

Problem: Corn Earworm or Tomato Fruitworm - *Helicoverpa zea* (Boddie)



Description:

The corn earworm is also known as the tomato fruitworm and cotton bollworm. It is the most serious pest of sweet corn ears in Kansas. The adult stage of this insect is a buff colored moth with a wing span of about 1½ inches. The females prefer fresh corn silk on which to lay their eggs but may choose crops (such as tomato fruit) if corn silk is unavailable. When the egg hatches on corn, the larva will crawl down the silk and into the ear. Feeding starts at the tip of the ear and works down. Though several earworms may hatch and attack a single ear, only one is usually present at harvest as these insects are cannibalistic. Larvae may be light brown or green to nearly black with dark and light stripes running lengthwise on the body.

Recommendations:

Damaged ends of the sweet corn can be cut off. Chemical control is a bit of a challenge as silks continue to grow over a period of time. This means that even if silks are treated, new silk will appear that hasn't been protected. Applications every 2 to 3 days are needed for insecticides to be effective especially in late June to early July when peak flight of these moths usually appear.

There is a three-week period from silking to harvest but there is only a two-week period from when the silks appear and when they begin to dry. Since moths prefer juicy silks and shun those that have started to dry, insecticides are only needed the first two weeks of silking.

There are a number of products that are effective against corn earworm. Homeowner products that have good efficacy and short intervals between spraying and harvest are

cyfluthrin (Baythroid; Bayer Vegetable & Garden Insect Spray) and spinosad (Captain Jack's Dead Bug Brew; Conserve; Monterey Garden Insect Spray). Spinosad is an organic product. Commercial growers have additional choices including zeta-cypermethrin (Mustang Max), (bifenthrin+zeta-cypermethrin (Hero), spinetoram (Radiant) and flubendiamide (Belt).

Though more time consuming, mineral or other light horticultural oils may also be used. The oil is placed inside the silk end of the ear with a medicine dropper (1/2 - 3/4 of a dropper) after the silks brown. This will coat the earworms already present and likely suffocate them though some damage to the tip of the ear will likely have occurred. Applying the oil before the silk has browned may interfere with pollination leading to incompletely filled ears.

References:

1. [Corn Earworm Control Study](#), Iowa State University, ISRF08-20
2. [Corn Earworm](#), Purdue University Extension Service, E-31-W

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