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# Field Corn

## Western Bean Cutworm

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*Cutworm Adult*



*Western Bean Cutworm Larva*

### Identification (and life cycle/seasonal history)

Western bean cutworm larvae are dark brown with faint diamond-shaped markings on their backs. Fully developed larvae are about 38 millimeters (1½ inches) in length and have three short dark stripes running lengthwise on the first segment behind the head. The body of the moth is about 20 millimeters (¾ inch) long and brown in color. They have a wingspread of about 40 millimeters (1½ inches) and are marked with creamy white stripes on the front leading edge. The light colored hind wings are not distinctly marked.

Western bean cutworms complete a single generation each year. Fully-grown larvae (pre-pupae) overwinter in the soil. In May and early June they change to pupae. The moths emerge between mid-July and early August. They are active at night and are attracted to lights. Eggs are laid shortly after the moths emerge. The eggs are deposited in clusters of four to 200 on the top surface of upper leaves. When first laid the eggs are white with a thin red ring around the top. As they age, they change to brown, then immediately prior to hatching they are purple to black in color. The eggs hatch in five to seven days. The majority of the western bean cutworms feed until mid-September. When mature, they enter the soil and change to the pre-pupal stage to overwinter.

### Plant Response and Damage

Western bean cutworm was originally considered to be a pest of dry beans but now is recognized as a serious pest of field corn. Following hatch, young western bean cutworms move to one of two places on the corn plant, depending on the stage of development of the corn. If corn has not tasseled, larvae feed on pollen in the developing tassel. If corn has tasseled, larvae feed on silk in the ear: this type of silk feeding may cause pollination to be poor. Once the ear has formed, larvae feed on developing kernels. Destruction of the kernels may reduce corn yields by as much as 30 to 40 percent.

### Management Approaches

#### Chemical Control

**Western bean cutworm eggs are laid on upper leaf surfaces on the upper part of the plant. Fields should be scouted closely, as once the larvae move into the ear, good control will be difficult to obtain. Chemical control should prove economical if eight**

percent or more of the plants have egg masses or small larvae in the tassels, and the crop is at least 95 percent tasseled. If tasseling is much less than this, the percentage of infested plants should be raised as fewer larvae are likely to reach the ears. Many of the insecticides registered for western bean cutworm control have been associated with spider mite outbreaks, so fields should be monitored for mites after a treatment is made. Control is expected with only those Bt corn hybrids containing the Herculex I 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.

Product list for western bean cutworm:

Pesticide	Product/Acre (Fl oz. or oz. product)	Preharvest Interval, remarks
Asana XLR, <b>1</b>	2.9 - 5.8	21 days. <b>Extremely Hazardous to Bees!</b>
Baythroid XLR, <b>1</b>	1.6 - 2.8	21 days. See label. <b>Extremely Hazardous to Bees!</b>
bifenthrin 2ER, <b>1,2</b>	2.1 - 6.4	30 days. Use rates below 5.12 fl. oz. only if spider mites are <b>NOT</b> a concern. <b>Extremely Hazardous to Bees!</b>
chlorpyrifos 4E <b>1,2</b>	16 - 32	35 days to harvest. Not for use on popcorn. <b>Extremely Hazardous to Bees!</b>
Cobalt <b>R1</b>	13 - 26	21 days. 14 days to graze. Not for use on popcorn. <b>Extremely Hazardous to Bees!</b>
Delta Gold <b>R,1</b>	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. <b>Extremely Hazardous to Bees!</b>
Hero <b>R,1</b>	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. <b>Extremely Hazardous to Bees!</b>
Intrepid 2F	4 - 8	21 days. 64 oz per season maximum. See label for timing information and crop rotation restrictions
lambda cyhalothrin <b>R,1,2</b>	1.28 - 1.92	21 days. See label. <b>Extremely Hazardous to Bees!</b>
Mustang Max ECR, <b>1</b>	1.76 - 4.0	30 days. See label. <b>Extremely Hazardous to Bees!</b>
PennCap MR, <b>1</b>	32 - 64	12 days. <b>Extremely Hazardous to Bees!</b> Do not apply when bees are foraging in the field.
permethrin <b>R,1,2</b>	See labels.	30 days. <b>Extremely Hazardous to Bees!</b>
Radiant SC <b>1</b>	3 - 6	28 days. 3 days fodder or forage. <b>Extremely Hazardous to Bees!</b>
Tracer <b>1</b>	2 - 3	28 days. See label. <b>Extremely Hazardous to Bees!</b>

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

The information herein is supplied with the understanding that no discrimination is intended and that listing of commercial products, necessary

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Categories: Field corn, Insects, Western bean cutworm

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