



# PestFacts WA

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## Check canola crops for green peach aphids to assess virus risk

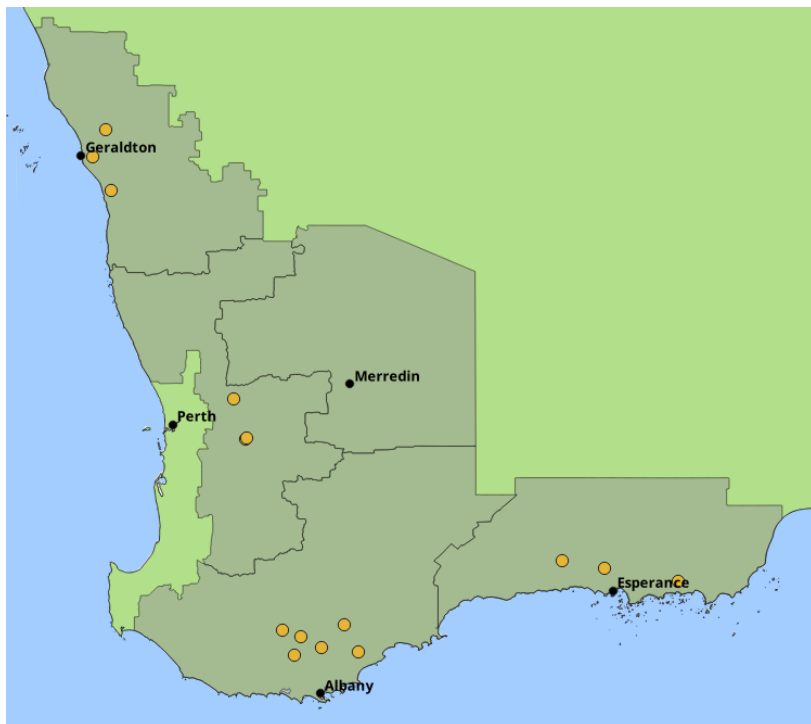
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*Winged and non-winged green peach aphids. Photo courtesy of DPIRD.*

This season, the Department of Primary Industries and Development's (DPIRD) virology team is continuing to monitor green peach aphid (GPA) populations using yellow sticky traps and inspecting canola crops at locations across the WA grainbelt. All aphids caught

will be tested for turnip yellows virus (TuYV), which is transmitted by GPA. Trapping began in early April 2026 and will continue until August.



*Green peach aphid monitoring site locations in 2026 (yellow dots). Map courtesy of DPIRD.*

As of 14 May 2026, GPA has been found on wild radish in the Northam region and these aphids tested negative for TuYV. GPA has also been identified on 3-6 leaf stage canola at Dalyup, and these aphids are being sent to DPIRD for TuYV testing.

GPA is yet to be detected by DPIRD staff in the Geraldton and Albany regions. However, TuYV has been detected in a non-GPA aphid (a non-vector species) at Woogenellup, suggesting there are sources of the virus nearby that may pose a threat if GPA arrive in crops early.

Canola crops are currently at highly variable growth stages, with some yet to be sown or emerge and others progressing quickly to the mid-vegetative stage. Once crops reach flowering without significant TuYV infection, they are considered to be in the safe zone. The warmer and drier conditions experienced so far in May may increase risk of early season GPA in areas where sufficient late-summer and autumn rainfall has fueled the growth of brassica weeds and volunteers such as wild radish and volunteer canola.

This surveillance is being undertaken as part of the Grains Research and Development Corporation (GRDC) project DAW2305-003RTX, 'Effective virus management in grain crops'. Findings from this surveillance will be regularly shared through the PestFacts WA newsletter.

Growers and advisors are encouraged to monitor young canola crops, including those sown with neonicotinoid treated seed, for aphids over the coming weeks. Warmer growing season temperatures are conducive to GPA activity. The risk of TuYV in canola plants is a lot higher when the vector GPA is present, especially during early crop development

(emergence to 7 leaf stage) when crops are most vulnerable to yield loss. Infection occurring after stem elongation is unlikely to cause yield losses.

