

Nitrogen Rate Trial

NR_16

Site Info

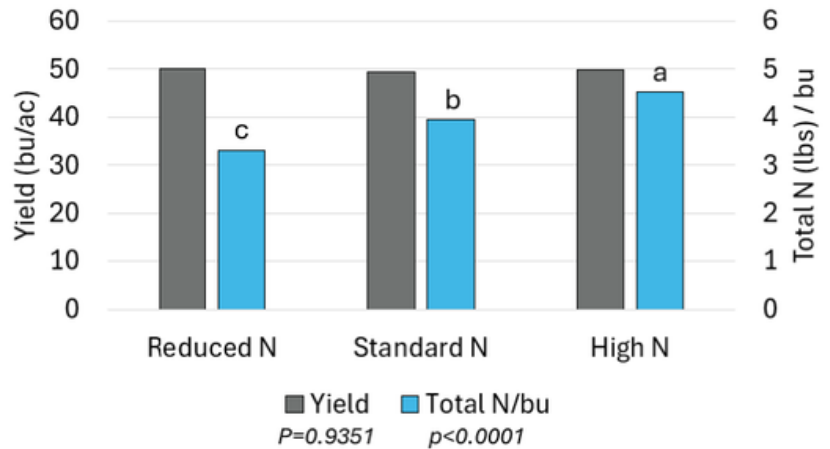
Trial ID: NR_16
Rural Municipality: Pembina
Residual N (0-24"): 75 lbs. N/ac
Seeding Date: May 21, 2024
Seeding Equipment: Bourgault 3710
Variety: L340PC
Harvest Date: Sept 6, 2024

Nitrogen Application

Source: 35% ESN & 65% Urea
Placement: Midrow Banded
Timing: Spring

Treatment	Fertilizer N Applied	Total N (Soil + Fert)
	Lbs. N/ac	Lbs. N/ac
Reduced N	90	165
Standard N	120	195
High N	150	225

Grain Yield and N Efficiency



Results Summary

Plant Establishment: There was a small but significant increase in plant stand with the low rate of N compared to the standard N rate treatment.

Tissue N: There was a significant reduction in tissue N at bolting with the reduced N rate treatment compared to the standard but there was no influence from the standard to the high rate of N.

Grain Yield: N rate treatments did not significantly influence grain yield in this trial.

Nitrogen Efficiency: The amount of N (soil + fert) used to produce a single bushel of grain yield was significantly increased from 3.3 to 4.5 with increasing N rates in this trial due to the lack of yield response as N application rates increased.

	Plant Counts at 4-leaf (ft ²)	N Tissue at Bolting (%)	Grain Moisture (%)
Reduced N	6.7	4.9 b	8.8
Standard N	6.7	5.6 a	8.7
High N	6.4	5.4 ab	8.8

p-value 0.9989 0.0396 0.805

	Apr	May	June	July	Aug	Sept	Total
Rainfall (mm)	32.4	139.4	93.5	79	73.9	46.5	464.7
Avg Daily Temp (C)	5.13	10.71	15.18	19.71	16.9	16.9	

Agronomic Support for this Trial
 Provided by:

