

Black cutworm

Agrotis ipsilon

DESCRIPTION OF INSECT

Immature stage:

Caterpillars are relatively thick bodied, and reach 1.75 inches in length and 1/4 inch in width when mature.

Color varies from dark gray to black in upper half of body, without distinctive markings other than a pale stripe down the middle of the back and a few randomly scattered bristles. The caterpillar is otherwise hairless. The underside of the caterpillar is light gray. Under a hand lens, the skin appears bumpy and greasy.

Spiracles (small breathing holes on the thorax and abdomen) are black.

Three pairs of true legs on thorax (behind head); five pairs of prolegs towards the rear of the insect, on the abdomen.

Mature stage:

Adults are thick bodied, dark colored moths that fly at night. Their wingspan ranges from 1 – 1.75 inches.

The forewings are dark gray, brown or black and have a distinctive, dark colored marking in the shape of a dagger in the center of each forewing.

Hindwings are off-white or dirty white.

Damaging stages(s):

(caterpillars) only; adult moths do not feed

Predictive models:

Caterpillars hatch once average air temperatures reach 55F (13C), and multiple overlapping generations can occur as long as temperatures are above this threshold.

[Threat temperatures](#) can be used to trigger monitoring activities such as [soap flushes](#). See the resource, [Threat temperatures](#) for more information.

Damage frequently appears following aeration, though caterpillars are typically present, without causing damage, before aeration

Life Cycle:

40 – 60 days from egg to egg

Females lay eggs during the nighttime, usually on the tips of grass blades or on weeds such as curled dock or yellow rocket mustard.

Eggs hatch in 3-6 days

Larvae live for 20 – 40 days

Young larvae feed directly on leaf blades, causing little to no obvious damage



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Older larvae are voracious feeders, eating up to a handful of foliage per night. These larvae reside during the day in the thatch and upper soil profile, where they construct silk-lined burrows. These are frequently found in aeration holes.

Larvae pupate in the larval burrow and the adult moth emerges roughly 2 weeks later.

Conducive environmental conditions:

temperatures above 55F (13C)

DAMAGE CAUSED:

Plants attacked:

Foliage of cool-season turf on greens, tees and sometimes fairways. Bentgrass, *Poa annua*, tall fescue and ryegrass are preferred. Cutworms do not survive well on Kentucky bluegrass.

Symptoms of damage:

- small dead patches of turf that can resemble dollar spot
- sunken areas or pockmarks that resemble ball marks.
- Pecking by birds
- Damage frequently occurs around aeration holes or spike mark holes, where cutworms burrow during the day.
- Damage is frequently most obvious following aeration
- Damage occurs when average air temperatures are above 55F (13C)

Similar pests and/or damage:

- Sod webworms are thinner bodied, and have prominent spots throughout the body.
- Fall armyworm has obvious striping patterns and pale colored spiracles surrounded by a whitish ring.
- Dollar spot causes similar damage, but produces mycelium when turf is incubated overnight.

MONITORING TECHNIQUES:

[Soap flush](#) for larvae: This is the most useful of the monitoring techniques for cutworms.

Pheromone traps with female sex attractant. Monitoring for larvae should begin two weeks after the first peak of males is trapped.

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THRESHOLDS:

There are no hard and fast thresholds for this pest. Turf, even on greens, can tolerate very high numbers without any obvious signs of damage, so it is usually best to wait until early signs of damage are observed. Following use of a soap flush to confirm the presence of cutworms, treatments can be triggered.

BLACK CUTWORM MANAGEMENT STRATEGIES:

TYPE	TIMING/ THRESHOLD	PRACTICE	COMMENTS
Cultural	N/A	Utilize tolerant/resistant turf types including Kentucky bluegrass Remove clippings	
Biological	Apply when 1 st small larvae are detected with soap flush	Beneficial nematode products based on <i>Steinernema carpocapsae</i>	Moderate efficacy
Chemical	<ul style="list-style-type: none">Follow resistance management guidelines by rotating products as outlined in "Insecticide Mode of Action Classification Scheme"Consult North Carolina State "Pest control for Professional Turfgrass Managers" for pest control optionsAlways consult the most recent version of all product labels before use.		Include treatment of a 20 – 30 foot buffer zone around greens and tees to avoid re-infestation