

Springtime Preventive Control of Black Turfgrass Ataenius

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Golf superintendents who normally don't expect grub problems until late summer may be caught off guard and discover high numbers of small grubs, sometimes 200 or more per square foot, damaging turf in late May or June. Black turfgrass ataenius (BTA) (*Ataenius spretulus*) should be suspected in this situation. **This grub species causes sporadic, severe damage to golf courses throughout the cool-season turfgrass zones from New England and the mid-Atlantic states west to Colorado, and also in California.** Unlike other grubs, which are largely restricted to fairways, tees, and roughs, **the BTA also infests putting greens. Preventive action in April and May can help you to avoid BTA damage later in the summer.**

BTA differs from other turf-infesting white grubs in that **there are two generations per year throughout most of its range. The turf damage appears about mid-June and mid-August in the latitude of southern Ohio, West Virginia, and Nebraska, coinciding with the first and second annual broods of grubs.** There is only one generation in the Great Lakes states, northern New England, Ontario, and other northern parts of the species' range. The University of Nebraska entomology website (<http://ianrwww.unl.edu/ianr/entomol/turfent/documents/ataenius.htm>) has excellent photos of BTA and an illustration of its life cycle. The book *Destructive Turfgrass Insects* (Ann Arbor Press) lists detailed management strategies.

Adult BTA are shiny black beetles, 3/16- to 1/4-in. (4.8–6.4 mm) long, with distinct longitudinal grooves on the wing covers. On warm, sunny afternoons in late March or April, the beetles begin flying from overwintering sites, usually wooded lots, to their preferred egg-laying haunts, mainly moist, thatchy golf course fairways, tees, and greens. In southern Ohio, **the beetles begin emerging about when crocus and eastern redbud are blooming. Adults may be seen crawling on putting greens or fairways, and the beetles may be noticed in mowing baskets, among the clippings.** Egg-laying continues through May, often into early June. Eggs hatch in about a week,

and the grubs feed on fine roots and organic matter. Full-sized BTA grubs are small, about the size of Lincoln's hair on a U.S. penny. **Individual grubs take about a month to mature**, then burrow down, pupate, and emerge as adults in late June and July. These beetles produce a second brood of grubs that damages the turf in late summer and early autumn. New adults emerge in September and October, mate, and fly back to overwintering sites.

Preventive control can be effective where BTA is a recurring problem. **One option is a spray application to intercept the beetles as they return to the turf in the spring.** Certain flowering plants are useful for timing because their blooming coincides with the pest's egg-laying activity. **Spraying when Vanhoutte, Bridal Wreath, or Bridal Veil spireas are in full bloom**, covered with white flowers, can effectively eliminate the BTA adults before they lay eggs. Full bloom of horse chestnut, and first bloom of black locust also coincide with the treatment window. Or, you can watch for adults crawling on putting greens or showing up in mowing baskets.

Dursban® at 2.0 lb ai/acre has been the standard treatment, but recent field trials indicate that the pyrethroids—DeltaGard®, Scimitar®, and Talstar®—work equally well. Apply sufficient spray volume, or irrigate lightly to wash the insecticide off the grass blades, so that residues are deposited in the upper thatch.

Another option is to preventively control the grubs with a long-residual soil insecticide. Merit® (imidacloprid) applied in mid-May will eliminate BTA grubs as they begin feeding, as well as Japanese beetle, masked chafer, and other annual grub species that hatch later in July or early August. April applications may be too early—they'll control the first generation of BTA, but the residues may be gone before the larger, annual grub species have hatched. MACH 2® applied in late May or the first week of June will control BTA and subsequent annual grubs.

BTA can also be controlled curatively by targeting the grubs with a short-residual soil insecticide (e.g., Dylox® or Turcam®). Irrigate after treatment to move the insecticide through the thatch. As with all curative treatments, the younger the grubs, the easier they are to control. 