Department of Primary Industries and Regional Development
GOVERNMENT OF WESTERN AUSTRALIA
Protect Grow Innovate

PestFacts WA

Issue: 16
Date: 28 August 2026

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Redlegged earth mite control in spring

- Binnu
- Condingup

Redlegged earth mites on a canola leaf.

Agworld app users have recently reported finding redlegged earth mites (RLEM) in wheat near Binnu and in clover near Condingup.

Spring is fast approaching. Growers and consultants are reminded to monitor for RLEM in pastures and use the TIMERITE® tool to help decide when to apply insecticides for RLEM.

Managing redlegged earth mite and insecticide resistance

Insecticides are the primary means of managing RLEM, but resistance in WA populations of RLEM is becoming more widespread. This means that it's important to ensure insecticides are only applied when needed. The first step in managing RLEM should be to reduce risk within a paddock using the following strategies:

- avoid sowing highly susceptible pasture species (e.g. clover, medics) or crops (e.g. canola) in paddocks known to have high RLEM numbers
- control weeds, especially broadleaf weeds, both within paddocks and along fence lines
- include a cereal crop rotation to help suppress mite numbers
- graze pastures heavily in spring and/or burn stubble to reduce mite numbers the following autumn.

Growers are advised to spray only if they need to, and to rotate chemical groups to stop resistance developing in RLEM. Repeated use of synthetic pyrethroid insecticides or organophosphate insecticides (such as omethoate) provides strong selection pressure for RLEM to develop resistance.

Insecticides should only be used when the risk of mite damage in the following season is high. This includes situations such as:

- high RLEM numbers or significant feeding damage in the paddock during late winter-spring
- plans to sow a susceptible crop (for example, canola, medic or clover) the following season.

Use the TIMERITE® tool to help decide when to apply insecticides for redlegged earth mites. The TIMERITE® tool is not effective for helping with control of other mite pests (such as blue oat mites).

The timing of the sprays is based on a short window of the season when RLEM have stopped laying winter eggs (eggs that must hatch this season) and before female RLEM start producing diapause eggs (over-summering eggs able to survive until next autumn).

Controlling mites at this time means that the whole population can be reduced, leaving few mites to carry-over to the following autumn.

The TIMERITE model was recently updated and, in addition to providing a 'Best spray date', now also provides an 'Ideal spray window' – a date range in which control of RLEM is still very high. This allows more flexibility for control measures to coincide with suitable weather conditions and/or to integrate RLEM management with other farm operations such as disease or weed control. As long as a spray is applied within this window, high levels of control should still be achieved.

More information on managing RLEM can be found in the GRDC Redlegged earth mite Best Practice Management Guide.

Grazing reduces mite carryover in pastures

Intensive spring grazing can suppress RLEM populations in the following season. Pastures with more than 3 t DM/ha of feed on offer (FOO) that have received little or no RLEM management typically support populations exceeding 5,000 mites per square metre.

Grazing these pastures to a FOO of 2 t DM/ha or less for four weeks around the Timerite® period can result in a significant reduction in mite numbers the following season.

Redlegged earth mite resistance testing service

DPIRD, through a project led by Cesar Australia with investment from GRDC, will be conducting RLEM resistance testing this year. If you observe RLEM surviving insecticide applications, please contact DPIRD Senior Research Scientist Svetlana Micic to discuss the situation and arrange for paddock testing.

More information

For more information on applying integrated pest management strategies to manage RLEM, refer to GRDC's Redlegged earth mite Best Practice Management Guide . You can also listen to the DPIRD Grains Convo podcast Why aren't your insecticides working on redlegged earth mite?

To read about earlier RLEM activity refer to the 2026 PestFacts WA Issue 7 article Lucerne flea and mite activity update and Issue 2 article Lucerne flea and mites are active.

For more information on RLEM, contact Senior Research Scientist Svetlana Micic in Albany on +61 8 9892 8591.

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Article input: Ian Thomas and Aston Arthur (Cesar Australia).

