

18.1 Background

Ascochyta blight, caused by the fungus *Ascochyta rabiei* (synonym *Phoma rabiei*); is a serious disease of chickpeas. The disease is endemic in all growing regions (including central Queensland) except the Ord region of WA. Ascochyta blight costs the Australian chickpea industry more than \$120 million in annual disease control and yield loss.

IMPACT

- If not managed effectively, Ascochyta can severely reduce yield in wet seasons in the northern region and severely reduce yields every season in the southern region.
- Losses of 100% have occurred under highly conducive conditions (susceptible variety, favourable weather, inadequate management).
- Seed discolouration can impact marketability; ascochyta blemished seed may be downgraded or rejected if it exceeds 1% by weight.

WHERE DAMAGE IS MOST LIKELY

- The disease is most prevalent in seasons with numerous rain events.
- Wet conditions later in the season favour pod infection.
- In the northern region, areas with intensive chickpea production i.e. short rotations such as chickpea-cereal-chickpea or chickpea-chickpea are high risk.
- In the southern region all areas are high risk.

HOW TO USE RESULTS

- To rank paddocks based on inoculum levels.
- Based on these rankings, select varieties with an appropriate ascochyta resistance rating. In the southern region all varieties are susceptible or moderately susceptible.
- Monitor changes in inoculum during different phases of the cropping sequence.
- Confirm diagnosis in-crop.
- Note: disease risk categories have yet to be developed for this test. Categories based on population density are provided to benchmark levels against rest of industry. Management options will be linked to PREDICTA B results when disease risk categories have been developed.

Did you know?

- Infected chickpea stubble is an important source of *A. rabiei* inoculum.
- Sowing infected seed can give rise to infected seedlings.
- Seed can remain infected for several years.
- Clean seed can be contaminated with ascochyta infected residue during harvest and handling.
- *A. rabiei* can develop over a wide range of temperatures (5 to 30°C).
- It only needs three to six hours of leaf wetness to infect.

IMAGE: KEVIN MOORE, NSW DPI

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