

# Cereal Rust Report

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## Rust pathotype update, August 2015

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In our last report, we provided information on current distributions of wheat leaf rust, oat stem rust and oat crown rust. This follow-up report summarises pathotype (pt.) assay results from the samples that have been processed to date. Of note is the recovery of wheat leaf rust pt. 104-1,3,4,6,7,8,9,10,12 +Lr37 from Victoria and South Australia. This pathotype was first detected last year, in SA, and is considered to be of exotic origin. With rusts now being reported from around the country, we encourage you all to collect and send samples to us for pathotype analyses. The practice of artificially inoculating nurseries with rust now appears to be commonplace in many regions; if samples are forwarded from these nurseries, we request that they be identified as such.

### Wheat stripe rust

As reported earlier, the first samples of wheat stripe rust were received on the 7<sup>th</sup> August from Goondiwindi and Westmar in Queensland. The disease was subsequently reported on 11<sup>th</sup> August from Wagga Wagga. Pathotype tests are underway on these samples.

### Wheat leaf rust

Ten samples of leaf rust on wheat have been received to date, of which 7 have been processed.

A sample from Lake Grace in WA off Yitpi (2<sup>nd</sup> July) was identified as pt. 76-1,3,5,7,9,10,12 +Lr37. This pathotype was first detected in WA in October 2013. The varieties Corack, Emu Rock, Mace and Wyalkatchem are all expected to be more susceptible to this pathotype than to those that prevailed prior to its detection in 2013. Growers of these varieties in particular are encouraged to monitor crops closely for leaf rust.

Two samples from Queensland, Warwick (21<sup>st</sup> May) and Cleveland (21<sup>st</sup> May) comprised three pathotypes

related to the one detected in WA, viz. 76-3,5,7,9,10,12,13 +Lr37; 76-1,3,5,7,9,10,11,12,13 +Lr37; 104-1,3,5,7,9,10,11,12 +Lr37. A sample from northern NSW (Grafton, collected 1<sup>st</sup> July) was also identified as pt. 104-1,3,5,7,9,10,12 +Lr37.

A single sample from SA (Bool Lagoon, 22<sup>nd</sup> July) and two samples from Victoria (Inverleigh, 2<sup>nd</sup> July; Derrinallum, 9<sup>th</sup> July) were all identified as pt. 104-1,3,4,6,7,8,9,10,12 +Lr37. This pathotype was detected for the first time in August last year (Bool Lagoon SA), and is considered to be of exotic origin.

Many wheat varieties have been given provisional ratings of higher susceptibility in 2015 variety guides pending further data on their responses to the pathotypes detected in eastern Australia, in particular, pt. 104-1,3,4,6,7,8,9,10,12 +Lr37. Those to watch include: Axe, Baxter, Bolac, Chara, CLF Janz, Corak, Correll, Cosmick, Crusader, Dart, Emu Rock, Grenade CL PLUS, Impala, Justica CL PLUS, Mackellar, Preston, SF Scenario, SQP Revenue, Spitfire, Sunvale, Viking and Wallup.

## Barley leaf rust

A single sample of leaf rusted Bass barley from Manjimup (22<sup>nd</sup> July) was identified as pt. 5457 P-. This pathotype was first detected in WA in September 2013. It is virulent for the resistance gene *Rph3*, present in the varieties Bass, Granger and Oxford, the latter two having additional adult plant resistance provided by gene *Rph20*.

## Oat crown rust and oat stem rust

Five samples of oat crown rust have been received from Queensland, all of which have been processed. Six pathotypes were identified, one or more of which were virulent on the varieties Drover, Warrego and Volta. While virulence on Aladdin was detected for the first time in 2014 (Queensland), it has not yet been detected in 2015. All oat varieties are susceptible to at least one of the crown rust pathotypes that have been detected in Australia in recent years.

Two samples of oat stem rust have been processed to date: one from Queensland (Wellcamp, 5<sup>th</sup> June) and Kingsthorpe (1<sup>st</sup> July), both comprising pathotype 41-1,4. As is the case with crown rust, all oat varieties are susceptible to at least one of the stem rust pathotypes that have been detected in Australia in recent years.

## Reply Paid envelopes now available for free

To make it easier to submit samples to the Australian Rust Survey, reply paid envelopes are now available. If you would like to receive a supply of free envelopes, please contact Will Cuddy. Alternatively, the reply paid details at the bottom of this report can be used on any envelope to post a sample to the survey.

### GENERAL ENQUIRIES

Plant Breeding Institute  
Private Bag 4011,  
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107 Cobbitty Road  
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T 02-9351 8800 (Reception)  
F 02-9351 8875

### 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.

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