10Z and 10Z blends for 2006

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The new Granulock 10Z cropping fertiliser was released in 2005. It can be used independently, or in a range of nitrogen and sulphur blends.

These new fertilisers are ideally suited to growers who use the following management techniques: do not pre-drill urea; use no-till or minimum till; sowing at wide row spacing.

The new fertiliser also provides a wide range of nitrogen contents to suit: seeder row spacing, sowing tyne width, soil nitrogen status, paddock history, and crop type.

The new range is based on IncitecPivot's proven Granulock 10Z, which is blended with urea, Gran-Am or both.

Product	Nitrogen	Phosphorus	Sulphur	Zinc
Granulock 10Z	11.5	21.0	3.5	1.00
10Z 18	18.4	16.8	2.8	0.8
10Z 22	21.9	14.7	2.6	0.7
10Z 24	23.6	13.7	2.3	0.65
10Z 25	25.3	12.6	2.1	0.6
10Z 29	28.8	10.5	1.8	0.5
10Z 13 (S)	13.2	16.8	7.6	0.8
10Z 14 (S)	14.1	14.7	11.7	0.6
10Z 15 (S)	15	12.6	11.7	0.6
10Z 20 (S)	20.1	12.6	6.9	0.6

Each new fertiliser provides maintenance rates of zinc in a highly water soluble form which is readily available to crops. This is very important if you are using minimum till management techniques, as reduced soil disturbance, can result in less residual zinc (Zn) being available. With the reduction in Zn being available there is a greater reliance on Zn fertiliser.

Additional sulphur has been included in four of the treatments as readily plant available sulphate from Gran-Am (Sulphate of Ammonia).

A trial of the new fertilisers was conducted at the BCG trial site at Marnoo in 2005. This trial was sown on a lentil stubble and had a moderate deep soil nitrogen level, tested prior to sowing of 80kg of nitrogen per hectare.

Each fertiliser treatment was sown with Yitpi wheat at a common rate of 12kg of P/ha.

Table 1: Fertiliser blends and cost/ha

Treatment	Fertiliser rate Kg/ha	Fertiliser content N/ha	P/ha	S/ha	Zn/ha	$/ha*
Granulock 10Z	57	6.6	12.0	2.0	0.6	29.49
10Z J 18	71	13.1	12.0	2.0	0.6	36.93
10 Z 22	82	17.9	12.0	2.1	0.6	41.71
10Z 24	88	20.7	12.0	2.0	0.6	44.80
10Z 25	95	24.1	12.0	2.0	0.6	48.00
10Z 29	114	32.9	12.0	2.1	0.6	56.91
10Z 13(S)	71	9.4	12.0	5.4	0.6	36.26
10Z 14(S)	82	11.5	12.0	7.9	0.6	40.73
10Z 15 (S)	95	14.3	12.0	11.1	0.6	46.48
10Z 20(S)	95	19.1	12.0	6.6	0.6	47.52

* On farm price based on June 2005 prices and include $21/tonne freight

This trial demonstrates the advantage of using products such

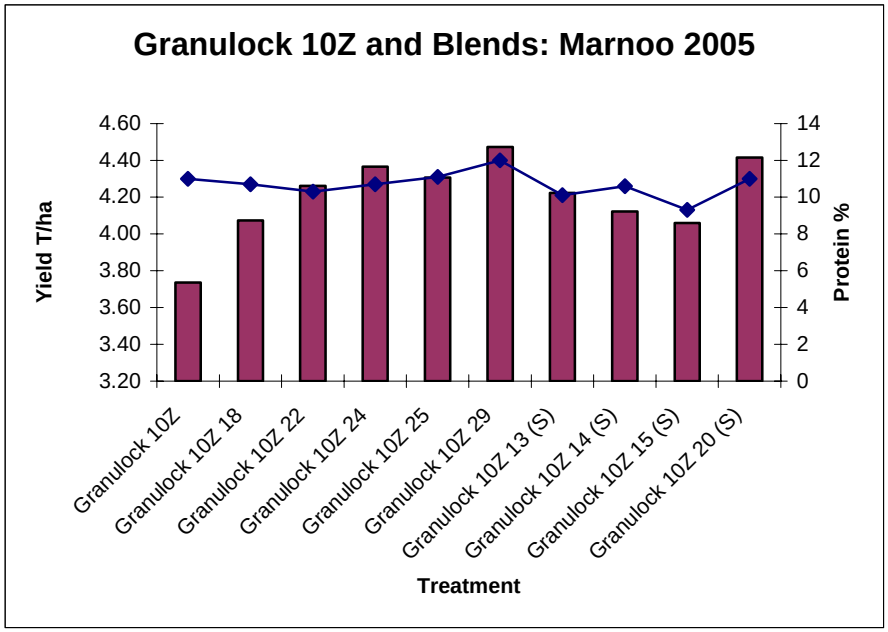

Figure 1: Granulock 10Z and Blends at Marnoo 2005

Table 2: Harvest results and Gross Margins ($/ha)

Treatment	Average Yield t/ha	Protein %	Return $/ha
Granulock 10Z	3.74	11	587
Granulock 10Z 18	4.07	10.7	628
Granulock 10Z 22	4.26	10.3	645
Granulock 10Z 24	4.37	10.7	669
Granulock 10Z 25	4.31	11.1	665
Granulock 10Z 29	4.47	12	744
Granulock 10Z 13 (S)	4.22	10.1	639
Granulock 10Z 14 (S)	4.12	10.6	630
Granulock 10Z 15 (S)	4.06	9.3	603
Granulock 10Z 20 (S)	4.42	11	654
LSD(5%)	**0.51**		
CV %	**6.6**		

Observations:

On a site with relative or adequate levels of N, the following observations can be made:

- Granulock 10Z would have provided sufficient nutrients for an average season 3.75t/ha
- The very good spring rains allowed the the Granulock 10 blends: 18, 22, 24 25 and 29 to perform to their potential because of their additional nitrogen. Granulock 10Z 29 produced the highest yield and achieved H2 quality class attracting a premium price.
- The Granulock 10Z (S) blends did not perform as well because of lesser nitrogen levels and the soil was not sulphur responsive.

Commercial Practice:

Depending on target yield, seasonal outlook and soil nitrogen levels, growers should be able to choose a Granulock 10Z blend to suit their requirements.

These results illustrate the benefit of increasing N levels in these blends. Nitrogen rate didn't seem to affect grain protein, however this is understandable given that the application was at sowing. This trial does not suggest a Zn response but a N response. N deficiency was not observed under the straight Granulock 10Z blend.