

# SCOUTING FOR BERTHA ARMYWORM

**Bertha armyworm** is part of a group of insect pests referred to as “climbing cutworms.” Populations are kept low most years due to cold winters and cool, wet weather as well as by parasites, predators and diseases. Populations can increase dramatically, however, when these natural regulators fail, creating the potential for widespread damage to a variety of broad-leaved crops.

In Canada, there is one complete generation of bertha armyworm per year, which develops through four distinct stages: adult, egg, larva and pupa. Larvae are the only stage to cause crop damage.

## Prevalence:

- One of the most significant insect pests of canola.
- Other hosts include mustard, alfalfa, lamb’s-quarters and related plants; occasionally attack peas, flax and potatoes.

## When and how to scout:

- Provincial forecast maps (based on male moths caught in pheromone-baited traps) available online show the annual risk of an infestation.
- For canola: when the crop is in the early pod stage, count the number of larvae in a 0.25 m<sup>2</sup> area in 10-15 different locations spaced at least 50 m apart following a zigzag pattern. Shake the plants to dislodge the larvae and then remove leaf debris and soil clumps to expose the larvae for counting. Calculate the number of larvae/m<sup>2</sup>.

## How to identify:

- Mature larvae: 40 mm long, velvety black (sometimes light green or light brown) caterpillars with a light brown head and a broad, yellowish-orange stripe along each side and three narrow, broken white lines down their backs.
- Adults: 20 mm long, greyish body with 40 mm wing span; characteristic wing markings on the forewing include a prominent, white, kidney shaped marking near the midpoint, and a conspicuous white and olive-colored, irregular transverse marking near the tip.

## Spray thresholds:

- 6-34/m<sup>2</sup>, depending on expected seed value and spray costs (control typically required around 20/m<sup>2</sup>).



## Bertha armyworm lifecycle



eggs



larva



pupae



adult moth

Brought to you by



**THINK BENEFICIALS  
BEFORE YOU SPRAY**

for more information visit  
[fieldheroes.ca](http://fieldheroes.ca)

# BENEFICIALS

## PARASITOIDS THAT HELP TO CONTROL BERTHA ARMYWORM



J. Gavloski

*Banchus flavescens*

### PARASITOID WASPS

*Banchus flavescens* is a key parasitoid of bertha armyworm and easily recognizable.

#### How to identify:

- Adults: relatively large, orange wasp with long antennae, and an abdomen that is quite constricted where it attaches to the thorax.
- Larvae: not seen as they live and feed inside caterpillars such as bertha armyworm.

#### How they help with control:

- *Banchus flavescens* lays its eggs in the first to third larval instars and kills mature larvae after they enter the soil to pupate.
- Parasitism of bertha armyworm by *Banchus flavescens* may exceed 40% in some years (Wylie, Bucher).



J. Gavloski

*Athrycia cineria*

### TACHINID FLIES

Tachinid flies are one of the largest families of flies, with about 1,200 species in North America. They are all parasitoids.

#### How to identify:

- Appearances vary, but many resemble house flies but are more bristly and larger. They have long, stout bristles all over the hind end.
- Larvae live and feed inside other insects.

#### How they help with control:

- *Athrycia cinerea* lays eggs on the third to sixth instar larvae, and the emerging parasitoid larvae immediately burrow into the bertha armyworm larvae.

FIELD  
HEROES



THINK BENEFICIALS  
BEFORE YOU SPRAY