What Impact Does the "Late or Extended Fall" Have on White Grubs?

By Dr. R. Chris Williamson, *Turfgrass and Ornamental Specialist, Department of Entomology, University of Wisconsin - Madison*

With prolonged warmer ambient and soil temperatures comes extended feeding activity of white grubs. Insects are cold-blooded animals that are dependent on temperature for their activity and development. When air and soil temperatures are above 50°F, insect biological activity occurs. Conversely, most insects, including white grubs, are for all practical purposes inactive below 50°F. Because we have experienced a relatively late fall compared to previous years, white grubs have continue to develop, feed and cause damage.

So what does this mean to you? Because white grubs have been afforded the opportunity to continue to feed for an extended period of time, they are able to further increase their fat-body (i.e., energy) reserves to better survive the winter. As a result, they will more likely be difficult to control now as well as in the spring if necessary due to additional feeding damage before they begin to pupate (transform) into adults in late-May or early-June. Moreover, they have additional time to feed on the roots and cause damage to the turf yet this fall.

What should you do now? By the time you likely read this article, it will be too late to take action this year. Thus, you will have to focus your attention on next spring. First, begin sampling and monitoring for white grubs in the spring once soil temperature reach just above 50°F. Then simply pull-back the turf and look for grubs where you suspect they may be. If present, you will need to make an executive decision whether you want or need to make an insecticide application to control the white grubs.

Keep in mind, white grubs are most difficult to control when they are larger. And, unfortunately, they are largest in the late-fall and spring. Should you chose to make an insecticide application in the spring, your product selection choices are limited to the following: 1) clothianidin (Arena); 2) carbaryl (Sevin); or trichlorfon (Dylox). Even under the "best" conditions, these aforementioned insecticides will likely provide no greater than about 75-80% control. For this reason, it is important to consider a preventative insecticide application from late-May to late-July for the next generation of white grubs, especially if you have a history of white grub problems. Preventative insecticides typically provide measurably higher control (> 90%) compared to curative or rescue insecticide treatments previously mentioned.

Several preventative insecticides are available, they include: 1) chlorantraniliprole (Aceylepryn); 2) clothianidin (Arena); 3) imidacloprid (Merit and various other generics); and thiamethoxam (Meridian). Regardless of the product, timing or approach (curative or preventative), ALL white grub control products (insecticides) MUST be watered or irrigated-in with an appropriate amount (about 0.15 - 0.25 inches) of post-treatment irrigation in order for the insecticide to reach the target and provide maximum efficacy (control).