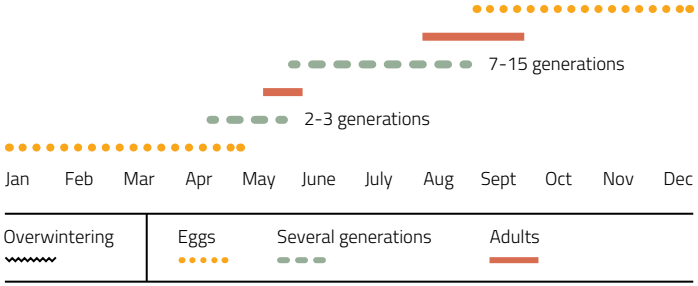
Pea aphid – adult, nymph
Mike Dolinski, MikeDolinski@hotmail.com

Aphid, pea
Acyrthosiphon pisum (Harris)



Pea aphid – winged adult
Mike Dolinski, MikeDolinski@hotmail.com

Hosts
Field peas, alfalfa, broad beans, chickpeas, clover, lentils.

Identification
ADULTS: 3-4 mm long, light to dark green, pear shaped with long legs; each antennal segment tipped by a black band.

MATURE NYMPHS: Similar appearance to adults but smaller.

Life Cycle
Overwinter as eggs on leaves and stems of perennial legumes such as the crowns of clover or alfalfa; 23 generations are produced asexually before winged females migrate to summer crop hosts where several generations are produced over the summer. Colonies are generally less dense than other species attacking field crops. Winged sexual forms are produced in late summer that mate and females return to winter hosts to lay eggs.

Feeding Damage
ADULTS AND NYMPHS: On peas, feeding in the flowering and early pod stage can result in lower yields due to less seed formation and smaller seed size. Protein content and other quality issues do not appear to be affected. On alfalfa, it prefers to feed on stems and newly expanding leaves. Pea aphids may turn leaves yellow and stunt overall plant growth when present in moderate numbers (50-100 per stem). In southern Alberta, infested alfalfa produced less hay, usually contained less carotene, and was more susceptible to winter killing.

Similar Species
See descriptions of grain aphids (p. 59, 60, 62).

Monitoring/Scouting
Beginning when 50-75% of the pea plants are in flower, take five 180° sweeps in 5 locations or check at least five, 8-inch (20 cm) plant tips along at least four well-spaced (50m/150 feet) stops in the field. Calculate the average number of aphids/plant tip or sweep.

Economic Threshold
PEAS: Consult provincial government web site for recommended thresholds for peas that consider crop value and cost of treatment in relation to aphid numbers.

SEED ALFALFA: Alberta-100 to 200/90° sweep; Saskatchewan and Manitoba-100 to 200/180° sweep when dryland crop is moisture-stressed, or until mid-August.

Management Options
BIOLOGICAL: Several species or predatory insects (green lacewing (p. 139), snakefly (p. 140))and parasitoids (*Aphidius matricariae* Haliday (p. 129), *A. ervi* Haliday (p. 129), *A. smithi* Sharma et Subba Rao (p. 129)) as a well as a fungal pathogen attack pea aphids.

CULTURAL: Seeding early in the spring may reduce yield loss due to pea aphids in some cultivars of peas.

CHEMICAL: If the economic threshold is exceeded in peas, a single application of insecticide when 50% of plants have produced some young pods will protect the crop against yield loss and be cost-effective.

Field Crop and Forage Pests and their Natural Enemies in Western Canada:

Identification and Management



Agriculture and Agri-Food Canada
Agriculture et Agroalimentaire Canada
Canada

Photo Credits:
1. Pea leaf weavil (*Sitona lineatus*) and leaf damage - Jonathon Williams, AAFC
2. *Pteromalus puparum* parasitizing an imported cabbage worm cocoon (*Pieris rapae*) - T. Haye, CABI
3. Lacewing (*Chrysopa* sp.) adult - John Gavloski, Manitoba Ministry of Agriculture
4. Grasshopper - Jesse MacDonald, AAFC

Prepared for Agriculture and Agri-Food Canada
by Hugh Philip, IPM 2 GO Consulting Service.

Field Crop and Forage Pests and their Natural Enemies in Western Canada: Identification and Management Field Guide

Publication history:
2015 - 1st publication
2018 - 2nd publication, expanded

Electronic version available at www.publications.gc.ca
Catalogue No. A59-23/2018E-PDF
ISBN 978-0-660-25561-3
AAFC No. 12766E

This publication may be cited as follows:
Philip, H., B.A. Mori and K.D. Floate. 2018. Field crop and forage pests and their natural enemies in Western Canada: Identification and management field guide. Agriculture and Agri-Food Canada, Saskatoon, SK.

Paru également en français sous le titre Guide d'identification des ravageurs des grandes cultures et des cultures fourragères et de leurs ennemis naturels et mesures de lutte applicables à l'Ouest canadien

For more information, reach us at www.agr.gc.ca or call us toll-free at 1-855-773-0241.