Lepto What?

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Before starting to work in the TDDL I would have been saying "Lepto what?" But, after three years of diagnosing turfgrass problems on a daily basis it has come to be known as a familiar site. So what is Lepto, or better known as *Leptosphaerulina* leaf blight? By the end of this article you will know exactly what it is and probably the major reasons it is so popular.

When you do a literature search on this disease, you will probably only find it in two or three books with only very limited information provided. One of these books even classifies it as a senectopathic disorder. But, based on my experience with this disease, it kills more turf then some turf pathologists think, and current turf management strategies probably encourage this disease.

Leptosphaerulina leaf blight infects all cool-season turfgrasses and is most commonly active in mid-summer. This disease caused by *Leptosphaerulina australis* in Wisconsin usually infects moisture-stressed turf during hot and humid weather. Several other turf conditions can predispose the turf to this disease such as herbicide treatments or installing turf during extended periods of hot and humid weather. Additionally, when the disease is present mowing of wet turf or irrigating in the afternoon or evening can enhance this disease.

Identification of this disease is fairly simple in the lab, but can be confused for several other diseases in the field. The stand symptoms of this disease are usually large blighted areas of turf or a more patchy appearance sometimes resembling leaf spot diseases. Additionally, I have observed it follow tire tracks, so it could be confused as

Pythium blight. Individual leaves will have brown spots that can be confused for anthracnose (see figure 1), but under magnification this disease is easily diagnosed.

This fungus is easily identified by its perithecia (sexual reproductive structure, figure 2) and ascospores. The ascospores emerge from a volcano shaped perithecium in an asci (sac containing 8 ascospores) when crushed, figure 3. Several asci can be born from a single perithecium as seen in figure 4. Once the asci are released it is easy to observe the ascospores which have both longitudinal and lateral septa or crosswalls (see figure 5).

So now you know how to diagnose it; the only thing left is to learn how to manage it. Basically, avoid all of the conditions that were described as enhancing the disease above. Irrigation should be applied deeply and infrequently to reduce length of leaf wetness. As for fungicide treatments, no chemicals are labeled for its control. With change in weather conditions and following some of the above tips, infected turf should heal in a week or two.

If you have any questions about this disease or any others please feel free to contact us at the Turfgrass Disease Diagnostic Lab.

Figure 1. Perithecia on leaf

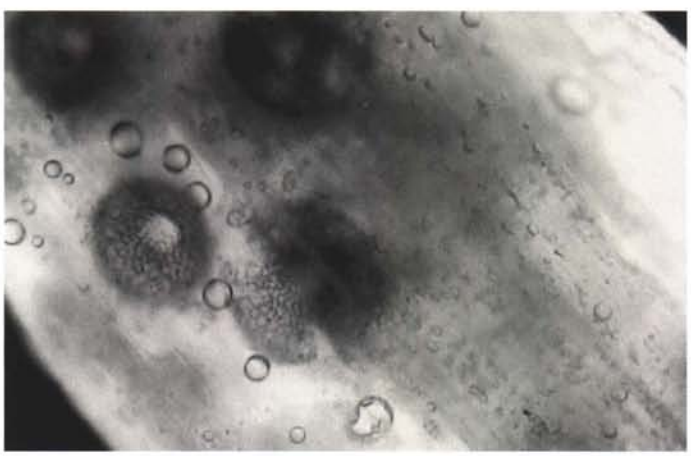

Figure 2. Volcano shaped perithecia

Figure 3. ASCI containing ascospores emerging from a perithecium

Figure 4. Several asci emerging from perithecium

Figure 5. Ascospores in asci with lateral and longitudinal septa