Turfgrass Disease Diagnostics at the UMN Plant Disease Clinic; The Price is Right

How do you diagnose your plant? A recent survey says that over 54 % of MGCSA members diagnose their own turf diseases. I know that superintendents are incredibly well educated and can often do this. However, there may be a time when you come across some diseased turf that has ambiguous symptoms, disease symptoms that look similar between two or more diseases, or diseased turf that just won't recover despite your best efforts. That is where we can help.

Beginning this spring, my laboratory will be teaming up with the Plant Disease Clinic (PDC) to provide you with timely turfgrass disease diagnoses and management recommendations. At the PDC, we have the equipment and expertise to perform microbiological and DNA based tests to provide you with accurate diagnosis of your diseased turfgrass samples.

We will also be reaching out to you with recommendations for your turf disease management. While I will strive to help you manage diseases using primarily cultural techniques, I will also work with you to select the appropriate chemical treatments.

Several members have requested services such as site visits and subscription based services, and that is what we are now able to offer you! We will be offering a subscription fee that will allow unlimited sample submission as well as a site visit and will include molecular diagnostics. Another subscription service will allow for submission of up to five samples and will include molecular diagnostics. The new services and fees are as follows:

Professional Turf Disease Diagnosis Fees:

Diagnosis with a phone consultation - $100 per sample

Diagnosis with a written report and phone consultation - $150 per sample

Diagnosis with site visit and written report - $250 per sample

Subscription 1 – 5 samples including written reports, phone consultations - $500

Subscription2 – unlimited samples, written reports, phone consultations, and one site visit - $1000

All samples and payments will be handled by the PDC. You can find out more about the PDC at the following website: pdc.umn.edu.

How do you submit a sample? This is an important step. Proper sample submission can have a huge influence on our ability to quickly and accurately identify the pathogen.

1. Take an appropriately sized sample. Samples taken with a cup cutter are perfect! However, if you are using a shovel or spade on longer landscaping grasses, it is still important to take a sample that is at least 6" in diameter (or width x length for square samples). Take samples that are at least 2 to 3 inches deep to ensure adequate roots and soil.

2. If there are several diseased spots, it can be helpful to take several samples (Figure 1, above). If there are different stages of disease present, it can be helpful to submit samples that are at different stages of disease. Taking several samples of both healthy and diseased turf can help us with

difficult samples.

3. When taking the sample, take them from the edge of the diseased area so that both healthy and diseased turf is present. (Figure 2, above). Label the samples to denote the location where they were taken. Pictures of the disease – such as this one – can be very helpful for us to make diagnoses.

4. Fill in the disease submission form in as much detail as possible. Make a note of any conditions (sun, shade, humidity, drainage, temperature) treatments (growth regulators, fertilizers, pesticides) and cultural practices (cutting, aeration, top dressing, rolling). Place this submission form into a plastic bag to prevent it from becoming wet. If you have printed pictures, these can also go into the plastic bag. Alternatively, you can email a picture of your diseased areas to pdc@umn.edu – be sure to make sure that we can connect this email to your submission by providing your name, date, and mailing date.

5. Package your sample by wrapping the soil portion in foil to prevent soil from getting onto the grass. Package the samples tightly in newspaper and add newspaper to the box to ensure that they do not bounce around inside of the box (Figure 3, oppisite page). Do not put any samples into plastic bags as the humidity will encourage sample degradation very rapidly.

6. Sample submission. You can submit samples to the PDC in person (first floor Stakman Hall) or mail them to:
495 Borlaug Hall
1991 Upper Buford Circle

Saint Paul, Minnesota, 55108.

7. Please mail samples with overnight or one day delivery at the start of the week. If samples are mailed on a Friday, they could degrade as they sit in the courier mailbox over the weekend.

All pictures were provided courtesy of Joe Rimmelspach at The Ohio State University (http://turfdisease.osu.edu).