



Canola Nitrogen Rate Trial

Trial ID: CNR_02 – Brunkild, MB [RM of MACDONALD]

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

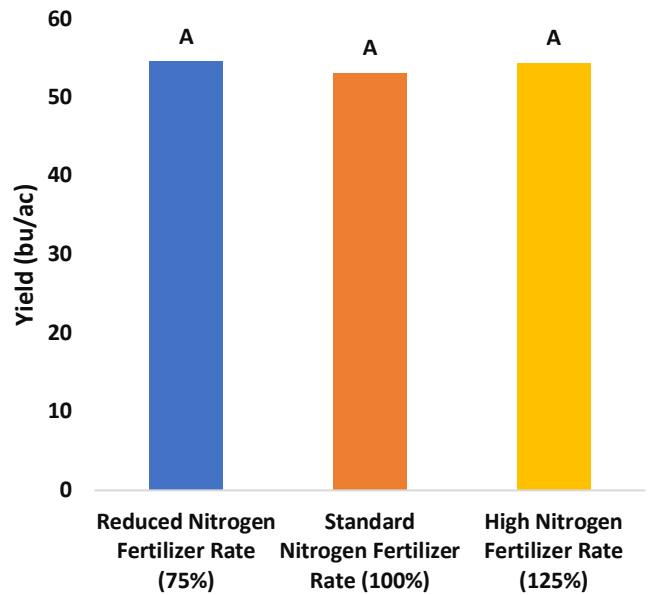
Summary: There was no significant yield difference between applied nitrogen fertilizer rates of 75%, 100%, or 125% relative to normal application.

Trial Information

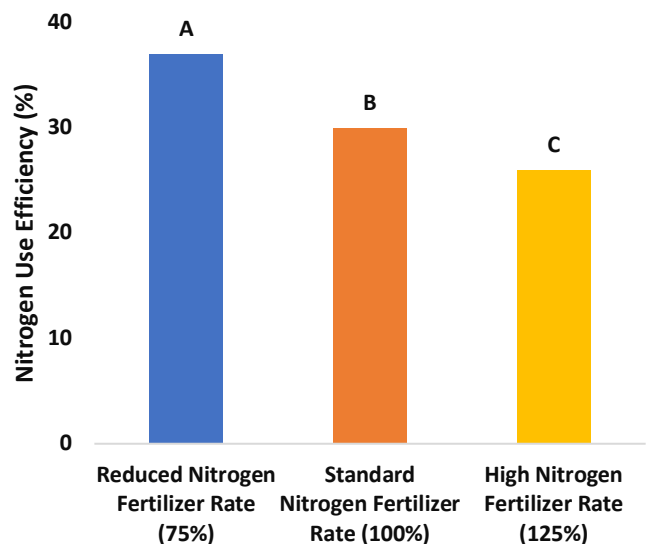
- Treatment**
- **Reduced N rate (75%):**
91.1 lbs N/ac
 - **Standard N rate (100%):**
121.5 lbs N/ac
 - **High N rate (125%):**
151.9 lbs N/ac

Previous Crop	Wheat
Seeding Date	June 7, 2022
Seeding	Case IH PD 500
Equipment	
Residual N (0-2 ft)	55 lb/ac
N Application Method and Timing	Side/midrow banded and applied at planting
Variety	L233P
TKW	5.3 g/1000 seeds
Seed	Lumiderm
Treatment	
Seeding Rate	5.2 lbs/ac
Row Spacing	7.5 inches
Harvest Date	October 11, 2022

Yield by Treatment



Nitrogen Use Efficiency by Treatment



Growing Season Conditions

	Rainfall (mm) (% of average)	Average Daily Temp. (C°)
April	113 (383%)	-1
May	132 (189%)	9
June	65 (68%)	15
July	105 (133%)	18
Aug	57 (76%)	17
Sept	9 (18%)	1
Total	481	



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Overall Yield & Results

	N Rate (lbs N/ac)	Plant Count 4-leaf	Tissue N Bolting (%)	Yield (bu/ac)
Reduced (75%)	91.1	7.4	4.5 ^b	54.6
Standard (100%)	121.5	6.3	5.0 ^a	53.2
High (125%)	151.9	6.2	4.8 ^{ab}	54.5
P-Value		0.1	0.03	0.5
CV		12	7	4
Significance		No	Yes	No

Location of Trial



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