
PestFax

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Final canola blackleg sporacle forecast is available and blackleg leaf lesions are appearing in canola crops
Barley disease update and current management recommendations
Growers urged to keep monitoring crops as slaters and caterpillars continue to cause damage

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The final canola blackleg sporacle forecast for the season is now available.

The model is forecasting that blackleg spores are now releasing in most of the southern region districts including Jerramungup, Mount Barker, Esperance Downs, Scaddan, Salmon Gums, Munglinup, Lake King and Katanning.

Fruiting bodies are very close to maturity in Narrogin, Corrigin and Darkan.

In far northern districts fruiting bodies are predicted to mature in late July or Aug depending upon rainfall events over the coming weeks.

To check out the forecast for other districts visit DAFWA's [Canola blackleg spore maturity forecast for Western Australia](#).

Early blackleg lesions

- Kendenup
- Borden
- Katanning
- Ongerup



Crop protection officer Alice Butler (DAFWA) has reported finding early signs of blackleg in canola crops around

Kendenup, Borden and Katanning. The varieties infected were Stingray, Mako and the other was unknown. The crops were generally at 2-4 leaf stage and symptoms were noticed only on the cotyledons. Alice has also observed blackleg on cotyledons of volunteer canola in south Ongerup.

Plant pathologist Ravjit Khangura (DAFWA) says blackleg outbreaks are primarily initiated by airborne ascospores originated from matured fruiting bodies (pseudothecia) of the fungus on previous years' infected residues. Mild temperature and rainfall during summer and autumn, favours the maturity of the pseudothecia. Once matured, pseudothecia are triggered to release ascospores by rainfall events as small as 2mm or even heavy dews and high humidity can facilitate spore release.

Early seedling infections are most critical as they are most likely to produce severe stem cankers and yield loss.

Ravjit says that the two most important blackleg risk factors are the proximity to infected canola residue and the timing of the first major ascospore release from old canola residues that synchronise with the seedling susceptible stage of this year's crop. Lack of frequent rain events had halted the fruiting body maturation process in many districts and consequently delayed the spore release.

Growers in the high risk districts where spores are already releasing are advised to check proximity of their canola to previous year's residues along with the resistance rating of their canola varieties. They should be extra cautious if they have sown group 'A' varieties as group 'A' varieties have dropped resistance and some of them are now rated as moderately susceptible (MS).

Growers that haven't done an upfront fungicide application (seed dressing and in-furrow) and have canola plants that are at the susceptible growth stage (2-6 leaf) should consider applying foliar fungicide at the recommended rate and growth stage. Crops that are at an advanced stage (green bud and beyond) at the timing of spore release are unlikely to develop severe crown cankers.

For more details on managing the risk of blackleg refer to GRDC's Blackleg Management Guide (Autumn 2017 edition) [Blackleg Management Guide, 2017 Autumn Variety Ratings](#).

For more information contact [Ravjit Khangura](#), Research Officer, South Perth on +61 (0)8 9368 3374.

Barley disease update and current management recommendations

The PestFax team received quite a few barley disease reports this week. The diseases may have become visible after recent rainfall. Reports are predominantly coming from crops in the Albany and Esperance port zones with some reports of spot-type net blotch from the central agricultural region.

Blotches

- Nokaning
- Muntadgin
- Coomaldannerup
- Woogenellup
- Moonigurup
- Wittenoorn Hills



Crop protection officer Kylie Chambers (DAFWA) has found spot-type net blotch (STNB) in seedling barley crops, sown onto barley stubble, at Nokaning and Muntadgin.



Crop protection officer Alice Butler (DAFWA) has reported finding STNB in a tillering barley crop at Coomaldannerup and net-type net blotch (NTNB) in a tillering Flinders barley crop at Woogenellup and a tillering barley crop (variety unknown) at Moonigurup.

Plant pathologist Andrea Hills (DAFWA) has seen STNB at low levels in a tillering La Trobe barley crop near Wittenuom Hills. The crop was also displaying signs of physiological leaf spotting, which is expressed when plants are under stress.

For further information on symptoms and management of blotches see DAFWA's [Managing spot type net blotch in continuous barley](#) and [Managing net-type net blotch of barley in Western Australia](#) pages.

Barley leaf rust, scald and powdery mildew

- South Stirling
- Borden
- Kendenup
- Wittenuom Hills



James Bee (Elders) has reported finding low levels of barley leaf rust (BLR) in tillering Planet, Oxford and Flinders barley crops near South Stirling. Only 1-3 rust pustules were found on older leaves on most plants and the BLR was at early stage infection but James commented that BLR is likely to become widespread throughout the area due to the presence of rusty volunteer barley in pasture paddocks. James also found low levels of scald in these barley crops.

