

## **PestFacts WA**

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## Weevils are damaging moisture stressed canola

Issue: 2

**Date**: May 2024

- Popanyinning
- Dumbleyung
- Moulyanning
- Woogenellup
- Esperance
- Subtitles



Image 1: Desiantha weevils and canola seedlings with visible desiantha weevil feeding damage. Photo courtesy of: Myles Prasser-Jones (ConsultAg).

The PestFacts WA team has received numerous reports, and identification requests, of desiantha weevil feeding on moisture stressed seedling canola at Popanyinning, north of

Dumbleyung, north of Moulyanning and Esperance. Additionally, vegetable weevil was found to be causing damage to moisture stressed canola crops at Woogenellup and east of Esperance.

North of Dumbleyung, it wasn't just weevils causing damage, bryobia mites and balaustium mites were also present. Feeding damage from mites was causing cupping in moisture-stressed canola seedlings. For more information on these mites, refer to GRDC's Redlegged earth mite best management practice guide.

## Weevil species

Four species of weevils typically damage canola: vegetable weevil, desiantha (spotted vegetable) weevil, small lucerne weevil and Fuller's rose weevil.



Image 2: A vegetable weevil. Photo courtesy of: Andrew Weeks (Cesar Australia).

Adult vegetable weevils are about 10 mm long with two short white stripes at an angle on each side of its abdomen. They will attack canola and some broadleaf pasture plants, especially capeweed. They are often camouflaged amongst stubble and trash and tend to hide during the day.



Image 3: A vegetable weevil larva feeding on canola. Photo courtesy of: DPIRD.

Vegetable weevils can lay eggs on canola. The eggs hatch into the larval stage in early winter. Larvae feed on the plants on which they hatched. Larvae have a black head, are legless, cream coloured and can be confused with caterpillars.



Image 4: An adult desiantha weevil. Photo courtesy of: Rachel Golledge (DPIRD).

Desiantha weevil adults are mottled grey-black in colour with grey flecks on the abdomen, and have the typical elongated weevil snout. They grow up to 7 mm long and are flightless. Adults chew cotyledons, leaves and stems of canola plants, and may eat small plants down to ground level, while the larvae feed below ground on cereals.



Image 5: Desiantha weevil larva. Photo courtesy of: DPIRD.

The larvae of desiantha weevils are white legless creatures that grow to 6 mm long with orange-brown heads. They remain under the soil where they feed on the germinating cereal seed or stem, they can be difficult to find if in low numbers.



Image 6: Adult small lucerne weevil. Photo courtesy of DPIRD.

Small lucerne weevil adults are about 5 mm long, light grey in colour with a white stripe on each side. Adults will attack geminating lucerne, pasture legumes and canola. Small lucerne weevil will hide under stubble and may not come into contact with insecticides. After spraying, check for new damage in crops or for live beetles before seeding.



Image 7: An adult Fuller's rose weevil. Photo courtesy of: DPIRD.

Adult Fuller's rose weevils are about 8 mm long, have an elongated body, and are grey with a yellow stripe running across the side on the first two body segments and a lateral yellow stripe on each side of the abdomen.

Larvae of Fuller's rose and small lucerne weevil are difficult to distinguish between as they both have a white head, with black jaws, are legless and cream coloured. They are found underground, feeding on roots of plants. Small lucerne weevil larvae have been known to cause damage to lucerne.

Adult vegetable weevils often harbour in rock heaps and remnant bush areas and move into the adjoining canola crop from these refuges. The other three weevils have been known to cause damage across the paddock.

Weevils can be very hard to find as they hide and play dead with their legs tucked, which helps them blend in with their surroundings. Pitfall traps placed into the ground can be an effective way to find weevils.

If you are unsure of the type of weevil you have found in your canola crop, <u>email the PestFacts WA team</u> to request an identification by our entomologists. The PestFacts WA Reporter app is temporarily unavailable.

## Diagnosing weevil damage

All adult weevils chew off parts of leaves and cotyledons, giving them a serrated appearance, and can eat plants down to ground level at high numbers.

