



Northern Grower Alliance

## Winter 2014 Trial Snapshots

### 1. Residual Herbicides for Grass Weed Control in Wheat and Chickpea

A total of nine trials have been commenced in wheat and chickpea comparing residual herbicide activity. Key targets are winter germinating grasses (annual ryegrass and wild oats) and spring germinating grasses (awnless barnyard grass, feathertop Rhodes grass, liverseed grass and Windmill grass).

### 2. Nitrogen Management in Wheat

Three different protocols evaluating varied aspects of N management in wheat. A large scale trial near Goondiwindi is comparing urea application in mid-February to an at-planting application. The aim is to examine whether a deeper placement of N - from the earlier application - offers canopy management benefits.

Four small plot trials have been planted comparing slow release N products: Entech, Agrocote, ESN and Entrench to urea. The aim is to examine whether these products can offer a consistent agronomic and economic advantage.

Four trials will also be initiated in late season to finalise activity on late applications of N to improve grain protein levels. The two main questions are whether the economics are improved using lower total rates of N for these applications and whether multiple low rates of foliar urea are more effective than a single high rate?

### 3. Root-Lesion Nematode Management

NGA are continuing to screen experimental chemical and biological treatments in wheat and chickpea in Northern NSW and Southern Qld. Treatments will be evaluated for both impact on crop growth and yield but also the effect on *P thornei* multiplication.

Trial work at a 'low' v 'high' *P thornei* site near Macalister will not start this winter because summer fallow rainfall was insufficient to proceed with the winter program. Trials are planned to commence at this site in spring with a good profile of moisture now in place. We are also setting up another 'low' v 'high' *P thornei* site in the Bullarah region for evaluation trials in winter 2015.

### 4. Chickpea Problem Weed Control

Three trials have been established to look at broadleaf herbicide mixtures to best control Mexican poppy, Spiny Emex or climbing buckwheat. Six additional trials will look at post emergent control of wild oats with Gp A and alternative chemistry.

### 5. Aphids Thresholds in Canola

Two large scale trials looking at the economics and efficacy of using alternative thresholds for aphid control in canola. These trials were planned for 2013 but aphid pressure did not reach threshold at last years' sites.

### 6. Common Sowthistle Management

Three trials are planned to evaluating tankmixes and double knocks to control large sowthistle during the winter fallow. Additionally we will be collaborating with the Northern Weeds team to conduct a survey of glyphosate resistance in sowthistle across the region.

## **7. Powdery Mildew in Canola**

NGA has planted two screening trials to determine whether powdery mildew is an economic problem for canola growing in the far North of NSW and Southern Qld.

## **8. Fallow Water Efficiency**

Trials near Bullarah and Walgett were started in January 2014 where stubble was removed or added at an additional 5, 10, 20 or 40 t/ha to fallowed paddocks. The plots will be monitored until the soil water profile is refilled to examine whether the differences in stubble level have impacted significantly on fallow efficiency. March rainfall at the Bullarah site has already shown significant benefits in infiltration from the additional stubble.

## **9. Harvest Weed Management**

NGA is interested to hear from any growers keen to trial harvest weed management techniques such as windrow burning, seed collection or diverting trash to wheel-tracks. For the upcoming winter crop harvest we would like to initiate case studies with each of our local groups to examine whether harvest weed management techniques, as pioneered in Western Australia, have a fit in our region and for our weed spectrum.

## **10. Plantbacks of Group A Herbicides to Sorghum**

Four trials which will commence ~6 weeks before commercial sorghum planting. Five Group A herbicides will be evaluated for crop effects and damage. Aim is to generate data on the relative crop safety of these herbicides.