



SOIL AND WATER CONSULTING

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Re: Spring Course Visit

Dear James,

You will notice a report that is more concise and focuses on the nutrients that are most important to you growing healthy turf. Also, I made some adjustments to the specific testing that I asked the lab to do on the samples. With higher pH alkaline soils, we need to do an analysis called the Olsen Method. I have done this in Las Vegas for almost 10 years. However, one downside to it is that the minor elements have been harder to gauge whether or not they are sufficient because the acceptable ranges are small numbers. For example, manganese levels, for you, are very important with Take- All Patch disease and Fairy Ring being very real concerns. So, I am now using the Melich 3 extraction for the minor elements. We will get more useful minor nutrient readings, I believe because the acceptable ranges are higher numbers. What used to be 1-4 ppm as an acceptable range for Manganese is now 50-80 ppm. I have also added Nitrogen readings to the Soils test so that I can compare them to your Saturated Pastes tests.

With that said, both courses are deficient wall to wall in Manganese. This is something we have discussed before. The greens have manganese levels that are closer to being acceptable. As you do have your Dry-ject on the Concord Course and your needle tine on Lexington, take the opportunity to apply some manganese sulfate when there are some holes open. A rate of 2 pounds of product per 1,000 square feet would be helpful. I don't expect you to spend the money on the tees and fairways for manganese sulfate but, focus on that as your minor nutrient spray application in those areas. I would even substitute it for your normal Nitrogen and Iron applications.

I am happy to hear that you are using the Dry-ject in the Spring as opposed to skipping an aerification. I think the golfers and management will like how quickly you can be playing on the greens. Your green's soils are very "tight" and adding sand directly into the profile the way Dry-ject does, will help get some coarser material deeper and get more air into the greens.

The greens were fairly low in the basic nutrients such as Calcium, Magnesium, Potassium and Phosphorus. It would be ideal to get a blended product that hits all these needed nutrients into one bag. If that is not possible, one 3 pounds of product per 1,000 square feet rate of 11-55-00 would be enough through Summer. The next time that there are holes in the greens, apply 5 pounds of product per 1,000 square feet rate of Gypsum, 3 pounds of product per 1,000 square feet rate of Pro- Mag and a 2 pounds of product per 1,000 square feet rate of Poly-K (0-0-50)

As the sulfur burner comes on line, you will begin to access all the mineral nutrition you have in the soil. If you would like to send in a water sample this Spring, just let me know. This way we can check things before the season gets to far along.

If you have any further questions about this report and data, we can discuss them as you have time to go over things with me. Thank you.

Sincerely,
Corey Angelo
Owner
Soil and Water Consulting