

Price \$1.00

A Citizen's Guide To Organic Land Care

Prepared by
the Northeast Organic Farming Association
Organic Land Care Committee
for Connecticut and Massachusetts



"Now at last, it has become apparent that the heedless and unrestrained use of chemicals is a greater menace to ourselves than to the targets."

Rachel Carson, Silent Spring (1962)

The NOFA Organic Land Care Program was formed to extend the vision and principles of organic agriculture to the care of the landscapes where most people live, work, play, and otherwise spend their daily lives.

The mission of the Organic Land Care Program is to extend the vision and principles of organic agriculture to the care of the landscapes where most people carry out their daily lives. We do this by educating land care professionals and the general public about the virtues of organic land care and about practices which maintain soil health, eliminate synthetic pesticide and synthetic fertilizer use, increase landscape diversity and improve the health and well-being of the people and web of life in our care.

This guide is part of a regional effort to educate the public about the meaning of "organic" as it relates to land care, and the benefits of using organic practices around their own homes, neighborhoods and communities.



Why organic land care?

An organic land care program will help you protect your family's health, improve the health of the landscape, and protect the environment.

The guiding principle of organic land care is ecological stewardship. The watchword, as in the ancient medical tradition, is "First, do no harm." This applies to many aspects of the health of the land and the people living on it. One of the most harmful practices to be avoided is the use of synthetic chemicals like pesticides and fertilizers.

Pesticides are chemicals that are designed to kill living things. Different chemicals are formulated to kill different organisms (insecticides for insects, herbicides for weeds, fungicides for diseases), but many pesticides kill desirable organisms in addition to those they target. There is growing evidence of the hazards associated with long-term use of pesticides. Blood tests show that people in all areas of the world, including those where no pesticides are used, have detectable levels of pesticides in their blood and fatty tissues. Pesticide exposure in humans has been associated with birth defects; numerous cancers, including non-Hodgkin's lymphoma, (the second fastest growing cancer in the U.S.); Parkinson's disease and other neurological disorders; immune systems problems; and male infertility.

Synthetic fertilizers are energy-intensive and fossil fuel-based and can be harmful to humans, animals, and the environment. Exposure to high levels of nitrogen in drinking water has been shown to cause methemoglobinemia or "blue baby syndrome," a form of nitrate poisoning in infants, and has been linked less conclusively to high blood pressure, some cancers, birth defects and still births.

There is little research about the combined effects of commonly used chemicals. Young children (including the unborn) are particularly vulnerable to chemical exposures due to their body size, rapidly developing brains, hormonal and nervous systems, and behaviors (such as crawling on the ground and putting their fingers in their mouths). Cats and dogs that play in or eat chemically treated grass absorb chemicals through their skin or ingest them. Some pets have been fatally poisoned or developed higher rates of cancer. Cats are very sensitive to such chemicals and when exposed to pesticides become noticeably more aggressive (Rachel Carson Council).

Chemicals used in lawn and yard care do not stay where they are applied. When applied to the ground, chemicals can be carried into buildings and cars on shoes and paws. Without exposure to sunlight and water, they break down very slowly and can remain for months in carpets, toys, and dust bunnies.

Chemicals also move around in the environment. Rainwater washes them down streets and storm drains to streams, wetlands, lakes and oceans. Rainwater soaking into the ground carries fertilizers and pesticides into ground water, contaminating wells and aquifers. Pesticides absorbed by plants or insects can accumulate in the food chain as birds, fish, other wildlife, or people feed on the contaminated organisms. When chemicals are sprayed, breezes can carry the droplets to neighboring properties or even miles away. Cleaning sprayers and dumping the wash water down the drain sends pesticides and fertilizers directly into a septic system (and the groundwater) or a sewage treatment plant (and the local river).

For more information visit websites such as:

www.beyondpesticides.org, www.pmac.net/pestenv.htm,

www.audubon.org/bird/pesticides, or

www.oag.state.ny.us/environment/environment.html.

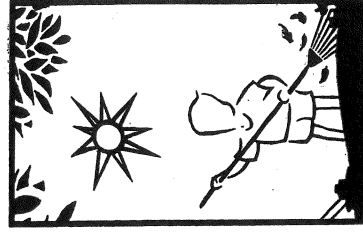
What Is "ORGANIC"?

