

# VEGETATION MANAGEMENT

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

**Q:** Is rolling the best method of leveling earthworm casts?

**A:** Drag matting, brushing the turf or shallow vertical mowing are much more advisable than rolling, particularly if the soil is wet or contains a high percentage of clay.

**Q:** My foreman talks constantly about soil amelioration. What does he mean?

**A:** Soil amelioration simply means improving the soil. The term is sometimes used in connection with soil aeration.

**Q:** What is a calcifuge plant?

**A:** A calcifuge plant is a plant which cannot tolerate calcareous (high calcium) soils.

**Q:** What is the latest on fusarium blight? We have heard so many ways to solve this problem but what is your view?

**A:** There is still a lot of controversy regarding fusarium blight including whether, in fact, Fusarium species are always involved in causing the blight symptoms on turf. Some researchers feel that other organisms may be causal agents and that perhaps the blight is misnamed.

Regardless of the dominant fungal organism involved, the evidence to date supports the philosophy that fusarium blight occurs primarily on turfgrasses which have been stressed by adverse environmental conditions or cultural practices.

Most of the fusarium blight symptoms which have been reported to our diagnostic lab occurred on exposed slopes and other sunny areas which accumulate heat. Also, the most severe symptoms were on sodded lawns, suggesting that the sod-soil interface may be a factor in increasing the susceptibility of turfgrasses to fusarium blight. We have noted poor rooting in the underlying soil when peat sod is laid directly on clay without proper soil preparation. Local dry spots are another problem area.

At the present time we are recommending a slightly higher mowing height (2½"-3") and proper watering to minimize summer stress. Aeration will help correct both sod-soil interfaces and local dry spots allowing better penetration of air, water, nutrients and pesticides. The latter is particularly important when treating fusarium blight with benzimidazole fungicides which must be drenched into the root zone.

**Q:** I read about a new material called Amdro for fire ant control. Is it effective and, if so, where can it be purchased? (Florida)

**A:** Amdro is effective if used within three days after opening the bag. Soybean oil is used as bait and it quickly becomes rancid. Amdro also degrades rapidly in sunlight and should be applied only when ants are actively foraging. Because Amdro contains a slow-

acting poison, results may not be evident for several weeks.

The distributor of Amdro in your area is Asgrow Seed Company.

**Q:** The horticulturist at the local arboretum is telling my clients not to have their trees fertilized after mid-summer. What is your opinion? (Indiana)

**A:** The roots of many trees continue growing throughout the fall until the soil temperature approaches freezing. Fertilizer available during this period will help stimulate root growth even though trees with determinate growth have completed their shoot development for the season.

The possibility exists that certain trees, such as southern pines, with indeterminate growth might be stimulated with fertilizer to produce new shoot growth just prior to freezing weather. This has been demonstrated with small trees in containerized and greenhouse culture. However, I am not aware of any reported incidence with established trees in the landscape. In any case, the use of slow-release fertilizers will minimize the potential for growth flushes.

**Q:** How can you tell if nematodes are causing a problem in turf? (Pennsylvania)

**A:** Unfortunately it is difficult to decide if nematodes are causing, or are likely to cause, injury to turfgrasses.

Most plant nematodes affect root functions and, therefore, most symptoms associated with them are the result of inadequate water supply or mineral nutrition to the turfgrass shoots. Aboveground symptoms include chlorosis (yellowing), stunted top growth, poor fertilizer response, "melting out" or gradual decline, invasion by weeds, a tendency to wilt more quickly than healthy plants, and slower recovery from wilting. Belowground symptoms include short roots often in a bushy arrangement near the root tip, slight swellings, and distortion of root growth.

Identification of the nematodes to determine whether or not they are parasitic and present in sufficient numbers to warrant treatment will require a laboratory nematode assay.

Contact your local cooperative extension service for the proper procedures in the collection and handling of soil samples for nematode analysis. Many county extension offices have a nematode sample kit available.

Turf managers often identify the presence of nematode injury by applying nematicides to several small plots within the suspect area and comparing turf response to untreated plots.

**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.**