



# PBI

Plant Breeding Institute  
Cereal Rust Laboratory

## Cereal Rust Report Season 2009

### Early Rust Detections for the 2009 Season

Colin Wellings\* and Robert Park

The University of Sydney, Plant Breeding Institute

\*Email: colinw@camden.usyd.edu.au, Phone: 02-9351 8826

\*(on secondment from NSW Department of Primary Industries)

The cereal rust pathogens have survived the summer of 2008-09 and begun to appear in scattered situations across the national winter cereal growing regions. The rusts confirmed to date include wheat stem rust, oat stem rust, barley leaf rust and wheat stripe rust. The pathotype designations will be announced as data becomes available. However this initial report is released in order to inform growers and advisors to remain alert to early signs of rust in crops, and to report and sample these in order to maintain industry wide awareness.

#### Current seasonal conditions

The summer-autumn period in 2009 across the winter cereal producing zones of Australia has witnessed wide variations in rainfall. The rainfall map for February-April (Figure 1) indicates totals ranging from 100 and 200mm across large areas of central and northern NSW and southern Queensland. This region traditionally experiences a summer dominant rainfall pattern that allows for both cropping programs and opportunities for self sown winter cereals to survive between seasons. History informs us that this zone has been a rust prone area as the rust pathogens, particularly stem rust and leaf rust, are more likely to survive summer under these conditions.

Rainfall for the autumn period (Figure 2) indicates good sowing conditions across most of the eastern winter cereal production zone, while dry conditions prevailed across much of Western Australia with the exception of the southern coastal regions. The rainfall outlook for the winter period (Figure 3) suggests that

we can look forward to a phase of good crop establishment across a majority of the Australian wheat belt. With adequate moisture and extensive areas now seeded for cereal cropping, it can be anticipated that rusts can also establish and potentially cause concern in spring.

#### Rust reports

Rainfall and cereal survival in the southern areas of Western Australia from early in the summer of 2008-09 allowed self sown plants to survive and support barley leaf rust and wheat stem rust. The first samples were predominately from barley and were collected in March from Esperance; reports had become widespread by early and mid May. There was also one sample of oat stem rust received in March. Effective extension activities in WA have alerted the farming community to plan for early season disease control for all cereal rust diseases.

In the east, rust reports have been confined to a few samples of barley leaf rust from trial sites in northern NSW (Glen Innes, February; Appelthorpe, April) and southern Queensland (Gatton, February).

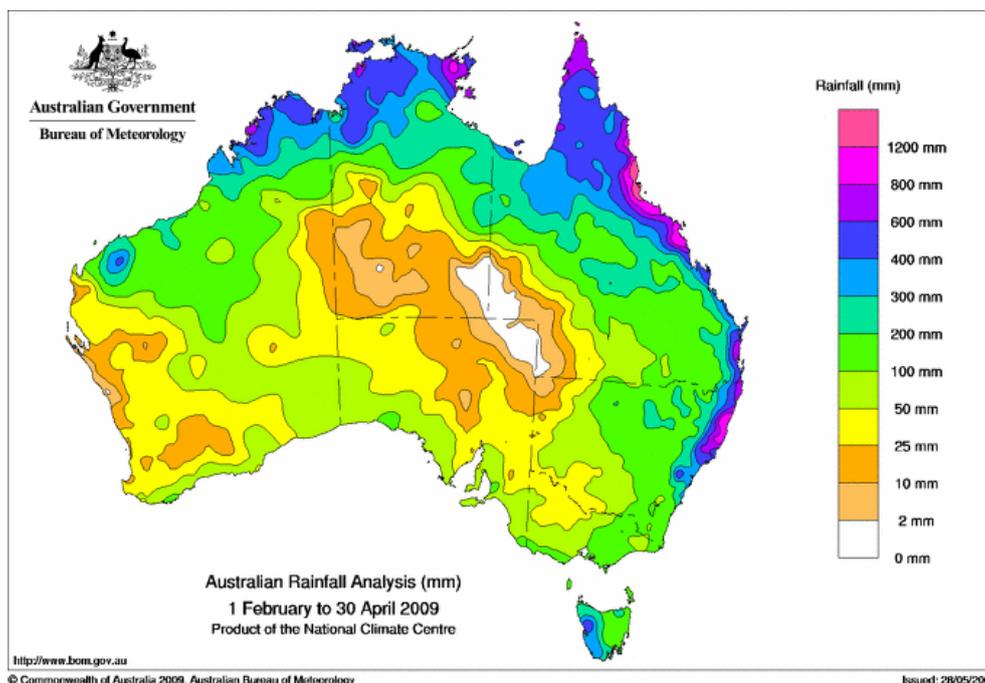
The first wheat stripe rust sample was received from Guyra (northern NSW) in mid June. The collector noted that the crop of Jackie triticale was sown early (February-March) for grazing. There was no evidence of hotspots in the field and stripe rust was considered to be well distributed; the grower was advised to graze the crop as soon as possible. It is expected that this first stripe rust sample will yield the 'Jackie' pathotype, although this will require the confirmation of greenhouse assays which are currently underway.

### Cereal rust samples

Rust samples should comprise several well infected leaves that are dry, folded back on themselves once, and dispatched in paper envelopes (not plastic or plastic lined envelopes) via post as soon as possible. Include collection details (date, location, variety if known) and your contact information (in particular an email address) to allow rapid communications.

