

VEGETATION MANAGEMENT

By Balakrishna Rao, Ph.D., and Thomas P. Mog, Ph.D., Davey Tree Expert Co.

Q: We are thinking of using Roundup for renovation purposes. We are concerned about its effect of drifting or leaching on nearby landscape plants. Will it cause injury? (North Carolina)

A: Roundup (glyphosate) is a nonselective, broad-spectrum, systemic herbicide. The isopropylamine salt rapidly degrades in the soil, but is quite resistant to decomposition in higher plants. In recent years, people have used Roundup for lawn renovation purposes and weed control under trees. Roundup is a very useful tool when used as a directed spray.

Often, contaminated desirable plants or areas can be saved from damage by heavy watering to wash off the chemical. This should be done immediately or within three to four hours after exposure. The action of the herbicide will be less in the soil than on the plant. Reports from Minnesota indicate that Roundup is damaging to the foliage and young bark of deciduous plants, but somewhat less injurious to the evergreen species. Depending on the amount of chemical reaching the plant, the symptoms may appear immediately or by the fifth week after exposure.

Symptoms include chlorosis, defoliation, twig dieback, malformed growth and death. In general, the deciduous plants were more sensitive to Roundup than the evergreen species. To avoid these problems, keep Roundup away from desirable plants.

Q: What is the best way to clean clothing contaminated by pesticides? (New York)

A: Pesticide-contaminated clothing should be washed daily and should not be mixed with other uncontaminated laundry. Contaminated clothing should be either stored in a plastic bag until washed or put directly into the washing machine soon after removal.

Use hot water (140°F) at full level and the recommended amount of heavy-duty phosphate-based detergent. Dry the clothing in an automatic dryer for thirty minutes at the regular fabric setting. Make sure to remove any leftover pesticide from the washer by running it through all cycles using detergent, but without the clothes.

Reports suggest that this procedure should remove 99.8% of the pesticide from clothing.

Q: What kind of chemicals would you recommend for renovating an old lawn? I do not like the type of grass species we have in our lawn as it is very susceptible to *Fusarium* blight disease. (Michigan)

A: Diseases such as *Fusarium* blight and Stripe smut are difficult to eliminate once they are established in a lawn. However, with the proper cultural and chemical treatments for *Fusarium* blight management, the disease incidence can be minimized.

It is also important to either reduce or remove stress factors, particularly moisture stress, which are conducive to the disease development. If the management practice fails to provide satisfactory turfgrass response and quality, then the best method would be to consid-

er total renovation, which would involve killing the existing vegetation and re-establishing with resistant grass cultivars. 'Adelphi,' 'Majestic,' 'Parade,' 'Touchdown,' 'Brunswick,' 'Baron' and 'Cheri' Kentucky bluegrass cultivars have shown better resistance to *Fusarium* blight. Contact your local extension personnel for cultivar recommendations for Michigan.

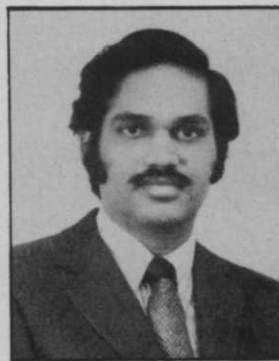
The unwanted vegetation can be best removed by the combination of chemical treatment followed by tilling. Re-establishing new grass cultivars should be timed so that seeding can be done between September 1 and September 15.

Herbicides such as Roundup, Amitrol or Amitrol-T plus dalapon, and Amitrol-T alone are labeled for lawn renovation. In recent years, Roundup is more commonly used for lawn renovation because of its short soil residual which allows seeding and sodding seven days after application.

Roundup is a water soluble, nonselective herbicide that generally controls most green vegetation and causes discoloration in about seven days. A combination of Roundup treatment and tilling gives good control of most grasses. A repeat application may be necessary for better control of rhizomatous perennial grasses.

Q: Our birch tree has several bumps on the stems. When I pressed one, sap came out. I also found some small holes on the stems, and the tree is defoliating

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Questions should be mailed to Vegetation Management, Weeds Trees & Turf, 7500 Old Oak Blvd., Middleburg Heights, Ohio 44130. Please allow 2-3 months for an answer to appear in the magazine.

GET TOUGH

on
Dollar Spot
Fusarium Patch
Leaf Spot*
Brown Patch*
Red Thread*

*Approval Pending

NY Botanical Encyclopedia Falls Short on Care

The ten volumes of The New York Botanical Garden Illustrated Encyclopedia of Horticulture are as complete as NYBG's world famous plant collection. Senior Horticultural Specialist Thomas Everett has devoted 12 years to the project published by Garland Publishing Inc.

