting, including solar powered lighting.

Prohibited:

- Use of genetically modified organisms.
- Burning as a method of disposal of materials, except for disease and invasive/noxious weed control.

Resource Management

Soil Management

Required:

- Selecting and implementing cultural practices that maintain or improve the physical, chemical and biological condition of soil and minimize soil erosion.
- Manage inputs to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances. Materials include:
    - Compost;
    - Uncomposted plant materials as mulch;
    - NOP approved *processed mulch.*
- Obtaining soil chemistry tests before application of processed fertilizers on a new site.
- Preventing soil compaction in planted areas.

Preferred:

- Using *Qualified Compost*.
- Utilizing closed system management practices.
- Fertilizing with renewable materials that are sustainably harvested, such as mulches, compost and compost tea.
- Obtaining soil chemistry tests before each application of processed fertilizers.

Prohibited:

- Using PVC-based plastic mulches except for solarization (which must be removed by the end of the growing season).
- Use of raw *manure* or non-qualified compost on plants intended for human consumption, except if applied at least 120 days prior to harvest.
- Use of substances listed as prohibited in the standards.

Water Management

Required:

- Conservation of water through application of measures to increase natural deep rooting in landscape plants.

- Supplying water in sufficient quantity to prevent damage to plants.
- Designing landscapes for minimal irrigation requirements.

Preferred:

- Providing surface and subsurface drainage adequate to prevent pooling that leads to anaerobic conditions – except in wetland or recharge areas.
- Encouraging water conservation through tolerance for seasonal *turf senescence*.
- Installation of zone managed irrigation systems.
- Installation of storm-water catchment systems or rain gardens.
- Providing shade for the soil through dense plantings to promote water conservation.

Prohibited:

- Surface drainage into sensitive sites or onto neighboring property without permission.
- Over-watering.
- Draining or filling wetland habitat without jurisdictional consent.

Air Quality Management

Required:

- Allowing for good air circulation.

Preferred:

- Reducing air pollution.
- Minimizing noise.
- Use of hand tools over power tools where practicable.
- Maximizing carbon sequestration through diverse and prolific plantings.

Prohibited:

- Burning as a method of disposal of materials, except for disease and invasive/noxious weed control.
- Use of two-cycle gasoline powered equipment – except for gasoline chain saws.

Landscape Management

Landscape Design

Required:

- Ensuring all applicable ordinances with respect to environmental impact are followed, including licensing requirements for design personnel.
- Specifying organic seeds and organic planting stock.
- Creating a Graphic Site Plan for reference and record keeping.

Preferred:

- Specifying plants that require minimum inputs, including pruning, trimming and mowing.
- Specifying soil chemistry tests in areas where new plantings are to be installed.
- Encouraging use of recycled materials and/or use of materials in a manner that will allow re-use or recycling.
- Encouraging natural insect damage control by specifying diverse year-round habitat for natural insect predators, including insects, bats and birds.
- Limit turf area when alternatives are appropriate.
- Grouping plants according to environmental needs.
- Using native and/or site appropriate plants.
- Designing ecosystems that are sustainable with minimum human intervention.
- Considering human health issues in the selection of plants.
- Specifying pest and disease resistant plants.
- Designing *buffer zones* that minimize exposure of people, animals, plants and soil to adjacent properties where *conventional land care practices* are used.
- Specifying and designing rain gardens on appropriate sites.
- Specifying an area for on-site composting.

Prohibited:

- Specifying invasive plants.

Landscape Installation

Required:

- Using organically grown seeds, seedlings and planting stock, with the following exceptions:
    - Non-organically produced, untreated seeds and planting stock may be used when an equivalent organically produced variety is not commercially available – the practitioner must document three attempts to locate organic seeds and/or planting stock before using non-organic materials;
    - Seeds, annual seedlings and planting stock treated with prohibited substances may be used in an organic application when required by Federal or State phytosanitary regulations.
- Integrating soil levels to avoid layering when preparing soils for planting.
- Obtain a soil chemistry test with recommendations before application of processed fertilizers on a new site.
- Creating a Graphic Site Plan as a reference and basis for record keeping.
- Creating adequate root space for trees and other perennial landscape plants.
- Limiting activities leading to soil compaction or confining the activities to areas that will not injure plants.
- Recycling waste materials.

