

Organic Versus Synthetic Debate Rages On



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Ultimately, the question comes down to cost and, also, to customers' perception and to their patience



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NaturaLawn of America's Phil Catron says that organic fertilizers improve the soil, which greatly contributes to a plant's overall health. Healthy turfgrass is more capable than stressed turfgrass of overcoming common stresses.

Photo courtesy NaturaLawn of America.

Look on any green business forum and ask the question about which is better: organic versus synthetic fertilizers. Then, stand back for the verbal fireworks to start.

For the average lawn care and landscape business, how can you decipher what's true and what's false in the fertilizer debate? To become a true believer, you should know all of the product facts and see the results for yourself. How can you try these products on your own property to see if they work? You can't try them all. So, which ones do you choose?

There are so many terms floating around out there that it's hard to figure out what organic, natural, natural-synthetic and synthetic really mean. Dr. Peter Landschoot, professor of turfgrass science at Penn State University, notes that there needs to be clear definitions of what signify each term.



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Penn State's Dr. Peter Landschoot says clearer definitions are needed for terms, such as natural and organic.

Photo courtesy of Penn State University.

"First, I think there is confusion about the definitions of organic, natural organic and synthetic fertilizers, and they tend to have different meanings depending on who is providing the information. Second, we need a fact-based account of what happens to these fertilizers, from the time they reach the soil and begin to break down, to the point in which they are taken up by the plant. The third item that is missing is research-based information about how these fertilizers influence soil ecology."

Most professional lawn service providers probably agree that Landschoot is right on all three accounts. Different people (service providers *and* product suppliers) use different terms for essentially the same products, for example using the terms organic and natural interchangeably. Beyond that, there needs to be a definitive place to turn to access verifiable facts to settle the debate once and for all by clearly knowing what each product does, as well as its long-term effects on the local ecology. Then, you can use the information that you've gained to educate your client and sell them on that particular type of fertilizer. Of course, even agreeing how that might be done would probably be just as contentious as the larger debate synthetics versus organics.

"When planning for management, approach your choice of N (nitrogen) on how it's used or what it can (do) rather than how it is derived. An organic N is synthetically produced in urea. It is readily available. An inorganic (nitrogen) source is ammonium sulfate. It, too, is readily available, and it also helps to reduce soil pH. If the manager has high soil pH, it may be a better choice. To me, the key is what the turf system needs and how best to provide it," weighs in Dr. John Cisar, program coordinator and professor of environmental horticulture at the University of Florida.

Yet, those who favor organic and natural fertilizers easily rebut the above argument by saying that natural ways are already available and will naturally reduce a soil's pH. So, for the lawn care and landscape business owner, you're back to where you started. Which is better: synthetic, natural or organic?

Landschoot offers some helpful advice that will get you thinking about how to determine which approach is best for your company and your clients.

"I think the plant health components of natural, organic fertilizers should be viewed in terms of their nutrient-supplying potential. A good, natural, organic fertilizer will supply nitrogen, phosphorus, potassium and possibly other nutrients to turfgrasses," says Landschoot. "Because soil-inhabiting microorganisms break down these fertilizers, nutrients are usually released slowly to the plant. Ideally, the release of nutrients will satisfy the demands of the plant for growth, green-up and stress tolerance. Of course, microbes also break down some slow-release, synthetic fertilizers and also release nitrogen slowly to the plant."

Organic and natural turf care proponents point to their products as improving the soil's health first, thereby, providing an environment for long-term soil and turf health.

Phil Catron, founder and owner of NaturaLawn of America, Inc., in Frederick, Md., has, since 1987, been a franchisor in the organic-based/biological lawn care services. His firm currently operates 65 locations in 23 states. Catron takes a holistic approach to turfgrass health, stressing soil health, which leads to plant health.

Catron says that synthetic fertilizers fulfill the basic nutrient needs of a plant like bread and water provide the basic food sources for human beings. However, organic fertilizers improve the soil, which provides the richer food sources that contribute to a grass plant's overall health.

Organics provide plants with a more complete dietary regimen (and) give them more than the minimal amount of sustenance needed to live. It allows for a healthier system and a soil that makes plants healthier and gives them the ability fight off numerous forms of stress, he claims. In simpler terms, this approach is providing the cure for many plant ailments instead of merely creating conditions that require treating the symptoms.

Clearing up the confusion?

Yes, organic (natural) fertilizers work, says Landschoot, although it takes more time than synthetic fertilizers to see the positive results.

"They (organic and natural fertilizers) supply nutrients to the turf, but so do synthetic fertilizers. The effectiveness of all fertilizers depends on which nutrients are in the product, the concentration, the source of those nutrients, how quickly and under what conditions they're released," Landschoot says. "If a company claims their product does more for soil/plant health than supply nutrients, you'd better check the facts and see the research results."

Landschoot also brings up two other thoughts that green business owners need to investigate before they invest in an organic/natural fertilizer brand: Under what circumstances should these fertilizers be used? And how long does it take for an organic fertilizer to work?

"Product labeling and advertising can be confusing, overly technical, and sometimes, misleading," Landschoot explains. "For turf managers, it's sometimes hard to know just when the fertilizer kicks in and when it runs out of gas. Ultimately, you have to work with the product for a while to see how the turf responds. Other important factors are consistency of the product, nutrient content, size and uniformity of granules, physical stability and density."



None of the above is meant to discourage turf care business owners from supporting organic and natural fertilizers, but you need to know some of the product facts before you tout the talking points. In other words, does the

product stand up to its claims?

Cost versus results

In the end, it seems, customers decide which type of fertilizer they will accept on their lawns. Are they willing to wait and see if the results of organic fertilizers on their properties? Are they willing to spend a bit more for these results? Typically, organic or natural products (per unit of nutrient) cost more than most synthetic fertilizers.

“Perhaps the biggest drawback to widespread use of natural organic fertilizers is the cost per pound of nutrients contained in the product,” Landschoot says. “However, many people are willing to overlook the cost issue and continue to purchase these products.”

Catron agrees with Landschoot on this angle of the organic versus synthetic argument: “One could potentially make a case for using either (organic or synthetic). If you’re from the synthetic or chemical side of the situation, you would point to the less expensive costs generally associated with synthetics, as well as the relatively quick response rates one sees from many of the synthetic nitrogen sources, i.e. urea, ammonium nitrate, etc.”

Catron also points out that businesses, which embrace this philosophy, believe two things about synthetics: The company benefits from selling synthetic fertilizers because the fertilizers meet a perceived need for quick results. And clients are happy because of the quick results. Satisfied customers become regular customers, as well as spread the word about your business.

Yet, there is a more holistic philosophy, which hones in on soil health and its long-term benefits to turfgrass health.

“Synthetics are designed to feed the plant, first and foremost. The organic approach is more interested in feeding and building up the soil life, first, which in turn, supports the turf plants,” Catron explains.

The debate over synthetic versus organic fertilizers will continue on into the future. While some folks get pretty excited when debating, as a business owner, you need to separate the facts from the emotion.

But it all comes down to you: What do you use on your own lawn: synthetic, organic, or a combination of the two? And whatever method you pick, how will you sell that approach to your clients?

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