



Stripe rust situation at Mid Spring 2015

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Since our last report, stripe rust has been reported in crops from all wheat producing states except Tasmania. Infections were noticed within a few weeks of each other in Queensland, southern New South Wales, South Australia and Western Australia, suggesting the disease started in four distinct locations in 2015. Pathotype information is provided where known. This report also provides an update on stripe rust infections observed in suspected Mace crops in Western Australia. With stripe rust present in most states all growers are reminded to monitor crops and submit samples of any rusts found to the Australian Cereal Rust Survey.

The current distribution of wheat stripe rust in the eastern states

As previously reported, the first samples of wheat stripe rust were received on the 7th August from Goondiwindi and Westmar in Queensland. On the 11th August a sample was received from Wagga Wagga in southern New South Wales. The first sample from South Australia was sampled from a Mace crop in Port Broughton and was received on the 20th August. The currently reported distribution of wheat stripe rust in the eastern states is shown in Figure 1.

Pathotype determination has been completed for some samples from each state. From Queensland, the presence of pathotype 134 E16 A+ 17+ 27+ has been confirmed at Westmar and 134 E16 A+ 17+ at Toobeah. Pathotype 134 E16 A+ 17+ 27+ spread to Queensland in 2013.

In New South Wales, pathotype 134 E16 A+ has been confirmed in Narrabri and Peak Hill, pathotype 134 E16 A+ has been confirmed in Gurley and 134 E16 A+ 17+ 27+ was detected in Wagga Wagga.

The only detection of stripe rust from Victoria has been off barley grass in Rupanyup. Pathotype analysis

will determine whether it is a sample of wheat stripe rust or barley grass stripe rust.

Only three samples of wheat stripe rust have been received so far from South Australia. The sample off Mace from Port Broughton was pathotype 134 E16 A+ 17+.

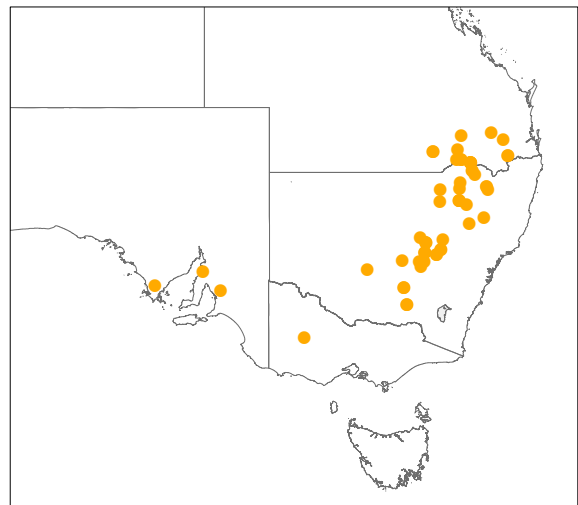


Figure 1. Reported detections of wheat stripe rust in eastern Australia since the 7th August.

Wheat stripe rust in Western Australia

The first sample of wheat stripe rust was sampled off a crop of Calingiri in Wubin and was received on the 19th August. The currently reported distribution of wheat stripe rust in Western Australia is shown in Figure 2. So far pathotype analysis has only been completed on two samples from Western Australia. Both were sampled off Calingiri wheat and both were the original 'WA pathotype' 134 E16 A+.

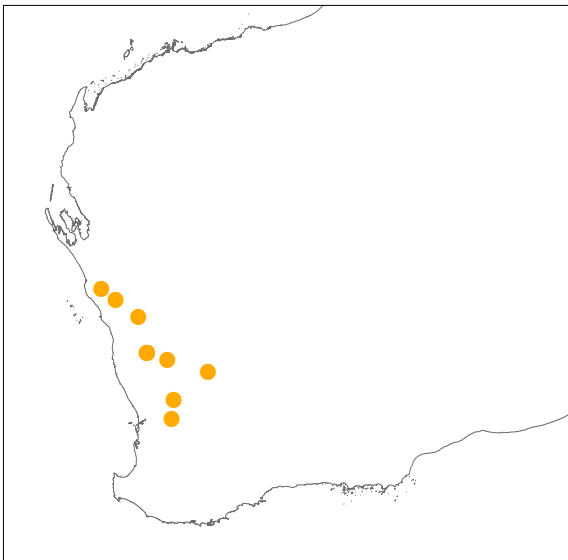


Figure 2. Detections of wheat stripe rust in Western Australia since the 19th August.

Several samples of wheat stripe rust have been received off suspected Mace crops this season. Varieties with *Yr17*, such as Mace, are resistant (R) to

stripe rust pathotypes avirulent for this gene. The expected response of such varieties is occasional necrotic flecks and no sporulation. If wheat stripe rust was caused by a pathotype with *Yr17* virulence, the disease response of Mace would be susceptible-very susceptible (SVS, Figure 3). Given that the samples of wheat stripe rust off Mace have been within the observed distribution of the disease in Western Australia, and based on the information at hand, it is more likely that the crops sampled have not been from pure seed sources. Regardless, *Yr17* is an important resistance gene in several wheat varieties grown in Western Australia. As a result, it is critical that growers closely monitor crops and submit samples of any rust observed to the Australian Cereal Rust Survey, regardless of variety.



Figure 3. The disease response on the flag leaf of a susceptible wheat plant to wheat stripe rust.

GENERAL ENQUIRIES

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RUSTED PLANT SAMPLES

can be mailed in paper envelopes; do not use plastic wrapping or plastic lined packages. If possible, include the latitude and longitude of the sample location.

Direct samples to:
University of Sydney
Australian Rust Survey
Reply Paid 88076
Narellan NSW 2567

The Australian Cereal Rust Control Program is supported by growers through the Grains Research & Development Corporation.