Cereal aphid activity update

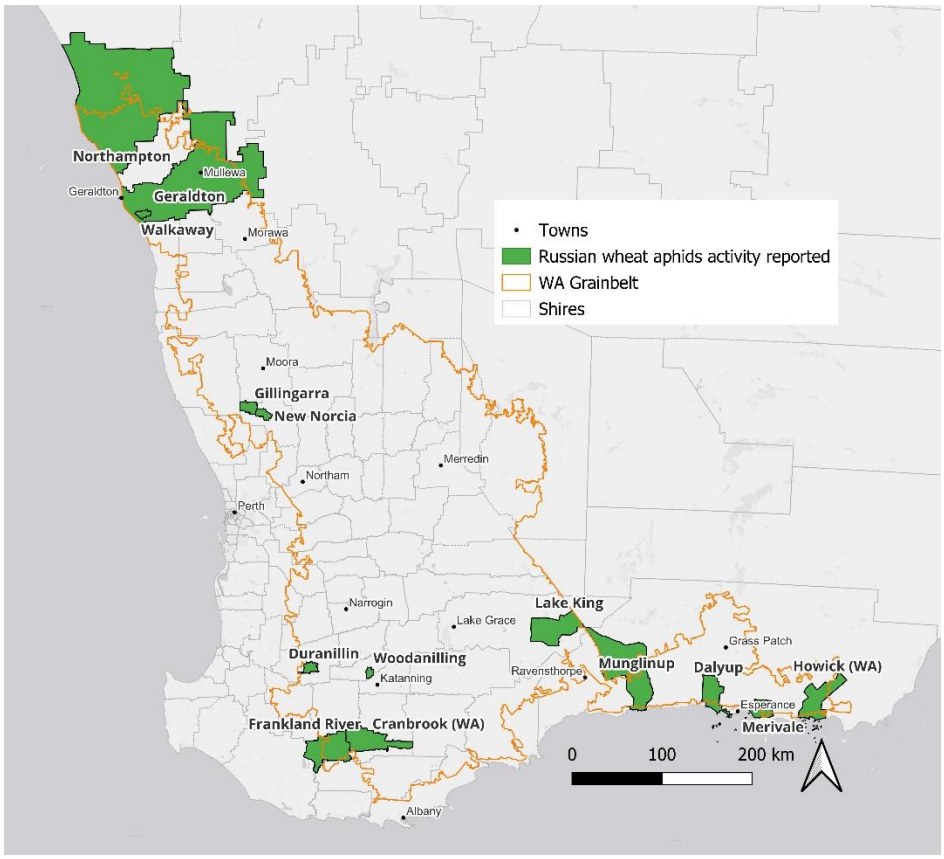
- Geraldton port zone
- Kwinana port zones
- Albany port zone
- Esperance port zone

A corn aphid (left), oat aphids (middle) and a Russian wheat aphid (right).

The three main cereal aphids in WA are corn aphids, oat aphids and Russian wheat aphids (RWA). As the weather warms, growers are reminded to check their cereal crops for aphids, especially the paddock edges, as the favourable conditions encourage rapid population growth.

Russian wheat aphids on Neo barley. Photo courtesy of Adelaide Hagan (Elders).

Russian wheat aphids have been found in wheat crops near Northampton, south of Geraldton, Walkaway, New Norcia, Woodanilling, Dalyup and Howick. They have also been detected in barley crops near Frankland, Cranbrook, Lake King and Munglinup. This activity is shown in the map below.



Russian wheat aphid activity reported across the WA grainbelt during August.

Oat aphids on Koala oat leaves. Photo courtesy of Quenten Knight (Agronomy Focus).

Oat aphids have recently been found in pasture near Geraldton and in oat crops near Duranillin and Merivale.

Cereal aphids are able to survive on non-crop grass hosts. Corn aphids were recently found by a Back Paddock app user in a perennial grass pasture near Geraldton.

Cereal aphids may occur as mixed colonies or as a single species. Crops are not at risk of yield loss from virus spread by corn and oat aphid, however, feeding damage thresholds vary depending on the aphid species present.

For tips on identifying cereal aphids, refer to the 2026 PestFacts WA Issue 6 article Identifying and managing cereal aphids. To request a diagnosis of aphids or aphid damage, use the PestFacts WA Reporter app.

To view other cereal aphid activity reported to the PestFacts WA team recently, refer to the PestFacts WA map.

Monitoring and management

Barley crops are most at risk from corn and oat aphids due to the possibility of downgrading from malt to feed quality, as aphid feeding damage can cause grain shrivelling. If 50% of tillers have 15 or more aphids, feeding damage may reduce yields by up to 10% and decrease grain size. Yield loss is greater in crops that were colonised by aphids from early tillering.

Russian wheat aphid (RWA) thresholds depend on the crop growth stage, the time until head emergence, predicted yield and spray costs. A RWA threshold calculator is available on GRDC's Russian wheat aphid page.

From early booting through to the soft dough stage, RWA feeding on the upper leaves, within the leaf sheath and around the developing head can result in direct yield losses. Salivary toxins injected by RWA during feeding damage plant chloroplasts, reducing photosynthetic capacity and impairing plant growth. This can lead to delayed leaf emergence and tillering, fewer fertile tillers, reduced shoot and root biomass, fewer grains per head, and lower grain weight.

In wheat and barley, leaf tissue damaged by RWA feeding damage does not recover. However, once aphid populations are controlled, newly emerging roots and shoots develop normally, allowing plants to recover unless they are under severe stress. After the soft dough stage, additional feeding has little effect on yield.

