

ABSTRACT

THIS TRIAL WAS ESTABLISHED TO COMPARE METHODS OF APPLYING MOLYBDENUM AND ASSESS THE BENEFITS OF LIME

There was a 0.6 t/ha response to fertiliser, but no response to molybdenum (Mo) or lime. Plant tissue analysis showed that sodium molybdate (Na_2MoO_4) was effectively applied as a seed dressing or banded with Flexi-N. The high Mo levels in these treatments indicate that application rates were much higher than needed. Grain analysis results confirmed that Mo was not limiting. Grain protein was about 9.0%, hectolitre weights 80 kg/hl, and screenings 3% in all treatments.

TRIAL DETAILS

	<i>FOR EXAMPLE</i>
Property	<i>Jewell, Gutha</i>
Soil type	<i>Red loamy sand</i>
Crop & Variety	<i>Mace wheat</i>
Treatments:	<i>See below</i>
Replicates:	<i>3 reps</i>
Sowing date	<i>15th May</i>
Seeding rate	<i>64 kg/ha</i>
Fertiliser (kg/ha)	<i>See below</i>
Paddock rotation	<i>2011 wheat</i>
Growing Season Rainfall	<i>Apr to Oct - 212 mm</i>

SOIL TEST RESULTS

Depth (cm)	pH	EC	OC	Nit N	Amm N	P	PBI	K	S	Ex Ca	Ex Mg	eCEC	ESP	Cu	Al
0-10	4.5	0.04	0.4	5	3	38	26	192	10	0.7	0.30	1.6	3.3	0.5	3
10-20	4.2	0.03	0.3	1	1	26	35	125	16	0.8	0.27	1.7	1.9	0.6	3

RESULTS

Treatments									17-Jul	14-Aug	Harvest	
Trt	Lime (t/ha)	Banded (L/ha)	Banded (kg/ha)	Z30 (L/ha)	N	P	S	Mo	Mo (ug/kg)	Mo (ug/kg)	Yield (t/ha)	Mo (ug/kg)
1	-	-	-	-	0	0	0	0	221	460	0.72	268
2	-	50 FN	50 Mallee	80 FN	62	7	7	0	221	291	1.36	178
3*	-	50 FN	50 Mallee	80 FN	62	7	7	0.04	2387	656	1.34	221
4**	-	50 FN	50 Mallee	80 FN	62	7	7	0.1	1029	584	1.48	196
5***	-	50 FN	50 Mallee	80 FN	62	7	7	0.04		424	1.49	181
6	1.5	50 FN	50 Mallee	80 FN	62	7	7	0	269	264	1.39	194
7	3.0	-	-	-	0	0	0	0	402	491	0.84	242
8	3.0	50 FN	50 Mallee	80 FN	62	7	7	0	274	294	1.47	176
										Prob	<0.001	0.051
										Lsd	0.149	70.8

* Seed Dressing: 1.7kg Na_2MoO_4 /t seed

** Banded (with Flexi-N): 250 g/ha Na_2MoO_4

*** Foliar 100 g/ha Na_2MoO_4 (17 Jul – early tillering).



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