The \$525 price tag for the series puts this reference into a "Franklin Mint" category. No doubt the appearance alone of the ten green volumes side by side on a library shelf make this attractive to many horticultural professionals and libraries.

The content is well-illustrated with drawings and both color and black and white photography. This work goes beyond the term comprehensive in the variety of plant material included, but it falls short on practical maintenance suggestions. Everett appears to have written the book more for the sophisticated hobbyist rather than the professional. Considering the experience of Everett, much more could have been added for the professional.

No doubt this publication will be compared by many professionals with Wyman's Gardening Encyclopedia which sells for \$29.95. Parts of Wyman are noticeably out of date, but overall its value to the professional is not significantly less than Everett's Encyclopedia. If money is a consideration, Wyman's is still

excellent. If you want a Cadillac, Everett's book may be your favorite.

When a scientist devotes as much of his energy and life to a publication as Everett has, it is very difficult to criticize. But \$500 is a considerable amount of money and practical decisions have to be made. **WTT**

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from the top downward. What causes this, and can you please suggest some control methods for this problem? (New York)

A: From the symptoms you describe, the birch has been attacked by the bronze birch borer. This is a very serious problem and occurs wherever birches are grown. Borer control is difficult because they are normally below the bark and in a protected site in the tree.

There are no reports indicating any association between the water blisters (bumps you mentioned) and bronze birch borer infestation. If you have seen any lumpy bark on the trunk, it would be an external indication of bronze birch borer activity. Generally, the birch trees which have survived borer attack develop these conspicuous swollen areas as a result of their healing process. The holes and tip dieback symptoms also suggest bronze birch borer injury. The exit holes made by the adult beetle are typically "D" shaped.

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The new, expanded Dursban 2E label includes the use of Dursban against wood-boring insects infesting shrubs and trees. Ohio State University is now recommending that Dursban be substituted for lindane for bronze birch borer control programs. Insecticides should be sprayed just prior to first adult emergence in June and twice more at two-week intervals.

Generally, this problem occurs on weakened plants. Therefore, keep the plant under good care with proper fertilizing and watering as needed.

Q: *It seems to me that many of the oaks around the Louisville area are dying. I have looked at several trees and did not see anything unusual. Is there something new attacking oaks in our area? (Kentucky)*

A: Within the last year, I have not seen anything in print which mentions a new pest or disease problem affecting oaks in Kentucky. However, our people have reported that more oaks than usual are dying in and near the Louisville area.

Upon examination, many of the affected oaks were found to be infected with obscure scale (*Melanaspis obscura*); so named because of its small size and gray color, which blends with the color of the bark.

Trees that look weak, have dead or dying limbs and show general decline symptoms could have this problem. Detection requires close examination, a trained eye and/or a 10X hand lens.

The scales tend to crowd together and stack on top of each other, forming a "crust" on the bark. Frequently, the bark is depressed or sunken where clusters of these insects have been sucking sap from the inner bark (phloem). Young scales are often found beneath several older, usually dead,

scales. Obscure scale is difficult to control, generally requiring more than one year's effort.

Obscure scale is primarily a southern pest, but is active also in the mid-Atlantic states. It has been found from Massachusetts to Florida, and west to Texas and California.

To manage obscure scale the following procedures are recommended:

1) Sanitation. Prune out dead, dying and heavily infested branches. 2) Sprays. Apply dormant oil and follow-up with insecticide sprays during the crawler stage; approximately mid-July for the red oak group and mid-August for the white oak group. 3) Fertilization. The trees should receive proper fertilization and water during dry periods to reduce stresses induced by scales and drought.

Q: *What can I use to control aphids that are feeding on the bark of my pines? I have tried malathion, but did not obtain good results. (Michigan)*

A: Your "aphids" are probably adelgids, which taxonomically different from the small, sucking insects we commonly call aphids. True aphids belong to the family Aphidae and can be controlled with organophosphate insecticides such as malathion or diazinon. The conifer bark aphids belong to the family Adelgidae and, as you mentioned, are not very susceptible to the organophosphates.

Carbaryl (Sevin), a carbamate, is effective against adelgids. Some studies have found a build-up of mites on trees repeatedly sprayed with carbaryl. Adding a miticide, such as Kelthane, should control the mites. **WTT**

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