

## 5.1 Background

**Rhizoctonia root rot is an important disease of cereals especially in the southern and western regions. The main hosts are cereals and grasses. The disease is caused by *Rhizoctonia solani* AG8. Distribution within the paddock can be very patchy, so take care to follow the sampling protocol. The high visual impact of the patches can cause losses to be over estimated.**

The fungus can cause patching in pulses, oilseeds and pasture legumes, but these are generally poor hosts. The fungus is adapted to dry conditions and lower fertile soils, but recent research indicates yield losses are greater in the better seasons.

### IMPACT

- Rhizoctonia root rot can reduce yield of cereals by more than 50%; barley is the most susceptible.
- Affected crops have reduced access to water and soil nutrients, often appearing N or P deficient.
- Affected crops are less competitive with weeds and so weed set is increased.
- The fungal disease can increase yield losses when other root diseases are present at medium to high levels.

### WHERE DAMAGE IS MORE LIKELY

- In low soil fertility (especially P, N and Zn) e.g. sandy and alkaline calcareous soils of southern and western Australia.
- In low rainfall zones and seasons.
- In intensive cereal rotations or cereals grown after grassy pastures.
- Following a dry spring/summer.
- When weed growth is not controlled before sowing.
- When there is no soil tillage below seed.
- When root growth below 5cm is restricted.
- No moisture and low soil temperature.

**WHEN ARE YIELD LOSSES GREATEST?**

- In above average rainfall seasons, symptoms worse than in below average rainfall years.
- Cold soils during seedling establishment, long winter.
- In sandy and alkaline calcareous soils, especially those prone to non-wetting.
- Inadequate crop nutrition, especially N, P and Zn.
- When there is green weed growth, especially grasses, ahead of seeding in areas with rhizoctonia history.
- When crops are sown with minimum soil disturbance and no disturbance below the seed.
- Late seeding, cold soil slow early growth, heat stress during grain fill.
- When there are herbicide residues that slow crop growth e.g. sulfonylurea herbicides.

**Know your disease risk...  
Get tested!****WHY TEST?**

- While growers often know their worst rhizoctonia paddocks based on a history of bare patches PREDICTA B can identify paddocks where the main symptoms are uneven growth that develops during mid-winter.
- Knowing which crops are at risk before sowing enables the most effective management strategies to be implemented.

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