## Identifying green peach aphids



*Green peach aphids (non-winged) on canola. Photo courtesy of DPIRD.*

Adult GPAs grow up to 3 mm long, are oval shaped and may appear shiny pale yellow-green, green, orange or pink. They also have, long antennae and long siphuncles (pipes) on either side at the rear of the body. Winged adults have a distinct black patch on the abdomen under the wings. Nymphs look similar to wingless adults, but smaller in size. They are typically found on the underside of young canola leaves and are often more evenly distributed in the paddock.

Turnip and cabbage aphids also infest canola but are more commonly more active mid to late season. They are not vectors of TuYV.

GPA carry TuYV from weeds in the green bridge into emerging canola crops.

For more information on canola aphids, refer to GRDC's [Crop aphids – the back pocket guide](#).

## Turnip yellows virus symptoms



*Canola plants and leaves displaying symptoms of turnip yellows virus. Photos courtesy of DPIRD.*

Turnip yellows virus (TuYV) is the most economically damaging virus in canola, causing 50 percent seed yield loss in severe cases.

Symptoms may occur several weeks to months after aphid transmission and can include stunted plant growth and purpling or yellowing of lower leaves, particularly along leaf margins. These symptoms can be difficult to distinguish from nutrient deficiencies or environmental stress. Furthermore, infection may also be mild or symptomless yet still cause yield loss. Therefore, plant symptoms alone should not guide spray decisions. Aphid monitoring and virus testing is recommended.

If growers or agronomists observe aphid infestation or virus-like symptoms in crops, please contact Senior Research Scientist Benjamin Congdon via [email](#) or phone +61 488 904 480.

### Monitoring and management

Recent research has revealed that neonicotinoid seed treatment no longer provides adequate protection from GPA and subsequent TuYV infection, so foliar insecticide applications may be necessary.

The only post-sowing management strategy for TuYV is to use foliar insecticides, which must be applied in the early stages of GPA infestation to be effective. Pre-emptive spraying of GPA is unlikely to be effective and is not recommended. Reactive spraying after GPA and virus have spread through the majority of the crop will not reduce yield losses, as infected plants cannot be cured of TuYV.

Routine monitoring from emergence to the 7-leaf stage, using whole plant visual inspection, is essential to ensure a well-timed spray.

At least 10 plants from the crop should be pulled out and closely inspected for GPA, as TuYV can be transmitted by just one or two aphids. GPA are often found near paddock boundaries.

If GPA are found, growers are encouraged to contact DPIRD Senior Research Scientist Benjamin Congdon by emailing [Benjamin.Congdon@dpiird.wa.gov.au](mailto:Benjamin.Congdon@dpiird.wa.gov.au) to organise free TuYV testing to assist management decisions.

If infective GPA are found and infestation rates remain low (e.g. fewer than 30% of plants infested with infective aphids), a foliar spray may help prevent high levels of spread. Once widespread infestation of infective GPA and subsequent TuYV infection occurs, foliar insecticides will not provide any economic benefit in terms of reducing TuYV inflicted yield losses.

Monitoring guidelines for GPA and TuYV are provided in the new GRDC [Manage turnip yellows virus in canola](#) factsheet. These guidelines support more targeted and effective insecticide use. The factsheet also provides information on how the virus spreads, how to think about risk, and details the management tactics available to growers to form an integrated management strategy.

Effective chemicals currently available and registered for GPA control in Australia are limited as GPA has evolved resistance to many insecticides. For more information, see GRDC's [Green peach aphid – best practice management guide](#) .

For more information on insecticides, refer to DPIRD's [2026 autumn winter insecticide guide](#).

