

# PestFacts WA

Issue: 7  
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## Contents

- Russian wheat aphids being found in cereal crops
- Lucerne flea update
- Register to attend DPIRD's 2024 crop disease and insect identification workshop

## Russian wheat aphids being found in cereal crops

- Grass Patch
- Condingup



*Image 1: Russian wheat aphids and feeding damage on tillering Illabo wheat. Photo courtesy of: Rachel Minett (South Coastal Agencies).*

Rachel Minett and Hayley Hill (South Coastal Agencies) have found high numbers of Russian wheat aphid (RWA) and associated feeding damage in early-mid tillering Scepter wheat and mid tillering Illabo wheat at Condingup. These crops did not have insecticide seed dressings applied. Rachel reported that one crop had RWA at threshold and was sprayed with a synthetic pyrethroid. After the spray, RWA numbers decreased to below threshold levels.

Henry Marsh (Nutrien) has also reported RWA causing feeding damage to tillering barley at Grass Patch. He noted that they were only noticeable in crops where the seed had not been treated with insecticide.

Growers are urged to monitor wheat and barley crops for RWA or signs of feeding damage, especially those that have not had an insecticide seed dressing and have been late sown. Oats are not considered to be susceptible.

If RWA are at threshold and warrant spraying then growers and consultants can refer to DPIRD's [2024 winter spring insecticide guide](#).

In WA, RWA was first reported in the Esperance region in 2020 following Australia's first ever detection north of Adelaide in 2016. Since 2020, they have been detected in all grain growing regions as far north as the Geraldton port zone.

### How to diagnose Russian wheat aphid

RWA is a small pale green aphid, about 2 mm long, with short antennae and short cone shaped siphunculi (sometimes called cornicles). A hand lens or smartphone macro lens may be useful to see them. RWA are frequently found on the newest emerged leaves at the base of wheat or barley plants. For more information, refer to DPIRD's [Russian wheat aphid and its management in wheat and barley](#) factsheet



*Image 2: A Russian wheat aphid. Photo courtesy of: Pia Scanlon (DPIRD).*

The other main cereal aphids in WA are corn aphids and oat aphids which have more visible protrusions at the base of their bodies. For more information on diagnosing these aphids, refer to DPIRDs [Aphid feeding damage and its management in cereal crops](#) factsheet.

Unlike other aphids, RWA inject a toxin into the plant that causes:

- a noticeable loss of green colouration across the crop
- white, yellow, purple or red streaking
- leaf curling
- stunted plant growth, and
- loss of vigour in the affected plant.

## Monitoring and management

Start monitoring wheat and barley crops for RWA from GS30, by inspecting the edges where aphids often colonise first, or where plants are under stress. Look for streaking damage near the base of newly emerged leaves, while keeping in mind that RWA damage can look similar to herbicide damage, mite feeding damage or can resemble wheat streak mosaic virus symptoms.

Very low numbers of RWA can cause symptoms to appear on plants as early as seven days after infestation. Plant damage symptoms will persist on plants, even if RWA colonies have not survived. It is important to get an accurate assessment of percentage of tillers with RWA, and not use damage symptoms as a measure of RWA presence. RWA is more likely to be detected on tillers and threshold feeding damage met if seed treatments have not been applied.

A guide to RWA management including a threshold calculator is available on the Grain Research and Development Corporation (GRDC) [Russian wheat aphid](#) page.

Further information on [Russian wheat aphid thresholds in WA](#) is available on GRDC's 2023 Grains Research Update page.

For a list of insecticides with their toxicity to beneficial insects, refer to Cesar Australia's [Beneficials Chemical Toxicity Table](#).

Growers should consider insecticide options that are soft on predator insects if spraying.

For more information on beneficials refer to DPIRD's Know what beneficials look like in your crop page.

## Further information

For more RWA information refer to:

- DPIRD's [Russian wheat aphid and its management in wheat and barley](#) factsheet
- Cesar Australia's [Russian wheat aphid identification](#) PestBites video
- GRDC's [Russian wheat aphid](#) page
- GRDC's [Just how many Russian wheat aphids is too many](#) podcast.

For more information on RWA, or other aphids, contact DPIRD Research Scientist [Svetlana Micic](#) in Albany on +61 (0)8 9892 8591.

Article author: Bec Severtson (DPIRD Northam).

