

Turfgrass Tissue Analysis!

Brian A. Bossert, CGCS

This is the first installment of a new monthly feature which will be penned by members of the MAGCS Educational Committee. Quite frankly, the idea for the new column came from the Turf Twister section of the USGA Green Section Record and from the informative twist John Gurke has lent several of the articles in the Chicagoland Verdure. It is our hope that the reading will be light, yet practical, informative and most of all, useful.

The general idea is that each month, we will explore a topic and seek information from three of four "experts." I suppose these will generally be superintendents but perhaps could include golf professionals, green chairmen, equipment distributors, general managers and the like. OK, so proba-

bly not general managers, but anyone else related to the golf industry. I'm sure you'll get the picture.

I should add that we are not implying these opinions are gospel or that the following paragraphs are the official opinion of the MAGCS. We are certainly not attempting to make anyone look foolish either. We are trying to accurately pass along the experiences of other professionals. As previously stated, hopefully, this information will be something you can use in improving your operation and/or yourself.

This month's topic is turfgrass tissue analysis. While it appears that few people are doing this regularly, this method is fast becoming popular. For anyone not familiar with tissue analysis, this method is used

to determine the internal nutrient status of the grass plant. I was able to get some interesting opinions from local superintendents.

Oscar Miles at The Merit Club has his own Karsten Model 591 Turfgrass Analyzer and beginning in mid-May, ran ten complete tests on three greens last year. It would be extremely time-consuming to test all of the greens, so Oscar tested one very healthy green, one vulnerable green with potential problems and one green that caused him trouble. However, they tested the same three greens all year long. He stressed that tissue testing is another tool and that it should be used in conjunction with regular soil and irrigation water testing.

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Ask the Expert

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Oscar also emphasized the importance of testing "clean" samples. Sampling at least one week after any fertilizing and following a rain are sound practices. He also stressed that snap judgments from one sample would be rash. Proper analysis comes after several samples can be compared. Oscar is quite versed on this topic. I don't know Oscar as well as many of you, but I couldn't help getting excited while talking to him. His knowledge and enthusiasm for the profession are rare.

Dave Ward at Olympia Fields Country Club used this method of nutrient monitoring four years ago for one season. Using the near infrared spectral (NIRS) means of analysis, they were sampling all of their greens every week or two. Dave felt this method wasn't very "user friend-

ly" at the time and that because there were no real standards for nutrient measurements, the data was difficult to interpret. He also mentioned that the testing procedure was time consuming and that nuking turfgrass in the microwave, which is part of the testing process, produced a very foul odor.

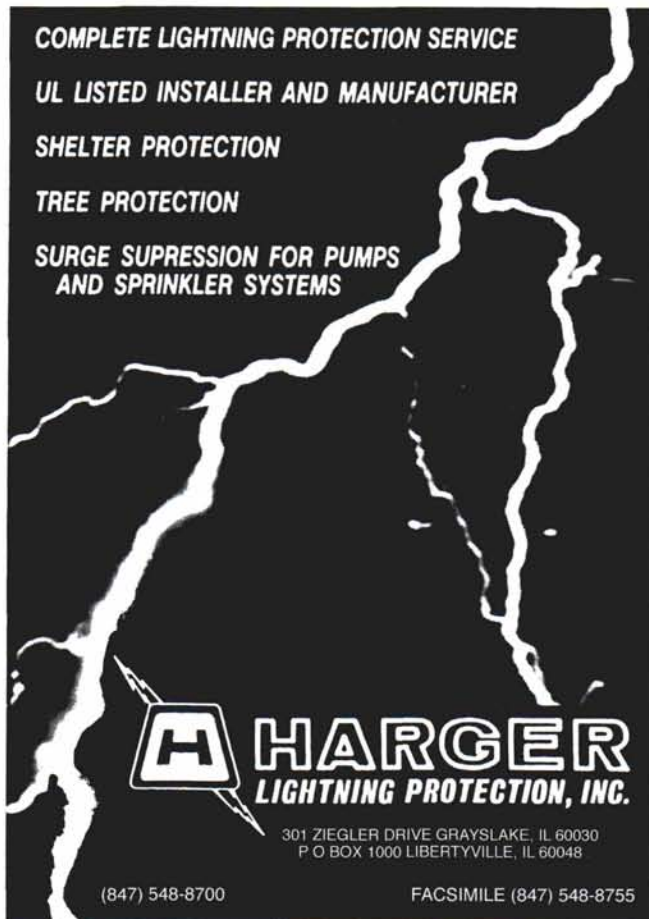
Rick Bowden at Bob O'Link Country Club said that in 1995, they were randomly sampling different greens every three or four weeks. An outside service was doing this for Bob O'Link. Among other things, they were paying particular attention to calcium levels. After talking to Rick, it seems that while the exact level of a nutrient is important, maybe as important is the level of a particular nutrient in relationship to another. They did adjust their fertilizer program slightly based on their findings, but Rick stressed

1995 probably wasn't the best season to evaluate progress. Boy, you can say that again! Rick stressed 1995 probably wasn't the best season to evaluate progress.

