

PROBLEM MANAGEMENT

by Balakrishna Rao, Ph.D.

Fungicides for oak leaf blister

Problem: What can be used to manage oak leaf blister problems? We have used benomyl in the past and haven't had good results. When is the best time to treat for this disease? (Florida)

Solution: Oak leaf blister disease is caused by *Taphrina coerulescens*. Generally, the disease doesn't require any fungicide treatment, but if the disease is severe, the galls can distort the leaves which may be unsightly and eventually may defoliate. In these situations a fungicide treatment may be very beneficial. One application of fungicide before bud break is very important. Applications made after bud break are generally not effective.

Different universities recommend different fungicides as more effective. Some of the fungicides found to be effective are fixed copper, Mancozeb, Zineb, Maneb, Ferbam or Captan. Reports from Penn State suggest that one dormant application of Zineb 75 percent WP before bud swell in the spring is very good. Since benomyl is not recommended for this problem by extension personnel, consider switching to one of the above fungicides. Apply Mancozeb or Zineb at or just before bud break, or at the first sign of disease development. Read and follow label specifications for best results.

Fertilizer and Roundup

Problem: Is it true that the addition of fertilizer can increase the effectiveness of Roundup? What kind and rate of fertilizer is recommended? (New York)

Solution: Yes, it is true that the addition of fertilizer can improve the effectiveness of Roundup. Reports from South Dakota State University indicate that the addition of ammonium sulfate fertilizer to Roundup improved weed control by 40 to 60 percent. If the carrier is hard water, the product can be tied up and may not be properly absorbed by leaf surfaces.

Therefore, the addition of ammonium sulfate to the mix can reduce this tie-up and give better weed control. Their studies showed that when dealing with weeds such as downy brome (cheatgrass) it is best to spray just before the emergence of seedhead. This timing of application might be true with some other weeds too; however, further study is needed.

The labeled application rate for ammonium sulfate is 17 lbs./100 gal. of mixture. Try to use superior quality products.

To tank mix, first add the fertilizer through a screen and dissolve it in water in the tank. The volume of water and fertilizer should be two-thirds the total volume of mix required. Then add the herbicide to the tank mix. Read and follow label specifications for best results. Nonionic surfactants can also be used to improve control of some weeds.

Another approach is to mix 2,4-D or dicamba with

Roundup and apply on actively growing weeds. However, mixing these products may cause the formation of a white precipitate which can clog the sprayer nozzles. Pretesting would be required before mixing or using these combinations.

Disease-free plants

Problem: We come across a number of clients who ask for disease-free plants. A listing of disease-free plants would be useful in our landscaping business. Would you please provide a list. (Ohio)

Solution: Trees relatively free of disease:

*Atlas Cedar *Cedrus atlantica*; Amur Cork-Tree *Phellodendron amurense*; Bald Cypress *Taxodium distichum*; Beech *Fagus grandiflora* & *F. sylvatica*; and Cedar of Lebanon *Cedrus libani*.

Cedrela *Cedrela sinensis*; *China-Fir *Cunninghamia lanceolata* Cork-Tree *Phellodendron* sp.; Cucumber-Tree *Magnolia acuminata*; and *Dove-Tree *Davidia involucrata*.

Eucommia *Eucommia ulmoides*; *Franklinia* *Franklinia altamaha*; *Ginkgo* *Ginkgo biloba*; *Glossy Privet *Ligustrum lucidum*; and Golden Larch *Pseudolarix amabilis*.

Honey-Locust *Gleditsia triacanthos*; Hop Hornbeam *Ostrya virginiana*; Hornbeam *Carpinus caroliniana*; Japanese Plum Yew *Cephalotaxus drupacea*; and Japanese Raisin-Tree *Hovenia dulcis*.

Japanese Torrey *Torreya nucifera*; Japanese Yew *Taxus cuspidata*; *Kalopanax* *Kalopanax pictus*; *Katsura*-Tree *Cercidiphyllum japonicum*; and Kentucky Coffee-Tree *Gymnocladus dioica*.

Larch *Larix decidua* & *L. eurolepis*; *Magnolia* *Magnolia* sp.; *Parrotia* *Parrotia persica*; Pawpaw *Asimina triloba*; *Persimmon* *Diospyros virginiana*; *Phoenix or Chinese Parasol-Tree *Firmiana simplex*; and *Sassafras* *Sassafras albidum*.

Silverbell-Tree *Halesia monticola*; Snowbell *Styrax japonica*, *S. obassia*, & *S. dayantha*; Sorrel-Tree or Sour Wood *Oxydendrum arboreum*; *Stewartia* *Stewartia pseudo-camellia* & *S. koreana*; Sweet Gum *Liquidambar styraciflua*; Tree-of-Heaven *Ailanthus altissima*; *Tupelo* *Nyssa sylvatica*; Turkish Hazelnut *Corylus colurna*; Umbrella-Pine *Sciadopitys verticillata*; *Yellow-Wood* *Celastrus lutea*; and Yew *Taxus* sp.

*Trees generally hardy only as far north as southeastern Pennsylvania.



Balakrishna Rao is Director of Lawn Care 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.