

Field Corn

Pale Western Cutworm

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Cutworm Adult



Cutworm Larva

Identification (and life cycle/seasonal history)

The pale western cutworm is a subterranean soft bodied caterpillar; grayish-white in color, unmarked by spots or stripes, with two distinct vertical brown bars on the front of the head capsule. A fully developed larva is about 25 millimeters (one inch) in length.

Adult moths emerge from the soil in late summer and fall. Eggs are deposited in loose soil and usually hatch within two weeks. Hatch may be delayed for up to several months if moisture and temperature conditions are unfavorable. Larvae prefer loose, sandy or dusty soil and are found most easily in the driest parts of the field, such as hilltops.

Outbreaks are associated with dry conditions in the previous spring. If the preceding May and June had fewer than 10 days with $\frac{1}{4}$ inch or more of rainfall, then pale western cutworm populations can be expected to increase. If the preceding May and June had more than 15 such days the cutworm will almost totally disappear. Rainfall events of more than $\frac{1}{4}$ inch tend to drive the cutworms to the soil surface and expose them to more than usual levels of predation and parasitization.

Plant Response and Damage

Pale western cutworm is a subterranean cutworm feeding on stems at the crown. In corn, the cutworms may cut off small seedlings below ground. As corn plants get larger, they may enter the plant and cause the growing point to die. After feeding is completed, pale western cutworm larvae move to pupal chambers constructed several inches below the soil surface. Adult emergence can begin in late July. Small grains, corn, and a variety of other crops have been damaged by pale western cutworm. They are usually found in corn after a wheat field has been replanted to corn in early spring.

Management Approaches

Because of the sporadic nature of pale western cutworm outbreaks, management options are limited to the use of insecticides. Pale western cutworms seem to feed more under dry conditions, so yield relationships are difficult to define. Consider insecticide treatment if one plant in 20 is injured, and cutworms are present.

Chemical Control

Cutworms are the most prevalent in corn following sod, alfalfa or small grain stubble, and after corn in fields with much crop or weed residue. Early detection of their presence is essential. Crusting or dry

surface soil can reduce control with some materials, which can be counteracted by rotary hoeing immediately before or after the application. Pyrethroids (Ambush 2ER, Pounce 3.2ER) have performed better without incorporation in most studies. Control is not expected with current Bt corn hybrids.

Product list for pale western cutworm:

Pesticide	Product/Acre (Fl oz. or oz. product)	Preharvest Interval, remarks
Asana XLR,1	5.8 - 9.6	21 days. Apply as necessary to maintain control. Extremely Hazardous to Bees!
Aztec 2.1GR	6.7 oz/1000 row feet	Band, T band, or in furrow at planting.
Defcon 2.1GR	6.7 oz/1000 row feet	Band, T band, or in furrow at planting.
carbaryl1,2	See labels	48 days grain or stover, 14 days silage. Extremely Hazardous to Bees!
chlorpyrifos 15G2	13.5 lb (broadcast)	Suppression only for in furrow treatments. Not for use on popcorn.
	8oz/1000 ft	
chlorpyrifos 4ER1,2	16 - 32	35 days. 14 days grazing. Not for use on popcorn. Extremely Hazardous to Bees!
CobaltR1	13-26	21 days. 14 days to graze. Not for use on popcorn. Extremely Hazardous to Bees!
Delta Gold R,1	1.0 – 1.5	21 days to harvest grain or fodder. 12 days to forage. Do not apply more than 0.095 lb ai/acre/crop. Extremely Hazardous to Bees!
HeroR,1	2.6 – 6.1	30 days to harvest grain or fodder. 60 days to forage. Do not apply more than 0.4 lb ai/acre/crop. Extremely Hazardous to Bees!
lambda cyhalothrinR,1,2	2.56 - 3.84	21 days. Apply as required by scouting or locally prescribed corn growth stages. Do not apply more than 0.12 lb (AI)/acre/season. Extremely Hazardous to Bees!
Mustang MAX ECR,1	3.2 - 4.0	30 days grain or stover, 60 days silage. Extremely Hazardous to Bees!
permethrinR,1,2	See labels.	30 days. Liquids are Extremely Hazardous to Bees!
ProaxisR,1	2.56 - 3.84	21 days. Apply as required by scouting or locally prescribed corn growth stages. Do not apply more than 0.06 lb (AI)/acre/season. Extremely Hazardous to Bees!

RRestricted use pesticide. 1Labeled for chemigation. 2Generic active ingredient, may be additional formulations.

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Pesticides must be applied legally complying with all label directions and precautions on the pesticide container and any supplemental labeling and rules of state and federal pesticide regulatory agencies. State rules and regulations and special pesticide use allowances may vary from state to state: contact your State Department of Agriculture for the rules, regulations and allowances applicable in your state and locality.>

Categories: Field corn, Insects, Pale western cutworm

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