

## Winter 2017 Trial Snapshots

### 1. Chickpea Disease Management

Three trials evaluating efficacy and yield responses from alternative fungicides for the management of Ascochyta in chickpeas.

### 2. Sowthistle Management

Areas of focus will include:

- a) Three trials evaluating knockdown control of herbicides both alone and in a double knock on small (rosette) size weeds;
- b) Three trials evaluating the knockdown efficacy of herbicides against large (elongating/early flower) size weeds, also alone and in a double knock.

### 3. Paraquat Alternatives

Three trials planned to assess the efficacy of a double knock where an alternative to paraquat is used as the second knock. Targeting broadleaf weeds in winter fallow such as large rosette stage fleabane and sowthistle.

### 4. Chickpea Harvest Index

A series of trials investigating the effects of Plant Growth Regulators (PGR'S) on pod set and yield of chickpeas. Six trials will evaluate application timing and rate of PGR's on chickpeas, while another six trials will assess a range of possible PGR products effects on flowering and pod set.

### 5. Chickpea Desiccation

Six trials evaluating the efficacy of options for the desiccation of chickpeas.

### 6. Phalaris & Wild Oat Management in Chickpeas

Two areas of focus:

- a) Three trials comparing the efficacy of residual herbicides for the control of phalaris and wild oats in chickpeas;
- b) Three trials evaluating in-crop herbicide options for knockdown control of wild oats.

### 7. Nitrogen Management in Cereals

Finalisation of project activity from 2015 and 2016 looking at nitrogen responses in wheat. Focus areas include:

- a) Three trials will evaluate urea application timing, method and rate in Suntop. These trials were initiated in December 2016;
- b) Three additional trials will compare varietal nitrogen responses. Varieties compared will be Suntop, Lancer, EGA Gregory, Gauntlet and Suntime/DBA Lillaroi;
- c) Winter 2016 trial sites will be monitored to evaluate the response to the extra residual soil nitrogen from 2016 treatments;
- d) One trial assessing the impact of application timing on nitrogen losses when applied either prior to or post significant rainfall events.



**8. Faba bean Diseases**

Continuation of previous work assessing the efficacy of fungicides for the control of disease in faba beans.

**9. Chickpea Problem Weeds**

Three trials assessing a range of residual herbicide options for management of hard to kill weeds such as Australian bindweed, tree hogweed, variegated thistle, scotch thistle and Mexican poppy.

**10. Spot Form Net Blotch Yield Loss Modelling**

Collaboration with Agriculture Victoria on a national project measuring the yield loss caused by spot form of net blotch (*Pyrenophora teres f. maculata*) in eight barley varieties representing key resistance ratings.

**11. Helicoverpa Management in Cereals**

A protocol has been developed to evaluate *Helicoverpa* management options in wheat. Trials will be undertaken if the season is conducive to *Helicoverpa* infestation.

**12. Rutherglen Bug Management**

Trial protocols are being developed by Dr Melina Miles (Qld DAF) to evaluate Rutherglen bug management options. NGA will conduct trials in Northern NSW to supplement the trials conducted in Qld.

## Large Scale Trial Projects

The following are primarily large-scale projects, which will continue this Winter:

**13. Fallow Efficiency**

A site near Walgett will evaluate the impact of harvest height on fallow soil water accumulation. The site was only established at harvest in 2016.

**14. Cotton Cut Stump**

A large-scale trial has been established to assess management options for the control of ratoon cotton. Treatments were imposed immediately after mulching.

**15. Soil Remediation**

A large-scale trial was established in August 2016 to monitor the long-term agronomic and economic impact of gypsum in a commercial site with high magnesium soil constraints. The intention is to monitor the site over a number of seasons to determine the overall economic impact.



## 16. Powdery Mildew in Canola

Large-scale trials planned for Winter 2016 where not undertaken due to a reduced canola planting and minimal occurrence of powdery mildew. However, should Winter 2017 prove more conducive to disease the trials are ready to be implemented.