

ASK THE EXPERT

DR. BALAKRISHNA RAO



'Problem' zoysiagrass

Problem: One of our clients' lawns is zoysiagrass. He just bought the house and doesn't like the look of the turf. How do we get rid of the zoysia? (Ohio)

Solution: Zoysiagrass is a very aggressive turfgrass that doesn't green up early in the northern part of the U.S.

To remove zoysia, use a non-selective herbicide like Roundup or Finale. Apply uniformly when the turf is green and growing. Non-selective herbicides remove most green growth. Therefore, take precautions: avoid drift; do not walk on the treated area, then walk on desirable green grass; and, where feasible, walk backwards while applying.

Wait 10 to 14 days after treatment. If necessary, treat again to help manage any re-sprouts.

Once the zoysia is gone, use a slicer-seeder (Aeroseeder) or till the area, then seed the desirable turfgrass. Follow good seeding and establishment procedures. Maintain good seed-to-soil contact. After seeding, lightly cover with straw and be sure to water during germination and all through establishment.

A discussion of herbicides

Problem: Once in a while, our small lawn care service gets complaints that lawn weed-killers like Trimec kill shrubs and ornamental plants. How can we determine herbicide damage on ornamental plants? How can a low dose of weed control chemical kill plants like burning bush when, many times, even the same mix has problems controlling lawn weeds? (Illinois)

Solution: Herbicides such as Trimec can be available in either ester or amine formulations. The ester formulation is more volatile and can cause injury when it comes in contact with non-target ornamental plants. For this reason, try to use the amine formulation, which has lower volatility and is less likely to cause injury to off-target plants.

Some components in Trimec can also be absorbed by nearby roots. Therefore, whenever possible, do not apply close to desirable or sensitive plants. Trimec's 2,4-D can be foliarly absorbed upon contact, while the dicamba can be absorbed by the root.

If the plants were accidentally sprayed, wash them if you can. Since the treatment is designed to manage herbaceous weeds, if it is mixed and applied properly, it should not cause severe injury to non-target ornamental plants like burning bush, as you mentioned. The concentration should not be high enough to cause permanent damage, unless the plant is under stress.

Examine plant leaves for broadleaf herbicide injury. Affected leaves—usually new growth—will show twisting, cupping, curling and veins that are pulled together. They will be thicker, "leathery" in texture and light colored.

The 2,4-D alone will normally cause leaves to show a downward cupping distortion. Dicamba produces cupping-up of leaf margins. However, when both 2,4-D and dicamba are present, the

affected plant may show both cupping-up and -down symptoms.

Study the suspected plants for a specific pattern. For example, check whether the damage is on one or two sides, or all over the plant. Since dicamba is a root-absorbed systemic herbicide, growth distortion would be throughout the plant, particularly on new growth. 2,4-D is also a systemic herbicide, but downward movement in woody plants is restricted, so injury is usually on the side of the plant where it comes in contact.

In addition to visual diagnosis, herbicide residual analysis of foliage can be conducted at specific labs. The price may range from \$90 to \$130 for testing each of Trimec's three components.

Finally, one of the reasons that Trimec may not be working effectively on the target weeds is that weeds must be actively growing, since products like Trimec are post-emergents. The treatment will have no effect on weeds that germinate after the application. Rain or irrigation soon after the application can also reduce its effectiveness.

Micronutrient problems

Problem: One of our employees learned that a product called Envy can correct micronutrient deficiency problems, and that a foliar testing may not even be needed. Is it true? If so, will it help correct chlorosis on maples in our very high pH soils? (Michigan)

Solution: Envy is a water soluble micronutrient complex for turf and ornamentals that is manufactured by National Liquid Fertilizer Corp., Chicago. It contains copper (1%), iron (10%), manganese (4%), zinc (3%), magnesium (2%) and sulfur (12%). It is designed for both soil and foliar application.

Even though Envy contains so many nutrients, it should not be used to treat all observed and/or suspected deficiencies. Ideally, you should have foliage and soils analyzed to determine the major cause(s) of chlorosis. However, if you don't want to wait for test results, Envy treatment could be a stand-by option, if you recognize the fact that it may or may not work in a specific situation.

The chlorosis on maples is most likely related to manganese deficiency. Test foliage and soil, then provide corrective treatments as needed. (Envy contains only 4% manganese. Based on test results, verify whether it can correct your specific problem. A specific nutrient deficiency may be more effectively treated with that nutrients rather than with a nutrient complex like Envy.)

Manganese treatments should be made just before or during early leaf expansion for the maximum benefit. Therefore, consider treating manganese-deficient maples early in the spring.

Dr. Balakrishna Rao is Manager of Research and Technical Development for the Davey Tree Co., Kent, Ohio.

Mail questions to "Ask the Expert," LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. Please allow two to three months for an answer to appear in the magazine.