



QUESTIONS FROM THE FLOOR

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What is the status of gypsy moth control in eastern Wisconsin? Were the 1992 efforts successful? (Manitowoc County)

The Wisconsin gypsy moth program is presently in an eradication mode, that is, all efforts are predicated on the fact that eradication is possible. To this end, over 40,000 acres were sprayed or mass-trapped in 1992. The total program required the placement of approximately 64,000 gypsy moth traps. At the time of this writing it is too early to determine the effect of the 1992 efforts. Assessments will begin in earnest when trapping is completed in September.

There is a lot of confusion on how (and even "if") we should be using Oftanol these days. What do you recommend for both timing and rates for Black Turfgrass Ataenuis (BTA) control? (Ozaukee County)

Isofenphos (Oftanol) continues to be effective in controlling the BTA in Wisconsin. However, some reports of success are without substantiation of a problem. If your course has routinely applied isofenphos for BTA control (or other soil insects) for several seasons, you may want to consider an alternative for 1993. Routine treatments result in a build-up of soil micro-organisms capable of breaking down isofenphos to ineffective components. As alternatives, consider trichlorfon, ethoprop or bendiocarb.

Spring treatments made shortly after BTA egg deposition are generally effective. Egg deposition begins when spirea (*s. vanhouttei*) is in full bloom. Be sure to water-in treatments with at least one-half inch of water.

Depending on the season, second generation BTA may be more damaging. Damage is more readily noticed if the weather is hot and dry. Second generation damage usually happens when we have successive long growing seasons and/or first controls were unsuccessful or missed.

3. Are you seeing any effects of drought on golf course plants and

their susceptibility to insect damage? (Lafayette County)

Drought impact on established trees requires two-three years to correct. However, the correction period may be longer if the tree is defoliated by insects or disease and/or if the tree is in a poor site to begin with. During drought conditions irrigation sufficient to sustain turf is not adequate for trees. Therefore, insects and diseases which favor trees in a weakened condition can readily establish.

Bronze birch borer, two lined chestnut borer, ash borer, shot-hole borers and pine engraver beetles are examples of insects which find drought-stressed trees favorable for establishment. The effects of each are still very evident.

Finally, don't assume the drought is over for trees when weather bureau statistics indicate rainfall is "normal." Distribution of adequate rainfall is more important than the total amount.

Give us a blunt assessment of the new biological materials for controlling insect pests (Exhibit, et. al.). What are their limitations—shelf-life, efficacy, etc? Are you recommending them? (Jefferson County)

Biorational control agents (bacteria, fungi, nematodes, etc) will be increasingly important in future pest management strategies. Their use is quite limited in Wisconsin at this time.

While biorationals presently available are effective against a number of common turf pests, the window of opportunity to insure success is not as open as with conventional materials. Biorationals, in general, require more management inputs, i.e., monitoring of insect pests, more critical identifications, life cycle and life stage knowledge, interaction of other control programs, etc., etc.

It's time for turf managers to acquaint themselves with the available biorationals. Use them in trial areas, learn how to handle the product and begin to work them into your management program. They are not

"rescue" treatments for problems out of control!

Shelf life is good when stored as recommended by the manufacturer, however, such materials should not be carried beyond the second season.

Ants are still making a mess on sandy areas of our golf course. What's the latest here? (Green Lake County)

"Ants prefer drier, well-drained sandy soils that have a low water-holding capacity." The quote is from a recent book on ants authored by the world's authority, Professor E. O. Wilson of Harvard University. Thus, there is a direct conflict with our desire to utilize an area for our purpose and the basic instinct of the ants to perpetuate themselves.

At this point we are dependent on conventional chemical controls to reduce ant populations to tolerable levels. The elimination of the persistent chlorinated hydrocarbon insecticides make the task more challenging than in past years. The use of available alternatives requires greater knowledge of the vulnerable points in the life cycle of an ant colony.

To rid an area of ants, persistence is required since the key individuals of the colony rarely come to the soil surface to contact a chemical application. Chemicals may be injected into the soil for mound-building ants, but this is not practical for species such as the cornfield ant (common in greens). The heart of the ant colony may be up to 18 inches below the soil surface with eggs supplied by a queen capable of living several years. Therefore, to get to the colony, lower doses of chemical rather than higher are frequently more effective. Low doses provided in bait form allow the product to be carried into the nest without killing the worker carrying the bait. Chlorpyrifos prepared as a one percent bait has been effective. The most effective spray material registered for greens and aprons is isazofos (Triumph). Isazofos has a restric-

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