In chemistry, any molecule that contains a carbon atom is organic. NOFA, the Northeast Organic Farming Association, uses a different meaning of organic, in reference to food, farming, and now land care. By organic, CT-Mass NOFA Organic Land Care Committee means that no synthetic pesticides, synthetic fertilizers or other synthetic soil amendments are used and that land care practices will take into account the local ecosystem, benefiting the whole web of life.

What Is ORGANIC LAND CARE?

While there are federal regulations defining standards for organic farming, there are no legal definitions or standards for organic land care. Land care or landscaping consists of many different elements. Lawns, gardens, specimen trees, shrubs and natural areas are all landscaping. Land care also includes different

activities such as installing new plants, maintaining existing ones, and removing diseased, dying or undesirable plants. The CT-Mass NOFA Organic Land Care Committee has taken the same stringent principles and standards that govern organic food production and applied them to the entire landscape, creating the *Standards for Organic Land Care: Practices for Design and Maintenance of Ecological Landscapes* (2001).



A primary principle of organic land care is to DO NO HARM. Another principle is to grow the RIGHT PLANT IN THE RIGHT PLACE. Plant health depends on the plant growing in healthy soil appropriate to its needs. Following these principles protects and enhances natural ecosystems while substantially reducing the need for inputs such as fertilizer, pest controls and labor.

Important objectives of organic land care include:

- Working with natural systems to enhance biological cycles rather than seeking to dominate them;
- Maintaining and improving the long-term health of soils;
- Avoiding pollution when creating or caring for landscapes.

The CT-Mass NOFA Standards for Organic Land Care cover all aspects of land care, including: site analysis, soil health, fertilizers and soil amendments, planting and plant care, lawn and lawn alternatives, invasive plants, weeds, mulches, pest management, wildlife management, and disease control. For each of these areas, the standards include an overview and management practices that are designated as preferred, allowed, or prohibited.

Preferred practices and materials are those considered to be ecologically appropriate and in accordance with the goals of organic land care.

Allowed practices and materials are acceptable when needed but should be reduced in favor of the preferred alternatives.

Prohibited practices and materials are not acceptable in organic land care.



Beware of misleading “organic” or “all natural” claims

Read labels carefully when choosing products such as fertilizer or pesticides. “Natural” products can still have negative environmental impacts. Avoid ingredients like sewage sludge (often called “biosolids”) or other composted industrial materials that may contain heavy metals or other toxins. These products are banned in the federal organic farming standards. Also avoid urea and materials like super-phosphates or “natural nitrate of soda” (also called Chilean nitrate) that add salt to the soil. Pesticides with plant-based active ingredients can still contain petroleum products as “inert ingredients” or “carrying agents”. All products listed in the Standards for Organic Land Care as “preferred” or “allowed” meet the organic standards.

If you use a professional lawn, garden or tree service, always ask what materials are being applied and why they need to be used. If you do not want synthetic chemicals used on your property, tell your service provider and have it written into your contract. Some land care companies may claim to be organic but still use materials that are harmful to your health and the environment. Because there is no legal definition for organic land care, some companies may use synthetic pesticides to “get your problems under control”, then go to an “organic” program until the problem returns. Also, some companies use sewage sludge as an “organic” fertilizer because it is cheap and readily available, even though its use is forbidden by organic farming standards.

If I want to go organic, what's the first thing I need to do?

The first thing to do is to decide if you are going to "do-it-yourself", hire a professional, or do some yourself and hire a professional for larger or more complicated projects.

Can anyone do organic land care?

In a healthy, natural landscape, organic land care can be very simple. Landscapes that have been conventionally treated with synthetic chemicals and fertilizer on a regular basis are harder to rehabilitate. In such landscapes, the soils are altered, the natural balance of beneficial organisms to pests has been destroyed, and the plants chosen may be species dependent on heavy doses of chemicals or water to survive. Anyone can reduce the application of chemicals to their landscape, but successfully changing a chemically managed landscape to an organic one can be complicated and may require professional help.

Isn't organic land care more expensive?

If your landscape is already chemically dependent, organic land care will initially be more expensive. It will be necessary to analyze the property to create an appropriate treatment plan for the transition to organic practices. In the long run, organic land care actually costs less, because "routine" applications of synthetic fertilizers and pesticides are avoided. A healthy soil, high in organic matter, stores more water and encourages plants to grow deep roots, so you will not need to water, except during establishment of new plants and in times of serious drought. Once established, an organic landscape uses fewer materials and requires less labor for mowing and maintenance. Consider the reduced costs to your health and the environment, and an increase in free time too.

