

Insect Pest Update in the Western Canadian Canola Crop: Insect Monitoring Efforts and Communication to Growers

Keith Gabert¹, Scott Meers², James A. Tansey³, John Gavloski⁴

1 - Canola Council Agronomist, Insect Pest Specialty, Canola Council of Canada, Innisfail, Alberta, Canada 2 - Scott Meers, Insect Management Specialist, Alberta Agriculture and Forestry, Brooks, Alberta, Canada .
3 - James A Tansey- Provincial Specialist, Insect/Pest Management, Saskatchewan Ministry of Agriculture, Regina, Saskatchewan, Canada. 4 - John Gavloski, Provincial Entomologist, Manitoba Agriculture, Carman, Manitoba, Canada.

Key Insect Pests of Canola in W. Canada:

Flea beetles – Striped and Crucifer*

Phyllotreta cruciferae & *Phyllotreta striolata*

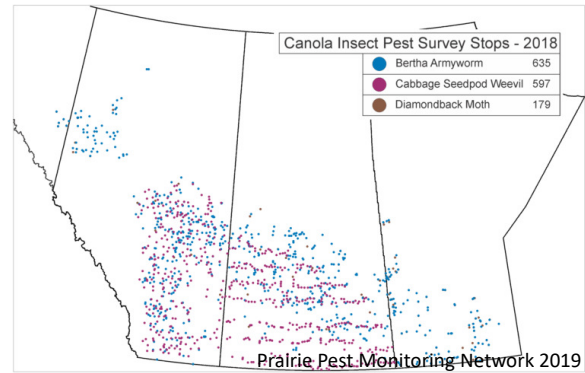
Cabbage Seedpod Weevil* – *Ceutorhynchus obstrictus*

Bertha Armyworm - *Mamestra configurata*

Diamondback Moth* - *Plutella xylostella* * Introduced

Additional Insect Pests of note include:

- **Cutworms** Noctuidae, including: *Agrotis* spp., *Euxoa* spp., *Apamea* spp.
- **Lygus Bugs** Primarily *Lygus lineolaris*, *L. hesperus*
- **Aster Leafhopper** *Macrostelus quadrilineatus*
- **Grasshoppers** Typically *Melanopus* spp.
- **Red Turnip Beetle** *Entomoscelis americana*
- **Root Maggots*** *Delia* spp.



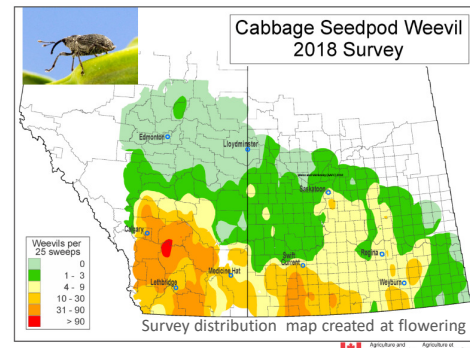
Sample and trap locations used in 2018 to monitor three of the more common canola insect pests in the prairie area.

Insect pest infestations in Canada **remain a field-specific issue**. Crop scouting is required to assess the economic threat of any pest population. Advances in forecasting and communications assist canola growers to direct scouting efforts, but nothing replaces 'boots in the field'. **No advance forecasting is available for flea beetles** – our most consistently damaging insect pest.

Cabbage Seedpod Weevil

First detected on the prairies in 1995 near Lethbridge, Alberta, cabbage seedpod weevil continues to expand north and east. Insecticide control is regularly required in this area of first detection, and often the earliest seeded canola fields attract weevils in areas of recent range expansion.

Economic Threshold: average of 25 -40 weevils/10 sweeps

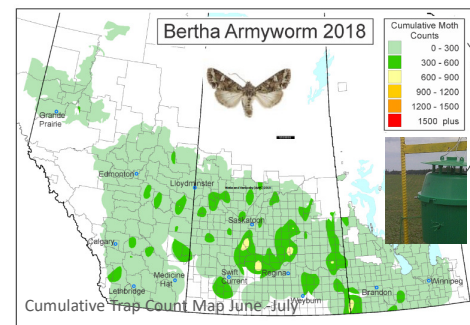


Bertha Armyworm

The only native insect pest that typically causes significant economic damage. A network of pheromone traps is used each year to inform growers of regions likely requiring crop-scouting for damaging larvae. Tracking these maps over years shows a cyclical pattern of population growth and decline.

Economic Threshold: approx. 20 larvae/m²

(Consult economic threshold chart to incorporate crop value and cost of control.)

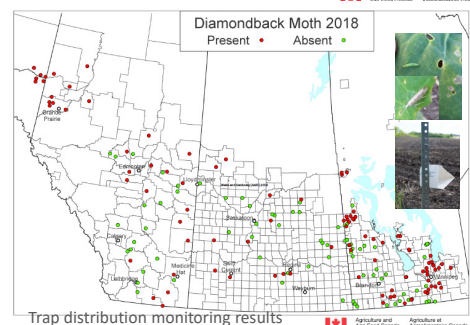


Diamondback Moth

Windblown from southern regions of North America, Diamondback moth is a prevalent and occasionally damaging pest on the Canadian Prairies. Wind trajectory tracking is used to predict potential arrival and evaluate geographic origins.

Economic Threshold: Immature and flowering fields – 100 to 150 larvae/m²;

Podded fields – 200 to 300 larvae/m²



Grower Communication:

Private industry, commodity associations, federal and provincial specialists work in tandem to provide information to canola growers. The Prairie Pest Monitoring Network provides a framework to coordinate many of these efforts. Information is made available to growers from a variety of formats: winter information meetings, conferences, in-season crop walks, weekly provincial crop reports, social media, websites, provincial extension call centers, Canola Watch - a weekly crop update from the Canola Council, Canola Council Agronomy Specialists, government extension or research staff, and commercial agronomists.