

Wheat bug

What is wheat bug?

Wheat bug (*Nysius huttoni*) is a tiny sap-sucking bug native to New Zealand that feeds on and damages more than 75 species of plants including wheat, barley, rye, and canola. Almost all cultivated crops are susceptible to the pest as are many types of weeds.

The wheat bug is primarily a seed feeder, but may also feed on foliage. Wheat is most vulnerable to damage at the flowering and grain filling stages of growth, and because the wheat bug injects an enzyme during feeding, even small amounts of grain from damaged wheat makes crops unsuitable for milling.

Damage to wheat varieties ranges from 10 to 100 per cent, with worst effects in hot, dry conditions.

What does it look like?

Adult bugs are 2 to 4 mm in length, dull brownish-grey with a variegated outline. They have wings that have a silvery appearance especially in sunlight.

Eggs are tiny and creamy in colour changing to deeper orange before they hatch. Females lay single eggs or groups of eggs in soil, particularly in soil cracks, and on the host plant parts such as seeds, flowering heads, leaves, and stems.

Wheat bugs have five tiny juvenile stages (0.5 mm to 2.5 mm in length) with colouring that changes from dark orange in early instars to grey or brown-grey when it becomes an adult.

What can it be confused with?

Adults could be confused with the Australian natives Rutherglen bug (*Nysius vinitor*), and grey cluster bug (*Nysius clevelandensis*).

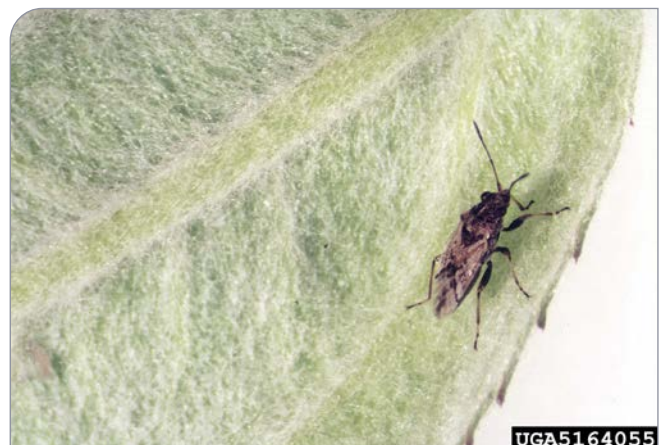
What should I look for?

Wheat bugs are found in areas with sparse vegetation where full sunlight directly falls on the ground— weedy fields, pasture, wastelands, roadsides, gardens, lawns, bare ground between rows of fruit trees, sandy riverbeds and gardens.



The adult wheat bug has silvery wings and is 2 to 4 mm long

N. Cunningham, SARDI Entomology Waite Insect and Nematode Collection



Adult wheat bugs could arrive in Australia from New Zealand or Europe

HortNET, the Horticulture and Food Research Institute of New Zealand, Bugwood.org

In crops look for feeding damage and frass in the head of the plant. Damage increases during warm and hot weather and usually occurs at field edges.

In brassica plants look for feeding holes around the base of plants and cankerous tissue growth or dieback.

Adults overwinter in debris at the base of plants.

How does it spread?

Bugs are highly mobile during summer particularly in drier conditions. They lay eggs in the soil and migrate to overwintering sites such as weeds.

Over long distances wheat bug is likely to spread in contaminated goods or plant material.

Where is it now?

Originally native to New Zealand, wheat bug has now become established in some European countries, including Belgium, France, Germany, the Netherlands and the UK.

How can I protect my farm from wheat bug?

Early detection is crucial in stopping or slowing progress of a new pest. Monitor your crops regularly for anything unusual, and report anything you don't recognise without delay.

If you see anything unusual, call the **Exotic Plant Pest Hotline** on **1800 084 881**.

GRAINS FARM BIOSECURITY PROGRAM

An initiative of Plant Health Australia and Grain Producers Australia



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Newly emerged wheat bug nymph

S. Tiwari and SD Wratten, 2019



A juvenile stage of a wheat bug

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