



Canola Nitrogen Rate Trial

Trial ID: CNR_05 – Melita, MB [RM of TWO BORDERS]

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

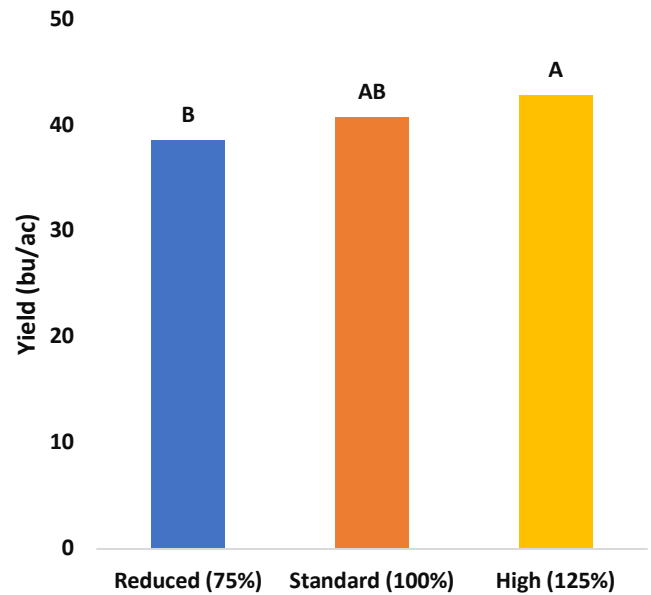
Summary: There was a significant yield increase with the higher nitrogen fertilizer rate application of 125% compared to the reduced and normal rate of fertilizer application.

Trial Information

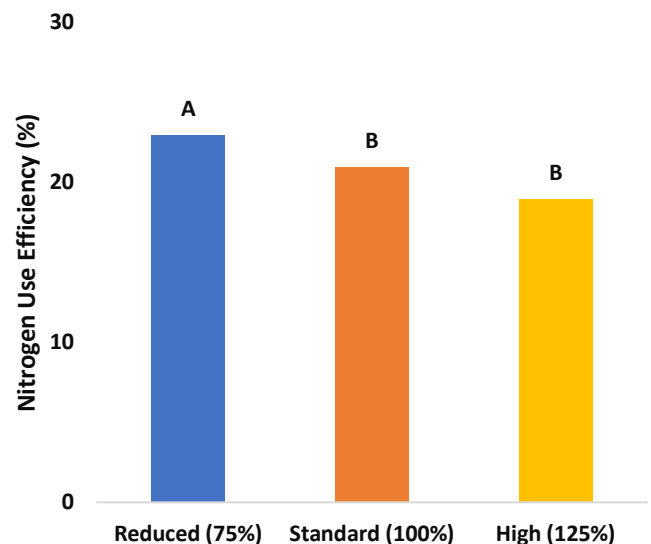
- Treatment**
- **Reduced N rate (75%): 90 lbs N/ac**
 - **Standard N rate (100%): 120 lbs N/ac**
 - **High N rate (125%): 150 lbs N/ac**

Soil Texture	Fine-textured
Previous Crop	Oats
Seeding Date	June 3, 2022
Seeding	Vaderstad
Equipment	
Residual N (0-2 ft)	53 lbs/ac
N Application Method and Timing	Side banded with seed
Variety	L233P
TKW	4.7 g/1000 seeds
Seed Treatment	Vercoras
Seeding Rate	4.6 lbs/ac
Row Spacing	12 inches
Harvest Date	September 28, 2022

Yield by Treatment



Nitrogen Use Efficiency by Treatment



Growing Season Conditions

	Rainfall (mm) (% of average)	Average Daily Temp. (C°)
April	48 (171%)	0
May	84 (153%)	12
June	55 (71%)	17
July	110 (157%)	20
Aug	13 (25%)	17
Sept	33 (89%)	17
Total	342	

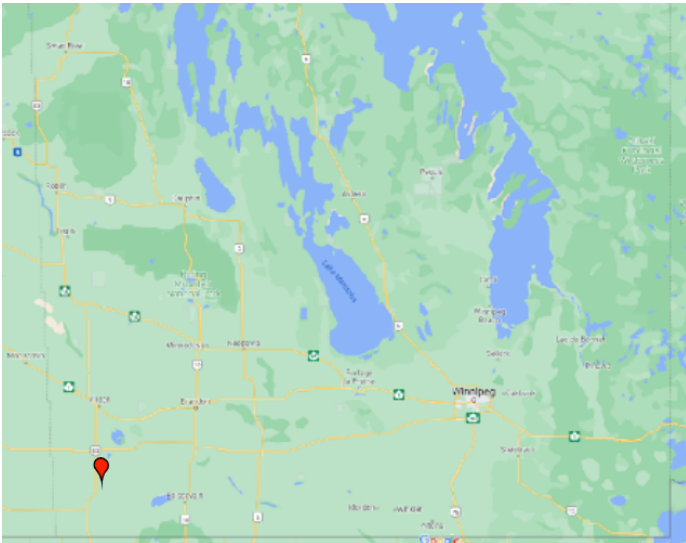


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Overall Yield & Results

	N Rate (Lbs N/ac)	Plant Count 4-leaf	Tissue N Bolting (%)	Yield (bu/ac)
Reduced (75%)	90	10.2	5.6 ^b	38.6 ^b
Standard (100%)	120	9.1	5.8 ^a	40.8 ^{ab}
High (125%)	150	8.9	5.3 ^b	42.9 ^a
P-Value		0.1	0.043	0.0111
CV		15	6	12
Significance		No	Yes	Yes

Location of Trial



MCGA would like to thank A1 Agronomy for their research support for this trial.