

### Annual Bluegrass Weevil (*Hyperodes Weevil*)

**Background:** The annual bluegrass weevil, *Listronotus maculicollis*, formerly called the hyperodes weevil, is a serious pest of close-cut annual bluegrass on golf courses and tennis courts in the northeastern United States. Adult annual bluegrass weevils chew notches or holes in grass blades and at the juncture of leaves and stems. This damage is minor compared to that caused by the larvae which feed inside plant stems and on plant crowns. One larva can kill many plants during its lifetime. Heavy infestations cause severe damage to greens, collars, or fairways where annual bluegrass predominates. Infestation densities may exceed 450 larvae per square foot. The annual bluegrass weevil occurs around the metropolitan New York area including New England, New Jersey and Pennsylvania. Except for the northern most extremes of this territory, the annual bluegrass weevil may have two generations per year, causing damage in late May and early June and again in late July and early August. Only short cut annual bluegrass (*Poa annua*) is damaged by this pest and patches of creeping bentgrass will be left untouched even when the surrounding annual bluegrass has been killed.

**Description:** Adult annual bluegrass weevils are small, 1/8 to 5/32 inch-long dark charcoal gray beetles. The body is covered with fine, yellowish hairs and scales that wear off with age so that older adults appear shiny black. The head is prolonged into a blunt snout and is sometimes confused with turf infesting billbugs. Their eggs are rice-shaped, about 1/32 inch long and gray. Two or three are deposited end to end between leaf sheaths of annual bluegrass. The larvae are creamy white and somewhat "C" shaped with a distinct brown head. They may resemble small scarab grubs but lack legs and have a pointed abdomen. Young larvae are 1/32 inch and grow to 3/16 inch when mature. There are five larval instars, each lasting 5-7 days. Young larvae burrow and feed inside grass stems, but older larvae feed externally, mainly on the plant crown.

Adults overwinter in leaf litter under trees, needle litter, grass clippings or other sheltered sites in roughs or along borders of golf courses. The weevils become active in late April, when Forsythia blooms and fly to areas of close cut annual bluegrass and begin to feed. Adults usually hide in the thatch by day and feed on grass stems at night. Egg laying begins in May just before flowering dogwood bloom.

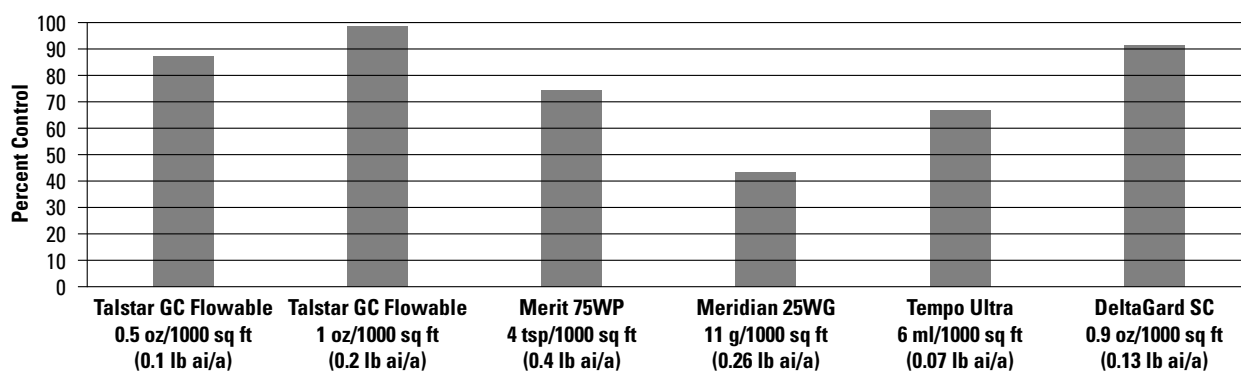
Eggs hatch in 4-5 days and the larvae burrow into the grass stems to feed. When the larvae become too large to feed within the grass stem, they burrow out and feed on the crown. Most of the population reaches 5th instar by mid May when the most severe damage occurs. Pupation occurs in mid June with the second generation adults emerging in late June to early July to start the cycle again. Larvae of the second brood reach 5th instar by mid-July to early August. Damage from the second brood may extend further into the center of greens and fairways and be more intense if the first generation is left untreated.

**Damage:** Damage starts out as a non-recovering wilt, followed by small, yellowish-brown spots or scattered dead patches that coalesce into larger dead areas as the larvae grow. The internal feeding of the first and second instar larvae causes the central leaf blades to turn yellow and die. Damage usually occurs along the edges of fairways, especially those bordering wooded or vacant areas and around edges of greens and tees. The presence of holes

or notches in annual bluegrass blades is a good indicator of adult activity. The adults may also be spotted with a flashlight as they feed on foliage at night.

**Management:** Preventative control of annual bluegrass weevil is warranted on golf courses having recurring problems. One option is to use a long residual adulticide to control the adult beetles before they lay eggs. Apply Talstar® GC flowable insecticide/miticide at 0.25-0.5 oz. per 1000 sq. ft., Talstar® GC granular insecticide or Talstar® EZ Golf granular insecticide at 1.15-2.3 lbs per 1000 sq. ft. Applications should be timed to control adult weevils as they leave overwintering sites and move into grass areas. The onset of egg-laying occurs just before flowering dogwood (*Cornus florida*) is in full bloom. If an area was damaged by the first generation in May, an application in early July may be warranted. Consult your State Cooperative Extension Service for more specific information regarding application timing, depending on the level of infestation and the nature of the crop.

### Annual Bluegrass Weevil Control 24 DAT



Trial conducted by Dr. Steve Alm, University of RI, 2001

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