Develop a plan to maintain rust-resistant crops, growers urged

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CEREAL rust experts are issuing a clear warning to croppers to eliminate use of varieties that are susceptible or very susceptible to rust or they might be risking the resistance that protects many Australian cereal crops from the disease.

University of Sydney's Professor Robert Park says growers need to think before they sow this year and consider the implications of managing rust outbreaks in 2013.

"We are taking a clear stance and actively encouraging growers to phase out susceptible and very susceptible varieties from their rotation. Varietal selection must be the first line of defence," Prof Park said.

In 2011, an industry survey found that growers make variety selections based on the yield potential of the variety only. They did not factor in disease management costs or the costs of decreased yields following a disease outbreak.

"While yield potential is an obvious and crucial factor to consider, we are urging growers to think beyond only yield because a rust outbreak can slash grain returns by more than half," he said.

The push for growers to reconsider variety choice stems from the immense industry risk of a large-scale rust outbreak as well as the risk of mutant rust isolates that can overcome resistance genes that protect many Australian wheat cultivars from rust.

The Australian Cereal Rust Control Program Consultative Committee is also keen to see growers move away from their dependence on chemicals to manage disease outbreaks.

"In the past, many people have relied on fungicide applications. While this remains an effective management tool, growers should be aware that while fungicides may work on leaf and stripe rust, they are less effective on stem rust especially in thick canopies where fungicides may not reach all stems. Again, variety selection should be the first line of defence," Prof Park said.

Growing varieties with resistance to rust is a great starting point in managing the disease. Prof Park says growers must have a five-part management strategy that extends throughout the year. This includes:

1. Removing the green bridge by mid-March or four weeks prior to sowing.
2. Growing varieties with adequate resistance to stem, stripe and leaf rusts.
3. If needed, applying fungicides to seed or fertilisers for early season rust suppression.
4. Monitoring crops for rust and if needed, applying foliar fungicide for disease control.
5. Maintaining communication with your neighbours, community and industry to monitor, report and manage rust.

"A rust outbreak in Australia has the potential to slash farm incomes, which is why it is so vital we plan our response to rust this year at the beginning of the season rather than waiting for a rust outbreak to occur and then plan a control approach," he said.

"There is plenty of help available if growers are not sure how susceptible their varieties are or which is the best approach to take – check with your local agronomist, plant pathologist, your regional cereal disease guide or visit the Rust Bust website at www.rustbust.com.au."

The Australian Cereal Rust Control Program was established in 1973 and is mostly funded by grain growers through the Grains Research & Development Corporation (GRDC). It has a national mandate and has nodes at the University of Sydney, CSIRO Plant Industry, the University of Adelaide, NSW Department of Primary Industries, and the International Wheat and Maize Improvement Centre.

For more information, contact Professor Robert Park on 02 9351 8806.

RUST - Did you know …

- Rusts are caused by fungi. Rust spores are spread readily by the wind over large areas in a short time.
- There are three rust diseases of wheat, all occur in Australia - stripe, stem and leaf. Cultivars resistant to one may be susceptible to another.
- Rusts can mutate (alter or change form) to overcome resistance genes. It is therefore essential to use a current disease guide to check the resistance rating of your cultivars.
- Rust becomes a problem in areas where susceptible varieties are grown. These varieties also enable inoculum levels to build up on volunteer plants during summer and autumn and give the rust an early opportunity to re-establish in commercial crops in the following cropping cycle. Rust epidemics are more common following wet summers and in wet growing seasons.