Ken Lapp at Cog Hill has one of the original testing units purchased from the Karsten group some years ago. While he feels the concept is great, he agrees the process is time consuming. Primarily, he has used the unit to test troubled areas. This has better helped him evaluate whether nutrient deficiencies were part of a particular problem. Again, he stressed that this is a great tool but that a superintendent may have to dedicate an individual to this testing task if serious benefits are to be gained.

As I mentioned earlier, not many people are doing this regularly in the Chicago area. How

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Why 18 Holes?

John N. MacLeod

I can remember my grandfather telling me stories of his early years in Kilmarnock, Scotland, at the turn of the century before he immigrated to the United States. He worked as a young lad in the local distillery running errands for a Mr. Walker... that is, Johnny Walker, chairman of the board of that famous Scotch whiskey company. He told me that he had once delivered to Mr. Walker some of the latest American Haskell wound golf balls, Mr. Walker being an avid golfer. The following story, however, takes place some 50 years before, about the time gutta percha, or rubber balls, were first introduced, and where another "board member" and some Scotch whiskey play an interesting role in the fate of the game of golf.

Why couldn't a golf course have 10 or 13 or 21 holes? Well, it seems that back in 1858, the board of one of the oldest, most venerable courses in Scotland sat all day trying to settle this very question. There were 7-hole courses, 13-hole courses and 15-hole courses. At one time, the famous St. Andrews itself was made up of 22 holes; and another, the Montrose, had 25. Finally, after fruitless all-day discussion, it is said that one of the Scottish board members, an elder of very good standing, arose and spoke as follows:

"You good men have been considering this situation for many hours. I have been hoping you would decide along lines agreeable to me without any insistence on my part. I see, however, that I must now speak for myself. As you know, it has long been my custom to start out for a game with a full bottle of

Scotch whiskey in my bag, treating myself to a wee nip on each tee. Naturally, I find it pleasant to play golf as long as there is a drink left in the bottle. And, it makes no sense to continue the game when the bottle is exhausted. Here I have a small glass which contains about an ounce and a half. I have found that one bottle will fill this glass just 18 times, so it has been my custom to play 18 holes each afternoon, no more, no less. I see no possible way of changing from this custom, unless the bottles are larger, which I fear would be too marked a difference in our manufacturing life."

And that's how a golf course came to have 18 holes. ■

Credit: Why 18 Holes?—Courtesy of the Milwaukee and Illinois St. Andrews Society

Director's Column

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advertisers, this publication would not be possible. Fred and Dave have done a great job! Let's show our support by contributing photographs and articles to *On Course*.

One final note. I think it was very fitting that the title for our publication came from one of the legends of our industry who had been the source for the title of its predecessor. A special Thank You to Bob Williams, who came up with the name *Bull Sheet* in 1947 and the title *On Course* in 1995. ■

Ask the Expert

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much this concept catches on remains to be seen. In reading articles about this topic, superintendents in other parts of the country claim to have cut their fertilizer costs due to the information gained through tissue testing. Others suggest that they are spending more on fertilizer; but in conjunction with a fertigation system, they are not using as much labor to put the products out on the course. Others still have documented that using less pesticides due to tissue testing has helped them grow healthier turf. Is tissue analysis in your future? ■

Brad Johnsen - Klein Creek

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for 22 years. Joyce is a special education school teacher for kindergarten and first graders. Together, the Arlington Heights residents are raising three children: Gary - 18, Phil - 14, and Julie - 8.

I asked Brad if any of his children would "follow in his footsteps" as he did to his grandfather. Brad politely said, "I love what I do, and I would not do anything else in my life, but it is not for my kids."

I, for one, am really looking forward to playing Klein Creek later this month. It is my understanding it will be a scramble format with a 10 a.m. shotgun. Look in your mailbox for details, and do not miss this chance to play Klein Creek. ■

