

A Look At ...



A LOOK AT ... FROM AN INDEPENDENT PERSPECTIVE from
National Organization Responding Against HUJE that seek to harm the Green Space Industry (NORAHG)

Black Cutworm

A Look At Turfgrass Insect Management

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Selected and adapted excerpts

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Names Associated with Cutworms

Three species of cutworms are pests on golf course turf —

- Black Cutworm, *Agrotis ipsilon* (Hufnagel)
- Bronzed Cutworm
- Variegated Cutworm

Cutworms are found throughout North America.

The Black Cutworm is the species most likely to damage turf.

Susceptible Species and Likely Locations

Cutworms feed on many plant species.

The Black Cutworm has many weed and crop hosts.

It is a common problem on creeping bentgrass and annual bluegrass PUTTING GREENS of golf courses, which can tolerate very little feeding injury.

Although cutworms are also found on FAIRWAYS, they rarely cause enough damage to be considered a problem there.

This species rarely causes damage to residential home lawns.

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Identification — Larva

Larvae are HAIRLESS CATERPILLARS with MARKINGS on the head and body.

The upper half of the body is a DARKER GRAY than the lower half.

They have BLACK DOTS along both sides of their body.

Cutworm caterpillars grow to a width of 0.5 centimetre (0.2-inch) and a length of 3.5 to 5.0 centimetres (1.4 to 2.0-inches).

Most cutworms CURL UP IN A COIL WHEN DISTURBED.

See above photo.

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Identification — Adult

The adult moth is GRAY with BLACK MARKINGS ON ITS WINGS.

The wing-span can be 3.5 to 4.6 centimetres (1.4 to 1.8-inches).

When the moth is not flying, it RESTS ITS WINGS FLAT over its body.

See above photo.

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Damage

The young cutworm feeds on plant material without cutting off the stems or leaves, but later becomes a true cutworm when it begins to CUT OFF FOLIAGE and carry it back to its burrow.

Black Cutworms dig burrows in the thatch or soil of a golf course PUTTING GREEN — they EMERGE AT NIGHT to feed on the roots and shoots of grass plants.

Their feeding damage RESEMBLES BALL MARKS on golf course greens — round or depressed spots of dead turf.

See above photo.

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Aeration Holes

The cutworm caterpillars often USE AERATION HOLES FOR BURROWS, but aerated greens DO NOT have more cutworm damage than greens that are not aerated.

Cutworms simply OCCUPY THE AERATION HOLES when they are present on a green instead of making their own burrows.

See above photo.

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Life Cycle

Black Cutworms over-winter in the southern-most regions of North America.

Every year, the adult moths MIGRATE NORTHWARD and arrive in Michigan in EARLY TO MID-JUNE.

They can complete ONE TO THREE GENERATIONS PER SEASON in Michigan.

The adult moths mate and FEED AT NIGHT on flowering trees, bushes, or weeds near the golf course.

The female LAYS EGGS SINGLY ON THE TIPS OF GRASS BLADES.

See above photo.

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Life Cycle (continued)

One female can lay 300 to 2,000 eggs over a series of several days.

The eggs hatch in three to 10 days (depending on temperature), and the young caterpillars begin to feed on the grass shoots.

As the caterpillars increase in size, they BURROW INTO THE TURF, and MOVE TO AND FROM THESE HOLES AT NIGHT TO FEED ON THE GRASS.

Cutworms require 20 to 40 days of intense feeding to form pupae.

After two weeks in the pupal stage, they emerge adult moths.

Moths may stay in the local area or migrate to other locations.



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Monitoring

Monitoring for cutworms is important for management.

A SOAP SOLUTION (1/2-ounce of liquid dish soap per 3 gallons of water) applied as a drench to the green during the day will flush the caterpillars from their burrows.

See above photo.

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Threshold

If THREE TO EIGHT CUTWORMS per square yard are found, a pest control products application may be needed.

Chemical Control

A 6-METRE (20-FOOT BORDER) AROUND THE PUTTING GREEN should be treated because most of the cutworms found on the green come from the surrounding turf.

Regular sampling for cutworms and damage, followed by insecticide treatment, if needed, will protect turfgrass against significant damage by Black Cutworms.

Preventive Practices

DAILY MOWING OF PUTTING GREENS removes 75 to 97 per cent of the cutworm eggs before they hatch, but up to 90 per cent of the eggs removed by the greens mower can survive and hatch and grass clippings.

Therefore, the CLIPPINGS MUST BE DISPOSED OF 90 metres (100 yards) or more from the green because cutworms may crawl long distances (up to 9 metres or 30 feet per night).

Also, MOWING EARLY (before 5:30 a.m.) ONE MORNING EACH WEEK will destroy most cutworm larvae before they can return to their burrows.

A LOOK AT is a Report presented by National Organization Responding Against Hujie that seek to harm or misinform the Green Space Industry (NORAHG). It is a series of Reports destined for the Green Space Industry, nationwide across Canada, the United States, and overseas. This Report has been developed for the education and entertainment of the reader by providing TECHNICAL INFORMATION WITH COMMENTARY.

A LOOK AT is TOTALLY INDEPENDENT of any trade association or business operating within the Green Space Industry. Don't thank us. It's a public service. And we are glad to do it.

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The information presented in this Report is for preliminary planning only. Before making a final decision, the turf manager is expected to obtain trusted expert advice from extension specialists, local distributors and/or agronomists. All decisions must take into account the prevailing growing conditions, the time of year, and the established management practices.

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A LOOK AT, and its various incarnations, is the brainchild of William H. Gathercole and his entourage. Mr. Gathercole is a principal founder of the Modern Professional Lawn Care Industry in both Ontario and Quebec. He holds a degree in Horticulture from the University of Guelph, and another pure and applied science degree from McGill University. He has worked in virtually all aspects of the Green Space Industry, including golf, professional lawn care, and distribution. Mr. Gathercole has supervised, consulted, programmed, and/or overseen the successful execution of hundreds of thousands of management operations in the urban landscape. He has trained, instructed, and advised thousands of turf managers and technicians. Mr. Gathercole has also been an agricultural agronomist. Mr. Gathercole is personally credited for crafting the Exception Status that has allowed the Golf Industry to avoid being subjected to the PROHIBITION-TERRORISM policies of pest control products. He is also the creator of the signs that are now used for posting after application.

Mr. Gathercole is now retired, although his name continues to appear as the founder of A LOOK AT.



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