

VEGETATION MANAGEMENT

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

Q: What causes gummosis?

A: Trunk, limbs, and twigs of certain trees (particularly stone fruits) exude gummy sap when injured by mechanical agents, insect punctures, or diseases. Some species are susceptible to a bacterial canker that also causes exudation of sap.

Q: What would you suggest for the control of yellow nutsedge that will not injure lawns? Last year we tried MSMA but were not satisfied with the results.

A: The methanearsonates such as MSMA (monosodium methanerasonate) usually give good control when applied properly. We had excellent results with Bentazon (Basagran) last year with no noticeable injury to Kentucky bluegrass.

Q: I used glyphosate (4 ozs. to 1 gal.) on Bermudagrass in trailing gazanias. The glyphosate killed the Bermudagrass but not the gazanias. The trailing gazanias are still living after six months. Why?

A: Gazania is not on the glyphosate label. I called Monsanto, basic producers of glyphosate and was told that they have no information for its control. In general, the glyphosate has not been absorbed into plants that show no injury symptoms, and the chemical has not translocated properly in plants that show initial injury and then recover. Glyphosate is absorbed only through green tissue and since gazania is a relatively tender herbaceous plant you should have gotten control unless you did not get adequate coverage over the leaf surface.

Q: Why do nitrogen fertilizers increase soil acidity?

A: Soil is acidic because of the presence of hydrogen ions H+ and any material which releases or causes the release of hydrogen ions increases the acidity. During the nitrification process, hydrogen ions are released when the ammonium ion is converted to nitrate. Therefore, any nitrogen fertilizer containing or forming ammonium will increase soil acidity.

2NH4⁺ + O <u>nitrification</u> 2NO⁻³ + 8H⁺ bacteria

ammonium oxygen nitrate hydrogen Nitrogen fertilizers containing strong acid-forming

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anions, such as sulfate, have the greatest effect on soil acidity.

Q: What chemical can you use to neutralize preemergent herbicides so you can reseed a lawn?

A: Depending upon the herbicide used, you could simply wait the recommended time period before seeding or apply activated charcoal. Finely powdered activated charcoal should completely neutralize just about any preemergence herbicide in the soil even if the herbicide has been applied shortly before the charcoal. Activated charcoal is effective either incorporated dry into the upper soil or suspended in water as a slurry and sprayed on the soil surface.

Q: Last year many of the maples started dropping leaves early in the spring and the same thing is happening again this year. What is causing the leaf drop and can it be controlled?

A: I can't positively identify the problem without a sample, but it sounds like petiole borer. The larva of a sawfly (*Caulocampus acericaulis*) tunnels in the upper end of the leaf petiole about ½ inch from the leaf blade. Leaf drop may be abundant on sugar and sycamore maples, particularly on the lower branches but defoliation rarely injures the trees.

Insecticides such as malathion and methoxychlor sprayed as the leaves open in May are recommended for control.

Q: How can you identify verticillium wilt on Norway maple?

A: Positive diagnosis for verticillium wilt can be made only by isolation culturing of infected sapwood in the laboratory because many other problems cause similar symptoms.

In Norway maples, the discoloration in the outer sapwood rings is characteristically a bright olivegreen and is more commonly found near the base of the trunk or in the main roots since verticillium is primarily a soil-inhabiting fungus.

Q: Our lawn service includes mowing and last year we raised our mower height to three inches for the bluegrass lawns during the summer. Most of the lawns looked real nice but some had a thin, shaggy appearance and the grass lay down. What are we doing wrong?

A: The common Kentucky bluegrasses and some of the improved cultivars can be mowed at a 3-inch height but others should not be mowed at a height over 2¹/₂ inches. The symptoms you mentioned are typical of improved Kentucky bluegrasses mowed too high.

Send your question or comments to: Vegetation Management c/o WEEDS TREES & TURF, 9800 Detroit Ave., Cleveland, OH 44102. Leave at least two months for Roger Funk's response in this column.