Soil test could solve 'lazy turf' problem

A proper soil analysis will reveal if a nutrient deficiency is the cause of turf lethargy.

■ Has your turf lost its "zing"? Does it have that lackluster, "not-as-bright-as-it-used-to-be" shade of green?

If you know it's not caused by disease, drought or insect damage, your turf's lethargic look could be caused by a nutrient deficiency in the soil, a problem that's easily remedied.

But first, you need a soil nutrient analysis, which starts by taking 15 to 20 core samples from the area in question.

"If you don't have a truly representative sample, one that represents the fertility level of the turf, the analysis will not be of much value," says Dr. Joseph Heckman, a Rutgers University soils and crops specialist. "If you have another section of turf you know to be of a different composition, a separate sample is required."

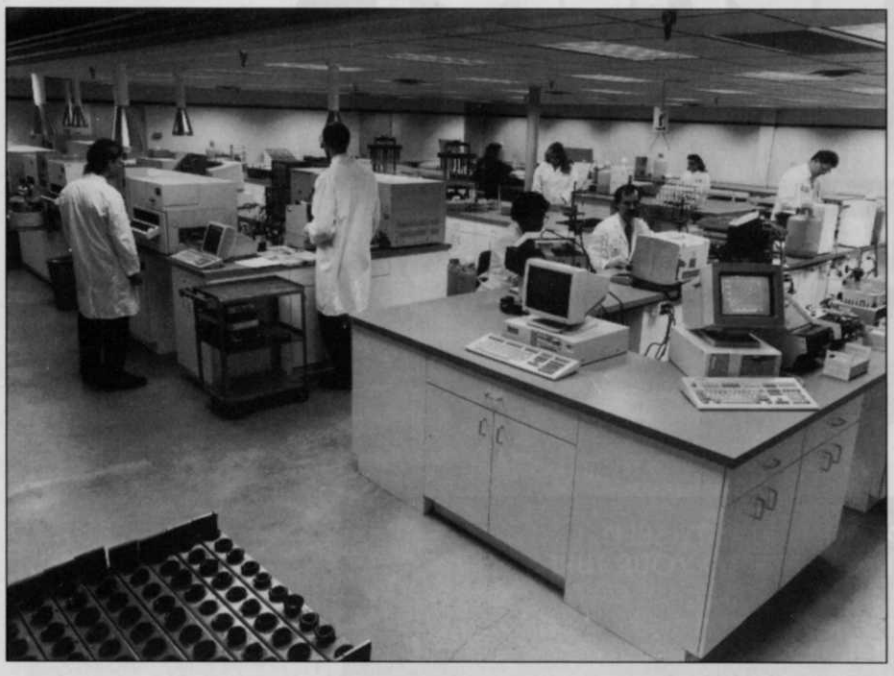
Take your soil samples to a university-based laboratory or a good private lab. University labs have established good reputations over the years, and the accuracy of soil analyses from one to another is nearly exact, as proven by frequent university soil sample exchanges.

Heckman says not much has changed in the way soils are tested, but there have been interesting finding over the last few years. One of the most important is the high phosophorus content found in approximately 75 percent of all samples obtained from landscapers and homeowners in New Jersey and other states.

"This is due to repeated fertilizer applications,"says Heckman. "Phosphorus is very strongly absorbed to soil particles; it doesn't leach. We'd like to see greater awareness, and a reduction in use of phosophorus fertilizers in soils that already test very high in that nutrient." According to Heckman, the excess phosphorus could cause reduced availability of other nutrients.

Private labs also do creditable work. The Harris company, a leader in agricultural soil testing for more than 60 years, also performs a good amount of testing for the landscape and golf course industries. "We get an idea of what the fertility levels are in the soil, whether it's golf greens, fairways or turf around large corporations," says Jeff Frack, Harris's vice president of agronomic services.

Frack says most of the company's non-ag soil testing is done for local fertilizer suppliers and other turf industry distributors who are providing the service to customers, primarily golf course superintendents.



Soil testing at state-of-the-art facilities is offered at reasonable prices. Shown here is one of the Harris labs, in Lincoln, Neb.

Jeff Frack: Golf course soils offer a challenge.

Soil content varies greatly from one region to another, so you'll likely find differing results from sample taken in different parts of the country.

"In the eastern U.S., the soil will tend to be on the acid side," explains Frack, "so liming applications may be required. In the West, you're dealing with alkaline soils and higher sodium or salt content, where applications of gypsum or elemental sulphur may need to be made to lower a pH."

Golf courses represent unique challenges in any locale. "So much of (the golf course) is a man-made, particularly golf greens," says Frack. "They're building specifically to grow grass, so you don't necessarily have a 'natural' soil medium."

Thanks to USGA standards, many golf courses provide a better growing environment than what existed before, but managers still must fertilize accordingly and work the greens, due to sand content. "They may drain very well," says Frack, "but be a little low on the nutrient side."

If you send the same sample to two different labs, and get two different readings, be sure both data are being reported in the same measurements, either parts per million or pounds per acre.

"Some even report in parts per two million," says Frack. "All the numbers could be exactly right, but if people aren't familiar with the methods or reporting units of the labs, you may actually think you've got different results.

A soil analysis is very inexpensive, especially when you consider the headaches it might solve for you.

Frack says Harris will conduct a basic N/P/K analysis for under $20. A more complete analysis, with micronutrient content and sand/silt/clay percentage breakdown costs between $30 and $40.

—Terry McIver