

# VEGETATION MANAGEMENT

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

**Q:** I would like to know as much as possible about gummosis. It is common here on Russian olive and honey locust, and I have been told that it is a sure sign of stress. What kind of stress? Water, nutrient, light, insects? What is it? How does it form? Where does it come from? And would it be toxic to trees that are close or are planted as replacements in the same spot? (Colorado)

**A:** Gummosis is defined as the exudation of sap which breaks out to the surface. Discharges may be due to the attack of a parasite, often in another part of the plant. The peach borer, working in the crown, may cause gummosis of trunk and branches. Gummosis caused by the fungus, *Botryosphaeria dothidea*, has been reported recently on peach as well as currant, apple, almond and blueberry. It is highly possible that a biological stress or combination of stresses weakened the trees and predisposed them to borers or a fungal infection which, in turn, caused gummosis. Biological stress can be any environmental factor capable of inducing a potentially injurious physical or chemical change in a living organism. These factors include drought, defoliation, high and low temperatures, transplanting, wounding and chemical (i.e. herbicides, air pollution) stresses. Both water stress and defoliation have reportedly predisposed several tree species to *Botryosphaeria dothidea*, the fungal organism mentioned earlier as causing gummosis.

Contact your local Cooperative Extension Service for information concerning the nearest diagnostic laboratory to which you can submit samples. Perhaps Dr. James R. Feucht, Professor, Landscape Plants, Department of Horticulture, Colorado State University, could be of assistance. You may also want to contact Dr. Schoene-weiss at the Illinois Natural History Survey in Urbana, Illinois, for further information on environmental stress and predisposition.

**Q:** We've tried Roundup to control kikuyugrass when renovating Kentucky bluegrass turf but the kikuyugrass begins reestablishing almost immediately. Is there another chemical or method that does a better job? (California)

**A:** An application of glyphosate (Roundup) followed by thatch removal, overseeding and an application of Siduron to limit kikuyugrass seedling germination produces the best results.

Initial competition of the overseeded grasses also is very important in reducing kikuyugrass regrowth. Perennial ryegrass and tall fescue which germinate and become established much more rapidly than Kentucky bluegrass are recommended.

**Q:** Can you recommend a publication on diagnosing tree problems that can be used to help train fieldmen? (Ohio)

**A:** Identifying Shade Tree Problems (A3073) by Dr. Gayle Worf, Professor of Plant Pathology at the University of Wisconsin, is an excellent aid for field personnel. It contains color prints, is reasonably priced and is available to out-of-state purchasers from Agricultural Bulletin Building, 1535 Observatory Drive, Madison, Wisconsin 53706.

**Q:** I read recently that lime reduces the number of grubs in turf. Is this true can lime be used as an effective control for beetle grubs? (New York)

**A:** Lime does appear to provide some kind of physical or chemical barrier which prevents the female beetle from entering the soil and laying eggs. However, the barrier is temporary, probably lasting only a few days. Further testing is necessary to determine the effectiveness of lime in reducing white grub populations, but current indications are that lime alone will not provide adequate control.

**Q:** What causes the leaves of black locust to turn brown every summer? Is it a disease and can it be controlled? (West Virginia)

**A:** The larvae of the locust leafminer cause the leaflets to turn brown by mining between the leaf surfaces. Several insecticides are effective including Diazinon or carbaryl sprayed on foliage in late May and again in early July to control adult beetles.

**Q:** Could the weight from unused mortar dumped on one side of a large slash pine cause injury to the root system? The mortar was removed after about a month but two large limbs have since died on that side. (Florida)

**A:** Compaction and changes in water and oxygen availability can quickly cause injury to roots. Older trees and those in weakened condition are more seriously injured. Slash pines also are reportedly sensitive to pH changes in the soil. Lime from the mortar could have raised the pH to an unsuitable level.

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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.