

# PROBLEM MANAGEMENT

by Balakrishna Rao, Ph.D.

## Post-emergents for grassy weed

**Problem:** How can I get control of the summer grassy weed *Paspalum plicatulum* on cool-season turfgrass? (Spain)

**Solution:** The *Paspalum plicatulum* grass species to which you are referring is not a common type of paspalum in the United States. Some of the most common species of Paspalum are: bahiagrass (*Paspalum notatum*); bull paspalum (*P. boscianum*); dallisgrass (*P. dilatatum*); field paspalum (*P. laeve*); fringed leaf paspalum (*P. ciliatifolium*); knotgrass (*P. distichum*); and sourgrass (*P. conjugatum*).

The approach that we use to control paspalum that are weeds is to use post-emergent herbicides such as MSMA, DSMA, or Atrazine for selective management. In addition, a good cultural and turfgrass management practice including proper watering, mowing and fertilization will help improve the health and density of desirable turfgrass. As the turfgrass grows aggressively and increases in density, it will be better able to compete with weed species and their establishment.

The other alternative approach is to use a non-selective herbicide such as Roundup to kill all the existing green vegetation and then reseed the area with desirable turfgrass cultivars. The Roundup will manage existing plants with green foliage. However, it will not have any activity on weed seeds or the seeds which may germinate after the treatments have been applied since Roundup doesn't have any soil residual. Therefore, prior to reseeding, it is a good idea to wait 10-15 days after the first Roundup application and monitor the area for new weed growth. If found, provide their management before sodding. Read and follow label specifications.

## Measuring abiotic stress

**Problem:** The ornamental plants in some of our clients' properties look bad. We were unable to find any insect or disease activity. Perhaps it is related to some sort of stress factors. Do you have any suggestions to help improve the health of these plants? (Pennsylvania)

**Solution:** The problem appears to be related to abiotic stress factors, which are caused by non-living factors such as environmental stress.

In my opinion, one of the most common and serious problems in many landscapes is the exposure of plants to extremes in moisture and/or temperatures.

In many parts of the United States and Canada, we had dry summers for the past two or three years. This can kill fine absorbing roots and affect plant survival. When roots are damaged, the plants begin to decline.

In addition, the mild winters we've had in the past years can adversely affect plants. A good snow cover insulates the plants and roots, protecting them from

low temperature injury. Secondly, when the snow melts, the roots would receive moisture.

This year many parts of the country had too much precipitation in the spring. This can further aggravate already stressed tree roots since excess moisture can remove oxygen from the soil and suffocate or drown the root system.

Plants that were recently transplanted are the most severely affected and many are showing various degrees of decline. Even some plants that were planted several years ago are showing poor twig growth, dieback or scorching-type symptoms.

The best thing to do is to keep these plants healthy by proper fertilizing, watering and pest management as needed.

## Insects or disease?

**Problem:** Every year on oak trees we see whitish powdery growth on the lower surface of the 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 which causes powdery mildew disease. The black structures you have been seeing are probably not mites, but are the fruiting bodies of the fungus which contain fungal spores. There are several different powdery mildew fungi which attack oak. These include *Sphaerotheca lanestrus*, the most troublesome mildew producer. Others include *Erisiphe trina*, *Microsphaeria alni* and *Phyllactinia corylea*.

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

It is possible that mites may also be present on the same plant. For detecting mites, shake the leaves over some white paper or cloth. If there are any mites, they will fall and begin to crawl on the white surface. Mites have eight legs while insects have six legs. Mites leave a staining mark on the white surface when crushed. Verify this possibility just to be sure.

If the problem is identified to be due to mites, an application of dormant oil during early spring or an application of miticides such as Kelthane in mid-June and again two to three weeks later should help minimize the problem.

Read and follow label specifications for best results.



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.