

# Pale Western Cutworm

*Agrotis orthogonia*  
(Morrison)



Pale western cutworm larva  
cc-by-nc 3.0 John Capinera

**OTHER COMMON NAME**  
None available

**FRENCH COMMON NAME**  
Ver-gris orthogonal

## IDENTIFICATION

**ADULTS:** Light gray forewings with indefinite markings. Wingspan of about 38 mm.

**MATURE LARVAE:** Hairless; about 40 mm in length. Body pale gray to greenish gray in colour. No distinguishing markings except for the yellow-brown head which has two distinct vertical black dashes.

## DISTRIBUTION

Native to North America. Largely restricted to arid and semi-arid regions. Common in Canada on the southern prairies in Alberta and Saskatchewan.

## LIFE CYCLE

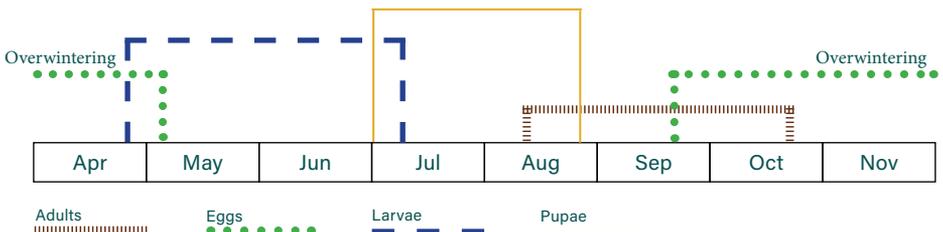
Overwinter as eggs in the top 1 cm of soil. Larvae pupate in earthen cells. One generation per year.

## HOSTS

Cereals preferred, with greatest damage observed in wheat, oat and barley. Other hosts include canola, mustard, flax, corn, sugar beet, field peas and other legumes, and certain weeds.

## FEEDING DAMAGE

**BELOW-GROUND CUTWORM:** Newly-hatched larvae feed on the surface of newly-emerging shoots and furled leaves of young plants causing small holes. Older larvae sever plants just below the soil surface. They occasionally pull and eat severed plants underground.





Pale western cutworm damage  
cc-by-nc 3.0 Phil Sloderbeck

## ECONOMIC THRESHOLDS

**CEREALS:** 3-4 larvae/m<sup>2</sup>. [Note: pale western cutworm at 8.4 larvae/m<sup>2</sup> caused 25% loss in wheat and a 30 larvae/m<sup>2</sup> caused 100% loss]

**FLAX:** 4-5 larvae/m<sup>2</sup>.

**CANOLA:** 4-5 larvae/m<sup>2</sup>.

**PEA:** 2-3 larvae/m<sup>2</sup>.

**DRY BEANS AND SOY BEANS:** 1 small (< 2.5 cm long) larva per meter of row, or 20% of plants cut.

## MONITORING/CONTROL

Check for the presence of gaps within rows. Monitor germinating cereal crops for expanding thinned or bare areas, especially on sandy hilltops and south-facing slopes. Examine the top 5-7 cm of soil in a 30 cm x 30 cm (0.1 m<sup>2</sup>) area for larvae at a minimum of 10 sites along the edges of an affected area. Multiply average by 10 to calculate number of larvae per square meter.

Insecticide treatments may be warranted if economic thresholds are exceeded, but take steps to minimize effects on natural enemies; see *General Control Options* (p. 26).

Apply insecticides to infested areas in late evening when larvae begin feeding. Larvae that do not contact residues on the soil surface will be exposed when they feed on treated leaves pulled underground. Infested fields should be sprayed before reseeding.

## NOTES

Weed-free uncultivated fields in August to mid-September are less attractive to females for egg laying.

If volunteer cereals show signs of feeding damage in the spring, cultivate the soil and keep it black for 10 days before seeding to starve young larvae (Salt and Seamans 1945).



Pale western cutworm adult  
Van Truan, bugguide.net



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# Cutworm Pests of Crops on the Canadian Prairies

IDENTIFICATION AND MANAGEMENT FIELD GUIDE

Canada 

# Cutworm Pests of Crops on the Canadian Prairie: Identification and Management Field Guide

Cover photo: Armyworm cutworm larva and damage,  
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