What will happen when I switch to organic land care?

If your landscape is not chemically dependent, the transition should be fairly simple. Otherwise, detoxification can be a difficult process, particularly for turf grasses. Whether you try going "cold turkey," or gradually wean your plants away from synthetic fertilizers and pesticides, there will be a period of time where everything will look less green and manicured. During this time, good things are going on underground as soil health is re-established and plants switch their energies to growing healthy roots. Eventually, your yard can be lush and beautiful and you will have the additional peace of mind of knowing you are not sacrificing your health and the environment for green grass.

How does one do organic land care?

Whether done by a land care professional or a homeowner, the following basic practices should be included in any organic land care effort.

Regular soil tests - The basis of an organic landscape is healthy soil. It contains the proper balance of minerals, nutrients, organic matter, air, and water. Soil tests are the first step to creating healthy soil. Use them to determine exactly what nutrients and organic materials are available to the plants in your landscape and identify deficiencies, excesses or imbalances that can be corrected with approved organic cultural methods, amendments or compost. Unnecessary applications of ANY fertilizer or soil amendment can cause mineral nutrients to build up to excessive levels in the soil or escape to nearby waters and cause pollution problems.

In order to get useful information from a soil test, it is important to sample the soil correctly. Lawns, vegetable gardens, and trees and shrubs all require slightly different soil sampling techniques.

For fees and addresses for your state soil-testing laboratory, contact your county Cooperative Extension Office or university-based soil testing laboratory
 in Massachusetts: www.umass.edu/plsoils/soiltest/
 in Connecticut: www.canr.uconn.edu/plsci/stlab.htm
 or the Connecticut Agricultural Experiment Station
www.caes.state.us/soloffice/soiltesting.htm

Fertilizers, Soil Amendments and Compost - Many soils, especially those that have been extensively treated with synthetic products, will require amendment to regain their health. Fertilizers and soil amendments are used to modify existing soil conditions if needed as determined by soil testing. Organic fertilizers and amendments feed the soil, benefiting the plant by creating a healthy root system and building a naturally balanced fertility.

Compost is the preferred soil amendment. High quality compost is a mix of organic materials that has been well decomposed. It provides a stable source of nutrients, beneficial organisms and organic matter, improves soil structure, holds water and nutrients and suppresses plant diseases. When using composts containing animal manures around play areas or plants for human consumption, special care should be taken to protect against pathogen contamination.

Right plant in the right place - Plants have specific needs in terms of soil type, sunlight, temperature, and nutrient and water availability. Choosing a plant to suit your site conditions creates far less disturbance and requires less maintenance than

trying to modify your site to suit an inappropriate plant. Plants in the wrong site conditions are more likely to attract pests, develop diseases and generally require more maintenance than those that are correctly matched to their site. Using plants native to your area to re-create ecosystems - groups of several compatible plant species - produces a naturally low-maintenance landscape. Avoid invasive species that can escape from your yard to take over natural ecosystems.

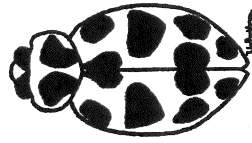
Use water properly - Healthy

established plants in appropriate environments should require little to no irrigation. Install a rain gauge on your property and keep track of rainfall. An inch of rain a week will support established plantings. New plantings do require supplemental watering for the first year but should then be weaned away from the extra water. Soil type and condition, natural rainfall, and plant condition all interact to determine how much supplemental watering is needed. Make sure to water long enough but slowly enough for the water to soak deep into the ground, encouraging deep root growth. The deeper the root system of the plant you are trying to grow, the deeper the watering should be. If water is running off the surface, you are wasting water.



Rethink lawns - Lawns, even organic ones, are high-maintenance areas in a landscape. A smaller lawn is less costly to maintain, easier to care for, and better for the environment. Choose an appropriate and attractive low-maintenance lawn alternative such as low-growing native grasses and wildflowers mixed in a meadow, no-mow grass mixes, sun/shade tolerant ground covers, shrubs, trees, and/or perennials, according to the conditions in your yard.

