Hello,

Here are ten new MLSN-related items since the previous newsletter.

1. Richard Last's thesis

Remember Richard Last's thesis project investigating MLSN? Perhaps you completed his survey soliciting feedback on how reduced-input fertiliser guidelines are working in practice?

I heard from Richard last week with an update. He shared a portion of his thesis with me, and I hope there will soon be an article that everyone can read with the results of his research. These items stood out to me in the thesis:

- 65% of respondents have seen an improvement in turf conditions after implementing MLSN
- 48% of respondents have seen a reduction in physical inputs (mowing, sand, requirement, etc.)
- Cost savings (for fertilizer, I presume) were realized by 52% of respondents
- A surprising number of survey respondents made mention of nitrogen (N) rates and turf issues related to N supply. I was surprised by that, because N is not part of the MLSN guidelines. For a review, see N & MLSN: what's the connection?

2. MLSN newsletter survey results

In a previous newsletter, I asked which makes the most sense to you—getting nutrient recommendations as a ratio in relation to N, or as a percentage related to N?

The full results are here. In summary, 50% chose ratios, 23.9% chose both ratios and percentages, and 19.6% would rather see percentages.

3. PACE Turf

I've acquired the PACE Turf information service! The MLSN project itself, as you well know, started as a joint research project with Larry Stowell and Wendy

Gelernter, the founders of PACE Turf.

PACE Turf provides information that translates science-based results into practical advice for turfgrass managers. There is a substantial and valuable archive of material on the PACE Turf website, and I intend to make sure that material continues to be available, and to add to it and expand it as more information becomes available.

If you are not already a subscriber, you can get access to PACE Turf's updates, weather information, reference library, and site-specific climate appraisal for an annual subscription of USD $275.

4. MLSN research with Jackie Guevara

Jackie Guevara joined me for an ATC Office Hours discussion of her research into MLSN and SLAN recommendations for P and K. Her thesis at Michigan State University, "Effects of Different Soil Testing Philosophies on Creeping Bentgrass and Annual Bluegrass Putting Greens," had clear results in turf performance, nutrient application rates, and soil test results.

You can also listen to this episode on the ATC Office Hours podcast.

5. MLSN presentation in New Zealand

I spoke about MLSN at the New Zealand Golf Conference. This blog post has the highlights from my presentations. You can watch the recorded screencast of my MLSN presentation here.

6. LinkedIn article about MLSN

Romain Giraud and Daniel Hahn published Fertilisation decisions based on MLSN and STERF precision fertilisation (SPF) guidelines on LinkedIn. This is an excellent article that describes the two methods and points out strong and weak points of each.

7. Bottom line result with fertilizer recommendations

I wrote on the ATC website about Giraud and Hahn's article, with a couple elaborations of my own on their points, and then I explained what I think is important to consider: the total quantity of fertilizer that will be recommended based on the method used to make recommendations.

I summarized those calculations in a follow-up post. If the SLAN, SPF, and MLSN guidelines were each used to calculate a phosphorus (P) recommendation across a range of turfgrass sites with typical soil test P levels, the SLAN and SPF methods would recommend **from 2 to 18 times more P than would MLSN**.

This difference in the quantity of P recommended was the topic of this ATC Doublecut podcast episode.

8. Upcoming MLSN seminars

I've got seminars coming up in [Portugal on 2 & 3 November](#), then in [Spain on 8 to 10 November](#), and in Denmark on 15 November. If you are in the area, I hope you'll be able to attend one or more of those events. In Portugal and Denmark, I will have seminars that focus specifically on MLSN. In Spain, I'll mention MLSN in my discussion of a larger challenge—how to use all the tools at one's disposal to produce the best turf conditions in the most sustainable way.

9. Jason Haines on the ATC Doublecut

Jason was one of the earliest adopters of MLSN. I spoke with him at the end of this summer to find out how it's going now that he has been using MLSN for a decade.

You can [watch our conversation on YouTube](#) or listen to it on the [ATC Doublecut podcast](#).

Also, remember that [Jason's blog](#) has some classic posts about MLSN.

10. *Secret* soil testing newsletter

Yeah, I finally started one. [This soil testing newsletter](#) is written for a primary audience of ATC soil test customers. If that's you, or potentially you, or if you just can't get enough about recommended sampling procedures, lab test details, and explanations of what soil tests can be used for, then I predict that will be just the newsletter for you.

Thanks for reading. Be sure to check out the [ATC](#) and [PACE Turf](#) websites for a wide range of turfgrass information.

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