## Further information

For more information about TuYV, refer to the department's [Turnip yellows virus and its management in canola](#) factsheet and GRDC's [Manage turnip yellows virus in canola](#) factsheet.

For further information contact Senior Research Scientist [Benjamin Congdon](#) in Perth on +61 488 904 480.

Article authors: Ben Congdon (DPIRD Perth) and Cindy Webster (DPIRD Narrogin).

## Balancing sprays with biological control: the benefits of Parasitoids

Beneficial arthropods help reduce crop insect pests by directly preying on them, parasitising them, or discouraging feeding and egg laying. Also known as natural enemies or biological control agents, they can suppress pest populations below damaging levels.

A range of beneficial arthropods occur across the WA grainbelt, and the PestFacts WA team will feature one category of natural enemy each week in this publication.

This week, the focus is on parasitoids. Parasitoids are wasps and flies that lay eggs directly in another insect, known as the host. The larva develops within the host, consuming it until the host dies, then pupates. Some parasitoids lay a single egg that develops into a single larva, while others lay a single egg that divides into multiple genetically identical larvae, a process known as polyembryony.

Parasitoids can affect multiple life stages of an insect pest. In caterpillar pests, this includes specialised egg parasitoids, larval, pre-pupal and pupal parasitoids.

When monitoring pest populations, it can be tempting to focus only on how many pests can be found. Parasitoids can reduce pest populations, but they are not always visible, as many parasitoids are less than 5 mm in size, and prior to pupation, parasitised and healthy pests look identical.

Given the potential difficulty in detecting and identifying some parasitoids in the paddock, to preserve parasitoid activity, growers should consider insecticide applications only when required to prevent significant economic plant damage. Where possible, choose insecticides that are less toxic to beneficial arthropods. For more details on insecticide toxicity to beneficial insects and other species, refer to Cesar Australia's [Beneficials chemical toxicity table](#).

With a warmer start to the season, a range of caterpillar activity has been reported to the [PestFacts WA service](#). The PestFacts WA team anticipates that, if predictions for a warmer autumn and winter are correct, there will also be more aphid pests in the landscape. For more climate forecast information, refer to DPIRD's [Seasonal Climate Outlook May 2026](#).

### Diamondback moth parasitoid wasps



*A Diadegma wasp on a canola leaf (left) and a Braconid parasitoid wasp on a canola flower (right). Photos courtesy of DPIRD.*

The most common diamondback moth (DBM) larvae parasitoid wasps are black and 3–7 mm long. They parasitise DBM caterpillars. Look for small black wasps in sweep net catches or flying within crops, often hovering near leaves damaged by DBM caterpillars. These wasps are attracted to chemicals emitted by canola leaves during caterpillar feeding and use visual cues to find their host.

One female parasitoid wasp can parasitise hundreds of DBM caterpillars in her lifetime and can search more than 400 m<sup>2</sup> of crop per day for hosts for her eggs. Parasitised caterpillars look identical to healthy ones and can only be identified by their rounded, gherkin shaped cocoon.

Research conducted by PhD student and DPIRD Research Scientist Amber Balfour-Cunningham found that *Diadegma* (Ichneumonidae) and *Cotesia* (Braconidae) parasitoids were the most abundant DBM natural enemies recovered, with some parasitised larvae collected as early as May when canola was at the 6-8 leaf stage.

*Diadegma* and other DBM parasitoids may be confused with the common hoverfly parasitoid wasp (*Diplazon laetatorius*), aphid parasitoid wasps, winged ants and native flies.

## Other parasitoid wasp species

### Digger wasps



*Podalonia digger* wasp with a *Helicoverpa* caterpillar (left) and *Podalonia digger* wasps on a stubble pile (right). Photos courtesy of DPIRD.

*Podalonia digger* wasp species paralyse and remove caterpillars from plants, dragging them into burrows where they are parasitised. Nests may be present in the ground in paddocks, field margins or native vegetation outside crop areas. This activity is rarely observed, although the wasps can be seen in crops or stubble.

