



## PestFax

Aug 2018

Diamondback moth caterpillars

Native budworm trapping update

Both net blotches are being found in barley

Sclerotinia stem rot in canola and lupins

Rhizoctonia bare patches and root lesion nematode activity are visible in cereal crops in the eastern wheatbelt

## Diamondback moth caterpillars

- Merredin



Jessica Smith (DKT Rural Agencies) has reported finding 21-50 diamondback moths (DBM) per 10 sweeps in a late flowering Bonito canola crop near Merredin. Jessica commented that there are lots of DBM around now and numbers have increased from five caterpillars in 10 sweeps two weeks ago to 25 in 10 sweeps now.

This is the first report of DBM caterpillars reported to PestFax so far this year. DPIRD entomologists this week inspected many canola crops in the Northam, Toodyay and Goomalling areas with no DBM caterpillars found.

Growers and consultants are advised that now is the time to monitor crops for DBM by doing at least four lots of 10 sweeps with an insect sweep net at various locations in canola crops. Past GRDC funded department research into DBM outbreaks has indicated that July to August is a critical time of year to monitor caterpillar numbers as it assists with foreseeing possible damaging spring populations.

Thresholds for control are:

- Early to mid-flowering (no stress) - 50 grubs or more per 10 sweeps
- Mid to late flowering (no stress) - 100 or more grubs per 10 sweeps
- Pod maturation - 200 or more grubs per 10 sweeps.

DBM caterpillars drop from plants when disturbed and bashing some plants, especially those with holes in leaves, over an ice cream container is a good initial indication of their presence if you don't have a sweep net handy.

For more information refer to;

- DPIRD's 2018 PestFax Issue 17 article [Are you monitoring for diamondback moth caterpillars in your canola?](#)
- DPIRD's [Diagnosing diamondback moth](#) page
- GRDC's [Diamondback moth](#) fact sheet.

For more insect information contact [Dustin Severtson](#), Development Officer, Northam on +61 (0)8 9690 2160 or [Alan Lord](#), Technical Officer, South Perth on +61 (0)8 9368 3758 or [Svetlana Micic](#), Research Officer, Albany on +61 (0)8 9892 8591.

## Native budworm trapping update

- Usual automated and manual trapping locations



Native budworm moth numbers recorded this week from volunteer farmers, agronomists and DPIRD staff indicates that native budworm flights into agricultural areas have been generally low, except for a large flight into the Binnum area, the higher captures this week include Binnum (202 moths), Badgingarra NE (46), Maya North East (34), Wongan Hills (24), Yuna (24), Mullewa (23) Moora (21) and Maya East (18).

Eggs laid by moths that have flown into these areas will take at least two weeks before they grow to a size of approximately 5mm and can be detected whilst sweep netting crops. It takes about seven weeks from the egg stage to reach the fully-grown caterpillar stage of about 40mm long, given favourable temperatures. The last two growth stages (fifth and sixth instars, which are greater than 25mm in length) are responsible for eating over 90% of their total food consumption.

The ideal time to monitor budworm grub numbers is when pulse crops such as field peas, chickpeas and faba beans first begin flowering and during the formation and development of pods. Canola and lupin crops differ from the pulse crops in that native budworm caterpillars will only cause damage to pods close to plant maturity when these crops are starting to dry off.

Results of this week's automated and manual trappings are available at the department's [Native budworm moth numbers 2018](#).

A mapped view of the native budworm trap captures is available at cesar's [MothTrapVisWA](#) page. Viewers need to select the desired trapping date range.

Detailed information on the native budworm can be found at the department's [Management and economic thresholds for native budworm](#) page.

For more information contact [Alan Lord](#), Technical Officer, South Perth on +61 (0)8 9368 3758 or +61 (0)409 689 468.

## Both net blotches are being found in barley

- Williams
- Crossman
- Esperance

Agworld users have reported finding both spot-type net blotch (STNB) and net-type net blotch (NTNB) in barley crops (variety unknown) near Williams and Crossman.



Plant pathologist Andrea Hills (DPIRD) has reported finding NTNB and STNB in a booting Oxford barley crop near Esperance. The crop had widespread infection of these diseases. It also has oat aphids. The crop will be sprayed with AviatorXpro®.

Applying a fungicide spray is necessary in medium to high rainfall regions where disease threatens crops with high yield and quality expectations. A wide range of foliar fungicides are registered for NTNB. The choice of a single-spray or double-spray strategy depends on the environment in which the crop is growing, the time onset of disease and use of seed dressing or in-furrow fungicides:

- In high rainfall environments it may be necessary to apply two sprays, such as at early stem elongation stage with a follow-up spray three to four weeks later.
- In medium rainfall regions, consider one well timed spray between late stem elongation and early flag leaf emergence (Z33 - 39) to protect leaf two (flag-1). Under high disease pressure, best results may be obtained by using the maximum recommended rates.

Growers need to spray before STNB levels reach 5% leaf area infection. The most consistent responses for a first fungicide application timing have been recorded with fungicide application around stem elongation (Z30-31). In regions or seasons where spring rainfall will support disease development then applications around flag leaf - booting can show significant yield and quality benefits.

Details on which foliar fungicide active ingredients are registered for STNB and NTNB can be found at DPIRD's [Registered foliar fungicides for cereals in Western Australia](#).

Fungicide resistance is an emerging issue in these diseases. If growers suspect that fungicides have reduced efficacy in their paddocks, they can contact the CCDM's Fungicide Resistance Group at [frg@curtin.edu.au](mailto:frg@curtin.edu.au). More information on STNB fungicide resistance can be found at CCDM's [Spot form of net blotch debuts on the fungicide resistance list](#) and GRDC's latest [Research uncovers new changes in fungicide resistance in WA barley](#) media statement.

Growers with significantly higher levels of NTNB disease infection are encouraged to collect plant samples before they are sprayed and send them to the department to aid identification and assist research to learn more about this new pathotype. Growers sending samples with suspected NTNB to the department can contact DPIRD technical officer [Simon Rogers](#) on +61 (0)8 9368 3445.

For further information on symptoms and management of STNB refer to;

- [Managing spot type net blotch in continuous barley page](#)
- [Managing net-type net blotch of barley in Western Australia page](#)
- GRDC's [Spot and stop barley blotch this winter](#) media statement.

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.

## Sclerotinia stem rot in canola and lupins

### Sclerotinia in canola

- Geraldton
- Kojonup
- Darkan
- Woogenellup

Plant pathologist Ciara Beard (DPIRD) reports that sclerotinia symptoms are being observed in multiple canola crops around Geraldton with crops reaching full flowering and podding. In many of the crops she has visited, stem infections appear to be induced by leaf infections that cause leaves to drop into the canopy, in addition to petals falling directly onto branches. In crops that she has visited that have received fungicide application, the infection has been halted.

Warm sunny days this week amidst some small rain events are providing ideal conditions for humidity development under crop canopies.

Chris Robinson (Farmanco) reports that he has found basal infections around Kojonup and sclerotinia leaf lesions in Darkan.



Crop protection officer Alice Butler (DPIRD) reports that apothecia have formed at DPIRD's sclerote depot near Woogenellup. The surrounding crop is canola 45Y25 which is at early flowering.

For more information on canola sclerotinia stem rot and previous reports this season refer to DPIRD's PestFax Issue 18 article [More reports of sclerotinia apothecia and basal stem infection](#) and PestFax Issue 17 article [Sclerotinia basal infection found in Northampton and Greenough plus more reports of apothecia production](#).