Preferred:

- Improving existing soil rather than importing topsoil.
- Protecting existing soil from compaction and contamination during construction.
- Choosing building materials of lowest embodied energy sufficient to the project.
- Removing plants by mechanical means or solarization.
- Use of native plants or rescued native plants where possible
- Applying a layer of compost or mulch over bare soil.
- Using Qualified Compost.
- Obtaining soil chemistry tests before each application of processed fertilizers.
- Protecting existing trees from damage that might occur during construction.

Prohibited:

- Use of polyvinyl chloride (PVC) based weed barriers.
- Use of pressure treated wood.
- Pouring concrete wastes onto undeveloped property or into waterways or grates.
- Installation of plants considered to be invasive.

Landscape Maintenance

Required:

- Soil chemistry test before application of processed fertilizers in newly developed areas.
- Using least impact practices by taking an IPM or Plant Health Care approach to maintain landscape health.
- Keeping a maintenance record showing cultural activities and material inputs.
- Using least impact practices in maintenance activity.

Preferred:

- Optimizing site resources through recycling on-site by composting, mulching and/or using mulching mowers.
- Obtaining soil chemistry tests before application of processed fertilizers.
- Using hand or electric tools in place of gasoline powered equipment.
- Removing or replacing plants that demonstrate a poor adaptability to the site.
- Obtaining soil chemistry tests before each application of processed fertilizers.
- Maintaining a mulch layer over areas of bare soil.
- Preventing the introduction or spread of weeds, insect damage and disease.
- Employing biological, physical and mechanical methods to control weeds, insect damage and diseases.
- Providing and maintaining year-round habitat for natural insect predators, including insects, bats and birds.

Prohibited:

- Use of two-cycle gasoline powered equipment – except for gasoline powered chain saws.
- Power washing existing pressure treated wood.

OLC Products and Materials

Material uses prescribed in the Organic Land Care program are based on the U.S. National Organic Program lists of allowed and prohibited substances as defined in 7 CFR §205.105, 205.600, 601 and 602. Since edible landscape plants are likely to be included in many landscapes managed under this program, all NOP regulations relating to food safety have been retained in these Standards.

General Guidelines

1. Synthetic and non-synthetic 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 USC 6517 and 6518).
2. 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:
    a. The substance cannot be produced from a natural source and there are no organic substitutes;
    b. 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;
    c. The nutritional quality of (any) 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.
3. Non-synthetics used in organic processing will be evaluated using the criteria specified in the Act (7 USC 6517 and 6518).
4. All OMRI listed substances shall be allowable.
5. All substances listed as allowable by the Washington State Department of Agriculture (WSDA) Organic Food Program shall be allowable.
6. All products certified by an accredited organic certifier such as Oregon Tilth or WSDA shall be allowable.
7. All allowable substances, whether synthetic or non-synthetic are subject to program restrictions.
8. All applicable pesticide restrictions must be followed and materials must be used in the manner they are intended.

Synthetic Substances Allowed for Use in Organic Land Care (from 7 CFR 205.601)

In accordance with all program restrictions, the following synthetic substances may be used in organic land care and food production:

1. As algaecide, disinfectants, and sanitizer, including irrigation system cleaning systems;
    a. Alcohols
        i. Ethanol
        ii. Isopropanol
    b. Chlorine material – *Except,* that, residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act. (currently 4 ppm)
        i. Calcium hypochlorite
        ii. Chlorine dioxide
        iii. Sodium hypochlorite
    c. Hydrogen peroxide
    d. Soap-based algaecide/demisters
2. As herbicides, weed barriers, as applicable.
    a. Herbicides, soap-based – for use in landscape maintenance (roadways, ditches, right of ways, building perimeters) and non-food plants
    b. Mulches
        i. Newspaper or other recycled paper, without glossy or colored inks.
        ii. Plastic mulch and covers (except for materials made with polyvinyl chloride (PVC))
        iii. Cardboard, without glossy or colored inks; not waxed or impregnated with fungicides.
3. As compost feedstock
    a. Newspaper or other recycled paper, without glossy or colored inks
    b. Cardboard, without glossy or colored inks; not waxed or impregnated with fungicides.

