**Russian wheat aphid – adult, nymph**
Frank Peairs, Colorado State University, Bugwood.org

# **Aphid**, Russian wheat

*Diuraphis noxia* (Mordvilko)

Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec

Overwintering | Nymphs | Winged Adults

**Russian wheat aphid – damage**
Frank Peairs, Colorado State University, Bugwood.org

## Hosts

Wheat, barley, and many cool season grasses.

## Identification

ADULTS: 1.6-2.1 mm long, spindle-shaped, and lime green in colour. Shortened antennae and reduced cornicles at the end of the abdomen are distinguishing characteristics. Adults also have a "double cauda" from the side view.

MATURE NYMPHS: Similar to adults but smaller.

## Life Cycle

No male aphids have ever been found, thus no eggs are produced. Females reproduce asexually all year long and give birth to live young over 60–80 day life span (egg to adult, 10–14 days). Throughout the season, winged forms are produced which search out new hosts.

## Feeding Damage

ADULTS AND NYMPHS: Suck sap from leaves causing characteristic white, purple or yellow streaks between leaf veins. Feeding can cause discolouration and prevent normal unrolling of leaves, plant and head stunting, and bleached heads with poorly formed grain.

## Similar Species

The western wheat aphid, *D. tritici* (Gillette), is similar in appearance and also damages wheat, but is covered with wax and has a regular cauda.

## Monitoring/Scouting

Prior to the soft dough stage, count the number of infested plants among 20 randomly selected plants at 5 sites across a zig-zag transect of the field. The % infested = total number of infested plants. Crops should be checked weekly up to soft dough stage.

## Economic Threshold

WINTER CEREALS (After Oct. 1st): 15-20% seedlings infested.

SPRING CEREALS: 10-15% of seedlings, 15-20% of plants at boot stage.

## Management Options

BIOLOGICAL: Several species of parasitoids (*Aphidius matricariae* Haliday (p. 129), *A. smithi* Sharma et Subba Rao (p. 129)), predators (green lacewing (p. 139), snakefly (p. 140)) and fungal pathogens attack this aphid.

CULTURAL: Control volunteer host plants; plant spring grains early and fall grains late to reduce establishment of colonies.

CHEMICAL: Apply products least toxic to natural enemies if treatments are required.

**Russian wheat aphid – damage**
International Maize and Wheat Improvement Centre (CIMMYT), Flickr

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

## Identification and Management



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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**
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## 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

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