### Sclerotinia in lupins

- Geraldton



Plant pathologist Ciara Beard (DPIRD) has seen sclerotinia stem rot symptoms this week on a narrow leaf lupin crop in Geraldton that is finishing flowering and recently started podding on the main stem. Sclerotinia apothecia have been seen at the site since mid-July and they are still visible under the lupin canopy now. Sclerotinia has likely commenced in the last week with warm sunny days over the weekend providing some humidity under the canopy. Fluffy white fungal growth is visible on some branches and pods in the top half of the canopy. If conducive conditions continue the fungus growth will cause a lesion that will girdle a stem, causing the plant parts above the lesion to wilt and die or can completely invade the flower/pod spike. There is also some fluffy white fungal growth on dead leaves on the ground. DPIRD are conducting two fungicide trials at the site to investigate fungicide timing and product rates for managing sclerotinia in lupins.

Outbreaks of lupin sclerotinia are sporadic and dependent on paddock history and seasonal weather conditions, often the disease affects only a percentage of the crop and the loss of yield is proportional to area infected. Crops with lush dense canopies in seasons with regular rainfall are at greatest risk, particularly when sown on paddocks with a history of sclerotinia infection in canola or lupins previously.

Plant pathologist Geoff Thomas (DPIRD) says that active ingredients – iprodione (for example, Rovral®) and boscalid (for example, Filan®) are registered by permit for managing sclerotinia in lupins. DPIRD conducted a trial at the same site in 2016 in both albus and narrow leafed lupin, foliar fungicide had an impact on disease incidence, without eliminating the disease from the crop. Yield (albus) or grain weight (narrow leaf) responses were evident from most effective treatments. For more fungicide information see DPIRD's [Registered foliar fungicides for lupin in Western Australia](#).

For more information on sclerotinia stem rot in lupins refer to DPIRD's [Lupin foliar diseases: diagnosis and management](#).

For more information on sclerotinia in canola or lupins contact [Ciara Beard](#), Plant Pathologist, Geraldton on +61 (0)8 9956 8504 or [Geoff Thomas](#), Plant Pathologist, South Perth on +61 (0)8 9368 3262 or [Ravjit Khangura](#), Research Officer, South Perth on +61 (0)8 9368 3374.

## Rhizoctonia bare patches and root lesion nematode activity are visible in cereal crops in the eastern wheatbelt

- Eastern wheatbelt (Bruce Rock, Dalwallinu, Koorda, Merredin, Mt Marshall and Yilgarn shires)



Rhizoctonia bare patch in wheat

Crop protection officer Kylie Chambers (DPIRD) reports that she has seen symptoms of *Rhizoctonia solani* and root lesion nematodes (RLN) on cereal plant roots and in cereal crop paddocks across the eastern wheatbelt. Wheat and barley crops are noticeably more affected than oats. The rhizoctonia bare patches are quite distinct across the region and some patches have been caused by a complex mixture of rhizoctonia and RLN. The department's diagnostic laboratory services (DDLS) have confirmed the presence of *Rhizoctonia solani* and RLN or both in samples taken from paddocks. The main RLN diagnosed has been *Pratylenchus neglectus*.

Agronomists in the region have also noted rhizoctonia bare patches across the eastern wheatbelt region.

For diagnosis of root disease or nematode problems in-crop, growers and consultants can carefully dig up symptomatic plants from the edge of the patch (not the centre) as well as healthy plants from outside the patches. The department's YouTube video [How to take a plant sample](#) shows the correct method to use. Plants can be sent to the department's [Diagnostic Laboratory Services](#), Department of Primary Industries and Development, Reply Paid 83377, 3 Baron-Hay Court, South Perth WA 6151.

For more information on nematodes refer to DPIRD's;

- 2018 Protecting WA Crops Issue 12 [Root lesion nematode](#) newsletter
- [Diagnosing root lesion nematodes in cereals](#) page
- [Root lesion and burrowing nematodes: diagnosis and management](#) page.

For previous *Rhizoctonia solani* reports this season refer to the 2018 PestFax Issue 15 articles [Rhizoctonia bare patches are becoming noticeable](#).

