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Lessen your carbon footprint with organic lawn care

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Before the advent of the modern lawn care industry, the presence of clover, a nitrogen-capturing legume, was a good thing.

The idea of what constituted beautiful, well-kept grass changed with the manufacture of synthetic fertilizers in the 1940s. Fertilizer was paired with a surplus defoliating chemical that its manufacturer was looking to "repurpose" at the end of World War II. The marriage, a product known as weed and feed, has been the cornerstone of lawn care in America since 1948.

Sixty years later, we spend more money, use more water and spray more chemicals on our lawns and gardens than we do to grow our food. Considering the increasing evidence of harm to people, animals and ecosystems from products in common use, it may be time to take a look at organic lawn care. The most fundamental component of a natural lawn is healthy soil. This is the basis for all organic gardening, and many of the practices for growing healthy turf can be applied equally to growing vigorous, chemical-free shrubs, herbaceous ornamentals and vegetable gardens. The first step should always be a soil test to determine nutrient levels, pH and the percentage of organic matter. Unlike conventional lawn care, with its one-size-fits-all approach to weed control and fertilizing, the natural approach begins by looking at your soil and applying only those products needed in balanced amounts to support healthy growth.

Organic matter is the one amendment that needs to be replenished, in most cases, every spring and fall. Usually this is done by applying a thin layer of compost that is raked into the grass and/or an application of compost tea. Soil that is not treated with chemicals is teeming with life: microbes, fungi, earthworms and other organisms. Earthworms aerate the soil and compost organic matter; mycorrhizae enable plant roots to take up and use nutrients. The presence of these soil organisms determine fertility and the vigor of your grass (or any plant), resistance to disease and susceptibility to pests.

Compost feeds these essential microorganisms. If compost tea sounds about as foreign as mycorrhizae, relax. While the tea is pretty easy to make, if do-it-yourself is not your style, there are several lawn care companies in the area who will apply compost, compost tea, or both.

Overseeding

Without the "big gun" weed killers, one of natural lawn care's best defenses against weed infiltration is overseeding. Since nature abhors a vacuum, overseeding give grass an opportunity to take root in bare spots where weeds would otherwise crop up. Chuck Logsdon of C.L. Logsdon Lawn Grooming overseeds liberally, mixing compost in with seed, both to nourish the soil and assist with germination. He customizes grass blends to best suit the conditions on a given property. It may sound overly sophisticated, but this adheres to one of the most basic good gardening practices, having the right plant in the right place. Variety can also improve the drought and disease resistance of your lawn.

Expect customized seed blends and regular overseeding as part of any good organic lawn care service. Do-it-yourselfers should have a bucket of seed mixed with compost to fill in bare spots and

keep ahead of weeds waiting for a sliver of sun to germinate. Take the time to learn about grass varieties and pick a mix suited to your property and cultivation requirements.

Another tool for keeping weeds down is corn gluten, a product that also provides up to half the nitrogen needed for healthy growth.

Because corn gluten is a non-selective, pre-emergent weed killer, it is important to use it in early spring and wait at least three weeks to overseed.

Natural turf is mown high, 3-4 inches.

This promotes healthy root development and enables sufficient photosynthesis. Cutting grass fairway short is an invitation for weeds to germinate in the exposed soil, and it stresses the grass plants so that they are more susceptible to pests and disease. The mower blade should be kept sharp so the grass is cut cleanly, making a wound (yes, cutting wounds the plant) that heals quickly. Sharpening can be done at home with a file or table grinder or a hardware store can do the sharpening for you. Grass clippings do not need to be bagged.

If you already have a weed problem that good mowing practices, overseeding, and corn gluten cannot bring around, there are some more radical methods like flaming and solarizing (using pond liner or roofing rubber to smother and burn out weeds) that are highly effective. These require follow-up compost treatments to repopulate the soil with beneficial organisms and reseeding to establish new growth.

Why go organic?

There are several significant advantages to giving up chemicals. As individuals and as a community concerned about lessening our carbon footprint, consider that synthetic fertilizers are produced under high pressure and temperatures, making use of large amounts of fossil fuel.

Natural fertilizers and soil amendments, in general, reuse substances already available, usually in abundance.

Most people assume natural lawn care is less effective than conventional. Synthetic fertilizers give a heavy boost of nitrogen to the grass which greens it up quickly. The appearance of health and vigor is, well, artificial. This rush of growth will be followed by an equally rapid decline without another infusion of synthetic plant food. Chemical applications essentially sterilize the soil, making it dependent on ever increasing amounts and types of amendments to support growth and to fight pests and disease.

The opposite is true of a naturally treated lawn. The healthier the soil gets, the better it supports the grass plants. Vigorous plants with healthy root systems are more disease- and weed-resistant and require fewer products and less time for maintenance.

If you leave grass clippings for nitrogen and have as little as 5 percent of your lawn as clover, your grass will, for the most part, feed itself. Fungal diseases are virtually non-existent in a natural lawn. As the earthworm population increases, the need for mechanical aeration declines, and turf with a healthy microorganism population rarely needs to be dethatched. Thatch build-up is caused by chemical applications which kill the microbes needed to break down the dead grass.

It is not, as commonly believed, caused by leaving grass clippings on the lawn. Though organic is generally associated with expensive, natural lawn care becomes less costly over time.

Safer, greener lawns

The most compelling reason to reconsider synthetic lawn care products is safety. A body of evidence indicates connections between chemical pesticides and herbicides and a host of serious problems including cancers, neurological diseases and reproductive disorders. And any toxicity is likely to have greater effect on children and pets both because of their smaller body size and their proximity to the chemicals. They are the ones, generally, who roll around on the grass, put things in their mouths, and, in most cases, spend more time outside where exposure to drift from spraying is more likely.

Adults who do their own chemical lawn application also incur risk. Pesticide poisonings occur to thousands every year. Scientists are beginning to look at the bioaccumulative properties of these products; because they tend to be stored, the body load of these chemicals increases over time.

Overuse of pesticides has also created resistance. Just as the overuse of antibiotics has produced resistant "superbugs," pesticide use has caused evolutions in the insect world that have made them increasingly more difficult to control. The honey bee and other pollinators have been caught in the wide net cast by these toxins. Organic lawn care can play a part in reversing this cycle.

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