

Agriculture and Food

PestFax

Sep 2017 Canola sclerotinia update and managing late infections More reports of powdery mildew in canola Growers urged to continue checking wheat for rust Aphids are active Diamondback moth update Other insect pests currently active in cereals Native budworm moth activity and trapping update

Canola sclerotinia update and managing late infections

- Geraldton
- Northampton
- Esperance

Over the past week canola sclerotinia stem infections have been observed in the north and south coastal areas of Western Australia.



DPIRD's crop protection officer Bonnie Jupp has reported finding sclerotinia stem lesions on leaves and stems in a canola crop near Geraldton.



Amery Drage (Grower) has reported seeing stem infections in his late flowering canola near Northampton.

Sam Fetherstonhaugh (Landmark) has tweeted about finding sclerotinia stem infection in a canola crop near Esperance

Canola pathologist Ravjit Khangura says sclerotinia symptoms usually become more apparent as the weather starts warming up. However, relatively dry weather experienced over the past couple of weeks may have prevented any further disease progression.

Most canola crops around the state are likely to have grown past the spraying window (30-50% bloom) so growers are reminded that late spraying is not recommended.

Research conducted by DPIRD has shown that there are no economic returns from late fungicide applications (70-80% bloom).

With flowering nearly finishing on the main stem any further main stem infections are unlikely to occur, however infected petals from lateral branches may cause some degree of branch infection. These late infections (stem or branch) normally do not cause significant impact on yield. Heavy losses from branch infections can only occur if wet and humid conditions prevail throughout the flowering period.

Further information can be found at;

- The department's Managing sclerotinia stem rot in canola page
- The department's Protecting WA Crops Issue 5 newsletter Sclerotinia stem rot
- GRDC's Managing sclerotinia in canola YouTube video.

For more information contact <u>Ravjit Khangura</u>, Research Officer, South Perth on +61 (0)8 9368 3374.

More reports of powdery mildew in canola

- Goomalling
- Tammin



David Pfeiffer (Synergy) reports finding powdery mildew in canola crops near Goomalling and Tammin.



Symptoms of powdery mildew on canola can be easily recognised from the presence of white powder-like patches on all the aerial parts of the plant, including leaves, stems and pods. Underneath the white floury patches dark or purplish blotches are often observed.

Plant pathologist Ravjit Khangura (DPIRD) says powdery mildew in canola is generally favoured by moderately warm, wet and humid conditions. The disease is not likely to cause serious economic losses unless it moves on to the pods. Severe infection on the pods can cause up to 30% yield loss and also affects the grain quality.

Growers are urged to closely monitor for powdery mildew in their canola crops to see if symptoms show up on the pods and keep reporting via the <u>PestFax Reporter app</u>.

Currently, no fungicide control is warranted as the disease has been of sporadic occurrence and rarely affected canola pods in the past.

For more information contact <u>Ravjit Khangura</u>, Research Officer, South Perth on +61 (0)8 9368 3374.

Growers urged to continue checking wheat for rust

- Geraldton (Woorree)
- Mount Ridley



Plant pathologist Ciara Beard (DPIRD) reports finding wheat leaf rust on some unnamed varieties this week in a wheat variety disease screening small plot trial at the department's Geraldton Research Support Unit at Woorree. The varieties have just finished flowering and the pustules were easy to find across upper leaves.

Warm dry spring conditions in the northern wheatbelt will not favour wheat leaf rust which prefers dewy nights and day temperatures of 14-25°C.

However, growers and advisors are encouraged to monitor susceptible wheat crops particularly those that are later sown or less advanced as fungicide application can be worthwhile up until crop flowering.

Also keep an eye out for the potentially more damaging disease stem rust which loves warm spring weather.

Crop protection officer Jolie Delroy (DPIRD) has also recently found leaf rust in a flowering wheat crop near Mount Ridley.

Growers and consultants can participate in the <u>Australian cereal rust survey</u> and submit samples to the University of Sydney, Private Bag 4011, Narellan NSW 2567 for pathotype testing if they are finding rusts in crops.

For more fungicide information refer to the department's <u>Registered foliar fungicides for cereals in Western</u> <u>Australia</u> page.

For more information on rust refer to the department's <u>Managing stripe rust and leaf rust in wheat in Western</u> <u>Australia</u> page.

For more information contact <u>Kithsiri Jayasena</u>, Plant Pathologist, Albany on +61 (0)8 9892 8477, <u>Geoff</u> <u>Thomas</u>, Plant Pathologist, South Perth on +61 (0)8 9368 3262 or <u>Andrea Hills</u>, Plant Pathologist, Esperance on +61 (0)8 9083 1144 or <u>Ciara Beard</u>, Plant Pathologist, Geraldton on +61 (0)8 9956 8504.