4. As animal repellants
    Soaps, ammonium – for use as a large animal repellant only, no contact with the soil or edible portion of plants
5. As insecticides (including aracicides or mite control)
    a. Ammonium carbonate – for use as bait in insect traps only, no direct contact with crop or soil
    b. Boric acid – structural insect damage control, no direct contact with organic food or crops
    c. Elemental sulfur
    d. Lime sulfur – including calcium polysulfide
    e. Oils, horticultural – narrow range oils as dormant, suffocating, and summer oils
    f. Soaps, insecticidal
    g. Sticky traps/barriers

6. As insect attractants
    a. Pheromones
7. As rodenticides
    a. Sulfur dioxide
    b. Vitamin D3
8. As slug or snail bait
   (none)
9. As plant disease control
    a. 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.
    b. Copper sulfate – Substance must be used in a manner that minimizes accumulation of copper in the soil
    c. Hydrated lime – must be used in a manner that minimizes copper accumulation in the soil
    d. Hydrogen peroxide
    e. Lime sulfur
    f. Oils, horticultural, narrow range oils as dormant, suffocation, and summer oils
    g. Potassium bicarbonate
    h. Elemental sulfur
    i. Streptomycin, for fire blight control in apples and pears only
10. As plant or soil amendments
    a. 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
    b. Elemental sulfur
    c. Humic acids – naturally occurring deposits, water and alkali extracts only
    d. Lignin sulfonate – chelating agent, dust suppressant, floatation agent
    e. Magnesium sulfate – allowed with a documented soil deficiency
    f. Micronutrients – not to be used as a defoliant, herbicide, or desiccant. Those made from nitrates or chlorides are not allowed. <u>Soil deficiency must be documented by testing</u>.
        i. Soluble boron products
        ii. Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium and cobalt.
    g. 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.
    h. Vitamins, B1, C, and E.
11. Plant growth regulators
    (none)
12. As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with non-synthetic 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.

EPA List 4 – Inerts of Minimal Concern

Non-synthetic Substances Prohibited for Use in Organic Land Care (from 7 CFR 205.602)

1. Ash from manure burning
2. Arsenic
3. Lead salts
4. Sodium fluoaluminate (mined)
5. Strychnine
6. Tobacco distillate (nicotine sulfate)
7. Potassium chloride – unless derived from a mined source and applied in a manner that minimizes chloride accumulation in the soil.
8. Sodium nitrate – unless use is restricted to no more that 20% of the crop's total nitrogen requirement as documented by soil test and fertility plan.

Specific Allowed and Restricted Materials

All products certified for use in organic production by a USDA certifying agency shall be allowed with applicable Program restrictions.

The OMRI Products List, available on-line at www.omri.org provides a listing of brand name products allowable for use in the Program. Products on the OMRI lists are designated either allowed (A) or restricted (R). Restrictions refer to Organic Land Care policy requirements for material usage. All listed products are also subject to label restrictions.

The Washington State Department of Agriculture – Organic Food Program list of allowable brand name products is available on-line at www.agr.wa.gov/FoodAnimal/Organic/default.htm. Products on this list are considered allowable but program restrictions must be observed.

EPA List 4, Inerts of Minimal Concern is a comprehensive list of materials that are allowed as inert ingredients in products applied in the Program. A current list is available on line at www.epa.gov/opprd00/inerts/inerts_list4.pdf.

Glossary

Accreditation	As it applies to this *Program*, accreditation means the accredited Practitioner has completed the course of training, passed the examination, signed the professional agreement, pays the biennial accreditation fee, and maintains required continuing education credits.
Accredited Practitioner	An Oregon Tilth Accredited Organic Land Care provider engaged in landscape architecture, design, installation and/or maintenance.
Allowed	Refers to materials and practices that are permitted under the *Program* standards.
Base Saturation	A measure of the percentage of exchangeable potassium, magnesium, calcium and sodium in the soil.
Biodiversity	A measure of the variety of organisms in a given area.
Buffer Zone	An area, usually a strip of land, separating an organic plot from the influence of non-organic exposures.
Carbon Sequestration	The process through which carbon dioxide (CO_2) from the atmosphere is absorbed by trees, plants and crops through photosynthesis, and stored as carbon in biomass.
Cation Exchange Capacity	A measure of the ability of the soil to hold soluble, positively charged plant available nutrients.
CFR	Code of Federal Regulations that governs the USDA National Organic Program.
Closed System Management	The practice of utilizing on-site resources and materials in landscape design, installation and maintenance.
Complexity	A measure of system diversity that arises through synergistic inter-relationships and confers a natural resistance to change, including an increased resistance to insect damage and disease attack.

