

What is organic lawn care?

In order to answer this question, we must first define “what is organic” and what constitutes lawn care.

When organic lawn care companies or people talk about organic lawn care, they are referring to a lawn care fertilization program. We know there are choices in organic fertilizers, but there are very few organic choices in weed and insect control.

What do the terms “natural” and “organic mean in terms of lawn care products?

There are no universally accepted definitions, but the commonly accepted definitions are:

- **Natural.** A product derived from animal/biological, mineral, or plant sources, in a form substantially as it occurs in nature. The materials may be altered or manipulated to put them in a physical form that allows them to be efficiently used in the application process by homeowners or service providers.
- **Organic.** Technically, any substance containing carbon is organic. Both naturally occurring and manmade products may be organic. The common misconception that “organic” and “natural” have the same meaning may cause nontechnical consumers to believe that a manmade organic material is natural when it is not.
- **Natural-based.** This term is generally used to describe a mixture of materials that includes some materials that may be properly described as natural. The portion that is natural is frequently undefined. The other portion may be manmade pesticides or fertilizers.

- **Organic-based.** This term is generally used to describe a mixture of materials that includes some organic materials. The portion of the product that is both organic and natural is frequently undefined. The other portion may be manmade pesticides or fertilizers.

What is PLANET's position on organic products and organic services?

PLANET does not promote one kind of lawn care product or service over another, rather it promotes the proper use and application of all state- and federal-registered products used to maintain customers' properties.

PLANET members offer both kinds of services. Presently, there are not many requests for organic lawn care. Members are in the service business and will only use products registered for use with appropriate state or federal agencies. Many consumers choose a lawn service for its knowledge and expertise to identify and solve common lawn problems. Often, they expect their lawns or landscapes to be healthy, green and dense, as well as free of weeds and problems caused by insects and diseases.

Is organic lawn care safe?

Fertilizer products used on lawns, whether organic or inorganic, meet the common definition of safe. But the legal definition of the word *safe* means without risk. No product is without risk. If misapplied, both forms of lawn fertilizer can damage landscapes and potentially pollute our environment. For example, if either product is inadvertently left on paved surfaces, rainfall may move the nutrients into stormdrains where they can find their way to rivers and lakes. Over application to lawns in an attempt to enhance color may force unhealthy turf growth, which can reduce root growth and make a lawn more susceptible to disease problems. Applied properly, both organic and synthetic fertilizers provide lawns with necessary nutrients without harm to our environment.

Control of weeds and insects is more difficult with organic products. Many of the organic weed control products fall short on performance because they are less effective than many EPA-registered synthetic products. Some lack the ability to selectively control undesired weeds in lawns, resulting in temporary injury of the desired lawn grasses. As an example, products containing acetic acid will burn the tops off weeds as well as desired grasses, creating weak spots that can allow other weeds to establish. Because acetic acid acts on contact, it merely burns foliage and, if a weed is perennial, it will resprout. The dilute natural form of acetic acid is vinegar and is too diluted to be an effective herbicide. Acetic acid is not without risk because it is organic. In concentrated form, it is a strong eye irritant.

Baking soda has been shown to kill newly emerging crabgrass plants, but has little effect on young, tillering plants. Corn gluten meal has been shown to suppress annual grassy weeds, such as crabgrass, but the use rates required may result in excess nitrogen applied to the lawn. In side-by-side studies, control of crabgrass with corn gluten meal equalled other organic fertilizers or synthetic fertilizers because over time the lawn thickens in response to the applied nutrients, choking out newly emerging crabgrass plants.

Alternatives to synthetic insecticides have been tested to varying degrees of success, depending on the type of insect involved. Soft-bodied insects, such as webworms and aphids, are easily controlled with many organic-based insecticides, including soaps containing fatty acids or botanical oils. These same products, however, cannot prevent insect damage or reduce development of new populations. To be effective, they must be used on actively feeding insect populations. These same materials applied to hard-bodied insects, including mole crickets and billbugs, have not been effective.

Researchers have tested numerous biological control agents, including milky spore disease for some grub species as well as beneficial nematodes, with varying degrees of success. The degree of control needed to reduce lawn

damage can vary depending on weather conditions, grass type, and consumers' acceptance of lawn damage.

Recently, the EPA has been looking at reduced-risk products that are not defined as organic. These products may be synthetic or naturally occurring. Under criteria established by the EPA, these substances have lower toxicity yet can be as effective as other products used in the past.

Some municipalities have begun prohibiting the use of pesticide products around schools and/or day care centers. It is difficult to argue against protecting kids and PLANET certainly would not do that. Outright bans on "non-organic" products, however, greatly restricts everyone's ability to manage turfgrasses, which are very beneficial. For example, densely grassed play surfaces with proper care are safer than gravel or muddy ground. And if you live in the south, certainly you don't want your children exposed to fire ants.

If there is one area that lawn care operators and proponents of organic-only programs can agree, it's the knowledge that integrated pest management reduces the use of control products of all types.

Weeds are, in many ways, measures of mistakes we make in caring for our lawns. There is no doubt that when we mow with a sharp blade, at the right height and frequency, water infrequently and deeply, and fertilize at the proper time, there will be fewer weeds. When these practices fail to produce a quality lawn, it is likely that we are trying to grow a poorly adapted grass species or trying to grow a lawn in an environment where grasses don't grow well, such as a very shaded location. We must, however, recognize that lawns are maintained for our enjoyment and, at times, we wear them out or neglect them. We also need to recognize that everyone has different goals for their lawns' appearance. Some tolerate weeds and some fight to remove the very last one. When weeds appear, we have some simple options — we can tolerate their appearance, try to remove them mechanically, or select a weed control product.

Additional discussion information

- Although an increasing variety of organic alternative products are being offered by home-convenience centers and hardware stores, it does not constitute a fully-developed trend of consumer acceptance.
- The industry continues to seek new organic options which will have greater consumer acceptance. The effectiveness of these products will vary, and it is important that consumers recognize the merits as well as the risks associated with any product they purchase. Organic fertilizers will provide for healthy turf growth and color. Initially, the response to the applied nutrients is slower but, overtime a lawn can be maintained with organic forms of fertilizers. The cost of achieving results with those forms of nutrients can be higher, however.
- Plants can only absorb nutrients in their elemental form. Plants use nitrogen the most but will only absorb it once it breaks down to its nitrate or ammonium forms. Once nitrogen is in this form, excess amounts can result in unhealthy plant growth or possibly be released into the environment.
- Organic fertilizers are released by microbial activity. The warmer the soil is, the more active the microbes. For cool season grasses, used in most of the country, this results in the majority of fertilizers being available at the wrong times of the year for healthy turf growth.
- Many of the popular organic lawn care service offerings today include mixtures of organic and synthetic organic fertilizers such as urea. These provide a combination of quick response with some of the longevity of organics.

What should consumers ask about organic lawn care?

It's important to understand that "natural" and "organic" products are not free from risk. If your service provider uses any of the terms "natural," "organic," "natural-based," or "organic-based," ask what he/she means by those terms. You also may want to ask some of the following questions:

- Do the products used or services rendered contain or use any materials that are subject to EPA regulation and registration? Any product claiming to prevent, destroy, repel, or mitigate any pest, such as insects, weeds, or disease, requires state and EPA registration and is classified as a pesticide.
- Are these materials manmade or naturally occurring?
- Are weed, insect, and disease controls a part of the product or service?
- What proportion or percentage (25 percent, 50 percent?) of the active ingredients and of the total applications are manmade materials?