

TWINN CROP TRIAL



On-farm Trial in Dry-land Wheat: Forbes, NSW, Australia, 2008

KEY RESULT

A single application of TwinN applied, mid tillering, in combination with standard fertiliser application, resulted in a **15.5% yield increase** over the treatment receiving standard fertiliser application, without TwinN, in an on-farm comparison trial. TwinN application resulted in a **13.5% increase** in root size ratings.

TREATMENTS

No.	Treatment	Fertiliser	
		Ausmin 570 granular kg/ha	TwinN
1	Untreated (fertiliser only)	80	0
2	Fertiliser + TwinN	80	1 Application

TRIAL RESULTS: Comparison of Yield & Crop Measurements

Treatment	(1) Fertiliser Only	(2) Fertiliser + TwinN
Yield T/ha	1.68	1.94
% inc*	-	15.5
Root Rating	3.7	4.2
% inc	-	13.5
Tiller Count	161.8	183.2
% inc	-	13.2
Screenings %	2.28	1.46
% inc	-	- 36

*% inc is the increase over the fertiliser-only control.

Mapleton Agri Biotec Pty Ltd

137 Obi Obi Road, Mapleton Qld 4560 Australia

Phone: +61 7 5445 7151

Email: TwinN@mabiotec.com

www.mabiotec.com

OBSERVATIONS

By late tillering the TwinN treatment could be seen to visually stand out from the non-treated side, viewed as a distinct height increase in the crop of approximately 5cm.

PLANT LEAF ANALYSIS REPORT

2 samples supplied by GAIA on 15 August, 2007 - Lab Job No. P2876

			Sample 1		Sample 2	
			Block ID	A	B	
			Crop	Wheat		
			Client	██████████		
TOTAL NUTRIENTS (Acid Digest/Combustion)	Nutrient		Nutrient	TwinN	No TwinN	
	Nitrogen	N	N	3.58	3.18	
	Available Nitrate N	N	N03	5.54	4.66	
	Potassium	K	%	
	Sulphur	S	%	
	Carbon	C	%	

1. Total N was increased by 12.6% and available nitrate N by 18.9% in TwinN treated leaf tissue.

TRIAL SUMMARY

Trial Performed & Analysed By: Gaia Consultancy, NSW Australia.

Trial Design: Side-by-side block comparison, 5 replicate measurements of yield, grain weight, protein and screenings per block.

TRIAL DETAILS

Wheat Variety: Ventura
Crop Stage at TwinN application: Mid tillering
Fertiliser Data: 80 kg/ha Ausmin 570 granular mineral fertiliser (5:7:0) supplying 4kgN/ha
In Crop Rainfall: 209 mm
Soil Type: Sandy loam
Site History: Wheat 2007

DISCLAIMER: Any recommendations provided by Mapleton Agri Biotech (MAB) or its Distributors are advice only. As no control can be exercised over storage, handling, mixing application or use, or weather, plant or soil conditions before, during or after application (all of which may affect the performance of our product), no responsibility for, or liability for any failure in performance, losses, damages, or injuries (consequential or otherwise), arising from such storage, mixing, application, or use will be accepted under any circumstances whatsoever. MAB recommend you contact an Agronomist prior to product application. The buyer assumes all responsibility for the use of TwinN.

TwinN Application Conditions: Weather conditions: Light drizzle
Application method: Boomspray
Calibration output: 70 l/ha
Crop stage: Mid tillering

Trial Measurements:

Yield: Each of 5 replicate measurements was a 400m x 9.1m strip (0.364 ha).

Root scores: Ten randomly selected plants from plus and minus TwinN blocks were extracted from the soil and ranked on a 1 to 10 scale for root mass by two technicians, independently. Root scores were a mean of twenty rankings.

Tiller counts: Tillers were counted from plants within ten random squares (61 x 25 cm) from each block.

Leaf nitrogen analysis: Leaf N analysis was performed by an independent laboratory on duplicate leaf tissue from late tillering plants.

CONCLUSIONS

- ♦ A single application of TwinN was trialed in this low input/low rainfall/low yield wheat crop system. A yield increase of 15.5% was measured. This was associated with a 36% decrease in screenings indicating a better grain filling capacity late in the crop cycle.
- ♦
- ♦ Root growth was substantially greater (13.5% increase) in TwinN treated wheat plants.
- ♦ Tiller number was increased by 13.2%.
- ♦
- ♦ TwinN treated wheat leaf tissue had higher Total N (12.6% increase) and available nitrate N (18.9% increase).



5 header strips were weighed on each side, TwinN treated vs. untreated

