

# VEGETATION MANAGEMENT

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

**Q:** Where is the best time to control spotted spurge in bermudagrass, and what chemical do you recommend? (Florida)

**A:** DCPA (Dacthal) applied before the soil temperature stabilizes above 55° F. and reapplied one or two times at 60-day intervals has reportedly given good control. However, multiple applications are costly and potentially phytotoxic to the turfgrass, particularly if applications are made over several seasons.

Postemergent control with two treatments of bromoxynil applied about four weeks apart also provides good control of spotted spurge. Some phytotoxicity evidenced as temporary tip burn may occur on common bermudagrass.

**Q:** How much ryegrass seed should be mixed with Kentucky bluegrass seed when fusarium blight is a problem? (California)

**A:** A mix containing 10%-15% perennial ryegrass has been found optimal in most cases to mask the disease symptoms. This mix should result in a 50:50 bluegrass:ryegrass plant count relationship.

**Q:** Is red fescue the best turfgrass for shaded areas? (Pennsylvania)

**A:** Red fescue (*Festuca rubra* L.) is still the recommended species for shade in the northeastern states. Also, some of the newer Kentucky bluegrass cultivars will tolerate up to 60% shade. If the area is also wet, rough bluegrass (*Poa trivialis* L.) is sometimes recommended.

**Q:** What is a stool sprout? Is it any different from what we call a stump sprout? Could you also tell me how long a stump will continue to live after the tree is cut? (Ohio)

**A:** A "stool sprout" develops from adventitious buds which arise from between the bark and wood of stumps. (Adventitious buds do not originate in the axils of leaves but are formed irregularly on older portions of stems.) Such sprouts are usually short-lived.

"Stump sprouts" are normally described as arising from dormant buds which developed in leaf axils and are connected to the pith by a bud trace. Stump sprouts can produce new trees.

If deprived of sprouts, most stumps die within two years as the stored carbohydrates are depleted in the root tissue. However, the root system can survive for many years if root grafted to a remaining tree which supplies carbohydrates and growth regulators.

**Q:** Could you tell us how lightning actually kills the tree when it strikes? (N.Y.)

**A:** Although trees are attractive lightning targets because of such factors as height, root depth and wood properties, they are highly subject to damage since trees are not good conductors of electricity and offer resistance to the travel of lightning current.

When the bark is smooth and uniformly wet, electric current may be effectively conducted through this external water resulting in leaf scorch, bark fissures and

other superficial injuries. However, internal conduction along the cambium or other moist tissue causes heat buildup resulting in a disruption of physiological processes, cellular death and mechanical splitting or tearing of wood and bark tissues. The thermal death point of most active cells occurs between 50° and 60° C. In many cases, when only minor injury is evident on the trunk, considerable injury has occurred to the roots.

In addition to direct injury, lightning may predispose the injured tree to pathogens and/or bark beetles that are ultimately responsible for death.

**Q:** A disease on two of the Kentucky bluegrass lawns we service was identified as fading out. I have not been able to find it in any of our disease books. What is it and how do you control it? (Maryland)

**A:** Species of *Curvularia* have reportedly caused a disease called "fading out," often in combination with leaf spot. Irregular patches of turf turn pale green, then yellow during the hot summer months and appear to be drying out, even when there is sufficient soil moisture. Kromad, Daconil 2787, or Actidione thiram, applied before the disease starts or in its early stages, should control *Curvularia* fading out. However, since there may be another disease known locally as fading out, you should ask the person who identified the disease to provide the scientific name of the causal organism.

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.



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