

NGA Quarterly Update, October 2008

- an update of key recent results and planned activities

General

The next round of Local Consultative Committee meetings will be held in late November and early December. **At these meetings NGA will present the latest results from a range of our winter projects.** Date claimers and agendas will be sent out shortly by the Committee contacts below.

Key Local Consultative Committee Contacts

<i>Goondiwindi</i>	<i>Michael Castor</i>	<i>07 4671 2045</i>
<i>Moree/ Narrabri</i>	<i>Rob Long</i>	<i>0428 971 751</i>
<i>Walgett</i>	<i>Greg Rummery</i>	<i>0428 259 535</i>
<i>Liverpool Plains</i>	<i>Greg Giblett</i>	<i>0428 667 752</i>
<i>GRAS</i>	<i>David Peart</i>	<i>0428 552 447</i>

New staff member

Anthony Mitchell has recently commenced with NGA as a trials agronomist based at Moree. We expect he will quickly assume most of the day to day responsibilities for NGA project activity in the Goondiwindi and Moree regions. Prior to joining NGA, Anthony was a NSW DPI Technical Officer based at Tamworth, working with Dr Guy McMullen on the collaborative NGA/ NSW DPI - GRDC funded project. He already has a good understanding of a number of our nutritional projects but will be broadening his scope in areas of disease, weed and insect management.



Anthony's key contact details:

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Winter trial results

At this stage 6 of 17 winter trial harvests have been completed with the majority of sites expected to be off in the next fortnight. Available results will be presented at the forthcoming Local Committee meetings

Key summer projects 2008

1. Residual herbicides in summer fallow

Aims: 1. To compare weed spectrum and length of residual control across a range of environments. 2. Identify plantback issues in subsequent winter crops.

Key details: 4 small plot trials comparing 13 residual herbicide treatments (8 herbicides alone or in combination). Sites to be planted to winter crop in 2009 with weed species determined by local/ regional importance.

Trial locations: Goondiwindi, Moree/Narrabri, Walgett & GRAS districts.

2. Sorghum spray-out timing

Aims: 1. To improve the determination of the 'optimum timing' for sorghum spray-out. 2. To quantify yield or quality penalties from spraying out too early. 3. To measure impacts on soil water.

Key details: 6 small plot trials will be conducted, expanding on work started on the Liverpool Plains last autumn. Treatments will be made weekly from ~ 3 weeks earlier than commercial timing through to one week post commercial. A mixture of early and late sown/harvest crops will be compared.

Trial locations: Goondiwindi, Moree, Narrabri and Liverpool Plains.

Associated work: NGA is aiming to produce photostandards showing colour changes and black layer development for commercial varieties as the grain dries out.

3. WeedSeeker use patterns

Aims: 1. To compare use patterns of WeedSeeker fitted booms. 2. To gather information for season long economic analysis.

Key details: Multiple unreplicated grower applied trials enabling half paddock comparisons of summer fallow management with a broadacre boom alone versus broadacre boom/WeedSeeker as required. Agronomists to make separate recommendations for each half of the paddock. Agronomists to keep records for the whole summer fallow, which NGA will collect and compile at end of fallow.

Trial locations: Anywhere we can get growers and agronomists involved. The more involved, the more accurate the overall picture. **Please ring NGA (07) 4639 5344 if you are willing to participate.**

4. Herbicide options for WeedSeekers

Aim: To find effective herbicide rates and mixtures to use on large difficult to kill weeds.

Key details: High rates of herbicides, that are too expensive to be used through a broadacre boom, can become economically viable when used through a WeedSeeker. 9 herbicides (18 treatments) will be compared when applied by conventional boom to 'screen' the best options for further work through actual WeedSeeker units. Primary targets are large common sowthistle or fleabane.

Trial locations: 3 replicated small plot trials located in Goondiwindi, Moree/Narrabri & Walgett districts.

5. Overcoming glyphosate antagonism

Aims: 1. To determine the level of antagonism, from key herbicide mix partners, on glyphosate control. 2. To observe and quantify the extent that ammonium sulphate addition can overcome this antagonism.

Key details: Addition of herbicide mix partners to control weeds such as cowvine and melons can cause reduced control of common sowthistle and grass weeds. This work will assist benchmarking the impact of various mixtures and the value of ammonium sulphate in such situations.

Trial locations: 2 trials in the Walgett district with the primary targets being common sowthistle and grasses.

6. Double knock treatments for fleabane control

Aims: 1. To help determine the optimum interval between double knock treatments for fleabane control. 2. To examine effects of droplet size on efficacy of Sprayseed when applied as a double knock. 3. To compare Sprayseed and paraquat as double knock treatments.

Key details: Work by DPI has shown double knock treatments of Roundup + Surpass followed by Sprayseed to be effective for controlling fleabane in fallow. These trials are aimed at providing more confidence on the optimum timing split between applications.

Trial locations: 2 trials in the Moree/Narrabri area.

7. Glyphosate adjuvants

Aim: 1. To compare the efficacy of the 3 different glyphosate salts and determine the circumstances where ammonium sulphate will enhance glyphosate activity.

Key details: Work done on the Liverpool Plains in 2007 raised some concerns about the equivalence of different glyphosate formulations. These trials will aim to demonstrate formulation differences, effects of water hardness and responses to adjuvants. A 'commercial' and 'marginal' rate of each salt will be used in all trials

Trial locations: 3 trials in the Goondiwindi, Moree/Narrabri and Walgett areas. Target mixed fallow weed infestations.

8. Millet cover cropping

Aims: 1. To validate the benefits of millet cover cropping in areas south of the border. 2. To determine the benefits and costs of applying N for the subsequent winter crop at cover crop planting.

Key details: Cover cropping during the summer crop – winter crop long fallow has been adopted in the Goondiwindi area following work conducted in recent years by QDPI. Modelling suggests this concept should work in areas further south. These trials are aimed at demonstrating the benefits of cover cropping and will also tackle the issue of whether it is an appropriate time to add fertilizer for the following winter crop.

Trial locations: 2 trials were established in September 2008 near Edgeroi and Burren Junction.

9. Potential of plant growth regulators in sorghum

Aim: To determine if there is any scope to use plant growth regulators to manipulate sorghum growth.

Key details: NGA are assisting a seed company in this proof of concept work simply by applying product at three timings.

Trial location: 1 trial established in October 2008 near Goondiwindi with additional work to be performed on the Liverpool Plains.

10. Reliability of soil Nitrogen testing

Aim: To determine the impact of a range of sampling handling conditions on N test results and the reliability between different laboratories.

Key details: The conditions that soil samples are subjected to between coring and analysis may have significant impacts on test results. Samples will be collected from each sorghum N nutrition site and subjected to various 'commercial' handling treatments.

Trial locations: Soil tests that are taken from trial sites will be used for this study.

11. Tactical Nitrogen management in sorghum

Aim: To further investigate N timing on sorghum grain yield and nitrogen use efficiency.

Key details: Results from the work in 2007 showed that sorghum yield potential could be met with split and delayed N fertilizer. This work will be repeated in 2008 to assess results under different seasonal conditions whilst evaluating side banding under commercial conditions.

Trial locations: 2 'commercial' trial sites located near Mullaley and Breeza and 1 small plot trial near Premer.

12. Nitrogen fertilizer comparison

Aim: To compare various fertilizer N products for sorghum production.

Key details: This work will assess the Nitrogen Use Efficiency of a range of products for sorghum production. Products include urea, ammonium sulphate and amended urea products.

Trial location: 1 trial site at Premer co-located with tactical N site.

For any further details please contact your Local Consultative Committee Contact or

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