## Lucerne flea update

- Northampton
- Morawa
- Dongara
- Mingenew
- Cadoux
- Wongan Hills
- Grass Valley



*Image 3: Adult lucerne flea. Photo courtesy of: Svetlana Micic (DPIRD).*

Growers in the northern and central grain regions have reported high levels of lucerne flea damage to barley, wheat, canola and lupin seedling crops, particularly on heavier textured soils.

DPIRD staff conducting pitfall trap surveys in the Mingenew and Dongara area have also found lucerne flea in large numbers in wheat and canola crops, and on wild radish weeds.

### How to identify lucerne flea damage

Lucerne fleas are springtails, or Collembola, and have a forked appendage under their abdomen enabling them to spring off vegetation when disturbed. Adults are globular, grow to about 3 mm in size, and are green-yellow in colour with mottled darker patches.

Nymphs are smaller and paler in colour.

Lucerne flea attack a range of crops and pastures, causing characteristic 'windowing' of leaves. They work up the plants from ground level, eating tissue from the underside of the foliage.

For more information on non-pest springtail species that can also be found in crops see DPIRD's 2023 PestFacts WA Issue 4 article Do not confuse springtails with other pests.

## Management of lucerne flea

Lucerne fleas are often patchily distributed in crops, and spot spraying may be sufficient.

If crops are not out-growing damage caused by lucerne flea, control relies on organophosphates (e.g. chlorpyrifos, omethoate). Growers are reminded that lucerne flea do not respond well to synthetic pyrethroids (SPs) such as bifenthrin.

When both lucerne fleas and redlegged earth mites (RLEM) are present, it is recommended that control strategies consider both pests, and a product registered for both be used at the highest directed rate between the two to ensure effective control.

Diafenthiuron is registered for RLEM control and suppression of lucerne flea populations in canola and provides an alternative mode of action for SP and OP resistant RLEM populations.

For registered insecticide recommendations for lucerne flea and RLEM refer to DPIRD's [2024 autumn winter insecticide guide](#).

If you notice RLEM surviving applications of insecticides please contact DPIRD Research Scientist [Svetlana Micic](#) to discuss and arrange for paddocks to be tested.

## Further information

You can request, or confirm, identification of lucerne flea by emailing the PestFacts WA team at [pestfactswa@dpird.wa.gov.au](mailto:pestfactswa@dpird.wa.gov.au).

To read about prior lucerne flea activity this season refer to the 2024 PestFacts WA Issue 3 article [Mite and lucerne flea update](#).

For more information on diagnosing and managing lucerne flea, refer to DPIRD's [Diagnosing lucerne flea](#) page.

For more lucerne flea or RLEM information contact Research Scientist [Svetlana Micic](#), Albany on +61 (0)8 9892 8591.

Article author: Bec Severtson (DPIRD Northam).

## Register to attend DPIRD's 2024 crop disease and insect identification workshop



*Image 4: Workshop attendees looking at insect specimens during a former entomology training workshop. Photo courtesy of: Amber Balfour-Cunningham (DPIRD).*



The Department of Primary Industries and Regional Development (DPIRD) is offering its annual Pest and Disease Identification Course again this year, teaching participants general diagnostics, root and foliar pathology and entomology.

Date: Tuesday 20 August to Thursday 22 August 2024

Venue: Metro Hotel Perth, 61 Canning Highway, South Perth WA.

The course will cover insect identification and integrated management on Tuesday 20 August, followed by disease identification on Wednesday 21 August and Thursday 22 August.

This course is designed mainly for agronomists and other grains industry representatives to improve disease and insect identification skills relevant to broadacre crop production in WA.

The course has a practical and “hands on” training approach, professional and experienced presenters and the valuable take home resource materials.

As usual participants can register to attend either or both components.

The cost for attending the course is:

- \$400 for attending all 3 days
- \$300 for the two-day disease component
- \$150 for the one-day insect component.

This cost includes a course reference book and catering for each day.

The workshop is co-funded by the Grains Research and Development Corporation (GRDC) through the “DPIRD Seasonal status of pests and diseases delivered to growers project” (DAW2404-005RTX).

Numbers are limited for the training days and enrolments close on Friday 2 August 2024.

For further details, and to register your interest in attending, contact Plant Pathologist Geoff Thomas, South Perth on +61 (0)8 9368 3262 or +61 (0)428 947 287.

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