

Stemming spread of rust

Western Australian grain growers are warned that stem rust has been observed in a 700 hectare Yitpi wheat crop at Warralakin in WA's eastern wheatbelt and are asked to be vigilant checking their own crops.

David Keamy of Merredin Rural Supplies found the rust in less than 10 per cent of the crop, with the infection averaging five to 10 pustules on leaves and stems of scattered plants at early flag leaf emergence.

Dr Colin Wellings, plant pathologist at the Grains Research and Development Corporation (GRDC) supported Cereal Rust Laboratory (CRL), University of Sydney, described stem rust as 'a disease to be nervous about'.

"It could represent the beginnings of an epidemic if temperature and moisture conditions are favourable," he said.

"Optimal average daily temperatures are 18–30 degrees Celsius and the latent period – which is the time between infection and production of new spores – is eight to 12 days.

"If moisture conditions become favourable, we could have a problem," Colin indicated.

Samples are now being typed at CRL, but the process takes three weeks.



Stem rust infected plant showing characteristic reddish-brown spore masses. Growers are advised to send rust samples to Agwest Plant Laboratories for free identification and subsequent forwarding to the GRDC supported Cereal Rust Laboratory for pathotype testing.

Colin said Yitpi, a wheat variety grown in WA and widespread in the Mallee region of SA, is vulnerable to stem rust.

Under favourable conditions, stem rust outbreaks could destroy up to 70 per cent of a susceptible wheat crop, according to Dr Rohan Rainbow, GRDC Manager, Crop Protection.

"The Warralakin outbreak is a classic example of green bridge proximity, where small patches of self sown Yitpi, with advanced heading plants, spread the disease to the sown crop.

"After this season's harvest, growers should be careful with variety selection for next year and make informed choices based on several factors, including degree of rust resistance," he said.

Local plant pathologist, Geoff Thomas of the Department of Agriculture and Food WA (DAFWA), advised WA growers to send rust samples to Agwest Plant Laboratories for free identification and subsequent forwarding to CRL for pathotype testing.

He indicated growers should also report the finding to PestFax, Email PestFax@agric.wa.gov.au or Tel 9368 3753, so local industry can be informed.

"Management will vary depending on the variety, disease level and growth stage of the crop," Geoff said.

"When stem rust is detected, particularly in susceptible varieties, economic control can be achieved with fungicide applications.

"Early identification of the problem is important because control is likely to be more effective if applied early in the disease's development," he said.

Geoff indicated stem rust was caused by the fungus *Puccinia graminis f. sp. tritici* which produces large, oval to elongated pustules containing reddish-brown spore masses on both sides of the leaf, on leaf sheaths on stems, and occasionally on out-sides of heads.

Stem rust pustules have conspicuously tattered edges.

Rust is likely to be evident first in early sown susceptible crops or in advanced re-growth of susceptible varieties and should not be left unchecked, as it could cause significant yield loss and quality downgrades.

Advice on identification and management of rust diseases is available through DAFWA and other sources such as www.grdc.com.au/rustlinks

WA wheat variety upgrade

The Jandaroi durum wheat variety has been upgraded in Western Australia to Australian Premium Durum (APDR).

The upgrade follows a meeting of the AWB International Variety Classification Panel whose role is to assess the quality attributes and milling characteristics of wheat varieties.

The panel looked at the quality attributes of Jandaroi and determined that the variety's milling quality, semolina colour, gluten properties and pasta quality met the necessary quality requirements for classification as an Australian Premium Durum (APDR) wheat.

Higher returns

As a result of this evaluation and re-classification, and subject to market access, WA growers of Jandaroi can look forward to receiving a higher return for their durum.

Previously Jandaroi was categorised as a feed wheat in WA. It was developed by the Australian Durum Wheat Improvement Program and commercialised by AWB Seeds. The upgrade means that it is now classified in WA as Australian Premium Durum (APDR) which is in line with its classification in Queensland, northern NSW and South Australia. In Victoria and southern NSW Jandaroi is yet to be evaluated by the Variety Classification Panel and therefore has a default classification of feed.

Following the introduction of changes in wheat marketing arrangements that were introduced on July 1, 2008, GRDC and AWBI have put in place a short term agreement to ensure the continued operation of wheat classification while appropriate arrangements are made for the future.

GRDC has agreed to undertake management of wheat variety classification. Through a process of public consultation GRDC is currently working to develop a new model for the management of wheat classification in 2009 and 2010.

Information about the agronomic suitability of Jandaroi in WA, is available from the NVT website (www.nvtonline.com.au)

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