

# Southern region

## Disease Risk

The following tests are reported with a disease risk, which indicates the risk of yield loss associated with the level of pathogen DNA detected in the soil. Risk categories should be used as a guide only, as regional and seasonal variation can occur.

- Cereal cyst nematode
- Stem nematode
- Take-all
- Take-all – oat strain
- Rhizoctonia
- Crown rot
- *Pratylenchus neglectus*
- *Pratylenchus thornei*
- Blackspot
- Blackspot (*Phoma Koolunga*)

TEST	RESULT	DISEASE RISK*			
		Not Detected	Low	Med	High
CCN	<0.05 eggs /g soil	■			
Stem nematode	<0.5 nematodes/100 g soil	■			
Take-all	<0.8 log(pg DNA/g soil)	■			
Take-all - Oat Strain	<0.8 log(pg DNA/g soil)	■			
Rhizoctonia	<0.48 log(pg DNA/g soil)	■			
Crown Rot	<0.6 log(pg DNA/g soil)	■			
Pratylenchus neglectus	5.3 nematodes /g soil		■	■	■
Pratylenchus thornei	1.3 nematodes/g soil		■	■	■
Blackspot	1.59 log(pg DNA/g soil)		■	■	■
Blackspot ( <i>Phoma koolunga</i> )	1.41 log(pg DNA/g soil)		■	■	■

\*Risk categories should be used as a guide only, may be subject to regional and seasonal differences, and may be revised over time.

## Tests under evaluation

This year we are introducing a number of new tests as “tests under evaluation”. These tests will be reported as relative population densities, rather than a disease risk, as the level of yield loss associated with the pathogen DNA level has yet to be determined.

Results can be used to rank levels of inoculum in different paddocks, monitor changes in inoculum during different phases of the cropping sequence and confirm disease diagnosis. Disease risk categories will be developed for some of the tests in the future.

- Yellow leaf spot
- Common root rot
- *Pythium* clade f
- Eyespot
- *Pratylenchus penetrans*
- *Pratylenchus quasitereoides*
- Charcoal rot
- Ascochyta blight of chickpea
- White grain disorder
- Sclerotinia stem rot

TEST	RESULT	POPULATION DENSITY**			
		Not Detected	Low	Med	High
Common root rot	0.78 log(pg DNA/g soil)		■		
<i>Pythium</i> clade f	<0.6 log(pg DNA/g soil)	■			
Yellow leaf spot	3.87 log(kDNA copies/g soil)			■	
Eyespot	<0.3 log(kDNA copies/g soil)	■			
White grain disorder	<0.3 log(kDNA copies/g soil)	■			
<i>Pratylenchus penetrans</i>	<0.1 nematodes /g soil	■			
<i>Pratylenchus quasitereoides</i>	<0.1 nematodes/g soil	■			
Charcoal rot	0.88 log(kDNA copies/g soil)		■		
Ascochyta blight of chickpea	<0.05 log(kDNA copies/g soil)	■			
Sclerotinia stem rot	2.58 log(kDNA copies/g soil)			■	

\*\*Population densities are based on the distribution of pathogen levels detected in PreDicta samples over several years. These are not disease risk categories.