Stop 10. A Combination of Lightweight Rolling and Sand Topdress Programs to Decrease Pesticide Inputs and Enhance Fairway Turfgrass Quality

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Rolling has been used for centuries to achieve surface smoothness. Sand topdressing also has been used for centuries to control thatch, alter soil characteristics, and achieve surface smoothness. Although heavyweight rollers can compact the soil, lightweight rollers improve turf quality. In recent years, rollers have been used to increase ball travel on putting greens. While investigating rolling and its effect on green speeds, scientists at Michigan State University fortuitously discovered a novel strategy for plant disease management, control of dollar spot (Rutstroemia floccosum syn. Sclerotinia homoeocarpa F.T. Bennett) with rolling regimes. Cultural practices once reserved for putting greens may prove equally beneficial to fairway turfgrass stands, with rolling regimes providing a means of reducing pesticide inputs to these areas. The objective of this study was to compare turf grown on native soil and sand topdressed areas, and evaluate the effects of season long rolling frequency (one, three, or five times per week) on turf quality and disease severity for a mixed stand fairway of creeping bentgrass (Agrostis stolonifera L.) and annual bluegrass (Poa annua L.). No fungicide applications were used on these plots that were maintained at 0.5-in height of cut, and vibratory rollers, attached to a John Deere 2500A triplex mower, were used to administer the rolling frequency treatments. This three year investigation was initiated in July 2011 at Michigan State University, East Lansing, MI. Turfgrass grown on the sand topdressed areas had less dollar spot incidence and rated higher in quality compared to the native soil areas in 2011. However, the hot and dry weather of June and July 2012 could be the reason for the insignificant difference in disease severity between sand and native soil plots as well as between rolling frequency treatments when compared to 2011 results.

Stop 11. Japanese Beetle and European Chafer Control Options

Terry Davis and Dr. David Smitley

Grubs continue to be the number 1 insect pest problem in Michigan turfgrass. There are 2 types of grub control. Curative products such as Sevin and Dylox can be applied to active grubs in the fall or spring and will give 30-65% grub control. Preventive products such as Arena, Meridan, Merit or any of the 20+ generic flavors of imidacloprid or Acelpryn must be applied prior to egg hatch from the eggs laid primarily in late June and throughout the month of July. All of these products will give 60-100% grub control. The first 3 products should be applied between mid-May and Mid-July for optimum results. Acelpryn is much less water soluble and should be applied between late March and early May to make sure it is able to work its way down to where the grubs will be feeding in late July.

We have been analyzing 25 years of data generated in our grub tests and several things are very evident: