

# PROBLEM MANAGEMENT

by Balakrishna Rao, Ph.D.

## Mites or mildew disease?

**Problem:** Every year, we see whitish powdery growth on the lower surface of oak tree leaves. We also see a number of small black specks present in this area. Is this caused by mites? What can be sprayed to control this? (Ohio)

**Solution:** From your description of the symptoms, the problem you are dealing with appears to be caused by a fungus called powdery mildew disease. The black structures you have been seeing are probably not mites, but are fruiting bodies of the fungus that contain fungal spores.

Several different powdery mildew fungi attack oak, including *Sphaerotheca lanestris*, the most troublesome mildew producer. Others are *Erisiphe trina*, *Microsphaeria alni* and *Phyllactinia corylea*.

It is possible that mites may also be present on the same plant. To detect mites, shake the leaves over some white paper or cloth. If mites are present, they will fall and begin to crawl on the white surface. Know that mites have eight legs while insects have six and that they leave a staining mark on the white surface when crushed. It's a good idea to verify this possibility just to be sure.

An application of fungicides like Acti-Done PM, Benlate or Karathane is recommended to manage the powdery mildew disease problem.

If the problem is identified to be due to mites, an application of horticultural oil during early spring or either Kelthane or Metasystox-R in mid-June and again two or three weeks later is recommended. Of course, read and follow label specifications for best results.

## Identifying the disease

**Problem:** How can I control disease and fungi in the adverse, mid-summer climate of south Florida, and how will this affect the turf? (Florida)

**Solution:** Like with any pest management, success in disease management also depends on several factors, such as proper identification of the disease(s), proper timing for treating and using proper materials. Therefore, the first thing you should know is about the kind(s) of disease(s) you are dealing with. Your local cooperative extension service should be able to help you with that.

If the turfgrass areas have had a history of certain serious diseases in the past, treating these areas on a preventative basis (before the disease appears) may be beneficial. Most diseases can be effectively managed if the problem is detected very early in the disease development period and treated with proper fungicides. If the disease has progressed too far and is too late to manage, fungicide treatments may not be practical or beneficial. In some situations, overseeding or renovating the lawn may be necessary.

As far as your question as to how this will affect the turf—it depends on how well the overall disease management has been implemented. If the proper disease management program is followed, there is a

good chance that a given disease can be effectively managed and the turf quality improved. The fungicides are designed to manage certain diseases and, if used properly, they can improve the health of the turfgrass.

The disease-causing agents establish on stressed and weakened plants. Therefore, along with fungicide treatments, it is important to identify the contributing stress factor(s) and provide corrective measures.

For most diseases, multiple applications of a fungicide is necessary at specific intervals. Refer to its label for further details.

## When to seed and aerify

**Problem:** We have seeded a number of lawns after aerifying and are not fully satisfied with the results. In many lawns, even after a full season's growth, bare areas are not filled in yet. In addition, we noticed a lot of clumps of plants in the aerification holes.

What are we doing wrong? We would appreciate comments and guidelines for better seeding procedures. (New York)

**Solution:** Seeding the lawns after aerifying is one of the acceptable ways seeding can be done. This procedure works well if you are using turfgrass seed like Kentucky bluegrass with rhizomatous spreading habits. These plants with underground stems (rhizomes) can grow and spread and fill in bare areas. If you use turfgrass seeds primarily with bunch-type growth habits, they may fill in slowly or not at all. This would produce bunch-type growth surrounding aerification holes.

After aerifying, it is often a good idea to apply some fertilizer, particularly one high in phosphorus. Aerification aids in the movement of phosphorus through the root zone.

Another method of seeding is to use an aero-seeder. With this equipment you can expect better results because the machine slices the ground and drops the seeds into the groove, establishing seed and soil contact. **LM**



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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.