For detailed information about management options for rhizoctonia bare patch refer to;

- GRDC's Tips and Tactics [Rhizoctonia factsheet](#).
- DPIRD's [Diagnosing rhizoctonia root rot in cereals](#) page
- DPIRD's [Root disease under intensive cereal production systems](#) page
- [Rhizoctonia in your paddocks](#) YouTube video.

For more information contact [Daniel Hüberli](#), Plant Pathologist, South Perth on +61 (0)8 9368 3836 or [Sarah Collins](#), Senior Nematologist, South Perth on +61 (0)8 9368 3612 or [Kylie Chambers](#), Crop Protection Officer, Merredin on +61 (0)0400 278 068.

---

## All Page Links

- [1] [https://www.agric.wa.gov.au/sites/gateway/files/2DBM%20grazing\\_0.jpg](https://www.agric.wa.gov.au/sites/gateway/files/2DBM%20grazing_0.jpg)
- [2] [https://www.agric.wa.gov.au/newsletters/pestfax/pestfax-issue-17-10-august-2018?page=0%2C1#smartpaging\\_toc\\_p1\\_s0\\_h2](https://www.agric.wa.gov.au/newsletters/pestfax/pestfax-issue-17-10-august-2018?page=0%2C1#smartpaging_toc_p1_s0_h2)
- [3] <https://www.agric.wa.gov.au/mycrop/diagnosing-diamondback-moth>
- [4] <https://grdc.com.au/GRDC-FS-DBM>
- [5] <mailto:dustin.severtson@dpird.wa.gov.au>
- [6] <mailto:alan.lord@dpird.wa.gov.au>
- [7] <mailto:svetlana.micic@dpird.wa.gov.au>
- [8] [https://www.agric.wa.gov.au/sites/gateway/files/Native%20Budworm%20%28A498822%29\\_2.jpg](https://www.agric.wa.gov.au/sites/gateway/files/Native%20Budworm%20%28A498822%29_2.jpg)
- [9] [https://www.agric.wa.gov.au/pest-insects/native-budworm-moth-trapping-western-australia?page=0%2C2#smartpaging\\_toc\\_p2\\_s0\\_h2](https://www.agric.wa.gov.au/pest-insects/native-budworm-moth-trapping-western-australia?page=0%2C2#smartpaging_toc_p2_s0_h2)
- [10] <https://jamesmaino.shinyapps.io/MothTrapVisWA/>
- [11] <https://www.agric.wa.gov.au/grains/management-and-economic-thresholds-native-budworm>
- [12] <https://www.agric.wa.gov.au/sites/gateway/files/Both%20Net%20blotches%20on%20barley%20AHills%2017Aug18.jpg>
- [13] <https://www.agric.wa.gov.au/barley/registered-foliar-fungicides-cereals-western-australia>
- [14] <mailto:frg@curtin.edu.au;%20subscribers@grdc.com.au?subject=RE:%20GRDC%20Paddock%20Practices%20Enquiry>
- [15] <http://ccdm.com.au/2018/02/28/spot-form-of-net-blotch-debuts-on-the-fungicide-resistance-list/>
- [16] <https://grdc.com.au/news-and-media/news-and-media-releases/west/2018/07/research-uncovers-new-changes-in-fungicide-resistance-in-wa-barley>
- [17] <mailto:simon.rogers@dpird.wa.gov.au>
- [18] <https://www.agric.wa.gov.au/barley/managing-spot-type-net-blotch-continuous-barley>
- [19] <https://www.agric.wa.gov.au/barley/managing-net-type-net-blotch-barley-western-australia>
- [20] <https://grdc.com.au/news-and-media/news-and-media-releases/west/2018/07/spot-and-stop-barley-blotch-this-winter>
- [21] <mailto:kithsiri.jayasena@dpird.wa.gov.au>
- [22] <mailto:geoff.j.thomas@dpird.wa.gov.au>