Design the weevil larvae feed on the underground parts of cereal seedlings and can cause a reduction in plant growth, wilting and eventual death of plants.

Damage from vegetable weevil is usually restricted to paddock edges or where capeweed was in abundance the previous year.

## Managing canola weevils

Weevils can be a frustrating pest as they can survive spray applications of insecticides at registered rates due to their behaviour of hiding during the day. For this reason, it can be more effective to spray in the evening when weevils are active.

Design the weevil numbers can be reduced by effective control of grass weeds in the previous season and of the green bridge following summer rainfall.

The only treatment for Desiantha weevil larvae in cereals is to sow with seed treated with chlorpyrifos.

For insecticide recommendations on managing vegetable weevils in canola, refer to DPIRD's 2024 autumn winter insecticide spray guide. The vegetable weevil requires higher rates of insecticides than most pests of canola.

Do you have difficulty controlling desiantha weevil?

DPIRD currently has a project, funded by Council of Grain Grower Organisations (COGGO), looking into whether desiantha weevils are developing tolerances to synthetic pyrethroids. If you find desiantha weevils, especially if they appear to have survived insecticide application, please contact DPIRD Research Scientist Svetlana Micic at Svetlana.Micic@dpird.wa.gov.au or +61 (0)8 9892 8591.

#### **Further information**

For more information on weevils visit DPIRD's Diagnosing weevils in canola and Diagnosing Desiantha weevil in cereals pages.

For more information contact Research Scientist <u>Svetlana Micic</u> in Albany on +61 (0)8 9892 8591.

Article authors: Cindy Webster (DPIRD Narrogin) and Svetlana Micic (DPIRD Albany).

## Snails have started to lay eggs

Beaumont



Image 8: A round snail with eggs. Photo courtesy of: Anonymous.

A farmer has reported finding round snails laying eggs near Beaumont after rainfall was received last week. The snails were found around the sheds where there was ample green feed. When snails were checked in the paddock, they were not found to be actively feeding, and no egg clutches were found.

For detailed advice on monitoring and managing this pest, refer to the 2024 PestFacts WA Issue 1 article Now is the time to patch bait for snails.

DPIRD has also just released a podcast episode on managing snails in broadacre crops in 2024. To listen to this podcast, visit <u>Apple Podcasts</u> and <u>Spotify</u>.

For more information on slug and snail control visit:

- DPIRD's <u>Pest slugs and snails and their management in broadacre crops</u> page.
- DPIRD's Managing snails in WA webinar recording
- DPIRD's Managing snails in broadacre crops podcast
- GRDC's Nail the Snails publication
- GRDC's <u>Snail baiting as part of an integrated pest management strategy</u> video.

For more information contact Research Scientist <u>Svetlana Micic</u> in Albany on +61 (0)8 9892 8591.

Article authors: Cindy Webster (DPIRD Narrogin) and Svetlana Micic (DPIRD Albany).

# Caterpillar pests – how to recognise them in your crop

Geraldton



Image 9: Cabbage centre grub caterpillar. Photo courtesy of: Peter Eliott-Lockhart (Elders).

Recently Peter Eliott-Lockhart (Elders) has reported cabbage centre grubs being present on canola seedlings at Geraldton.

Early identification of caterpillar pests is important to prevent further damage to emerging crops. Caterpillars can be tricky to correctly identify, especially when they are small, due to their similarities in appearance. Fortunately, growers and consultants can request or confirm identification of potential broadacre insect pests by contacting the PestFacts WA team at <a href="mailto:pestfactswa@dpird.wa.gov.au">pestfactswa@dpird.wa.gov.au</a>.

Caterpillar pests that growers should be aware of on emerging crops include the brown pasture looper, cutworm, webworm, weed web moth, cabbage centre grub and pasture day moth.

Native budworm may be present at this time of year on volunteer lupins, canola, clovers and weeds, but is rarely a problem early in the season. Hawk moth caterpillars are

commonly encountered, although they are very rarely seen damaging crops and feed on weeds such as tar vine.

