PROBLEM MANAGEMENT

by **Balakrishna Rao,** Ph.D.

Where to find deficient elements

Problem: *What is the best source of minor (trace) elements for one-shot spray programs? (Florida)*

Solution: It is not clear whether you are dealing with turfgrass and/or ornamental plants. Whatever the crop, we need to know what minor elements are deficient. A soil and/or foliar analysis will help determine this. With this information it's easy to make nutrient recommendations.

Your idea of a "one-shot" spray program sounds interesting. However, the "one-shot" treatment may not work well in many situations since the treatment will not have enough specific deficient elements. Although a few products on the market contain several minor elements, I am not familiar with any one product that will be practical to use in your "one-shot" spray program.

With additional background information about crops and nutrient history, a further recommendation can be made. Therefore, first determine the deficient minor element (if any) and then follow the recommendations for correcting it.

Brown patches in centipede sod

Problem: *What should you do first about brown patches in centipede sod? We put in new sod last summer and the spots are coming back in the same area. (South Carolina)*

Solution: The brown spots may be related to abiotic disorders or to how well the sod was transplanted and watered during establishment.

Proper transplanting involves staggering the sod pieces in a checkerboard pattern on a well prepared soil bed. The ends of each sod piece should be joined without overlapping. It is important not to stretch the sod during transplanting since it can shrink when drying takes place.

After placing the sod, the area should be tamped or rolled to remove any air pockets, which can result in drying of plant parts, contribute to "brown or dead spots" and can cause a delay in sod rooting.

The fact that the spots occured in the same location as before could indicate the presence of local dry spots in the soil. Test to determine if the brown areas absorb and retain moisture properly. If not, wetting agents and/or aerification may alleviate the problem.

Also consider the possibility of some diseases such as anthracnose and/or fusarium blight. If there is evidence of disease activity, provide for their management.

After the sod has been installed properly, it should be watered and kept moist until it establishes very well. Generally, deep irrigation to a 6- to 8-inch soil depth needs to be accomplished soon after the sodding is completed. Ideally, a low rate over an extended period of time should be good.

After this, the sodded area should be irrigated lightly every day to maintain sufficient moisture levels in the sod.

Now that the reasons for brown spots in sodded areas have been explained, you should be able to minimize or treat for this type of problem. For existing problems, keep the area well-watered and provide good turfgrass management. Often stressed and weakened plants are susceptible to insect and disease problems. Therefore, provide pest management as needed.

Nitrogen rates for bluegrass

Problem: *Is 1½ pounds of nitrogen per 1,000 sq. ft. per application excessive on bluegrass turf for a spring treatment on sandy soils? (Michigan)*

Solution: Yes, particularly if you're using a quick-release source. However, 1½ pounds of nitrogen from a controlled-release fertilizer may not be excessive, depending on the solubility or release characteristics of the fertilizer.

Richard Rathjens, senior agronomist at Davey, says, "Regardless of soil type, a rate of 1.5 lbs. applied in the spring is a high rate, particularly if a quick-release source is used. Applications made at that time promote leaf growth at the expense of root growth and deplete carbohydrate reserves."

Because of the potential for nitrogen leaching and groundwater contamination, the standard recommendation for sandy soils would be to use controlled-release fertilizers or applications at low rates of quick-release fertilizers.

The emphasis should be placed on fertilizing in the fall or late fall to promote root growth, carbohydrate reserves and quick green-up in the spring.

Readers respond with solutions

In the August 1989 issue of LANDSCAPE MANAGEMENT, we answered the following question: "I recently heard that there is a serious blight on hemlock in the Connecticut area brought about by Hurricane Gloria. Is this possible?

Concerning this question, one reader responded from Columbus, Ohio, and two from the Long Island area. Everyone suggested the possibility that the questionable "hemlock blight" is the spread of the woolly adelgid. I thank all of them for taking time to respond to the question. **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.