Yield loss to Fusarium crown rot:
Is there a better choice among wheat and barley varieties?

- Fusarium crown rot is a constraint on cereal production in Australia; $97 M/year in wheat and barley losses.
- New wheat and barley varieties released with improved resistance to crown rot, but no experimental field evidence of tolerance in Western Australia (WA).

Evaluate wheat and barley varieties in WA to demonstrate the economic benefits of varietal selection in paddocks with high crown rot.

**WHEAT**

- Wheat- Emu Rock had the least yield loss and the lowest white head expression from crown rot (Fig. 1).
- Barley- Litmus, La Trobe and Baudin had the lowest yield reduction from crown rot (Fig. 2).

**BARLEY**

- Wheat- Emu Rock had the least yield loss and the lowest white head expression from crown rot (Fig. 1).
- Barley- Litmus, La Trobe and Baudin had the lowest yield reduction from crown rot (Fig. 2).

**“A choice that could cost 300 kg/ha in yield!”**

- Mace is the variety of choice in 60% of the cropping area of WA.
- Emu Rock yielded 300 kg/ha more than Mace under crown rot pressure (Fig. 1).
- Under no crown rot pressure, Mace out-yielded Emu Rock by 200 kg/ha.

**Conclusion**

Understand the crown rot risk to make the right wheat or barley variety choice.