#### **Brown pasture looper**



Image 10: Brown pasture looper caterpillar. Photo courtesy of: DPIRD.

These caterpillars are slender grey or brown with distinctive cream or yellow stripes that appear after they reach 10 mm in length. Young caterpillars can be seen on plant leaves during the day and move with a characteristic looping motion. When the caterpillars reach full size at 30 mm long, they cease the looping motion. For more information refer to DPIRD's Diagnosing brown pasture looper page.

#### Cutworm



Image 11: The 3 main species of cutworm caterpillars. Photo courtesy of: DPIRD.

Cutworm caterpillars can grow to 50 mm in length and appear plump, with a hairless body and dark head. There are several species of cutworm pests:

- Caterpillars with a pink tinge are Agrotis munda
- Dark grey caterpillars are bogong moth Agrotis infusa
- Patterned caterpillars are Rictonis spp. and Omphaletis spp.

Cutworm feed on leaves and stems at ground level, and hide in the soil during the day, often at the base of lopped plants. It is common to see patches within a crop where plants have had leaves lopped or stems cut at the base. For more information refer to DPIRD's Diagnosing cutworm in cereals and Cutworm: pests of crops and pastures pages.

## Weed web moths and cabbage centre grubs



Image 12: Weed web moth caterpillars can be distinguished from cabbage centre grub caterpillars by the presence of dark circles along their body. Photos courtesy of: DPIRD.

These caterpillar species can look very similar, and both have brown banding along the body. The weed web moth has characteristic dark circles or spots along the body. Both species produce webbing amongst the leaf tissue, providing them some protection from chemical sprays.

Cabbage centre grub and weed web moth are minor early establishment pests that rarely reach high enough numbers to cause economic damage. However, weed web moth can be problematic in warmer than average years with early autumn rainfall. For more information refer to DPIRD's 2020 PestFax Issue 2 article Caterpillars continue to cause concern.

#### Webworm



Image 13: A webworm caterpillar. Photo courtesy of: DPIRD.

Webworm caterpillars are leaf-chewing pests of seedling wheat and barley and are light brown in colour with black heads and grow to 15 mm long. During the day they hide in web-lined tunnels. These caterpillars typically sever the oldest leaves at ground level and pull them into web-lined holes near the plants. For information refer to DPIRD's Diagnosing webworm page.

## Pasture day moth



Image 14: Pasture day moth caterpillar. Photo courtesy of: Dusty Severtson (DPIRD).

Pasture day moth is an occasional pest of canola plants, although it feeds mainly on broadleaf pasture species and weeds. The caterpillars can grow to 50 mm in length and are dark brown with yellow and reddish-orange markings. They have two prominent yellow spots near the end of their body and an orange-black head. For more information refer to DPIRD's Diagnosing pasture day moth damage page.

#### Native budworm and lesser budworm



Image 15: Microscope images showing the black hairs of native budworm and white hairs of lesser budworm. Note that the colour of both species can vary from pale yellow/green to dark brown and is not a good indication of species. Photos courtesy of: Dusty Severtson (DPIRD).

Native budworm is a major pest of pulse and canola crops and can cause serious yield loss to canola as pods mature. At this time of year, they may be found feeding on

volunteer lupins, clovers and weeds and transfer onto new crops. For more information refer to DPIRD's <u>Native budworm spraying threshold</u> factsheet.

Native budworm is closely related to the lesser budworm, and caterpillars look very similar. Both can vary in colour from light to dark greens and have a light-coloured strip down each side of the body. For older larvae (more than 20 mm in length), lesser budworm has white hairs on the collar (segment behind the head) and the body, while native budworm has black hairs on the collar and black to blackish-brown body hairs.

#### Hawk moth caterpillars



Image 16: Hawk moth caterpillar. Photo courtesy of: Ashleigh Donnison (DPIRD).

Young hawk moth caterpillars are green with a dark dorsal line ending in a stumpy black tail spike, but final instar caterpillars may be green, brown, or black. The tail spike becomes strongly curved backwards. Their known hosts are lucerne and multiple weed species including hogweed, tar vine and pigweed.

