

## Best Management Practices

### Cutworms

**Introduction:** Important turf damaging cutworms include the black cutworm, *Agrotis ipsilon* (Hufnagel); the bronzed cutworm, *Nephelodes minians* (Guenee); and the variegated cutworm, *Peridroma saucia* (Hubner). They are found throughout North America, although the black cutworm is a pest throughout the world, and the bronzed cutworm is more prevalent in cooler climates. All species of turfgrasses may be attacked by these semi-subterranean, night-feeding pests. On golf course greens and tees, black cutworms are a perennial problem.

**Description and Life History:** Larvae are mostly hairless with a few scattered bristles. They have 3 pairs of true legs as well as five pairs of prolegs, and most will coil into a spiral when disturbed. When full grown, the larvae are 1.4 - 2.0 inches long. Adults are dull-colored moths with a wing span of 1.4 - 1.8 inches, with the wings kept folded flat over the body at rest. Black cutworm adults are gray with black markings; bronzed cutworm adults are a mottled reddish brown color; the variegated cutworm moth may be brown or gray.

Cutworms over winter as larvae or as pupae in the northern states. In southern turf, activity occurs all year. Black and variegated cutworms have two to four generations per year in the north, whereas in southern areas they have three to seven generations. Bronzed cutworm has only one generation per year throughout its range. An individual female may lay up to 2,000 eggs over a period of several days. Three to ten days later, the larvae hatch and feed on grass blades for 20 - 40 days.

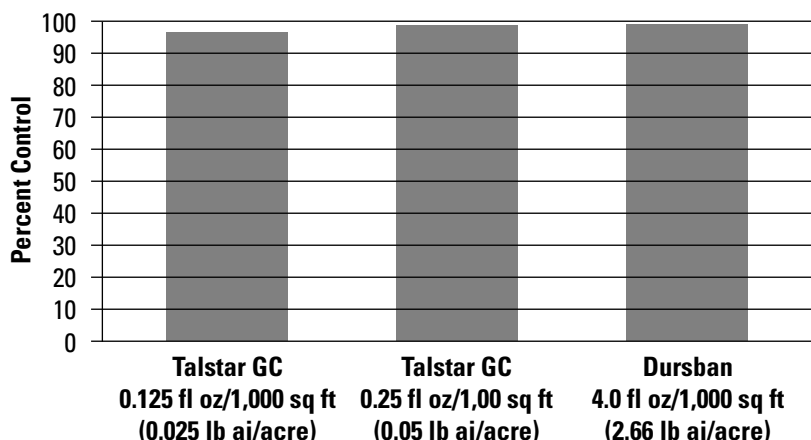
**Damage:** Cutworms usually dig a burrow in the ground or thatch, or use an aeration hole. At night they emerge to clip off grass blades and shoots. This feeding damage often appears as circular spots of dead grass or sunken spots that look like ball marks on golf greens. Bronzed cutworms are active in fall and spring and have been known to completely strip off a lawn at ground level.

**Management:** Because cutworms can be difficult to locate, the use of a soap flushing solution is often needed to determine population pressure. Control measures are warranted if three to eight or more larvae are found per square yard of fairway or lawn turf, fewer on greens or tees. Cutworm control is obtained when the cutworms either consume or contact the pesticide. See reverse side for a few helpful hints.

*TalstarOne™ multi-insecticide and Talstar® GC flowable insecticide/miticide:* Apply at the rate of 0.18 to 0.25 fluid ounces per 1,000 square feet in the afternoon or evening and delay irrigation for 24 hours after application. High, dense canopies may require higher application rates, especially when the populations of cutworms contain a mixture of ages. The maximum application rate of TalstarOne or Talstar GC flowable insecticide/miticide for cutworm control is 1.0 fluid ounce per 1,000 square feet. Larvae hatching several days after application are also controlled by the long residual activity of the product.

### Black Cutworm Control with Talstar® GC Flowable Insecticide

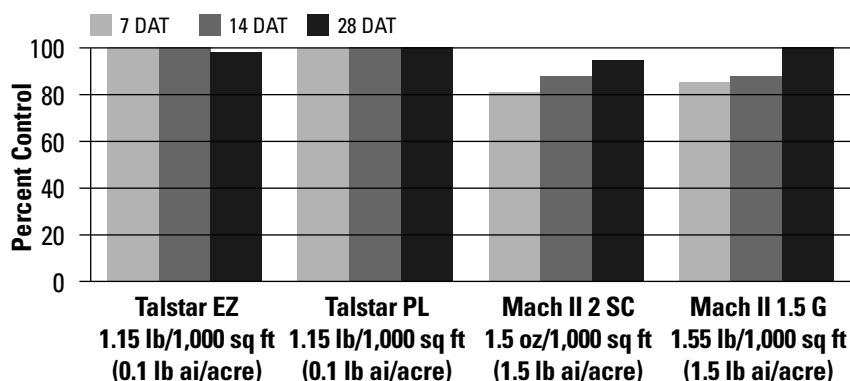
Trials conducted in Indiana, New Hampshire, Ohio, Pennsylvania, South Carolina and West Virginia.



*Talstar® PL granular insecticide, Talstar® EZ granular insecticide, Talstar® GC granular insecticide and Talstar® EZ Golf insecticide:* Apply at the rate of 1.15 pounds up to a maximum label rate of 4.6 pounds per 1,000 square feet. Existing soil moisture is often sufficient to release the active ingredient from the sand-based granule, and subsequent dew or rainfall will ensure the release. However, irrigating the treated area with up to 0.1 inch of water after application of Talstar PL granular will usually result in quicker control of cutworms. This level of irrigation will release the insecticide from the granule but keep it within the feeding area of the cutworms.

### Black Cutworm Control

Trial conducted by Dr. Chris Williamson, University of WI, 2001  
DAT = Days After Treatment



### Selected References:

Brandenburg, R.L. and M.G. Villani, 1995. Handbook of Turfgrass Insect Pests. ESA, Lanham, MD.  
Watschke, Thomas L. et al, 1995. Managing Turfgrass Pests. Lewis Publishers, CRC Press, Boca Raton, FL.

**Always read and follow label directions.**

The FMC logo is a registered trademark of FMC Corporation.  
Talstar and TalstarOne are registered trademarks of FMC Corporation.  
Dursban and Mach II are registered trademarks of Dow AgroSciences LLC.  
© FMC Corporation. All rights reserved.  
TU103R 11/03