

LANDSCAPE MANAGEMENT

COVER STORY

Natural organic fertilizers



Why you can't ignore them any more: a percentage of your customers or constituents will demand that you apply them. Or they'll find someone else to do the job.

■ Poultry manures. Sewage sludges. Seed meals.

It's hard to believe that anything made from these materials could look attractive to anybody; but they do. Fertilizers made from these materials are beginning to catch the eye of professional turf care providers.

This, in spite of the perception that these so-called natural organic fertilizers:

- have an odor;
- are dusty;
- don't give turfgrass that initial burst of dark-green growth in early spring; and
- are significantly more expensive than synthetic fertilizers.

Odor and dust are marginal problems

with some natural fertilizers. But the concerns about turfgrass green-up and cost, to a greater or lesser extent, are legitimate for all of these fertilizers.

Whatever shortcomings these materials have, increasing numbers of you *will* use *some* natural fertilizers on some of the turfgrass under your professional care.

More likely, because of cost and green-up considerations, you'll use a hybrid product containing both natural and man-made fertilizer materials. (ChemLawn's two-year-old Organix alternative program uses a fertilizer that's 52 percent natural organic, 48 percent manmade.)

Why will *you* use some natural organic material?

A percentage of your customers or constituents will demand that you apply them. Or they'll find someone else to do the job.

Proponents of natural organic fertilizers claim their products possess attributes that synthetic turf fertilizers, for all their efficiency and economy, lack. They insist that their natural products:

- 1.) improve soil structure; and
- 2.) provide energy sources for an incredibly complex combination of soil micro- and macro-organisms that,

through their biological processes, reduce thatch and lessen the incidence and severity of turf diseases. (A small but growing body of university research suggests this is true.)

Also, natural fertilizers depend upon microbial action to break down complex organic molecules into nitrogen and other elements necessary for plant growth and health. These nutrients become available to turfgrass plants over weeks and months, providing slow, consistent turfgrass growth. Because of low salt indexes, natural fertilizers pose little danger of burning turfgrass.

With all these advantages, why haven't turf managers used them more extensively before? There are two answers:

- 1.) they haven't needed them, and
- 2.) cost.

The better-grade manufactured turf fertilizers, long available, do a good job of maintaining turfgrass. They also release nutrients slowly and, applied properly, aren't likely to burn turfgrass either. Also, manmade fertilizers are easy to apply, and their performance is predictable.

Along with these comparable benefits, manmade fertilizers—even the highest-

quality slow-release materials—are less expensive and contain two and sometimes three times more nitrogen by percentage than natural fertilizers.

Natural service is not something lawn and landscape maintenance businesses can barge into with their eyes closed. But, it is something they're increasingly willing to offer in addition to their established programs to attract that still-small and specialized portion of the market.

Or they want to protect their own clients from the encroachment of a competitor's new and aggressively marketed alternative program.

Even the larger, production-driven application companies show refreshed interest in customer service. Increasingly,

they're tailoring programs to accommodate smaller markets within markets.

Today's natural organic products are processed, deodorized (as much as raw materials will allow), and some are pelletized. Several suppliers claim their products can be applied in spreaders as conveniently as manmade materials.

Also, natural products can be mixed with manmade products such as urea-formaldehyde. The turfgrass rootzone biota benefits from the addition of organic matter and a host of micro nutrients, while the UF provides a green-up to the turf, particularly in the spring when the ground is still too cool for natural material to break down and release its nutrients.

Industry describes these products as

hybrid or bridge products. Most of the LCOs spoken to by LANDSCAPE MANAGEMENT magazine said the cost of these products (somewhere between manmade and totally natural organic materials) would make them easier to incorporate into a professional program.

Although some of the public is raising questions about groundwater contamination and chemical use on lawns, turfgrass managers can demonstrate—facts at hand—that the environmental benefits of using manmade fertilizers far outweigh any threat.

Yet some of the public *perceives* that natural products are somehow safer, at the very least more acceptable, than synthetic products.

—Ron Hall



Mangum: Would like natural organics priced lower

On the golf course: natural fertilizers a supplement

■ Golf course superintendents interviewed by LANDSCAPE MANAGEMENT like the *supplemental* benefits provided by organic fertilizers during the summer months.

But in the fall and winter, they still depend on the proven benefits of synthetic and synthetic organic products.

Ken Mangum, superintendent of the Atlanta Athletic Club's 36-hole facility, uses a natural organic fertilizer intermittently during the summer.

After recently sodding four new sand-based greens, Mangum tried a 6-2-10 formulation. "We found that a lot of the natural products tend to stay in sand longer, and they also add organic material and microbial activity to the sand," he notes.

Mangum does, however, wish organics were more reasonably priced. "I think if they can bring the price down to where it's a bit more cost-effective, you'd see more people using them," he says. "They do have advantages that we all like to have. It's a question of how much it's worth."

Natural organic fertilizer has other benefits: "We like the Ringer product in the summer when the bentgrass is under heat and traffic stress," Mangum explains.

Russell Bateman, superintendent at the Baltimore Municipal Golf Center, recently solved a summer patch problem, thanks in part, he says, to natural organic fertilizer.

Bateman says research at Michigan State University indicated that 1/2 pound of the fertilizer allows you to cut fungicide rates in half.

"We did in fact do that," he recalls, "and we did control summer patch, although we saw a slight amount (return) at the end of season."

The cost per 1000 square feet is more, but Bateman sees a trade-off with his "big savings" on fungicides.

Bateman says natural organics also fit in with his IPM program.



Pennypacker: Tissue analyses can predict turf problems

When asked about fairway treatments, Bateman says one fairway, treated organically, had what he describes as a "less visible" disease presence, although that was not supported by testing.

John Pennypacker, superintendent at the Greenbriar Country Club in Chesapeake, Va., began supplementing his synthetic fertilizers with a natural organic product (Sustane) in the summer of 1989.

"Sand-based greens have become the thing of the future," he says, "but they also have been a royal pain to a lot of superintendents. There are no bacteria or micro-organisms in the sand to help combat disease."

Pennypacker says he wanted to keep the greens growing without the surge growth he sees with IBDU (isobutylidene diurea) fertilizers. So he applied 8/10 lb. of Sustane per green per month from May to August and "started noticing a large reduction in pythium and brown patch."

Synthetic products remain a part of Pennypacker's arsenal, and are used from September to December, and in January if the weather is not too cold. "We need them after a long, hard summer," says Pennypacker. "You get root development, and you can't get that with the natural organic. There's not enough of it there to make it through the growing period."

For the club's fescue lawn, Pennypacker tried a "bridge product" (containing both synthetic and natural organic elements), at a 1 lb./1000 sq. ft. rate.

"In about five days, the synthetic that was present released, giving a quick green-up. And about 10 days later, everything greened up," Pennypacker notes. A second application after 15 days of rain brought "astounding" results.

A supplemental application of Lesco's Twosome helped eliminate some lingering brown patch.

—Terry McIver