Plant pathologist Kithsiri Jayasena (DAFWA) has reported finding trace levels of BLR in a seedling (Z25) Planet barley crop near Borden. The crop had been treated with Impact in-furrow and the farmer had sprayed the crop with propiconazole this week. Kith has also found trace levels of BLR in a seedling (Z25) Flinders barley crop east of Kendenup. The crop had been seed treated with Baytan® and Gaucho®. The grower will continue monitoring the crop and will spray with a foliar fungicide.

Quenten Knight (Precision Ag) has found low levels of BLR and powdery mildew in a tillering Baudin barley crop at Wittenoom Hills.

For more information on BLR and how to manage it refer to DAFWA's [Diagnosing barley leaf rust](#) page and the 2017 PestFax newsletter Issue 4 [Barley and wheat leaf rust warning for 2017](#) article.

For more information on barley powdery mildew and scald refer to DAFWA's [Management of barley powdery mildew in 2017](#) and [Diagnosing barley scald](#) pages.

Current recommendations for managing barley diseases

In the face of a tight season in many areas, the decision whether or not to apply fungicide will vary with the disease and barley crop type (malt vs feed barley). Careful thought needs to be given to yield outlook and potential for disease to progress prior to investing in fungicide.

Net blotches

At this time blotches are likely to be an issue only for barley on barley crops. Crops sown with Systiva® or Uniform® should not be exhibiting significant levels of disease. Most varieties are susceptible to spot type net blotch (STNB) and the varieties Bass, Flinders and Oxford are likely to be vulnerable to net type net blotch (NTNB).

Prolonged dry weather does not favour disease development or response to fungicide application for these diseases. DAFWA trials show yield loss from STNB is very dependent on seasonal conditions with winter/spring rainfall an important driver of disease development and yield impact. Application of fungicide prior to stem

extension (for example, tillering) can reduce disease but will need follow-up spray later to give yield response. Trials do not indicate a penalty from waiting till late tiller/stem extension for application.

Barley leaf rust

Where there was a green bridge infected by BLR then paddocks are at risk and growers and consultants are urged to monitor paddocks for rust on a weekly basis, reports received suggest that some barley crops in the lower great southern fit into this category.

Most varieties will be susceptible at this early stage, even those varieties with adult plant resistance (APR), such as Flinders, Oxford or Planet.

Plant pathologist Kithsiri Jayasena (DAFWA) advises growers and consultants not to underestimate the leaf rust pathogen. As long as the susceptible host is present the rust can survive. These infected plants, such as in volunteer barley, will produce millions of rust spores and will spread via the wind. When these spores land on leaves of susceptible barley and the leaves are wet, then the spores will start germinating and infect the plant. This process will continue until the plants mature and die.

This season there are drier areas, especially in the northern and eastern agricultural regions of WA where barley leaf rust inoculum is unlikely to be present in significant levels, but conditions are very different in the lower great southern region. Kith says in this region, if the local area is dry but experiencing early morning dew and the crops are infected, then it is worth incorporating fungicide into the post weed control program at mid tillering or to wait until the early stem elongation stage and spray.

If the barley seed was treated with fluxapyroxad seed dressing prior to seeding or seeded with an in-furrow fungicide containing actives such as azoxystrobin with metalaxyl M, this will suppress the leaf rust development. In this situation growers can delay spraying any foliar fungicide and keep monitoring. The second spray will be depend on the how season progress. If no rain and no dew is present and crops are infected then fungicide spraying can be delayed and growers and consultants keep monitoring.

Scald

Growers and consultants need to know their variety resistance. The varieties Oxford, Flinders and Rosalind are moderately susceptible (MS) so will be at some risk, while LaTrobe is moderately resistant (MR) and should be okay. As with the net blotches, prolonged periods of dry weather do not favour scald development.

If the paddock is rusty then a fungicide application will help with both diseases.

Paddocks treated with a fluxapyroxad fungicide seed dressing should be protected.

Powdery mildew

Seed dressing or in-furrow products applied to manage other diseases may provide some degree of protection from powdery mildew.

The compromised triazole ingredients tebuconazole and triadimefon will have reduced efficacy and are not recommended for powdery mildew control. Any use of tebuconazole increases the selection pressure on the fungicide resistant strains of powdery mildew.

Products containing other triazole fungicide active ingredients like epoxiconazole (for example, Opus®), prothioconazole + tebuconazole (for example, Prosaro®) or propiconazole (for example, Tilt®), should have uncompromised activity against powdery mildew.

For greatest efficacy, fungicides should be applied before significant levels of disease establish in crop.

Barley foliar fungicide information can be found at DAFWA's [Registered foliar fungicides for cereals in Western Australia](#).

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

Growers urged to keep monitoring crops as slaters and caterpillars continue to cause damage

Slaters

- Ravensthorpe
- Mount Madden



Luke Marquis (South East Agronomy Service) has reported finding patches of three leaf cereal crops 'smashed' by slaters around Ravensthorpe and Mount Madden. At this stage the areas within the crop damaged by the slaters are not large enough to warrant reseeding.