In lawn areas, choose grass seed mixtures to match your site conditions and include clover in the mix to provide natural nitrogen. If you have no grazing animals, include in the mix some grass seed with an endophytic fungus that protects it permanently from above-ground insect pests. Keep lawn mower blades sharp and leave grass clippings on the lawn to naturally recycle nutrients and water. Set your lawn mower blade to cut high – at least three inches. Studies are showing that “mowing high” shades the soil and the grass roots, cutting down on water loss, reducing plant stress and preventing crabgrass seed germination. Water your lawn only if there has not been an inch of rain in the past week. Apply compost or other soil amendments only if soil tests indicate they are needed.



Pest Management – Weeds, insects, and diseases can be managed organically.

Healthy soils and plants are less prone to disease and pest problems. The key to weed management is prevention, by keeping the soil covered with desired plants or with mulch. Regular monitoring of plant health can identify pest problems early, before they cause lasting damage to the plants. At this time, grubs are the toughest pest to control organically. Parasitic and predacious nematodes have been used with some success. If possible, let the wildlife that feed on grubs do the job for you. When the grubs have been naturally controlled, you can then have your lawn re-seeded with a good conservation seed mix.

How can I find someone to provide organic land care?

There are no government standards for organic land care, as there are for organic farming. In Connecticut and Massachusetts, the CT-Mass NOFA Organic Land Care Committee stepped in to fill this gap with its own comprehensive organic standards. The committee offers courses annually in Connecticut and Massachusetts to train land care professionals to provide services according to the Standards for Organic Land Care. Land care professionals who complete the training and pass an examination are accredited by NOFA as Organic Land Care Professionals. There is an annual re-accreditation process as well to ensure that the land care professionals stay up-to-date on new organic materials and practices. A list of currently accredited professionals can be found at www.organiclandcare.net

By choosing an Organic Land Care Professional accredited by the CT-Mass NOFA Organic Land Care Committee, you will know that your landscaper is knowledgeable about organic methods and has pledged to provide care according to the Standards for Organic Land Care.

What can I expect if I use an Organic Land Care Professional accredited by NOFA?

Working to create an organic landscape requires a mutual commitment and understanding between property owners and the Organic Land Care Professional. Your Organic Land Care Professional will evaluate your property to determine what services will be required and will ask you to sign an agreement indicating that you understand the aims of organic land care. He or she can advise you on the best way to create a beautiful landscape that suits the needs of your site and your family and is

also ecologically sound. You may choose to display a NOFA Organic Land Care sign to proudly announce to your visitors and neighbors that your property is free of synthetic chemicals and safe for pets, children and the environment.

There may be occasions when you and your Organic Land Care Professional will decide to use extraordinary measures that are prohibited under the CT-Mass NOFA Standards. One example might be to save the life of a tree of great value from a pest not adequately controlled using organic methods. When this must occur, you will both sign a form indicating your mutual understanding of this use of non-organic methods. These "Emergency Non-Organic Rescue Treatments" should be rare and only undertaken as a last resort.

Can a business provide both NOFA-accredited organic and conventional land care?

Yes, some businesses will provide both types of service. If dealing with such a company, make it clear that you are contracting for organic land care and that conventional chemical treatments should NOT be used on your property. Be prepared to ask questions and stay informed about what is appropriate or inappropriate in organic land care.

Who should I call if I have questions on the Organic Land Care Program?

If you have any questions or concerns about materials or services to be used on your property, you should contact the NOFA office in your state (in Connecticut: 203-888-5146; in Massachusetts: 978-355-2853) and ask to speak to the Organic Land Care Program coordinator.

How can I get more detailed information about the organic land care standards?

Detailed information is provided in the CT-Mass NOFA publication, *Standards for Organic Land Care: Practices for Design and Maintenance of Ecological Landscapes*, which is available for \$20 plus \$3 shipping and handling. Send a check to CT NOFA, P.O. Box 135, Stevenson, CT 06591. Or order on-line at www.organiclandcare.net. Ten or more copies cost \$12.50 each plus postage. Bulk orders of the *Citizens Guide* (10 or more) cost \$0.60 each plus shipping.

The CT-Mass NOFA Land Care Committee will also be offering homeowner education workshops. Check the website for a scheduled class near you.

"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect."

Aldo Leopold, A Sand County Almanac (1949)

The CT-Mass NOFA Organic Land Care Program is a largely volunteer effort supported by NOFA members and grants. We welcome your membership or your tax-deductible donation.

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