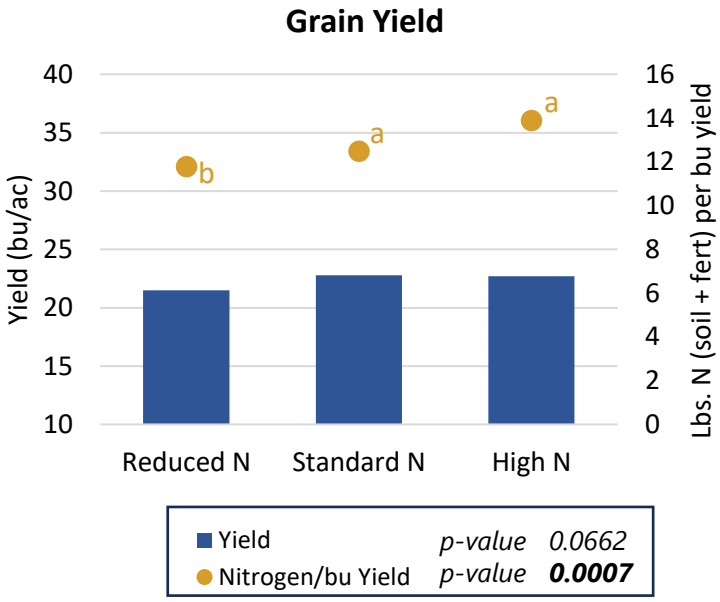
Canola Nitrogen Rate – NR_11

Research Question: Are N rates being used on canola across Manitoba sufficient for optimizing yield and nitrogen efficiency?

Site Information	
R.M.	De Salaberry
Residual N (0-24')	127
Seeding Date:	May 15, 2023
Seeding Equipment:	Disc Drill
Variety:	P508 CL
Harvest Date:	Aug 28, 2023
Nitrogen Application	
Source:	46-0-0
Placement:	Broadcast
Timing:	Spring, Pre-Emergence

Treatment		Fertilizer N	Total N (Soil + Fert)
		lbs. N / ac	
1	Reduced N Rate	128	255
2	Standard N Rate	158	285
3	High N Rate	188	315



Summary

- Plant Establishment: N rate had no influence on plant counts in this trial.
- Tissue N: N rate had no significant influence on N tissue content at bolting in this trial.
- Grain Moisture: Nitrogen rate had no influence on grain moisture in this trial.
- Grain Yield: There was no significant effect of N rate treatments on grain yield in this trial. The high N available for all treatments and relatively low yields indicate yield limiting factors present resulting in sufficient N provided to the crop for yields being achieved for all treatments.
- Nitrogen Efficiency: High levels of N were available to the crop across all treatments, paired low yields being achieved resulted in a very high N use per bushel of yield ranging from 12 – 14 lbs. N.

	Plant Counts at 4 Leaf (ft^2)	N Tissue at Bolting (%)	Harvest Grain Moisture (%)
1. Reduced N	6.8	3.8	9.4
2. Standard N	6.8	3.9	9.5
3. High N	7	4.1	9.6
p-value	*0.9554*	*0.2247*	*0.2563*

The absence of lowercase letters for any data type indicates no significant differences between treatments.

	Apr	May	June	July	Aug	**Total**
Rainfall (mm)	47	39	59	50	56	**251**
Avg Daily Temp (C)	0.6	16	20	17	18	

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