Black Turfgrass Ataenius

The Problem

Black turfgrass ataenius (BTA) (*Ataenius spretulus*) can be a problem throughout the United States on golf course greens, tees, and fairways consisting of annual bluegrass, creeping bentgrass or Kentucky bluegrass. Symptoms similar to drought stress usually appear mid-June through mid-August, which coincides with the larvae feeding on roots. In the northeast U.S. and other areas with only one generation of BTA, symptoms typically appear in mid-August. Populations can reach 200-300 grubs/sq. ft. with infestations often being discovered by vertebrates like skunks or birds, causing significant turf damage from digging and feeding.

What To Look For

Black turfgrass ataenius adults are shiny, black beetles about ¼ in. long. They overwinter as adults in neighboring woodlots under tree litter or near the soil surface. Adults emerge as early as March and swarms may be seen in low-mowed turf, flying on the course, or around lights at night. Adult BTA are most often found in the mower baskets during mowing or scurrying across greens. Females lay eggs in May and early June, eggs hatch in about a week, and larval feeding occurs throughout June and July. Larvae are C-shaped white grubs, but much smaller than the rest of the turf-damaging white grubs. Larvae of BTA are tiny, ranging from 1/10" long when newly hatched to 3/8 in. long third instar, fully mature larvae. Since drought stress is rare in the early summer, symptoms are seldom seen from the first generation. The lifecycle repeats later in the summer with larval feeding from late July to early September, which coincides with feeding from other species of annual white grubs. Lifecycles of BTA usually overlap so adults and larval stages are often present at the same time in summer.

The Solution

First generation BTA can be controlled curatively at the first sign of symptoms or suspected animal feeding. These symptoms occur early in the summer during growing conditions conducive for cool-season turf, thus recovery occurs quickly if a curative application is made. Conversely, preventative applications are needed for second generation BTA. A single application of Merit® or Tetrino® applied in April or May may control both generations of BTA, but may not have enough residual to limit later August and September feeding by other annual white grub species, which is often more damaging than the first generation BTA. Therefore, it is better to apply a curative application of Dylox® for quick knockdown of the first generation and then an application of Tetrino® or Merit in mid to late-July to control the second generation of BTA as well as the damaging larval stage of the other annual white grubs. Or Tetrino can be applied in May and August to insure control of BTA and white grubs. Regardless of the product and timing, water-in the application with 0.1-0.25" of irrigation or more depending on thatch levels to move the insecticide down to feeding larvae.

Solution	Rate (per acre)	Typical timing
Tetrino	16.0 - 32.0 fl. oz.	Preventative for both generations. Apply shortly after adults are found in April or May. A split application may be used April/August for early and late season grub populations.
Dylox 420SL	300 fl. oz.[1]	Curative for the first generation. Apply shortly after larvae are first found in April or May
Dylox 6.2G	130 lbs.	
Merit 0.5G	80 lbs.	Preventative for the second generation. Apply in mid-to late-July as typical white grub timing
Merit 2F	1.6 pt.	
Merit 75WSP	1.6 oz (1 packet) per 8,250 sq. ft.	
Merit or Allectus® on Fertilizer	Check the specific label in order to apply 0.4 lbs. ai/A of imidacloprid	

[1]Only use on tees, greens and fairways (spot treatment) of golf courses

Adult BTA are 1/4 long and are normally seen scurrying across greens or end up in the baskets of the greens mower after mowing. (Envu)

Bird feeding is one of the first indication of BTA in turfgrass areas. (Envu)

Close up of adult BTA shows a shiny black shell with lines running the length of the body. (Envu)