

# PROBLEM MANAGEMENT

by Balakrishna Rao, Ph.D.

## Managing anthracnose disease

**Problem:** We are seeing quite a bit of disease in the lawns. Based on foliar symptoms, we believe it is anthracnose disease. It has been noticed on Kentucky bluegrass, fine fescue and ryegrass. Affected blades tend to die back and appear straw-colored with black fungal growth. Would you describe how to identify the anthracnose disease and its management state?

**Solution:** Due to severe drought, heat and moisture stress, turfgrass diseases, including dollar spot, patch diseases, brown patch, pythium blight and anthracnose, have been reported from many geographical areas this year.

From your description of the symptoms, the problem could be related to either anthracnose or ascochyta blight disease.

To further diagnose these two diseases, use a hand lens and look for black fruiting bodies along the dying grass blades. The anthracnose fungus should appear fuzzy with a number of black hair-like structures around the fruiting bodies. Ascochyta fungus doesn't have these hair-like structures and the fruiting bodies will appear smooth on the affected blades.

To manage anthracnose disease, improve plant vitality through proper fertilization and watering. Application of fungicides such as Bayleton, Daconil or benlate should help manage the disease.

## Fighting mole crickets in Florida

**Problem:** Next spring we will be providing lawn care services in Florida. We know very little about mole crickets and their management there. We would appreciate your comments concerning their identification and control. (Florida)

**Solution:** There are two common mole crickets in the South: changa mole cricket (*Scapteriscus vicinus*) and southern mole cricket (*S. acletus*). Mole crickets are pests of most turfgrass in the Southeastern United States.

They seem to prefer Bermudagrass, bahiagrass, or centipedegrass. Their adults are 1 to 1½ inches long, gray to light-brown and have short, spade-like front legs adapted for tunneling. All stages feed on grass plants, primarily roots, and tunnel through the soil uprooting plants, which causes the turf to dry out and die. Damage is severe in newly planted turf.

In most areas, except southern Florida, there is a single generation. They overwinter as adults or when about two-thirds grown. Generally, they tunnel deep into the ground. In the winter during warm periods however, they can make some surface tunneling.

The southern mole cricket becomes active in spring and completes maturation, then flies and mates. Changa mole crickets complete their maturation starting in the fall (after September) and become active the following spring, fly and mate. They deposit eggs in chambers hollowed in the upper 12 inches of soil. Southern mole crickets lay eggs from March to September. Changa mole crickets lay eggs from March to July. Eggs hatch in two weeks and

nymphs begin to appear about May.

Tunneling may decrease in spring as the old mole crickets die. Nymphs feed aggressively and cause extensive damage that becomes obvious by late July or early August.

Application of insecticides such as diazinon, Turcam, or Oftanol, followed by watering immediately to wash the insecticide to the target, is suggested to manage these pests. Both spring and late fall treatments are recommended. Reports also indicate that rolling loose turf in the spring will help keep roots in contact with the soil and hasten recovery.

Another management method is to use of baits containing concentrations of chemicals that are spread uniformly to bring the pest to surface. In this case, irrigate the area several hours before bait application to increase mole cricket activity. Do not water the area after spreading the baits. For best results, always read and follow label specifications.

## The causes of yellowing needles

**Problem:** What causes yellowing of needles on spruce trees? It seems to be localized on the east exposure of two trees that are standing alone. (Minnesota)

**Solution:** Several different abiotic and biotic factors may be contributing to the yellowing of spruce needles. Although on-site and/or laboratory analysis is necessary to positively determine causal agents, you can consider the following contributing factors:

**Drought.** This year we have been seeing drought injury on a number of plants.

**Poor establishment.** After transplanting, it generally takes three to five years for most plants to establish.

**Soil disturbance, root injury, or trunk girdling.**

**Soil contamination with herbicides.**

**Micronutrient deficiency.** Determine the micronutrient needed through foliar analysis.

**Excess fertilization.** Particularly concentrated in random places around the root zone.

**Fungal disease like cytospora canker and/or rhizosphaera needlecast disease.** For cytospora canker look for bluish-white resin pitching on branches and trunk with purplish-brown needles. Disease progresses from lower branches upward. For rhizosphaera look for minute round fruiting bodies in a line along the purplish discolored needles. This disease also progresses from lower branches upward.

**Air pollution.** Although reportedly tolerant of ozone, most spruces are sensitive to other major pollutants.

LM



Balakrishna Rao is Manager of Technical Resources for the Davey Tree Co., Kent, Ohio.

Questions should be mailed to Problem Management, LANDSCAPE MANAGEMENT, 7500 Old Oak Boulevard, Cleveland, OH 44130. Please allow 2-3 months for an answer to appear in the magazine.