

BEST TM21 FERTILISER TRIAL

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AIM

The experience from trial work with TM21 in Canada and Vietnam has been that farmers have been able to reduce some of their inputs as well as maintain or increase their yield. BEST Australia set up a long-term trial at the Liebe Group Long Term Trial Site (LTRS) comparing fertiliser rates at three different input levels. This trial will continue over the next few years. During that time, BEST will be evaluating the trial at LTRS to show that fertiliser efficiency increases by using TM21 in Australia.

BACKGROUND

TM21 is a biostimulant that feeds and increases the population of beneficial micro-organisms in the soil. BEST believes that some of the farming practices used in the past and some practices that farmers are presently doing, though necessary to stay profitable, are destroying the soil structure and the soil microbial life. Examples include:

- Tilling the soil
- Deep ripping
- Compaction
- Fungicide use
- Insecticide use
- Chemical use
- Fertiliser use
- Crop rotation

BEST believe that once segments of the micro-life family are lost, many other microbes shut down; as they need each other to exist. They will stay dormant until the right conditions in the soil reappear. When an entire microbe community is re-established by repopulating the soil, numerous benefits are brought back to the soil and to the plants that grow in it. BEST advises that, due to current farming practices, TM21 needs to be applied every year. TM21 is showing benefits in early use of this product in Australia.

TRIAL DETAILS

Property	Liebe Group Long Term Research Site, west Buntine
Plot size & replication	20m x 2.1m x 4 replications
Soil type	Sandy loam
Sowing date	21/6/07
Seeding rate	75 kg/ha Tammarin Rock Wheat
Fertiliser (kg/ha)	21/6/07: 60 kg/ha Urea
Paddock rotation	2002 = Wheat, 2003 = Lupins, 2004 = Wheat, 2005 = Wheat, 2006 = Lupins
Herbicides	21/6/07: 2 L/ha Roundup Powermax 21/6/07: 1.6 L/ha Trifluralin 21/6/07: 35 g/ha Logran 21/6/07: 1 L/ha Chlorpyrifos
Growing Season Rainfall	130mm

RESULTS

Table 1: Treatment Details & Yield Results

No	Treatment	Rate	Timing	Yield
1	MAPSZC Plus	60 kg/ha	banded at seeding	0.70
2	MAPSZC Plus	80 kg/ha	banded at seeding	0.81
3	MAPSZC Plus	100 kg/ha	banded at seeding	0.69
4	CFF MAPSZC Plus CFF	250 mL/100 kg 60 kg/ha 250 mL/ha	on seed banded at seeding Z13	0.74
5	CFF MAPSZC Plus CFF	250 mL/100 kg 80 kg/ha 250 mL/ha	on seed banded at seeding Z13	0.81
6	CFF MAPSZC Plus CFF	250 mL/100 kg 100 kg/ha 250 mL/ha	on seed banded at seeding Z13	0.84
	LSD (P=0.05) CV			NSD 19.08

COMMENTS

The 2007 growing season was extremely dry and proved extremely difficult for trials. BEST looks forward to seeing the trial evolve over the next few years.

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