



Canola Nitrogen Rate Trial

Trial ID: CNR_04 – Morris, MB [RM of MORRIS]

Objective: To identify optimal nitrogen fertilizer rates based on return on investment and nitrogen use efficiency.

Summary: There was a significant yield increase with the higher nitrogen fertilizer rate application of 125% compared to the reduced and normal rate of fertilizer application.

Trial Information

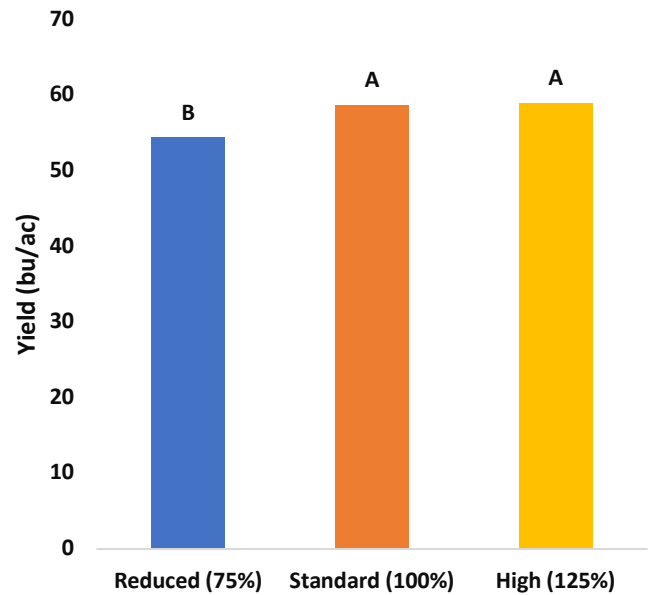
- Treatment**
- **Reduced N rate (75%):**
90 lbs N/ac
 - **Standard N rate (100%):**
120 lbs N/ac
 - **High N rate (125%):**
150 lbs N/ac

Soil Texture	Fine-textured
Previous Crop	Spring wheat
Seeding Date	June 6, 2022
Seeding	Disc drill
Equipment	
Residual N (0-2 ft)	53 lbs/ac
N Application Method and Timing	Broadcast and incorporated, 90N after seeding, top-dress at rosette
Variety	L236
TKW	5 g/1000 seeds
Seeding Rate	4.2 lbs/ac
Row Spacing	10 inches

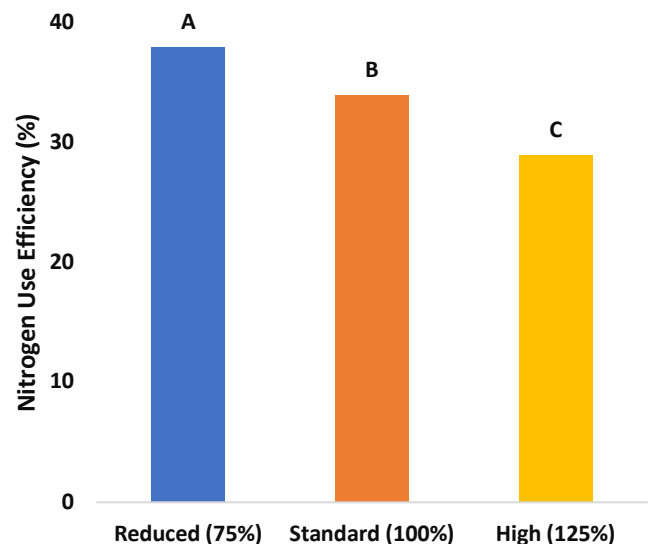
Growing Season Conditions

	Rainfall (mm) (% of average)	Average Daily Temp. (C°)
April	114 (440%)	0
May	95 (142%)	12
June	70 (69%)	18
July	78 (91%)	20
Aug	50 (60%)	19
Sept	41 (85%)	14
Total	448	

Yield by Treatment



Nitrogen Use Efficiency by Treatment



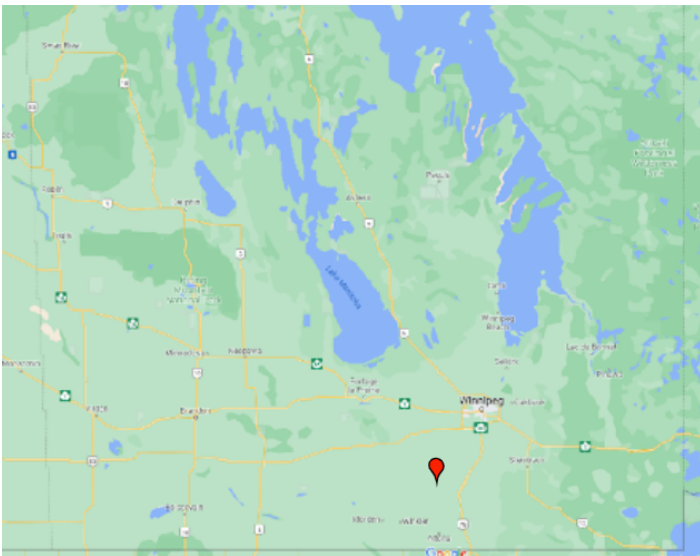


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Overall Yield & Results

	N Rate (Lbs N/ac)	Tissue N Bolting (%)	Yield (bu/ac)
Reduced (75%)	90	5.9 ^b	54.4 ^c
Standard (100%)	120	5.5 ^a	58.7 ^b
High (125%)	150	5.9 ^a	59.0 ^a
P-Value		0.0007	0.0023
CV		9	5
Significance		Yes	Yes

Location of Trial



MCGA would like to thank Tone Ag Consulting Ltd. for their research support for this trial.