**Please note the change in postal address:**

Australian Cereal Rust Survey  
Plant Breeding Institute  
Private Bag 4011  
Narellan NSW 2567



**Figure 1** Rainfall for the period February-March 2009. Courtesy Australian Bureau of Meteorology.

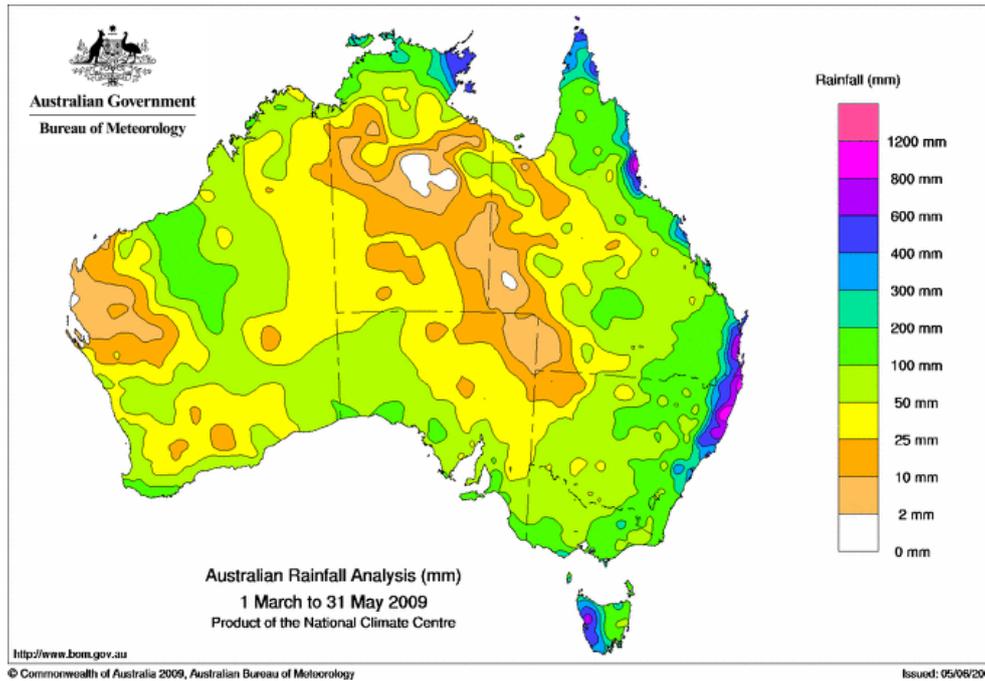


Figure 2 Rainfall for the period March-May 2009. Courtesy Australian Bureau of Meteorology.

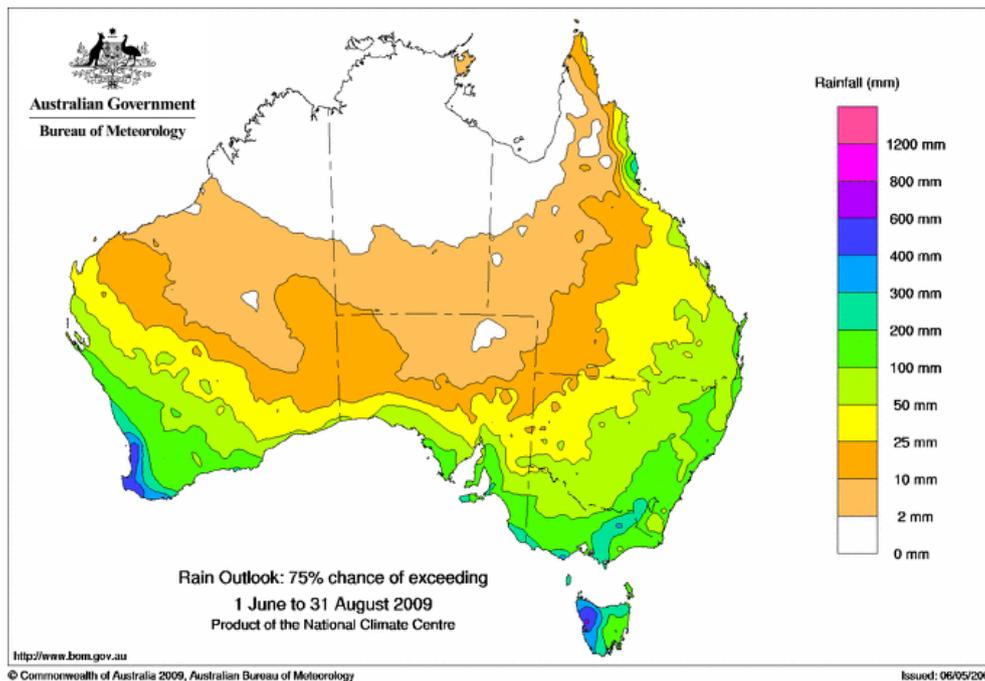


Figure 3 Expected rainfall for the period June-August 2009. Courtesy Australian Bureau of Meteorology.

**General enquiries:**

Plant Breeding Institute  
Private Bag 4011  
Narellan NSW 2567



107 Cobbitty Road  
Cobbitty NSW 2570  
Ph: 02-9351 8800 (Reception)  
Fax: 02-9351 8875

**Rusted plant samples** can be mailed in paper envelopes; do not use plastic wrapping or plastic lined packages. Direct samples to:

Australian Cereal Rust Survey  
Plant Breeding Institute  
Private Bag 4011, Narellan NSW 2567



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

