Needlecast of Conifer

Driving past the local municipal facility, cut evergreen trees which had just been decked out in holiday décor now line-up in preparation for repurposing. Many of these trees had been meticulously cared for at tree farms to encourage them to grow into specimens suitable for the season. How I wish I could have taken my cut holiday fir tree and planted it into my landscape! Its shape was absolutely perfect for a focal point in my yard. As I pondered that impossibility, I looked at the existing evergreen trees in my neighborhood, many of them spruce, and many of them sporting branches void of interior needles and looking a bit off-color. Upon closer inspection, it appears they are diseased, quite possibly by the fungus, *Rhizosphaera kalkhoffii*, which is the cause of the disease Rhizosphaera needlecast.

Symptoms of Rhizosphaera needlecast are discolored needles that eventually turn purplish-brown and fall from the tree. Needles at the tips of the branches remain green while those closest to the trunk of the tree often turn blotchy and discolored. It usually begins at the base branches of the tree and moves upward. The most common host is Colorado spruce but other types of spruce can also be attacked by this fungus. Close examination with a hand lens reveals rows of black spots on infected needles. These black spots are fungal spores emerging through the pores (stomates) of the needles.

Infection usually takes place in late spring/early summer when fungal spores are released during wet, windy weather and by the splashing of rain drops. Infected trees don’t usually die due to this fungal infection, yet the health of the tree is compromised, and its aesthetic value is diminished. Appropriately timed fungicide applications will not cure the infection, but they may offer protection for new growth.

Learn more about Rhizosphaera needlecast and other conifer diseases at the 2017 Landscape Grounds Maintenance Short Course being offered by University of Wisconsin Extension. It will take place on Wednesday mornings in February from 8:30-11:30 am at the Kenosha County Center in Bristol. Two programs are presented each date of the short course. The intended audience is green industry professionals, such as landscapers, horticulturists, and grounds maintenance workers, yet, others may attend. Topics range from “Managing Soils for Quality” to “Diseases of Conifers”. Short course instructors are University of Wisconsin state specialists and botanical garden directors. Continuing education units are available for certified arborists as well as National Association of Landscape Professionals members. The course brochure, available online on the UWEX Kenosha County website (kenosha.uwex.edu) lists details, costs, and registration information.

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