Compost	Highly humified organic matter rich in microbial biomass and having broad-spectrum plant nutrient properties. See *Qualified Compost.*
Composting	The process by which compost is produced.
Conventional Land Care Practices	All land care services that utilize materials and cultural methods that do not conform to the organic land care standards.
Cultural Activity	Any of a number of activities employed to change, maintain or enhance plants and/or soil, including cultivation, fertilization, installation and maintenance.
Ecosystem	A system made up of a community of animals, plants, and microorganisms and the physical and chemical environment with which it is interrelated.
Edible Landscape	Growing vegetables, fruits, and herbs, often in combination with annual flowers and landscape plants as part of the home landscape.
Embodied Energy	The total energy used in the manufacturing, distribution, transportation and disposal of any material.
End User	Landscape site owner or owner's agent who may be considered the landscape associate's client. The term is used to designate the proprietary interest holder on a *Program Site*.
EPA	United States Environmental Protection Agency.
Fertility Plan	A written plan or recommendation for fertility inputs (including processed or mined fertilizers, compost, manure, mulches and biological agents) and cultural practices.
Fertilizer	Any material such as manure, chemicals, etc. added to soil to improve the quality or quantity of plant growth.
Fungicide	A substance that inhibits or kills fungi, or its spores.

Graphic Site Plan	A chart of the landscape showing significant buildings, hardscape, infrastructure and major plant groupings, as well as the square footage of *significant management zones* – to be used for reference and record keeping.
Habitat	The region where a plant or animal naturally grows or lives; the plant or animal's native environment.
Hardscape	Any landscape structure, including buildings, decks, pathways, patios, fences, statuary, etc.
Height of Cut	Commonly used term for the height at which grass is cut in general turf and golf course management.
Holistic Landscaping	A whole system approach to landscaping considering the harmony of all aspects of the landscape, including habitat, social and environmental functions and the ecology.
Inert Ingredient	A substance other than the active ingredient which is intentionally included in a product to make it easier to use or more efficient.
Integrated Pest Management (IPM) Plan	A written agreement detailing the procedures for implementation of an insect or disease damage control strategy that uses an array of complementary methods: natural predators and parasites, pest-resistant varieties, cultural practices, biological controls, various physical techniques, and pesticides as a last resort. This is an ecological approach that can significantly reduce or eliminate the use of pesticides.
Invasive	Marked by the tendency to intrude or encroach.
Landscape Performance	A relative term describing landscape appearance, stress tolerance and resistance to insect damage, weed pressure and disease.
Least Impact Practices	A comparative term used to describe land care practices that do the least amount of environmental harm in achieving a desired objective. Least impact

	practices are also served by selecting materials with low *embodied energy*.
Manure	Uncomposted bedding and waste products produced by livestock.
Micronutrients	A substance, such as a vitamin or mineral, that is essential in minute amounts for the proper growth and metabolism of a living organism.
Mulch	Organic material, used to cover the ground for weed control, evaporation control, protection from freezing and release of nutrients through digestion by living organisms. Mulches may be plant material or processed organic material, including paper.
Natural Nutrient Cycling	The method by which living and dead organic matter is processed into plant available nutrients by the living organisms in the soil.
Non-Organic	Refers to any practice or material that is prohibited under the Policies and Standards of this program.
Non-Organic Treatment	Use of any material or practice that is prohibited under the Policies and Standards of the Program.
Non-Organic Treatment Agreement	An agreement signed by the practitioner and the property owner (or agent) that describes the condition and treatments leading to non-organic treatment, as well as the specific non-organic treatments undertaken. A copy of the agreement must be filed with the Oregon Tilth OLC *Program Manager*.
NOP	U.S. Department of Agriculture National Organic Program – the agency responsible for standards of certification for organic growers and processors.
OMRI	Organic Materials Review Institute – a non-profit organization that publishes a list of materials approved for use in organic land care.
Organic	Refers to any practice or material that is allowed under the Policies and Standards.

Organic Land Care	A set of practices defined by the Policies & Standards of this program.
Organic Matter	All living organisms, their remains, residues and waste products.
Organic Material	Plant or animal based material approved for use in organic production by the *NOP*.
Oregon Tilth Accredited Organic Land Care Training Program	The prescribed course of study, including a qualifying examination, leading to accreditation under the Program.
Oregon Tilth Organic Land Care Field Guide	A technical guide for Program practitioners.
Pest	An undesired organism, including animals, plants and microorganisms.
Pesticide	A substance that kills, inhibits or otherwise disables living organisms – includes insecticides, fungicides, herbicides, miticides, acaricides, etc.
Plant of Significant Value	Any landscape plant or component for which the non-organic treatment protocols will be utilized and transitional status claimed. A plant of significant value is any perennial plant or group of plants of historic merit, size, cost or aesthetic quality that cannot be replaced or for which replacement would cause a financial hardship ($500 or more).
Plant Health Care Program	A holistic approach to plant health as apposed to an IPM approach where the focus is on treatment of plant problems.
Policies and Standards	Refers to the Oregon Tilth Accredited Organic Land Care Program Policies and Standards.
Potentially Disqualifying Event	Any *Prohibited* practice or input on a *Program Site*.
Practitioner	An Oregon Tilth Accredited Organic Land Care provider engaged in landscape architecture, design, installation and/or maintenance.
Preferred	Refers to practices that are preferred in organic land care.

