

## 2014/2015 Summer Trial Snapshots

### 1. Residual Herbicides for Weed Control in Summer Fallow

Nine trials are planned evaluating residual herbicide mixtures that can be used in the summer fallow to achieve broad spectrum weed control, yet minimize plantback issues. Two further trials will investigate whether mixing knockdown and residual herbicides has any impact on the residual weed control. A single trial is also planned to compare the effect of stubble cover on the efficacy of key residual herbicides. Additional work evaluating the potential of stubble to tie-up herbicides is being conducted by Dr Mark Silburn Qld DNRM.

### 2. Residual Herbicides Plantback

A trial will be set up evaluating the plantback risks of eleven herbicides including residuals such as Dual, Flame and Balance as well as Group A herbicides. The effects of cultivation (after application but before planting) on crop safety will be assessed. All major winter crops will be compared when planted with both a tyne and disc planter.

### 3. Knockdown of Grass Weeds

Three trials will look at the relative compatibility of key Group A herbicides with broadleaf mixing partners to evaluate antagonism potential. An additional three trials will evaluate alternative products to Group A's or glyphosate to provide knockdown of grass weeds in fallow.

### 4. Nitrogen Mineralisation and Fallow Water Efficiency

Seven trials are planned to assess the magnitude of nitrogen mineralisation during the fallow under both standing and removed stubble scenarios. Sites are planned to be established in paddocks which have previously had a full soil characterisation. Data will also be generated on fallow water efficiencies under different regimes.

### 5. Sorghum Herbicides

Six trials will screen alternative (not currently registered in Australia) herbicides or alternative use patterns of registered herbicides for potential in sorghum.

### 6. Common Sowthistle Survey

NGA is participating in a common sowthistle (*Sonchus oleraceus*) glyphosate resistance survey across the northern region. The data generated will provide a baseline measure of glyphosate resistance with hopes to extend the resistance survey to a wider range of weeds in future years. This survey is part of a GRDC funded northern region weeds project with collaboration from QDAFF, NSW DPI together with the NGA, GOA and CQCS grower solutions groups. Resistance testing will be conducted by QDAFF weed researchers. **Sample kits are already being despatched but it is not too late participate.** Anyone interested please call Annie van der Meulen QDAFF on 07 4639 8847 or via [Annemieke.vanderMeulen@daff.qld.gov.au](mailto:Annemieke.vanderMeulen@daff.qld.gov.au)

### 7. Scurvy Weed Management

NGA plans to conduct three more trials this summer on infestations of scurvy weed to evaluate both knockdown and residual control. Scurvy weed is a native (similar to

Wandering Jew) that spreads by rhizomes and has proven difficult to manage in isolated areas but over a wide geography.

#### **8. Root-lesion Nematodes**

NGA have established a trial site near Macalister Qld with two contrasting populations of the root-lesion nematode *Pratylenchus thornei* (*Pt*). Replicated strips of two wheat varieties were commercially sown in 2013 which created a ten-fold difference in *Pt* population. Plans are in place for evaluating a wide range of summer crops and varieties for both yield loss and build-up of nematode populations. The same site will be used for evaluating a wide range of winter options in 2015. All we need now is rain !