Aphids are active

Canola aphids

- Geraldton
- Kojonup



Crop protection officer Bonnie Jupp (DPIRD) has reported finding cabbage aphids, turnip aphids and green peach aphids (GPA) in a canola crop and a canola trial near Geraldton.

Entomologist Dusty Severtson (DPIRD) has found cabbage aphids in early flowering canola crops around Kojonup. The cabbage aphid populations were above threshold along crop edges only.

If more than 20% of plants are infested with colonies of cabbage or turnip aphids, control measures should be considered to avoid yield losses. This threshold does not hold up where plants are moisture stressed and/or patchy as aphid feeding damage is increased when plants are stressed. Pirimicarb and sulfoxaflor are currently registered for aphid control in canola crops in WA. For more information refer to the department's <u>Insecticide</u> <u>spray guides for crops in Western Australia</u>.

DPIRD has recently released a mobile phone application which is designed to assist growers, consultants and other field technicians apply spray thresholds for pests in crops. The first module is for cabbage and turnip aphids in canola and results can be visualised on a map, colour-coded according to threshold levels. This field intelligence can then be used to optimise spray timing and, where possible, to target sprays to pest infestations where they are aggregated, such as along crop edges or in a portion of a crop. For more information, see the department's <u>CropScout</u> page.



Cereal aphids

- Katanning
- Kojonup

Mount Ridley



While in the field last week entomologist Dusty Severtson (DPIRD) found hotspots of oat aphids along the edges of a Mace wheat crop at Katanning and a wheat crop at Kojonup.

Crop protection officer Jolie Delroy (DPIRD) has reported finding oat aphids (adults and nymphs) in a wheat crop near Mount Ridley. This crop also had leaf rust and powdery mildew.

Fungus is controlling aphids in some crops

Central agricultural region

Garren Knell (ConsultAg) has found that aphid infestations in many crops throughout the central agricultural region have died or are dying from naturally occurring fungus. These fungi are specific to aphids and given the right conditions, such as moist crop canopy and warm daytime temperatures, can wipe out entire aphid infestations in a short period of time.

Therefore it is worth inspecting crops for aphids infected with fungus as an insecticide spray may be unnecessary. Aphids infected with fungus often look discoloured (pale to grey to orange), powdery, hairy or even slimy. For more information see the department's <u>Know what beneficials look like in your crop</u>.

For more information on aphids refer the departments';

- Protecting WA Crops Issue 3 newsletter <u>Aphids WA's insect problem children</u>
- Aphid management in canola crops page
- <u>Diagnosing cereal aphids</u> page.

For a list of insecticides registered for use on aphids in canola and cereals see the department's <u>Winter/Spring</u> <u>Insecticide Guide 2017</u>.

For more information contact <u>Svetlana Micic</u>, Research Officer, Albany on +61 (0)8 9892 8591 or <u>Dustin</u> <u>Severtson</u>, Development Officer, South Perth on +61 (0)8 9368 3249.

Diamondback moth update

- Geraldton
- Dalwallinu

- Ballidu
- Mundaring



Crop protection officer Bonnie Jupp (DPIRD) has reported finding diamondback moth adults and caterpillars (DBM) in a canola trial site at the Geraldton DPIRD Research Station. There were less than 10 caterpillars per 10 sweeps.

Clare Johnston (Elders) has found a few patches of DBM caterpillars (and aphids) in a late flowering GT50 canola crop near Dalwallinu.

Ty Henning (TekAg) found 150-200 DBM caterpillars per 10 sweeps in a late flowering/podding canola crop near Ballidu last week. High populations of green peach aphids were further stressing the already moisture-stressed plants and management considerations were concerning given the low yield expectation and the cost of control.

Entomologist Dusty Severtson (DPIRD) has reported finding DBM in an early flowering canola crop near Mundaring. There were less than 10 caterpillars per 10 sweeps.

To monitor for DBM, it is recommended that at least four lots of 10 sweeps with an insect net are taken at various locations in each crop.

For more information on DBM thresholds in advancing canola crops and how to manage DBM refer to the 2017 PestFax Issue 20 article <u>Diamondback moth activity</u>.

For more information refer to the department's <u>Diagnosing diamondback moth</u> and GRDC's <u>Diamondback moth</u> factsheet.

For insecticide options refer to the departments Winter/Spring Insecticide Guide 2017.