- [23] <mailto:andrea.hills@dpird.wa.gov.au>
- [24] <mailto:ciara.beard@dpird.wa.gov.au>
- [25] <https://www.agric.wa.gov.au/sites/gateway/files/Sclerotinia%20apothecia%20AButler%2023Aug18.jpg>
- [26] [https://www.agric.wa.gov.au/newsletters/pestfax/pestfax-issue-18-17-august-2018?page=0%2C3#smartpaging\\_toc\\_p3\\_s0\\_h2](https://www.agric.wa.gov.au/newsletters/pestfax/pestfax-issue-18-17-august-2018?page=0%2C3#smartpaging_toc_p3_s0_h2)
- [27] [https://www.agric.wa.gov.au/newsletters/pestfax/pestfax-issue-17-10-august-2018?page=0%2C3#smartpaging\\_toc\\_p3\\_s0\\_h2](https://www.agric.wa.gov.au/newsletters/pestfax/pestfax-issue-17-10-august-2018?page=0%2C3#smartpaging_toc_p3_s0_h2)
- [28] <https://www.agric.wa.gov.au/sites/gateway/files/Sclerotinia%20in%20lupins%206%20CBeard%2022Aug18.jpg>
- [29] <https://www.agric.wa.gov.au/lupins/registered-foliar-fungicides-lupin-western-australia>
- [30] <https://www.agric.wa.gov.au/lupins/lupin-foliar-diseases-diagnosis-and-management?page=0%2C5>
- [31] <mailto:ravjit.khangura@dpird.wa.gov.au>
- [32] [https://www.agric.wa.gov.au/sites/gateway/files/Figure%202a%20rhizoctonia%20barepatch%20in%20wheat\\_1.jpg](https://www.agric.wa.gov.au/sites/gateway/files/Figure%202a%20rhizoctonia%20barepatch%20in%20wheat_1.jpg)
- [33] [https://www.youtube.com/watch?v=\\_hqjXWEkByg&feature=youtu.be](https://www.youtube.com/watch?v=_hqjXWEkByg&feature=youtu.be)
- [34] <https://www.agric.wa.gov.au/bacteria/ddls-plant-pathology-services>
- [35] <https://www.agric.wa.gov.au/newsletters/pwac/protecting-wa-crops-august-2018-issue-12>
- [36] <https://www.agric.wa.gov.au/mycrop/diagnosing-root-lesion-nematode-cereals>
- [37] <https://www.agric.wa.gov.au/barley/root-lesion-and-burrowing-nematodes-diagnosis-and-management>
- [38] [https://www.agric.wa.gov.au/newsletters/pestfax/pestfax-issue-15-27-july-2018?page=0%2C2#smartpaging\\_toc\\_p2\\_s0\\_h2](https://www.agric.wa.gov.au/newsletters/pestfax/pestfax-issue-15-27-july-2018?page=0%2C2#smartpaging_toc_p2_s0_h2)
- [39] <http://www.grdc.com.au/TT-Rhizoctonia>
- [40] <https://www.agric.wa.gov.au/mycrop/diagnosing-rhizoctonia-root-rot-cereals>
- [41] <https://www.agric.wa.gov.au/barley/root-disease-under-intensive-cereal-production-systems>
- [42] <https://www.youtube.com/watch?v=XLbTlbFbsfU>
- [43] <mailto:daniel.huberli@dpird.wa.gov.au>
- [44] <mailto:sarah.collins@dpird.wa.gov.au>
- [45] <mailto:Kylie.Chambers@dpird.wa.gov.au>

**Source URL:** <https://www.agric.wa.gov.au/newsletters/pestfax/pestfax-issue-19-24-august-2018>

This print version was generated at 9:59am on the 24th of August, 2018.

The original document was last revised at Fri, 24/08/2018 - 9:59am



## Important disclaimer

The Chief Executive Officer of the Department of Primary Industries and Regional Development and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.