

Field Corn

Corn Earworm

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Corn Earworm Larva

Identification (and life cycle/seasonal history)

The corn earworm, also known as the cotton bollworm, may appear in various colors from yellow or pink to green, sometimes almost black. Alternating light and dark stripes usually mark the body, which is covered with small spines (microspines). Regardless of body color, they always have yellow-brown head capsules, except when newly hatched. A fully developed larva is 40 to 50 millimeters (1½ to two inches) in length.

Adult moths are buff to grayish-brown with a wingspread of about 40 millimeters (1½ inches). Most adult moths are considered to migrate north from the southern states in the spring. Female moths lay a single off-white colored egg. First generation earworms often feed in corn whorls, producing "shot holes" and damaging developing tassels. Second generation moths seek out green corn silks on which to deposit their eggs. The eggs hatch into young larvae in two to 10 days and begin feeding on the corn silk, sometimes clipping it off. Later, the larvae bore through the silk channel to the ear tip and begin feeding on the kernels. Larger larvae are cannibalistic, so usually only one larva reaches maturity in an ear of corn. Mature earworm larvae crawl down the stalk, burrow into the ground and pupate in an earthen cell. Adult moths emerge from the pupal cells 10 to 25 days later; the last generation overwinters as a pupa.

Plant Response and Damage

Larvae begin feeding on silks and later tunnel into ears where they feed on developing kernels, usually starting at the ear tip. Fecal pellets (frass) accumulate along feeding channels. Not only do larvae cause direct loss by feeding on kernels but also provide openings in the husks for entry of disease organisms and birds.

Management Approaches

Resistant Varieties

Suppression (not control) of corn earworm can be expected from most Bt corn hybrids, except those that contain just the YieldGuard Rootworm event. See *Managing Corn Pests with Bt Corn*, <http://www.ext.colostate.edu/pubs/crops/00708.html>, for details on

the use of Bt corn hybrids to control corn pests.

Biological Control

Corn earworms are a source of food for many predatory insects, such as lady beetles, which consume them directly. Also, several small parasitic wasps lay their eggs directly on the earworm larvae. Later, the eggs hatch, and the parasitic larvae enter the body of the earworm and kill it by consuming it from the inside. These beneficial insects often keep corn earworm populations below economic levels. Microbial diseases such as the *Heliothis polyhedrosis* virus help control corn earworm. Before applying insecticides for corn earworm control the relative abundance of beneficial insects should be considered.

Chemical Control

Control of corn earworms in field corn is usually neither practical nor economical. Registered materials include Ambush 2ER, Asana XLR, BaythroidR, Capture 2ER, CobaltR, Delta GoldR, Dipel ES, HeroR, LannateR, MustangR, Pounce 3.2ER, Radiant, Sevin, Tracer, and WarriorR.

RRestricted use pesticide.

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Categories: Field corn, Insects, Cotton bollworm, Corn earworm

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