For a list of insecticides registered for use against cereal aphids, see DPIRD's 2026 Winter Spring Insecticide Guide.

Remember that naturally occurring parasitoids and predators, such as hoverflies, wasps, lacewings and ladybird beetles, will also increase as the weather warms. These beneficial insects can keep aphid populations below threshold levels, and unnecessary spraying of synthetic pyrethroid sprays will only counteract their benefits. When spraying, consider spray options that are soft on predators. Growers should check canola crops for fungal infections and parasitism in aphids before deciding whether to apply an insecticide. For more information, refer to Cesar Australia's Beneficial's chemical toxicity table page.

Further information

To read about previous cereal activity reported this season, refer to the 2026 PestFacts WA Issue 12 article Russian wheat aphid activity update and Issue 6 article Identifying and managing cereal aphids.

For more information on cereal aphids, refer to DPIRD's Aphid feeding damage and its management in cereal crops factsheet.

For more information, contact Senior Research Scientist Svetlana Micic in Albany on +61 (0)8 9892 8591.

Article author: Cindy Webster (DPIRD Narrogin)

Distinguishing invertebrate pest and mouse damage in crops

As temperatures begin to rise and crops move through flowering and grain fill, growers may notice damaged heads, pods and stems. Correctly identifying the culprit is essential because management options can differ significantly. While invertebrates are often blamed for crop damage, mice can cause similar symptoms.

Invertebrate damage

Several invertebrate pests can damage crops in spring, including locusts, caterpillars, earwigs, slaters, snails and other chewing insects.

Typical signs include:

- ragged, uneven chewing
- irregular holes in leaves, pods or grain heads
- stripped foliage or plant tissue
- insect presence during crop inspections
- damage varying from concentrated to larger areas.

For more tips on matching the crop damage to potential insect pest, refer to the Grains Research and Development Corporation's (GRDC) I Spy – Identification of southern Australian broadacre farming systems identification manual's Pest identification key.

Mouse damage

- Bencubbin
- Woogenellup
- South Stirling
- Wellstead

A canola pod with visible mouse chewing damage. Photo courtesy of Millie Brady (Farmanco).

The PestFacts WA team has recently received reports of mice damaging canola crops near Bencubbin, Woogenellup, South Stirlings and Wellstead.

Mice prefer to feed on developing cereal, canola and pulse heads because they are an attractive food source. They tend to favour paddocks with high stubble retention and can increase in numbers rapidly under favourable conditions, such as prolonged availability of high-quality feed, late spring rains, cracking or light soils that favour burrowing.

Signs of mouse damage include:

- Bare patches and chewed plants. Seed can be chewed in the head and stems gnawed just above the node. Pods lopped and chewing along one side and seed eaten.
- Presence of mouse holes near damaged plants.

Growers and consultants are encouraged to report mouse sightings through FeralScan's MouseAlert to help track changes across affected local governments and support the broader industry.

The current mouse forecast is that a mouse plague is underway in the Northern (Geraldton) zone, and at concerning levels east from Fitzgerald in the Sandplain (Esperance) zone. However, all growers should be vigilant.

For more information on mice and how to manage them, refer to the GRDC Mouse management page and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Mouse control page.

How do I report or request a diagnosis?

If you are having trouble identifying the culprit, download and use the PestFacts WA Reporter app to request a diagnosis. Alternatively, you can email the team at pestfactswa@dpird.wa.gov.au

Further information

A range of seasonally relevant information can be found at DPIRD's Season 2026 webpage.

For more information on invertebrates, contact Senior Research Scientist Svetlana Micic in Albany on +61 8 9892 8591 or Principal Research Scientist Dusty Severtson, Northam on +61 (0)8 9690 2160.

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Loose smut in barley

Loose smut on barley heads.

As barley crops across the grainbelt come into head, loose smut is starting to appear in most regions across the grainbelt. DPIRD surveillance staff have recently reported finding loose smut in barley crops, trials and/or roadside barley regrowth in the Geraldton port zone and near Gorge Rock, Kondinin, Tenterden, South Stirling, Kendenup, Frankland, Munglinup, Gibson and Grass Patch.

Barley loose smut was prevalent across many areas of the WA grainbelt in 2025. Infected seed from those crops would have been harvested and sown this season, raising the risk of disease.

Biology and symptoms

Loose smut is a fungal disease affecting barley, wheat and oat seed heads, which can cause yield losses.

Loose smut of barley (*Ustilago nuda*) and wheat (*Ustilago tritici*) are caused by different fungal species but have similar life cycles. They are both internally seed-borne and carried as a small colony of fungus inside the embryo whereas oat loose smut (*Ustilago avenae*) is infected by spores on the seed coat.