Slaters feeding on plants cause an uneven rasping-type damage that can appear similar to slug and snail damage.

Entomologist Svetlana Micic (DAFWA) says that in some years, slaters can be difficult to control. Slug baits have had some efficacy, however, residual insecticide sprays have had better efficacy in protecting a germinating canola crop from slater damage. The slaters survive on organic matter on the soil surface. If the organic matter dries out the slaters cannot survive.

Further details about slaters can be found at DAFWA's [Diagnosing slaters in crops](#) page.

Armyworm caterpillars

- Ravensthorpe
- Mount Madden
- Esperance



Luke Marquis (South East Agronomy Service) has reported finding armyworm caterpillars mowing cereal crops down to the ground around Ravensthorpe and Mount Madden. The damaged crops were surrounded by pasture.



Monica Field (Farm and General) has found armyworm caterpillars causing damage to a 1-3 leaf wheat crop in the Esperance area. 40 hectares of a 100ha paddock have been affected.

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.

A number of effective insecticides are registered for the control of armyworm if required (see DAFWA's [Autumn Winter insecticide guide 2017](#)). Spraying late in the afternoon or evening is recommended as armyworms are predominately night feeders.

For further reading refer to DAFWA's [Diagnosing armyworm](#) page.

Cutworm caterpillars

- Kellerberrin



Jessica Smith (DKT Rural Agencies) has found cutworm caterpillars chewing off an emerging barley crop south of Kellerberrin. The crop was sprayed with alphacypermethrin.

Cutworm caterpillars are up to 50mm long, hairless with a dark head. They vary in colour from grey to orange. The caterpillars hide in the soil during the day, often at the base of lopped plants or edge of the damaged patch.

Cutworm caterpillars feed at or near ground level on all crop and pasture plants and are given their name because they often chew through leaves or stems giving a cut-off appearance. Similar to armyworm caterpillars, cutworm caterpillars are more likely to come into contact with insecticides applied in the late evening when caterpillars are actively feeding.

For more information refer to DAFWA's [Diagnosing cutworm in cereals](#) and [Cutworm: pests of crops and pastures pages](#).

Weed web moth caterpillars

- Doodlakine



Jessica Smith (DKT Rural Agencies) has found weed web moth caterpillars in a Bonito canola crop near Doodlakine. The canola plants had eight true leaves or more. The crop had been sprayed with alphacypermethrin a month ago but Jessica was still seeing insects and plant damage.



Jessica also observed that new leaves were cupping together and entomologist Dusty Severtson (DAFWA) advised that this was likely to be due to caterpillar webbing and pupae were probably pupating inside the webbing.

Caterpillars of weed web moth look very similar to diamond back moth, particularly when they are small. This means they are easily confused in the field. Weed web moth caterpillars are grey-green and pale brown in colour, with a distinctive black head. They are slender, grow up to 15mm long and generally have a dark line down the middle of their back with three rows of dark spots on either side. Caterpillars tend to wriggle violently or crawl around rapidly when disturbed.

In addition to canola, weed web moth caterpillars are known to attack lupins, lucerne and a wide range of broad-leaved weeds. They shred the leaves of seedling crops and may cause complete defoliation, which can lead to plant death.

For a list of insecticides registered for use on insect pests in crops see DAFWA's [Autumn Winter insecticide guide 2017](#).

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

All Page Links

- [1] <https://www.agric.wa.gov.au/canola/canola-blackleg-spore-maturity-forecast-western-australia>
- [2] <https://www.agric.wa.gov.au/sites/gateway/files/Canola%20blackleg%20Katanning%20%20Alice%20Butler%2019%20June17.jpg>
- [3] <https://grdc.com.au/resources-and-publications/all-publications/factsheets/2017/03/blacklegresistanceratings>
- [4] <mailto:ravjit.khangura@agric.wa.gov.au>
- [5] <https://www.agric.wa.gov.au/sites/gateway/files/Barley%20STNB%20at%20Muntadgin%20Kylie%20Chambers%2013June17.jpg>
- [6] <https://www.agric.wa.gov.au/sites/gateway/files/Barley%20NTNB%20Alice%20Butler%20DAFWA%2014June17.jpg>
- [7] <https://www.agric.wa.gov.au/barley/managing-spot-type-net-blotch-continuous-barley>
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- [9] <https://www.agric.wa.gov.au/sites/gateway/files/Barley%20leaf%20rust%20James%20Bee%20Elders%2019June17.jpg>
- [10] <https://www.agric.wa.gov.au/mycrop/diagnosing-barley-leaf-rust>

- [11] https://www.agric.wa.gov.au/newsletters/pestfax/pestfax-issue-4-may-2017?page=0%2C0#smartpaging_toc_p0_s3_h3
- [12] <https://www.agric.wa.gov.au/barley/management-barley-powdery-mildew-2017>
- [13] <https://www.agric.wa.gov.au/mycrop/diagnosing-barley-scald>
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