Processed Fertilizers	Mined, refined or otherwise processed packaged or bulk substances (other than bagged compost and manure) containing one or more plant nutrients (including trace minerals) for growth promotion or soil conditioning.
Processed Mulch	A manufactured ground cover, usually in sheet form, used for weed control and soil protection.
Professional Agreement	An agreement between Oregon Tilth and the accredited practitioner that all services offered under the Program will adhere to the Policies and Standards.
Program (The)	Refers to the Oregon Tilth Accredited Organic Land Care Program.
Program Manager	Oregon Tilth representative administering the Program.
Program Review	Occurs when the *Program Manager* becomes aware of a *Potentially Disqualifying Event*. The Program Review will be carried out by the Program Manager and may lead to program Suspension or Revocation of Accreditation, or a warning.
Program Site	A contiguous site managed under the Oregon Tilth Accredited Organic Land Care Policies & Standards.
Prohibited	Refers to materials and practices that are not allowed in the *Program*.
Qualified Compost	*Compost* meeting the U.S. Composting Council's Seal of Testing Assurance requirements for testing, taking into consideration pH, .soluble salts, nutrient content, organic matter, moisture percent, particle size, maturity, stability, inerts, trace metals, weed seed and pathogens.
Rain Garden	A landscape feature that promotes storm water infiltration.
Required	Refers to practices that are required in the *Program*.

Restricted	Refers to materials that are permitted in the *Program* with certain conditions on their use.
Revocation	Action to revoke *accreditation* based on a disciplinary review of the Practitioner's management practices.
Significant Inputs	Any mulch, manure, amendment, other fertilizer or pest control product used on an OLC Program Site – must be reported on the *Site Log*.
Significant Management Zone	An area under active organic management that significantly differs from one or more other areas in either its use or some physical, chemical or biological aspect. If an area requires a different fertility plan (i.e., lawn vs. mulched beds), it should be designated a significant management zone.
Site Log	A dated record of significant cultural activities and material inputs. It is part of the *Site Record.*
Site Owner	Person having proprietary interest over a site being managed under the Program.
Site Record	Required for all OLC Program sites. A land care management record that includes identifying information, history, management issues and plans.
Soil Amendment	Any substance, including compost, mulches or processed fertilizers, that is applied to or incorporated into the soil for the purpose of changing the soil condition.
Soil Chemistry Test	A soil chemical assay on a soil sample that is representative of the area to be managed.
Soil chemistry test	A chemical or microbial assay performed by an independent laboratory for the purpose of measuring soil quality.
Soil Quality	A measure of the natural fertility of soil that includes parameters for structure, biology and chemistry.
Standard Agreement	A written agreement between the *OLC Practitioner* and the *Site Owner*. The agreement ensures all

	parties understand and will abide by the *Program* requirements.
Suspension	The temporary *Revocation* of *Accreditation* due to a disciplinary review of the *Practitioner's* management practices.
Sustainability	The ability to enhance and maintain the wellbeing of the natural world, the responsible use of natural resources and the expression of the greatest potential in the present while preserving biodiversity and natural ecosystems for the future.
Synthetic	Non-natural – for the purposes of this *Program*, synthetic substances are either prohibited or restricted.
Tolerance	Acceptance of higher levels of pest presence and plant damage and lower levels of *Landscape Performance.*
Transitional Status	A situation where a contiguous site managed under the *Program* has opted to use a non-organic treatment for emergency rescue of a *plant of significant value*. Transitional Status is maintained from the time of initial application of prohibited materials until one year after the last application of prohibited materials, or at the discretion of the Program Manager. Transitional status may not be claimed for a period of over two years, except by petition to the Program Manager.
Turf Senescence	The seasonal dieback of turf.
WSDA	Washington State Department of Agriculture. Maintains a register of substances allowed in organic agriculture.
Zone Management Plan	A plan for cultural practices and fertility maintenance for a significant management zone.