

Russian wheat aphid

What is Russian wheat aphid?

Russian wheat aphid (*Diuraphis noxia*) is a soft bodied insect that feeds mainly on wheat and barley, but can attack most cereal crops. If this pest enters Australia, it has been estimated that it could cause significant damage to crops, resulting in up to 75% yield losses.

What does it look like?

The aphid is small (up to 1.8 mm long), has a 'needle-like' mouthpart, and is light green in colour. The body is elongated compared with other cereal aphid species. Adults can be winged or wing-less. Juveniles (nymphs) look similar to adults but lack wings.

Characteristic features include dual structures at the rear (cauda) of the insect giving it a 'double-tail' appearance (see arrowheads in image top right) and lack visible siphuncles ('exhaust pipes' – circles in images on right) that are characteristic for most aphids.

What can it be confused with?

If it were present, Russian wheat aphid could be found with other cereal aphids on crops. The elongated body shape and lack of 'exhaust pipes' distinguish this aphid from common cereal species (compare top image to middle image).

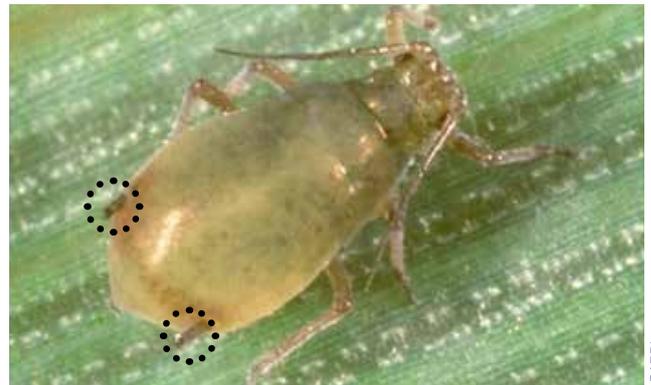
What should I look for?

Whilst feeding, the aphid injects salivary toxins into the plant tissue causing the leaves to roll up and white, purple or yellowish streaks to form. Often awns can be trapped by the rolled flag leaf, and grain heads can be bleached in appearance. Unfortunately, these symptoms can also be caused by other diseases and disorders such as herbicide and virus damage, nutrient deficiencies and frost. If these symptoms are found in combination with aphids, have them checked by an expert.



Frank Peairs, Colorado State University, Bugwood.org

Wingless adult Russian wheat aphid, showing lack of siphuncles ('exhaust pipes' – circled) and presence of a 'double tail' end (cauda – arrowheads)



SARDI

Adult Oat aphid, with siphuncles ('exhaust pipe') structures (circled) and no double tail



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Plant damage symptoms of Russian wheat aphid attack



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Colony of Russian wheat aphids on a wheat leaf that is showing streaking symptoms



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Trapped and bleached awns caused by Russian wheat aphid salivary toxins

How does it spread?

Adults can spread by actively flying throughout the crop or using wind currents. Long distance dispersal also occurs by 'hitchhiking' on machinery, clothes or plant material. Like all cereal aphids, Russian wheat aphid over-summers on volunteer grasses and alternate host plants.

Where is it now?

This pest has spread throughout all major grain growing countries, including Australia.

How can I protect my farm from Russian wheat aphid?

Check your farm frequently for the presence of new or unusual pests and plant damage symptoms. Make sure you are familiar with common grain pests so you can tell if you see something different.

If you see anything unusual, call the Exotic Plant Pest Hotline

**EXOTIC PLANT PEST HOTLINE
1800 084 881**



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