

PROBLEM MANAGEMENT

by Balakrishna Rao, Ph.D.

In-between fertilization

Problem: Besides fall and spring fertilization, how often should you fertilize turfgrass in between? (Washington D.C.)

Solution: An important objective of turfgrass fertilization should be to build carbohydrate reserves and promote root development. Richard Rathjens, senior agronomist at Davey, recommends that a fertilizer program emphasize fall (September-early October) and late fall (time of last mowing of season) applications of fertilizer for cool-season turfgrasses (depending on the area). If a season-long turf of optimum appearance is desired, fall and late fall treatments will need to be supplemented with spring and summer fertilization.

Spring and summer treatments should apply only enough fertilizer to maintain color and density without promoting succulent growth. The annual rate of nitrogen may vary from 2 to 8 lbs./1,000 sq. ft., depending on the species, length of growing season, levels of quality desired, purpose for which turf is used and cultural practices. However, many lawn care companies in your area use approximately 4 lbs./1,000 sq. ft. in four to five applications per season and are able to provide the color and density desired by their customers.

Betasan control

Problem: Many of our lawn care customers have a rich organic loam soil, and because of this our pre-emergent (Betasan) doesn't do a good job of controlling crabgrass. Do you know of any other products that may be able to help us with this situation? (Wisconsin)

Solution: Stauffer Chemical, the manufacturer of Betasan, indicated in its publication that, "Betasan is more residual in clay soils high in organic matter than in predominately sandy soils or sandy loams." Based on this information, it is difficult to believe that soils rich in organic loam content are the cause of poor results with Betasan.

The Lescosan label (same as Betasan) suggests not to apply peatmoss to lawns or ground covers before applying Lescosan. However, it is difficult to believe that your soils contain so much organic matter to deactivate the pre-emergence material.

Consider the following possible contributing factors for poor performance—pH hydrolysis, photodegradation of pre-emergent in lawns, mechanical disturbance of chemical barrier after pre-emergence material application, poor timing, and amount of moisture received after application (reports suggest

continued on page 90

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MANAGEMENT from page 86

that light irrigation after treatment would improve effectiveness).

Poor crabgrass control was reported in many areas of the U.S. last year, presumably due to the environmental conditions, since several pre-emergence herbicides were used.

As far as other products, consider using pre-emergence material like Pre-M or Dacthal, and make sure that the conditions for crabgrass control are ideal. Read and follow label specifications.

More on moss

Problem: The August issue of *LANDSCAPE MANAGEMENT* contains an article on "Managing Moss." I was a bit surprised to learn that moss grows in both acid and alkaline soil. My confusion comes from the fact that one of my professors at a local agricultural school has a lawn completely grown of moss. He has always advocated the use of copper sulfate to promote the growth of his moss by making the soil more sour or acidic. My only conclusion is that his moss is a type best suited for acidic conditions. However, the article suggests that copper sulfate inhibits moss growth. Could you please clear this up? (Pennsylvania)

Solution: Infestation of moss is generally associated with factors such as low fertility, poor drainage, too much shade, soil compaction, wet conditions, poor air circulation or a combination of these factors. Con-

trary to popular opinion, low soil pH is seldom responsible for moss establishment. Most moss species grow under a wide range of soil pH.

There are more than 13,000 types of mosses, with about 50 common to your area. Some appear to be associated with acidic soil and others associated with alkaline soil conditions.

Copper sulfate is one of the products recommended for managing the moss problem, although copper sulfate alone will not take care of it. Along with treatments, other contributing factors should be corrected to minimize moss growth.

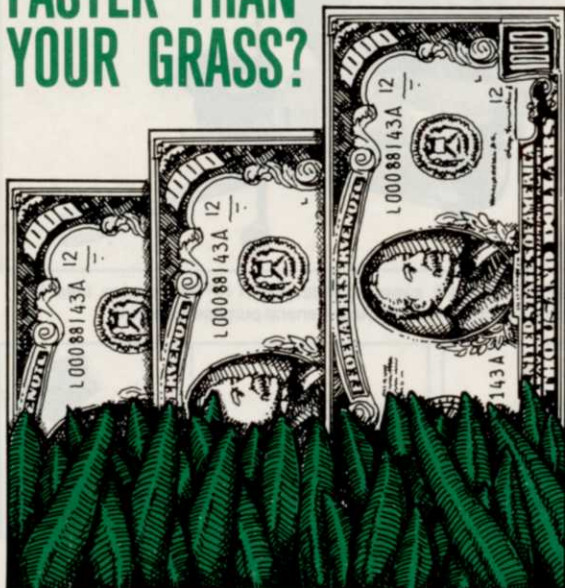
I am not sure how this treatment would promote moss growth. One explanation is that moss is growing in an area where it can flourish and establish well. Perhaps the growing conditions were very conducive for moss growth in the property questioned. The soil might have been alkaline to start with and response to copper sulfate treatment was not very visible.



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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.

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