

PROBLEM MANAGEMENT

by Balakrishna Rao, Ph.D.

In sandy soil...

Problem: I have extremely sandy soil. What type of turfgrass does well? I run a cemetery in eastern North Carolina. None of the turf seems to build a consistent root structure. What are your suggestions for building root structure? (N. Carolina)

Solution: Not knowing exactly what type of turfgrass you tried to establish, it is difficult to answer your question. I feel that some of the improved turf-type tall fescue cultivars should establish well in your soil providing you supply the proper water and nutrients.

Several other factors, such as light and post planting care, are important. Try planting improved tall fescue cultivars and maintain good moisture level during germination and establishment.

Another major factor to consider is the timing and method of seeding. First prepare the seed bed, making any necessary soil modifications or pH adjustment, and then spread certified seed mix. Consider incorporating some organic matter such as peat or compost to maintain better moisture content of your sandy soil. A starter fertilizer can be applied at this time. Gently rake the area to maintain contact between seed and soil. Spread straw as mulch to help maintain proper temperature and moisture. Water the area as needed until establishment. If the area is heavily shaded from trees, provide selective pruning to allow sufficient light for turfgrass survival.

Late fall fertilization

Problem: Is one nitrogen source superior for late fall fertility? A nitrogen source that's independent of soil microbial activity (IBDU) seems like a good choice. (Montana)

Solution: Richard Rathgens, a senior agronomist on our staff, made the following comments. For late fall, you are correct in choosing a fertilizer which is not dependent on soil micro-organisms for release of nitrogen. This is because a late fall fertilization should be applied at the time of the last mowing of the season when soil micro-organism activity is low.

To obtain the benefits desired, a quick-release source of nitrogen such as urea should be applied. If, however, there is a concern that nitrogen will be leached from the rootzone (e.g. sandy soils), a controlled-release source of nitrogen should be used. The type of controlled-release fertilizer used would be one whose release is dependent on soil moisture: sulfur-coated urea or IBDU.

Spreading diseases

Problem: How big is the problem of turfgrass diseases spreading by contract mowing? (Iowa)

Solution: The mowers can spread some of the infected disease clippings or disease agents (eg. fungi, bacteria).

A good example would be leaf spot and dollar spot diseases. For any disease to establish, it is necessary to have a virulent pathogen, susceptible host and favorable environment (eg. proper temperature, moisture, etc.) for the disease development. If any one of these factors is absent, a disease will not occur. Therefore, even if the mowers spread the infected tissues from one place to another, a disease may not develop.

To answer your question, turfgrass diseases spread by contract mowings are not a major problem because several different contributing factors should be present for disease development.

In many situations, "stress" predisposes the turf to diseases. One of the major stress factors, in my opinion, is mowing too short. This will remove the green tissue needed for photosynthesis. As a result, turf can be starved gradually. Short mowing can also scalp and allow the soil to dry out quickly. Therefore, maintain proper cutting height. If in doubt, cut at 2½ to 3 inches high to improve turf quality. A turf properly maintained with balanced fertilization, watering and pest management as needed will have less potential for disease.

See your supplier

Problem: Which of these products (weed and feed combinations), applications, etc. is more economical for coverage on 500 acres of open turf areas? (Ohio)

Solution: Not knowing the fertilizer analyses of the "weed and feed combinations" you are referring to or the weed problem, it is difficult to suggest a product. The economics of these products depends on the fertilizer and herbicides chosen for blending.

Without giving any brand or product name, the best thing to do is to review some of the catalogues from suppliers to determine the economics. Many of the suppliers have technical advisors on staff who can work with you.



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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.