

VEGETATION MANAGEMENT

By Roger Funk, Ph.D., Davey Tree Expert Co., Kent, Ohio

Q: *Why do local dry spots develop in a lawn?*

A: Local dry spots can be caused by excessive thatch, buried debris, elevated soil, and fairy rings or other fungal activity. Not all factors which cause local dry spots are understood, however. Local dry spots have reportedly developed in soils which had been removed to depth of several feet and uniformly mixed before being replaced.

Q: *What was responsible for the widespread outbreak of crabgrass this season? Are the pre-emergent herbicides losing their effectiveness?*

A: We had a crabgrass infestation in the Northeast and Midwest two years ago and the same question was asked then. To my knowledge, crabgrass has not demonstrated resistance to any of the pre-emergent herbicides. The environment plays a major role in the amount of crabgrass seeds that germinate and the ability of the plants to compete with desirable turfgrasses. At our research headquarters in northeast Ohio, an early drought which stressed the turfgrasses, followed by excessive rains, provided ideal conditions for crabgrass.

Q: *Can white clover be used for a playground instead of seeding with turfgrasses?*

A: I would not recommend it. White clover does have good drought tolerance and survives under low maintenance. However, it has poor wear tolerance and stains clothing. Also, white clover is sensitive to 2,4-D, MCP, and Dicamba, which would prevent the control of broadleaf weeds.

Q: *What can be done to prevent dog urine spots on lawns?*

A: Maintaining a good cultural program will help minimize the injury as well as promote more rapid recovery. The best solution is to have home owners restrict the movement of their own pets and encourage leash laws that prevent dogs from roaming the neighborhood.

Q: *Is the soil conditioner called Krillium still available? Also, what is calcined clay and how does it improve soils?*

A: Krillium produced by Monsanto is no longer available. Calcined clays are produced by crushing

montmorellonite-type clays and heating to 1800° F. Heating stabilizes the flexible lattice producing porous, hard granules which help soils resist compaction. In addition, the pores increase water percolation and improve the gaseous exchange between the atmosphere and soil.

Q: *At what height should turf be mowed on a large sloped area which receives very little fertilizer and is not watered? Our crew foreman says it should be mowed high, but I think we could mow less often if we lowered the cutting height.*

A: In general, the mowing height should be raised as the intensity of cultural practices, such as fertilization, irrigation, and mechanical maintenance is reduced. Utility turfs are usually mowed at a height of three to six inches, depending upon the grass species and mowing frequency.

Q: *Can superphosphate be used when specifications call for triple superphosphate?*

A: There should be no difference in plant response if the proper amount is applied since triple superphosphate may be regarded as a concentrated form of superphosphate from which most of the gypsum (CaSO_4) has been removed. The analysis of superphosphate is usually 0-20-0, whereas triple superphosphate is $2\frac{1}{4}$ times more concentrated with an analysis of about 0-45-0.

In sulfur deficient soils, plants will also benefit from the 12% sulfur as gypsum in superphosphate.

Q: *I read an article in the local paper entitled "New bacterium may halt the spread of Dutch elm disease." Is the bacterium on the market?*

A: At the present time the project is experimental. The bacterium, *Pseudomonas syringae*, does give promising results in the laboratory, but when field tests were run protection was not as great as anticipated. Further testing is planned over the next two years to determine if the bacterium will provide satisfactory protection to elms.

Send your questions or comments to: Vegetation Management c/o WEEDS TREES & TURF, 757 Third Avenue, New York, NY 10017. Leave at least two months for Roger Funk's response in this column.