



Crop Pathology

SARDI

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Crop Watch



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NFNB widespread; rusts spreading

Cool damp conditions have continued to favour the foliar pathogens.

Maritime barley across Eyre Peninsula from Nundroo to Kimba is badly affected with net form net blotch (NFNB). Most crops have received a fungicide spray. Reports from the West Coast and Tumby Bay suggest that unsprayed crops – or missed strips - will likely not be worth harvesting. Similar levels of infection in Skiff crops on Yorke Peninsula in 1999 led to many crops finishing with 100% screenings.

The Maritime-attacking strain of NFNB does not appear to be prevalent in the Mid North or on the Adelaide Plains. In these regions the Keel-attacking strain is predominant.

Reports suggest that Fleet, Flagship and Hindmarsh are holding up well in all districts and SloopSA mostly so. However, Schooner crops at Kapinnie and Cummins are getting rather more infection than predicted and may be coming in at an MS level. Higher levels were noted on Sloop and Schooner crops in 2000 but this was not repeated in subsequent years.

Where propiconazole fungicide has been sprayed at the 400-500mL/ha rate most reports suggest that green leaf has been protected well. With continuing favourable weather for infection many crops will require a second spray to provide yield protection.

Andy Barr has been closely monitoring the Keel-virulent NFNB in his crops at Pinery since 2007 and has offered the following observations:

“I think the risk factors for NFNB are:

1. Early sowing - hence its prominence over the past three seasons, when early sowing has been the norm.
2. Having previous stubble present – even if from two years ago.
3. High nitrogen status. I have two observations to support this. The first is in a paddock where canola grew in 2008. Where the canola was poor and did not use the fertiliser fully the barley sown this year has grown a lush dark-green canopy that has been smashed with NFNB. Where the canola last year grew better the 2009 barley growth is more modest and the crop in those patches is relatively unaffected by NFNB. The second observation relates to the barley breeding nurseries in 2008 and 2009. In both years the nursery trials have been established on standing barley stubble. This year's site year was an infected 2008 Commander stubble, but infection is low. These nursery trials are managed on a

very lean nitrogen budget and even though infection spikes were evident early, the NFNB has not progressed much.

4. Not using high rates of propiconazole. For effective control 400mL/ha is the minimum dose, and with the price, probably 500mL is better."

In a trial at Minnipa Research Centre, higher levels of NFNB are being observed in strips where higher rates of seed and nitrogen (90kg/ha seed, 30kg 18:20) have been applied than elsewhere (60 kg/ha, no fertiliser). Of additional interest; grazing sheep have decided that parts of the crop with lower levels of disease are better tucker.

If others would like to offer useful experiences with disease management for inclusion in Crop Watch please email Hugh Wallwork or Jenny Davidson. Editing may take place and inclusion is not guaranteed.

Rusts

Leaf rust has been spreading in wheat on the far West Coast. Andy Bates reports leaf rust in crops of Westonia and Excalibur at Penong, Mudamuckla, Wirrulla, Cungena, Streaky Bay, Calca (Pt Kenny) and Darke Peak. All crops were flowering or post flowering. The level of infestation was severe across large areas of Westonia. Some crops at Mudamuckla have been sprayed with fungicide and crops at Cungena have also been treated.

Stripe rust has been able to keep sporulating on susceptible varieties in the recent mild conditions. With the exception of the severe hotspot reported in Correll at Thomas Plains, most of the main varieties other than Wyalkatchem appear to be holding up well.

In the NVT trial at Paskeville Correll, Frame, Yitpi, Gladius and Espada are showing little stripe rust infection whereas Pugsley, Wyalkatchem and Mace are showing higher levels of infection. This indicates that the WA Yr17 strain is present at this site. The national resistance rating for Mace (MS-S) is likely to be lowered if the high levels of disease on the variety in this trial are confirmed.

The first typing of rust from wheat on Eyre Peninsula has identified the WA 'Jackie' strain from Wyalkatchem at Cummins. The two reports from Balaklava (Wyalkatchem) and Roseworthy (Marombi) were the WA Yr17 strain.

Other diseases

Barley scald has become very severe in many barley crops sown into barley stubbles and in some early-sown crops. In the Mid North Keel is badly infected, mainly because this variety has been favoured for sowing into barley stubbles. Compared to other pathogens scald is highly variable and where inoculum pressure is high, such as where barley is grown as successive crops or early-sown near infected stubbles, virulent strains will soon begin to predominate.

Powdery mildew has been observed infecting heads of Wyalkatchem on upper Eyre Peninsula. Continuing damp

conditions will favour this disease so a fungicide spray was recommended by the agronomist.

Seasonal conditions have favoured development of the mysterious 'Frame yellows', otherwise known as Yitpi/Correll/Axe yellows. This blotching/dying of lower leaves and leaf tips can be confused with yellow leaf spot and septoria.

Reports of septoria on upper Eyre Peninsula have not been confirmed and are unlikely to be accurate due to very low levels of inoculum. Any samples will be gratefully received.

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".



Government
of South Australia



JON LAMB
COMMUNICATIONS



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:

Hugh Wallwork (cereals)

wallwork.hugh@saugov.sa.gov.au,

Jenny Davidson (pulses and oilseeds)

davidson.jenny@saugov.sa.gov.au

*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.*