

Triticale Maximum Yield Experiment

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Key messages:

- Triticale requires 80 kg/ha of N to maximise yield.
- Triticale requires the same amount of nitrogen input as wheat to yield near its potential.
- Kosciusko Triticale responds to the use of fungicide.

Aim:

To assess the level of input required to maximise the yields of triticale grown after wheat.

Method:

A replicated experiment was established using differing levels of post emergent N and fungicide to assess yield.

Location: Balldale

Growing Season Rainfall:

Annual: 505 mm

GSR: 342 mm

Soil:

Type: Red Brown Earth

pH (H₂O): 4.8

P (Colwell): 32 mg/kg

Deep Soil N: 84 kg/ha

Sowing Information:

Sowing date: 18/6/2005

Fertiliser: 110 kg/ha MAP

Row Spacing: 180 mm

Paddock History:

2005 – Mixed Crop/triticale

2004 – Wheat

2003 – Canola

Plot Size: 1.5 x 16

Replicates: 4

Results:

Table 5: Summary of Yield (t/ha), Protein (%) and Screening (%) and Gross Margin (\$/ha over Zero N) Results

Treatment Description	Yield (t/ha)	Protein (%)	Gross Margin (\$/ha)
0 N – Control	3.3	9.4	\$0
20 N ¹	4.1	11.7	\$68
40 N	5.3	10.5	\$188
80 N	5.5	11.0	\$172
120 N	4.9	10.3	\$69
Fungicide ² 0 N	4.1	9.4	\$77
Fungicide 20 N	5.3	10.0	\$198
Fungicide 40 N	5.6	11.3	\$175
Fungicide 80 N	6.2	11.1	\$245
Fungicide 120 N	6.2	11.1	\$203

1- Rate of post emergent N applied at Z15. 2 – Two applications of 1 L/ha of 125 g/L Triadimefon fungicide at Z30 and Z39.
Yield LSD (5%) – 0.27 t/ha.

Observations and comments:

- Addition of N significantly increased the yield with the optimum rate being 80 kg/ha of N.
- Addition of fungicide increased yield by about 15%. This was the second year that this result was achieved.
- The most economic treatment (gross margin) was 80 kg/ha of N and two fungicide applications at Z31 and Z39.

Sponsors:

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