

PROBLEM SOLVERS

by Balakrishna Rao, Ph.D and Thomas Mog, Ph.D

Preemergents questioned

Problem: Last fall we seeded a number of lawns with a Kentucky bluegrass, fine fescue and ryegrass mixture using an aeroseeder. Now we are concerned with the use of preemergent materials like Betasan for crabgrass in spring. Will it hurt the seedlings? Should I skip or delay the preemergent application? (Wisconsin)

Solution: If the lawns were seeded early in the fall and the conditions were favorable for germination and proper establishment, then the application should not be harmful. However, if the seeding was done later and/or seedlings did not have a chance to establish, they will be susceptible to injury from the application.

If the seedlings have not established and the lawns have a potential for crabgrass infestation, instead of skipping, you should delay the application for two to three mowing periods or consider using Tupersan, a safer preemergent material. Although expensive, Tupersan can be safely applied onto seedlings, even during the establishment period.

If you are going to delay the application, you should monitor the soil temperature. Crabgrass seeds germinate when the soil temperature reaches about 55 degrees Fahrenheit. You can also monitor indicator plants like forsythia for its petal fall stage which coincides with the crabgrass germination. Based on our experience in the Wisconsin area, the preemergent materials should be applied no later than mid-May to get adequate crabgrass control.

Mowing frost-covered grass

Problem: What is the major problem and solution for mowing cool-season grasses covered with early morning frost? (Arizona)

Solution: Mowing frost-covered turfgrass will result in the crushing of brittle plant cells. Leaves which are damaged will be replaced as new leaves emerge from the turfgrass crown. The best solution is to mow after the frost has melted or lightly syringe with water to speed up melting.

Biological control for chinch bugs

Problem: Is it true that there is a biological control fungus which kills chinch bugs in the lawn? Can we purchase it like milky spore? Would you please mention the source where it can be purchased and also give your comments. (Missouri)

Solution: Yes, there is a fungal species known as *Beauveria* spp which can infest and kill chinch bugs at any stage of development. This biological control agent flourishes well in lawns which are kept moist. Reports also suggest that a well-irrigated lawn will have less chinch bug problems. This is a soil-borne fungus which survives in soil and, under ideal conditions, can infect chinch bugs and kill them. Although these biocontrol agents are present in nature, usually their

activity is not sufficient enough to keep the insect population under an acceptable level where severe chinch bug infestation occurs.

I do not know of any sources where the fungal organism is either being produced commercially or can be purchased for lawn care use. During periods of chinch bug activity, maintain adequate soil moisture which will help the fungal growth (if it is present in the soil) as well as turfgrass recovery from injury.

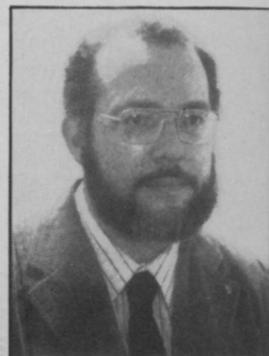
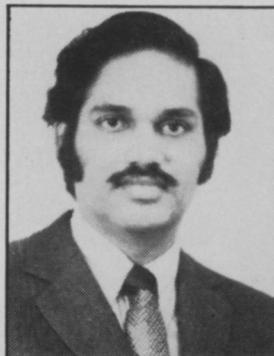
Weed control under tree grates

Problem: We have small linden trees planted within heavy metal grates along walkways. Control of weeds growing through the grates from the planting beds has been a constant problem. Can season-long chemical control be obtained with only one application? (Michigan)

Solution: Any prolonged use of herbicides near confined tree root systems will be difficult. Foliar distortion may occur with lindens because of some herbicide absorption by the stem of thin-barked trees. The choice of herbicides is limited since lindens are highly sensitive to paraquat and simazine.

An application of Surflan should be made in late April. This will give postemergent control of most broadleaf weeds and preemergent control of many grasses. A follow-up application of Surflan plus Roundup should be made near the end of June to control escapes. Extreme care should be taken to avoid drifting of material on the bark or suckers.

A more permanent type of weed control entails covering the planting bed with perforated black plastic topped with shredded bark mulch. Air and gas exchange will occur and moisture will reach the soil.



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Questions should be mailed to Problem Solver, Weeds Trees & Turf, 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Please allow 2-3 months for an answer to appear in the magazine.