

U of M Update

By
Bradley Pedersen
University of Minnesota



1994 MTGF/MPSA Grounds and Facility Training & Education Expo

Please mark your calendars for either Wednesday, August 3rd or Thursday, August 4th, 1994. These are the dates for the 1994 MTGF (Minnesota Turf and Grounds Foundation) and MPSA (Minnesota Park Supervisors Association) cosponsored Ground and Facility Training and Education Expo. This year's event will be held at Resurrection Cemetery in Mendota Heights. The Expo will be open from 9 a.m. to 2 p.m. each day and feature dozens of exhibits, as well as educational sessions and demonstrations. This year's event has been planned with all commercial and recreational turf, grounds and facility management in mind. Additional information will follow in next month's *Hole Notes*.

Spring Plant Problems

As usual, for a wet and cold spring, we have been hearing from you about other-than-turf related plant problems. Cindy Ash, extension educator and associate professor, is one of the University of Minnesota's resident plant disease experts. She has the following information and suggestions to share with you.

Evergreen Problems

Evergreen trees and shrubs in Minnesota have experienced several problems this spring. One of the problems, winter injury, has been showing up since January. The tips and most exposed portions of the needles turn a dull green to yellow, then brown or reddish. Damage may be worst on the south to southwest side if the sun is the principal incitant or on the north to northwest side if wind desiccation is involved. If the tree went into the winter season stressed for moisture the discoloration may be occurring around the entire plant.

If you noticed that pine shoots, especially on Austrian pine, were turning brown and dying last year before the needles fully elongated, then you may have Sphaeropsis (Diplodia) shoot blight. Tiny black fungal fruiting bodies on the base of the needles and on the two-year old cones will confirm this diagnosis. Two applications of Bordeaux mixture should be applied this spring to protect the new succulent needles.

Cystospora canker is caused by a fungus which invades and kills weakened branches on spruce trees, primarily blue spruces. At first the needles on infected branches turn rust or purple in color all the way to the tip of the branch. Then they drop off. Excessive amounts of bluish-white resin is eas-

ily seen dripping from the bare branches. Fungicides are not effective or necessary as this fungus is a very weak pathogen attacking only declining trees. Remove infected branches during dry weather.

Rhizosphaera needlecast is another fungal disease which attacks stressed spruce trees at any age, especially those receiving insufficient water. However, this fungus infects only the needles, not the branches, resulting in needle discoloration and loss when 2-3 years old. The overall pattern on the tree is one of excessive discoloration and loss of the inner needles, especially towards the bottom of the tree. Inspection of the needles with a magnifying glass reveals tiny black fruiting bodies on green and brown needles. This disease can be brought under control by applying a fungicide containing the active ingredient chlorothalonil in the spring according to label directions AND by reducing stress, especially drought stress.

Wet Springs Favor Anthracnose

Extended periods of cool, wet weather favor a group of leaf spotting fungi which cause anthracnose on ash, maple, sycamore, walnut, burl and white oak. Leaves can become infected anytime after budbreak if moisture is present. Infected tissue develops spots the size of a pin head to large blotches an inch or more in diameter. Infected leaves may be shed from the tree rather suddenly or shrivel up and remain on the tree.

If anthracnose is present for several seasons, it can weaken a healthy tree, making it vulnerable to insects and other diseases. Defoliation of an already weakened tree can further reduce plant vigor.

Generally, fungicides are NOT necessary to control anthracnose, but may be applied to prevent further damage to stressed trees. Bordeaux mixture, mancozeb and chlorothalonil (Daconil 2787) are labeled for certain tree species. Check product labels to see which are labeled for the tree species you need to treat. To be effective, fungicides must be applied in the spring before infection occurs.

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