

PestFacts WA

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Phomopsis on lupins: risks to grazing livestock

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Phomopsis lesions on lupin pods. Photo courtesy of DPIRD.

Phomopsis lesions are being found by Department of Primary Industries and Regional Development (DPIRD) staff on lupin pods and/or stems in crops and two national variety trials (NVT) in locations ranging from Alma to Quellington.

Symptoms and impact

Phomopsis stem and pod blight, caused by the fungus *Diaporthe toxica*, occasionally reduces lupin yields. However, its major impact is the production of phomopsis toxins in mature or senesced lupin stems and seeds. These toxins can cause lupinosis, a potentially fatal liver disease in livestock – especially sheep - when they graze on infected stubble or consume infected seed.



Phomopsis infected narrow leafed lupin pod and seed. Photo courtesy of DPIRD.

Pod infection from phomopsis appears as dark lesions that may cover part or all of the pod surface. These lesions can lead to fungal growth inside the pod, resulting in seed infection. Infected seeds often appear shrivelled or discoloured (light to golden brown), and their cotyledons may remain green instead of turning yellow. Infection risk increases during periods of heavy rainfall while pods and seeds are maturing.



Phomopsis lesions on a lupin stem. Photo courtesy of DPIRD.

Phomopsis stem lesions are usually hidden in green lupin plants. The fungus infects early but stays dormant until the plant begins to dry. Rain or moisture on senescing stems triggers fungus growth, producing black fruiting bodies on stubble. Chemical desiccation or moisture stress can speed up symptom development. With the cool damp weather over the last month in the Geraldton port zone, growers should look for black fruiting bodies — which feel rough like sandpaper - on stems to confirm stem phomopsis before grazing.

All lupin varieties are susceptible to some level of phomopsis infection. However, the varieties Coyote, Jenabillup and Quilinock are more vulnerable to stem infection, increasing the risk of lupinosis in grazing livestock - especially after summer rainfall. Mandelup and Quilinock also show higher susceptibility to pod and seed infection. For the latest phomopsis resistance ratings, refer to DPIRD's 2025 WA Crop Sowing Guide. The DPIRD 2026 WA Crop Sowing Guide will be available soon.

Livestock grazing



Harvested lupin seed sample containing orange-yellow coloured seed infected with Phomopsis. Photo courtesy of Anonymous grower.

The phomopsis toxins can cause sickness or death (lupinosis) in livestock. This most commonly occurs when they graze on infected stubble, but it can also result from the feeding of infected seed. Infected seeds are usually discoloured, ranging from golden to a dark purple-brown colour.

If you notice unusual signs of disease in your livestock, call your private veterinarian or <u>DPIRD field veterinary officer</u>, or the Emergency Animal Disease hotline on 1800 675 888.

Further information

For more information on lupin diseases contact Senior Research Scientist <u>Ciara Beard</u> in Geraldton on +61 8 9956 8504 or Principal Research Scientist <u>Geoff Thomas</u> in Perth on +61 428 947 287.

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Leaf rust on wheat and wild oats

Wheat leaf rust

- Georgina
- Pindar



Leaf rust pustules on wheat at Georgina. Photo courtesy of DPIRD.

Senior Research Scientist Ciara Beard (DPIRD) found leaf rust on late emerged plants in a wheat crop (var. Tomahawk) at Georgina, near Geraldton, last week.

A grower recently found a small, isolated patch of leaf rust in a wheat crop (var. Brumby) near Pindar.

The cool, soft finish to the growing season - with temperatures under 22°C and some rain - has suited wheat leaf rust development on late-emerged plants.

However, with most wheat crops in the Geraldton port zone nearly ready to harvest, these rust reports will only have implications for next year's management. In particular, presence highlights the importance of controlling any regrowth over summer and autumn, as rusts need living plants to persist. Rusts can spread via wind from infected plants, and spores can also be transported through the movement of people, machinery and plants.

Variety selection is the best defence against rust diseases in-crop. When planning for next year, consider variety disease ratings and refer to DPIRD's <u>2025 WA Crop Sowing Guide</u>. The 2026 WA Crop Sowing Guide will be available shortly.

For more information on leaf rust in wheat refer to DPIRD's <u>Leaf rust and stripe rust and</u> their management in wheat factsheet.

Oat crown (leaf) rust

Bolgart



Oat crown (leaf) rust. Photo courtesy of DPIRD.

Research Scientist Zia Hoque (DPIRD) has reported finding leaf rust on roadside wild oats in Bolgart.

As leaf rust is hosted by wild oats, which are commonly found on most roadsides, disease pressure is generally high every year. However, seasonal conditions will determine the level of crop infection that occurs. Controlling the green bridge in oat paddocks on your own farm this summer and autumn will help reduce your local risk level.

To read about previous oat rust reported this season, refer to DPIRD's 2025 PestFacts WA Issue 12 article Rust in oats – diagnosing leaf rust from stem rust.

For more information refer to DPIRD's <u>Leaf diseases and their management in oats</u> factsheet or the AgriFutures <u>Oat stem and leaf (crown) rust disease management guide</u>.

Rust pathotype testing

Growers and consultants are encouraged to send samples of all rusts for pathotype testing at any time of the year to the Australian Rust Survey. Infected leaf samples should be mailed in paper envelopes (do not use plastic wrapping or plastic lined packages) along with your details and collection information (location, variety etc.) directly to: The University of Sydney, Australian Rust Survey, Reply Paid 88076, Narellan NSW 2567. Free reply-paid envelopes can be ordered from University of Sydney. For further details see the University of Sydney's Australian Cereal Rust Survey page.

Further information

For more information on leaf rusts contact Principal Research Scientist <u>Geoff Thomas</u> in Perth on +61 428 947 287, Senior Research Scientists <u>Ciara Beard</u> in Geraldton on +61 8 9956 8504, <u>Kylie Chambers</u> in Northam on +61 8 9690 2151, <u>Kithsiri Jayasena</u> in Albany on +61 8 9892 8477 or <u>Andrea Hills</u> in Esperance on +61 8 9083 1144.

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PestFacts WA webinar recording is online



The PestFacts WA team recently hosted a successful webinar on Thursday, 16 October 2025, with 32 attendees joining us live over lunch to hear the latest seasonal insights.

DPIRD research scientists Ian Foster, Svetlana Micic, and Geoff Thomas presented on:

- · The latest climate outlook for Western Australia
- Spring and summer invertebrates growers need to watch out for
- Spring diseases and how to prepare for the next season.

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

For more information on the webinar topics presented, contact Principal Research Scientist <u>Ian Foster</u> in Perth on +61 8 9368 3954, Senior Research Scientist <u>Svetlana</u> <u>Micic</u> in Albany on +61 8 9892 8591 or Principal Research Scientist <u>Geoff Thomas</u>, Perth on +61 428 947 287.

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