



Crop Pathology

SARDI

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Crop Watch



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Cereals

Net form net blotch (NFNB) is developing very rapidly in crops of Maritime barley across a large area of South Australia.

The latest reports are of severe damage occurring in crops between Streaky Bay and Port Kenny on the West Coast where Maritime is a popular variety. In this area the disease has developed from low levels to very severe in the past two weeks.

At Tumby Bay, flag leaves are now being killed by NFNB in some crops. It is not clear what effect this is likely to have on the yield of these crops but similar infection levels in Skiff crops in 1998 resulted in many of them having 100% screenings. This suggests that many infected Maritime crops will have very high screenings levels and that replacement varieties will be needed for next season.

Hotspots of NFNB have also been observed in Maritime crops near Wudinna, Kyancutta, Koongawa, Ungarra and Karkoo on Eyre Peninsula and across the gulf near Port Pirie.

It is likely that all Maritime crops on Eyre Peninsula will have some NFNB infection and a great many of these crops are likely to warrant fungicide treatment with high rates (400-500 mL/ha propiconazole or equivalent) as soon as possible

provided the yield potential justifies spraying costs and there is green leaf area to protect.

There is little detailed information available on NFNB control with fungicides but expect no more than two to three weeks of control and remember that protection is much more effective than trying to suppress infection.

In most situations other varieties located alongside Maritime crops have little infection evident, reinforcing the observations from the Warooka NVT trial that the new NFNB population is very specific to the Maritime variety. The exception is one crop of Keel at Tumby Bay which is being severely affected, although not to the same level as Maritime.

Elsewhere, the NFNB population that infected Keel crops in 2008 continues to develop in many crops through the Mid-North. This population is not virulent on Maritime.

The damage in Keel crops is not as severe as that in the Maritime crops on Eyre Peninsula. It would appear that Keel may be rated between S and MS-S, although this will need confirming from trial observations.

NFNB likes warm humid conditions and so is likely to continue developing rapidly where crops retain dew in the mornings. With many crops coming out into head there is also a danger of head and then grain infection. Infected grain is best not kept for seed so sources of clean seed should be identified for next season.

Rusts

Stripe rust has now been reported from most regions including the far West Coast and many crops are being sprayed as a precautionary measure.

Reports of infection on Yr17-carrying varieties have come from Northern Yorke Peninsula and the Adelaide Plains so it is likely that the WA Yr17 strain is present in many crops, although no samples have yet been confirmed as being from this population.

Most crops, particularly early-sown ones, are now at a stage where adult plant resistance (APR) will be starting to take effect so they will be less vulnerable to damage.

There have been many questions about when APR kicks in. This varies from one variety to the next and the expression of APR is greater at higher temperatures and when plants are under stress. A good guide is to observe the infected leaves and if the stripes are showing areas of dead tissue that are not producing many loose spores (colours your finger when wiped) then APR is having an effect.

The presence of many loose spores in stripes suggests the disease is still developing and fungicides should be considered.

Wyalkatchem tends to show APR at later stages than other varieties. Although very susceptible when epidemics start to develop, Wyalkatchem can, under warmer, drier conditions, show good APR in the top two leaves. Consequently, not all Wyalkatchem crops will need spraying.

Crops under moisture stress will show greater resistance than thick crops without stress.

Other rusts

Andy Bates has reported wheat stem rust on volunteer wheat, probably Excalibur, near Penong. A crop of Yitpi alongside has apparently not been infected yet. Crops of Yitpi, Excalibur, Westonia and any other susceptible varieties in the area should be closely monitored as the rust may spread further with any warm, humid weather.

Andy Bates has also reported low level of leaf rust on Excalibur at Nundroo and Ceduna. Most varieties grown in SA now have reasonable or good resistance to leaf rust. Growers still growing Excalibur and Krichauff are urged to replace these varieties for next year to help protect current resistances.

Leaf rust is increasing in barley crops, particularly in Keel on Yorke Peninsula, but also on southern Eyre Peninsula, the Adelaide Plains and in the South East.

Crop Watch is an electronic newsletter service provided by SARDI.

If you would like to receive this newsletter please send your email address to Jon Lamb, Jon Lamb Communications jlcom@chariot.net.au - titled "Crop Watch request".

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FEEDBACK WELCOME

The SARDI Pathology team invites you to contribute to this publication by reporting local observations or commenting on items in the newsletter.

Comments should go to:

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Jenny Davidson (pulses and oilseeds)

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*with a copy to **Jon Lamb Communications**
jlcom@chariot.net.au*

Unless specifically requested otherwise the name and location and/or company of the reporter may be included with published comments.

Reports, particularly of early sightings of rusts or where diagnosis is not certain, would have added value if accompanied by a paper-packed sample.

Please do not send samples in plastic bags.