Wisconsin Pathology Report

Poa decline and crown problems—during an "ideal spring"?!

By Dr. Gayle L. Worf

We've had the best spring for growing grass that I can recall in recent years. Rains have been plentiful and generally well spaced. Temperatures have been pleasant and not too warm. Surely there has been little environmental stress to date. Conditions like these make the business of examining weak turf more interesting and possibly more informative from a plant disease perspective, than when we also must sort out the complications of heat and drouth stress, soil compaction and other environmental pressures. When we see thin turf and weak crowns, and also find certain fungi associated with them, we generally have more confidence that a pathogenic problem is occurring.

We found such evidence recently while looking at the black crowns and lower stem area of some declining fairway Poa. Roots in surrounding areas were still firm, of a good white color, and were several inches deep. But patches didn't look right—they were thinning, somewhat off-color, and scattered individual plants were turning tan and dying. There was fungal growth on the crowns that strongly resembled Leptosphaeria korrae, which is the apparent casual organism of necrotic ring spot. (It requires isolation and some study at this point in time to sort that fungus out from Gaeumannomyces-the Take-all pathogen—and some similar organisms.) We've come to associate that problem with Kentucky bluegrass, but we've wondered quietly about its possible involvement with some of our golf course problems as well. We have isolated the fungus from Poa on a couple of occasions, and we have also demonstrated its pathogenicity to Poa several times in the greenhouse. (Perennial ryegrass and bentgrass were much less affected by the fungus.) But we've wondered whether the fungus was "primary" or "secondary" with Poa. We still wonder, but it seems time to speculate more openly about it now.

What would Embark treatments do to it? Will the supposed root strengthening that comes with such treatments help stave off such crown rot? Does it become involved with summer heat stress or anthracnose? Anthracnose is a foliage disease that can cause damage by itself, but root problems would certainly exacerbate the situation! We may have a chance to look at these questions in the Oconomowoc trials this year.

Incidentally, Daconil, and to a lesser extent, Bayleton and Rubigan, controlled anthracnose in last year's trials. Chipco 26019 and Actidione TGF had no effect, while Vorlan tended to increase anthracnose.

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