For more information on DBM contact <u>Alan Lord</u>, Technical Officer, South Perth on +61 (0)8 9368 3758 or <u>Dustin</u> <u>Severtson</u>, Development Officer, South Perth on +61 (0)8 9368 3249.

Other insect pests currently active in cereals

Armyworm caterpillars

Narrogin



Larvae climb the drying stem and lop the head at a green area where it joins the stem.

Garren Knell (ConsultAg) reports finding high numbers of armyworm caterpillars in an oat crop at Narrogin which have died from what is most likely a naturally occurring insect fungal disease. The oat crop had not received an aphid antifeed spray of synthetic pyrethroid early in the season and there was considerable leaf damage where there were high numbers. The plants are likely to recover and fortunately the crop will not need to be sprayed.

Garren advises that, while this is a great help when conditions are right and fungus kills off caterpillars and aphids, cereal crops should be monitored for armyworm, especially those that had not received an insecticide previously.

Armyworm caterpillars are fat and smooth and may be distinguished by the three parallel white stripes on the collar just behind the head. The first visible sign of armyworm caterpillars is often their green to straw-coloured droppings, about the size of a match head, found on the ground between the cereal rows. They prefer to shelter during the day and feed at night.

Armyworm caterpillars can cause patches of significant chewing damage to cereal plants by lopping off grain heads and chewing leaves and awns.

A number of effective insecticides are registered for the control of armyworm if required (see the department's <u>Winter/Spring Insecticide Guide 2017</u>). Spraying late in the afternoon or evening is recommended as armyworms are predominately night feeders.

For more information on armyworms visit the department pages;

- Diagnosing armyworm
- Management of armyworm in cereal crops
- <u>Armyworm economic considerations for management</u>.

Leafhoppers

- Katanning
- Gnowangerup



Entomologist Dusty Severtson (DPIRD) has found leafhoppers causing some leaf damage to a barley crop east of Katanning.

Crop protection officer Alice Butler (DPIRD) has also found leafhoppers in a flowering Yitpi wheat crop near Gnowangerup.

Leaf hoppers are a sucking insect which causes a pale or bleached dotting in a pattern over the leaf blade, giving a diseased look.

They are not usually a very common pest in broadacre situations.

There are no chemicals registered in WA for this pest as the damage is rarely worth spraying.

For more information on these pests contact <u>Svetlana Micic</u>, Research Officer, Albany on +61 (0)8 9892 8591 or <u>Dustin Severtson</u>, Development Officer, South Perth on +61 (0)8 9368 3249.

Native budworm moth activity and trapping update

- Usual trapping sites across wheatbelt
- Binnu
- Eradu
- Ballidu



Native budworm moth numbers recorded this week from volunteer farmers, DPIRD staff and agronomists indicates that some larger flights of budworm are now occurring in some parts of the cropping regions. The larger captures this week include; Binnu (168 moths), Cadoux (20), Doodlakine (44), Eradu (104) Kellerberrin North (17), Merredin South West (12) and Varley (22).

Results of this week's trapping numbers are available at the department's Native budworm moth numbers 2017.

A farmer west of Binnu reports finding six budworm caterpillars per 10 sweeps (one grub 5-10mm and five grubs more than 10mm in size) in a lupin crop.

A budworm trapper has found two caterpillars per 10 sweeps in a lupin crop near Eradu.

Ty Henning (TekAg) has found 15 native budworm caterpillars per 10 sweeps in a late flowering/podding canola crop near Ballidu last week.

Although information on moth flights is very useful in alerting growers to potential native budworm risk there is no substitute for sweep-netting crops to check for native budworm grubs.

With many crops in the vulnerable pod development growth stage it is important to regularly monitor grub numbers and determine whether control measures are required. If caterpillar numbers are below calculated threshold limits, the decision to spray should be delayed and periodic sampling continued.

Pesticide options for the control of native budworm can be found in the department's <u>Winter/Spring Insecticide</u> <u>Guide 2017</u>.

Detailed information on this pest can be found at the department's <u>Management and economic thresholds for</u> <u>native budworm</u>.

For more information contact <u>Alan Lord</u>, Technical Officer, South Perth on +61 (0)8 9368 3758 or +61 (0)409 689 468.

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[1] https://www.agric.wa.gov.au/sites/gateway/files/Sclerotinia%20stem%20infection%20Bonnie%20Jupp.jpg

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[14] mailto:kithsiri.jayasena@dpird.wa.gov.au

- [15] mailto:geoff.j.thomas@dpird.wa.gov.au
- [16] mailto:andrea.hills@dpird.wa.gov.au

[17] mailto:ciara.beard@dpird.wa.gov.au

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