When infected seed germinates, the fungus becomes active and grows slowly in the growing point of the plant, ultimately growing into the embryonic head of plants. Florets are replaced with a compact mass of dark brown-black powdery spores at heading. These spores are dispersed by wind to infect adjacent plants and produce the next generation of infected seed.

Infection is favoured by rainfall and high humidity during flowering and growing susceptible varieties.

Loose smut can be distinguished from covered smut, an externally seed-borne disease, as covered smut does not readily break-up or blow away while loose smut does. Barley loose smut is the most common smut disease of cereals in WA.

When examining your paddock for loose smut, look for scattered plants with black heads or bare flower stalks (the backbone or rachis). Diseased plants appear to grow normally but may be slightly taller and earlier maturing than surrounding healthy plants in a crop.

Infected seed is symptomless, and the presence of infected plants in the source paddock is a good indicator of the risk of harvesting infected seed.

Management

Infected seed is the primary source of the fungus that causes the disease, and highly contaminated seed should not be re-sown.

A registered fungicide seed dressing can effectively manage transmission of infection from seeds. The correct application of seed dressings is critical to ensure adequate control. In crop foliar fungicide will not reduce expression in this year's crop.

Fungicide resistance

Researchers at the Centre for Crop and Disease Management (CCDM) have identified a mutation linked to reduced sensitivity to SDHI (Group 7) fungicides in barley loose smut samples collected across New South Wales, Queensland and Western Australia (WA). In WA, the mutation was detected in samples from Crossman and Gibson in 2025.

DPIRD has initiated trials to assess whether the mutation has a field level impact on Group 7 seed treatments and this work will continue into 2027.

Growers and consultants that notice high levels of barley loose smut in a crop despite applying a seed treatment, can contact the CCDM fungicide resistance team by emailing frg@curtin.edu.au for further information on submission of samples for testing.

For more information, refer to the Grains Research and Development Corporation's (GRDC) media release Reduced sensitivity detected in barley loose smut.

More information

For more information on barley loose smut refer to the department's Smuts and bunts of cereals and their management factsheet.

For more information contact DPIRD Senior Research Scientists Kithsiri Jayasena in Albany on +61 8 9892 8477, Andrea Hills in Esperance on +61 8 9083 1144, Kylie Chambers in Northam on +61 8 9690 2151; or Principal Research Scientist Geoff Thomas in Perth on +61 0428 947 287 or Research Scientist Jason Bradley in Perth on +61 447 864 707.

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Chocolate spot in faba beans

- Tenterden
- Kendenup
- Cascade
- Munglinup

Chocolate spot lesions on faba bean flowers.

Senior Research Scientist Kithsiri Jayasena has found chocolate spot in faba bean crops near Tenterden and Kendenup.

Agworld app users have also reported finding chocolate spot in faba bean crops near Munglinup and Cascade.

Description

Chocolate spot lesions on faba bean leaves.

Chocolate spot, caused by *Botrytis fabae*, is a significant fungal disease of faba bean that typically appears as red-brown spots on leaves, stems and flowers. The disease is often not obvious until after the crop begins flowering. As the disease develops, lesions enlarge and form a grey, dead centre surrounded by a distinctive red-brown margin. It is easy to confuse chocolate spot symptoms with herbicide and insect damage which can also produce a reddish colour to lesions.

The disease is more likely to occur in paddocks located close to the previous year's faba bean stubble, where fungal inoculum can survive between seasons. In situations where stubble is absent, infected seed can introduce the pathogen into new crops or growing areas.

Several factors increase the risk of infection and disease development, including:

- Low plant vigour caused by poor nutrition or unsuitable soil conditions.
- Physical leaf damage from pests such as redlegged earth mites.
- Waterlogged or flooded areas within paddocks, which may act as reservoirs of infection.
- Wet weather conditions and prolonged periods of rain coupled with minimum temperatures above 10°C.

Management

Effective management of chocolate spot requires an integrated approach that combines resistant variety selection, crop rotation, and timely fungicide applications.

A break of at least 4 years between faba bean crops is recommended. New crops should be sown at least 500m from the previous season's faba bean stubble to reduce the risk of infection.

For fungicides applications to be effective, they should be applied at the first sign of disease. If warm, wet conditions conducive to disease development persist, a follow-up spray may be necessary 12 to 14 days later.

For more information on current faba bean varieties and their disease resistance ratings, refer to DPIRD's 2026 WA Crop Sowing Guide.

Further information

For more information, refer to Agriculture Victoria's Chocolate spot of faba bean page.

For more information, contact Senior Research Scientist Andrea Hills in Esperance on +61 (0)8 9083 1144 or Principal Research Scientist Jean Galloway in Northam on +61 475 959 932.

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