The role of digger wasps and other provisioning parasitoid wasps in biological control remains largely understudied, particularly because prey is removed from the crop and transported to nests at secondary locations that may be off-site.

## Egg parasitoid wasps

- Katanning



*Commercially available Trichogramma parasitoid wasps and parasitised eggs in a vial. Photo courtesy of DPIRD.*

Egg parasitoids, such as *Trichogramma* sp, are rarely observed due to their microscopic size but are readily found in the landscape. Monitoring by DPIRD staff at Katanning found these wasps were present before seeding began. *Trichogramma* parasitise caterpillar eggs and can reduce populations before they build up.

## Polyembryonic parasitoid wasps



*A parasitised caterpillar filled with polyembryonic wasp pupae. Photo courtesy of DPIRD.*

Polyembryonic wasps are rarely observed, however, dead caterpillars filled internally with pupae or covered externally with fluffy yellow cocoons may be found.

## Tachinid flies



*Parasitoid tachinid fly emerged from a native budworm. Photo courtesy of DPIRD.*

Female tachinid flies glue their eggs directly onto a host insect. After hatching, the larva burrows inside the host and feeds internally. Tachinid flies commonly parasitise caterpillars, locusts and grasshoppers. The host dies when the larva pupates, and the dead host is usually found with a fly pupal case next to it.

Tachinid flies have been found in Geraldton and Northam in previous seasons by DPIRD researchers when collecting native budworm to start insect colonies, and they are likely to be present in other regions as well.

## Aphid parasitoids

- Katanning
- Broomehill



*Aphid parasitoid wasp on an aphid infested canola leaf. Photo courtesy of DPIRD.*

Adult parasitoid wasps are small, typically 1–3 mm long, and usually brown to black in colour. Female wasps lay a single egg inside the body of an aphid. The developing larva

feeds within the aphid's body, eventually killing it. The larva then pupates inside the aphid, causing the aphid to turn bronze-brown. These bronzed aphids are known as "mummies".

When development is complete, the new adult wasp cuts a hole in the hardened aphid skin and emerges. Parasitoid activity is often identified by the presence of aphid mummies. Prior to this stage, parasitised and healthy aphids appear identical.

Surveys of roadside vegetation in the past week by DPIRD staff have found parasitised aphids in the Katanning and Broomehill areas, suggesting these wasps can be present during crop establishment.



*An aphid that has been parasitised in between two healthy aphids (left) and parasitised aphids, also known as mummies, showing parasitoid wasp exit holes (right). Photos courtesy of DPIRD.*

## Beneficial insect research

DPIRD is co-investing in a five-year national Grains Research and Development Corporation (GRDC) project led by the Commonwealth Scientific and Industrial Research Organisation (CSIRO). The project is researching the use of predatory insects that target canola pests. It is a collaboration with the South Australian Research and Development Institute (SARDI), the New South Wales Department of Primary Industries (NSW DPI) and Murdoch University.

A PhD research project surveying WA canola crops for diamondback moth parasitoid wasps and other winged natural enemies is being conducted by Research Scientist Amber Balfour-Cunningham (DPIRD). This research is supported by the University of Western Australia (UWA), the GRDC Research Scholarship and the DPIRD study leave program. This PhD project is aligned with the Canola Allies project.

## Further information

The [PestFacts WA Reporter app](#) can be used request a diagnosis or report beneficial or pest arthropods.

For further information on beneficial insects, refer to the GRDC [Back Pocket Guide – Beneficial Insects](#) and DPIRD's 2026 Protecting WA Crops May issue [When could less spray mean more pay? Monitoring beneficial parasitoid wasps working to benefit your farm.](#)

For more information, contact Senior Research Scientist Svetlana Micic in Albany on +61 (0)8 9892 8591 or Research Scientist Amber Balfour-Cunningham in Northam on +61 (0)8 9690 2137.

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