

Barley stripe rust

What is Barley stripe rust?

Barley stripe rust (*Puccinia striiformis* f. sp. *hordei*) is a fungal pest of barley, potentially affecting crops in all Australian growing regions. Barley stripe rust would have serious economic impacts following establishment in Australia, as it is estimated that approximately 80% of the barley varieties grown here would be susceptible. Damage to barley plants varies depending on the plant growth stage, but crop losses due to Barley stripe rust can be up to 100%.

What does it look like?

The fungus produces stripes of rust pustules between the veins of leaves, and can also form on barley heads. The pustules may be more yellow than orange, and hence the disease is sometimes referred to as yellow rust. Barley stripe rust can build up rapidly if conditions are cool and wet, and infection is often first noticed as 'hot spots' within the crop.

What can it be confused with?

Barley grass stripe rust (present in the eastern states of Australia), and occasionally Wheat stripe rust, can infect barley. However, any barley plants showing stripe rust symptoms should be sent for identification through laboratory analysis.

What should I look for?

The development of stripe rust symptoms on any barley plants. In certain conditions 'hot spots' of symptoms can develop in the crop.



Stripe rust forms yellow orange stripes along leaf veins

Lee F. Jackson, UC Statewide IPM Program



Stripe rust symptoms can develop as 'hot spots' in the crop

John Francis



The stripes of stripe rust are made up of many tiny pustules arranged between the leaf veins

Jack Kelly Clark, UC Statewide IPM Program



Colin Wellings

Stripe rust can also show symptoms on spikes, as demonstrated by this Wheat stripe rust infection



PaDIL

Leaves take on a yellow colour under high levels of infection



Darrrell Wesenberg, Bugwood.org

Advanced symptoms present on barley leaf sheaths

How does it spread?

Rust spores are small, light and may survive for several days. They can be spread over large distances by wind and easily attach to clothing, machinery and tools, allowing movement and spread between farms and regions. They may also transfer across the world on travellers' clothing.

Where is it now?

Barley stripe rust occurs in Asia, Europe, Central Africa and North, Central and South America.

How can I protect my farm from Barley stripe rust?

Check your farm frequently for the presence of new pests and unusual symptoms. Make sure you are familiar with common grain pests so you can tell if you see something different.

If you see anything unusual, call the Exotic Plant Pest Hotline



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