PROBLEM MANAGEMENT

by **Balakrishna Rao,** Ph.D.

When to fertilize after sodding

Problem: *When sodding, the sod is nice and green and lays well. We feed and water it well, but in a few weeks it turns brown and gets diseased right away. What can I do for it? Is there any way of checking to see if the sod is the right mix of seed? (Ohio)*

Solution: From your question, it is not clear how soon you might have been fertilizing after sodding or how much you are applying. Ideally it is best to wait for two months before fertilizing. This would allow turfgrass to develop a good root system. If you want to use fertilizer at the time of planting, incorporate it or any other nutrient or soil modifications before laying sod.

Be sure your waterings are generous and that the water penetrates deep enough. Often a problem is caused by the soil interface created by two distinctly different soils in direct contact. Sod is generally grown on loose soil like muck or peat. When the sod is installed directly on clay soil without proper modifications, water may not penetrate through the interface, resulting in runoff and surface rooting. The resultant moisture stress can cause extensive browning, dieback or turf thinning. In addition, the stressed turf will be more susceptible to the diseases you mentioned.

Another possibility may be that you are laying sod on dry soil and then watering afterwards. Maximum rooting occurs when sod is laid on moist soil. Sod placed on dry soil experiences a substantial delay in rooting even though the sod and underlaying soil are thoroughly soaked following planting.

As far as your interest in finding out the type of turfgrass mix or cultivars of sod, contact the place where you purchased the sod. All sod producers should have literature concerning turfgrasses they are using. Ask them whether the type of sod that you are interested in would establish well in the soil type and growing conditions in which you are dealing.

Best time for controlling billbugs

Problem: *For many years we have been using insecticides for surface insect control during the months of May and June. However, we have found a number of lawns severely damaged by billbugs, which become apparent during late August. Around this time, we have found many adults. Do you think we can get control of these pests if we apply treatments in August and September? Would you please explain the possible reasons for poor control from our existing practice? Also, we would appreciate your recommendation for proper management of the billbug problem. (New York)*

Solution: Billbugs can cause serious damage to turfgrass unless they are properly managed. For best results, as with any pest management program, it is necessary to have proper identification of the pest, proper pesticides, proper methodology and proper timing. Any mistakes in these areas would result in variable performance and might explain the reasons why you have billbug problems.

It is particularly important to know the life cycle of the billbug and administer the control program during the weak point of their developmental stages. Adult billbugs are easier to control than their larvae.

Billbugs overwinter as adults and become active in early spring. They feed on turf and lay their eggs in grass stems from mid-May to July. The eggs hatch in about a week and the young, legless larvae tunnel through the stems and become soil-inhabiting pests where they feed on the roots and crowns of plants from June through August.

During this period, billbug larvae can cause severe damage to lawns. However, their presence may go undetected because the damaged area will be masked by drought symptoms and, therefore, often mistaken for moisture stress. If, with the onset of cool weather and rain during late August and September, the brown areas do not green up properly, close examination may reveal surface insect activity. You may find billbug adults alone or in combination with chinch bugs, sod webworms, etc.

Because of a lack of information about fall treatment of billbugs, I suggest that you try a fall treatment on a small test plot first and study the results.

Research conducted by Dr. H. D. Niemczyk, Ohio Agricultural Research and Development Center, Wooster, Ohio, suggests that a mid-April application of insecticide gives best billbug control. The objective is to remove the egg-laying population so that there will not be any future generations. If this is not feasible, then the next best time would be during the larvae feeding period from June through August. Larvae control is difficult because they are in a protected site in the plant stems or may have moved into the soil, becoming soil-inhabiting pests. Therefore, the performance of the insecticide applications may be variable, which explains the reasons why you are experiencing poor results with your existing program.

In summary, I feel that it is to your advantage not to use any chemical until the billbugs have emerged as adults. Instead, make a note of those lawns severely damaged by billbugs and treat those in early spring for adult control. Severely damaged areas should be overseeded with compatible turfgrass cultivars.

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Questions should be mailed to Problem Management, LANDSCAPE MANAGEMENT, 7500 Old Oak Boulevard, Cleveland, OH 44130. Please allow 2-3 months for an answer to appear in the magazine.