## Managing caterpillars and considering beneficials

Growers are advised to monitor their paddocks for caterpillar activity and spray only if they are present and feeding on the crop.

If numbers warrant spraying then growers and consultants can refer to DPIRD's <u>2024</u> autumn winter insecticide guide.

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**

The PestFacts WA Reporter app is temporarily unavailable. You can request or confirm identification of potential broadacre insect pests by emailing the PestFacts WA team at <a href="mailto:pestfactswa@dpird.wa.gov.au">pestfactswa@dpird.wa.gov.au</a> or by contacting one of the following DPIRD Research Scientists <a href="mailto:Svetlana Micic">Svetlana Micic</a> in Albany on +61 (0)8 9892 859, <a href="mailto:Andrew Phillips">Andrew Phillips</a> in Geraldton on +61 8 9956 8567 or <a href="mailto:Dusty Severtson">Dusty Severtson</a> in Northam on +61 8 9690 2160.

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## Field pea blackspot disease forecasts for WA are available online



Image 17: Field pea with blackspot. Photo courtesy of: DPIRD.

DPIRD's <u>blackspot in field pea disease forecasts</u> for the Western Australian 2024 season can now be viewed online. The latest forecast is current to 13 May 2024, and DPIRD's Blackspot Manager model has used weather data from 1 January to 12 May 2024 from the nearest weather station.

Blackspot Manager is a model that predicts the maturity and release of spores that cause blackspot in field pea, using weather data from the nearest weather station. Advice is given on when it is safe to sow field pea.

Blackspot becomes established when spores of the fungi produced on old field pea stubble are carried into the new crop by wind after rain events. Infection may occur at any stage of plant growth. The most effective way of reducing blackspot in field pea is to delay sowing the crop until a significant number of spores have been released off the stubble.

Currently, the blackspot risk is low enough at Grass Patch, Kondinin, Kulin, Lake King, Pingaring, Ravensthorpe and Scaddan to sow field pea now. While the blackspot risk is also low at Gairdner, it is not recommended to sow field pea there until after 18 May.

For all the other locations in Western Australia, some additional rain events are still needed to reduce the blackspot risk and it is recommended to delay sowing. Delayed sowing of field pea reduces the severity of blackspot and provides opportunities for preseeding weed control.

This forecast will be updated weekly between now and the end of June 2024.

Blackspot Manager considers both blackspot spore release levels and agronomic suitability for the sowing recommendations.

Sowing time can depend on a range of factors and it is recommended to consult an agronomist to determine the optimal sowing window for your situation.

To view the latest forecast, refer to DPIRD's Field pea blackspot management guide for Western Australia – 13 May 2024.

For more information on blackspot, refer to the department's Diagnosing blackspot in field peas webpage.

The Blackspot Manager forecasts can be viewed online. We offer a free SMS service which involves a weekly text sent to you to inform you of the blackspot risk and giving a recommendation if it is safe to sow. To subscribe to the free blackspot SMS service, text 'blackspot', your name, and nearest weather station to +61 (0)475 959 932. We also send out a weekly email to those who prefer to receive this information in their email inbox. To subscribe to the direct email service, email Blackspot.Manager@dpird.wa.gov.au .

For more information on blackspot in field peas, or the forecasts, contact Principal Research Scientist Jean Galloway in Northam on +61 (0)8 9690 2172.

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## PestFacts WA webinar recording can now be viewed online

On Tuesday, May 7, 2024, DPIRD research scientists Ian Foster and Svetlana Micic delivered a webinar on the topics:

- WA's climate outlook for the 2024 season.
- Which invertebrate pests growers need to look out for as crops emerge.

The webinar recording is now available for viewing on the DPIRD <u>YouTube channel</u> and the presentation PowerPoint slides can be downloaded on the DPIRD About PestFacts WA webpage.

For more information on the webinar topics presented, contact Research Scientists <u>Ian</u>
<u>Foster</u> in Perth on +61 (0)8 9368 3954 or <u>Svetlana Micic</u> in Albany on +61 (0)8 9892 8591.

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#### **Important Disclaimer**

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