MLSN newsletter #28

A modern method for soil test interpretation

Hello,

The main item I want to highlight in this newsletter is the article I wrote about MLSN in the spring issue of the CGSA's *GreenMaster* magazine.

- Read the full article here: Soil Testing and MLSN: smarter goals, better results

When I'm asked to write something new about MLSN, I usually decline, because I've already written so much about it. This article is the first one I've written about MLSN in some years, and I hope you'll read it and that the article will provide some more insight into MLSN.

Here's a two paragraph summary of the article:

> I've said for years that conventional soil test guidelines for turfgrass are broken, and my new article in *GreenMaster* explains exactly why. The conventional guidelines are based on research with other crops, linked to agricultural soils, adjusted arbitrarily to fit turfgrass, if you can even use the word "fit" here—and they were never connected to surface performance. The result is that superintendents have been applying more P and K (and other elements) than their grass can use, which can favor *Poa annua* invasion, increase snow mold, and create other problems we now understand much better than we did 80 years ago.
>
> MLSN was built differently. Larry Stowell and I analyzed thousands of soil tests from turf that was actually performing well, threw away the lowest 10% as a safety buffer, and called the remaining threshold the MLSN guideline. Because the soil tests came from good-performing surfaces, the link between soil test results and surface performance is built in from the start. Use MLSN, monitor your soil tests over time, and adjust your rates to keep each element above the MLSN value—that's the whole system, and it works.

Five more things

1. Andrew McGuire has a blog post with the title "Don't overthink your soil biology" which ties in with the MLSN system of turfgrass nutrition. In short, recognizing the importance of soil biology without overthinking it.
2. If soil test levels are above MLSN, does that mean we apply only N?
3. Instead of parts per million (ppm) or pounds per acre or kg/ha or other units, here's a look at soil test results in units of years of plant use.
4. Do nutrient recommendations need adjusted when clippings are returned rather than removed?

5. Ok, kind of a stretch to relate this to MLSN, but here goes. Most of ATC's soil testing clients submit some samples (we recommend 20% of them) divided into two depths, 0–5 cm and 5–10 cm (that's 0–2 and 2–4 inches) in order to check nutrient, pH, and soil organic matter gradients by depth in the soil. Another use of these depth gradient test data, assuming you have OM246 samples from the same sampling time, is to check for the thatch and mat material—the fiber, we could call it—in the top 5 cm (2 inches) of the rootzone.

More turf info

Here's a reminder that if you like to listen to conversations and monologues and anecdotes and arguments about turfgrass management, the ATC Podcast Network has exactly those. With three different shows–The ATC Doublecut, Office Hours, and Turf Without Borders, you will almost certainly find something that can entertain or educate—hopefully some of both.

Thanks for reading.

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