Wheat Seeding Rate

Trial ID: 2023-WP12 — R.M. of Piney

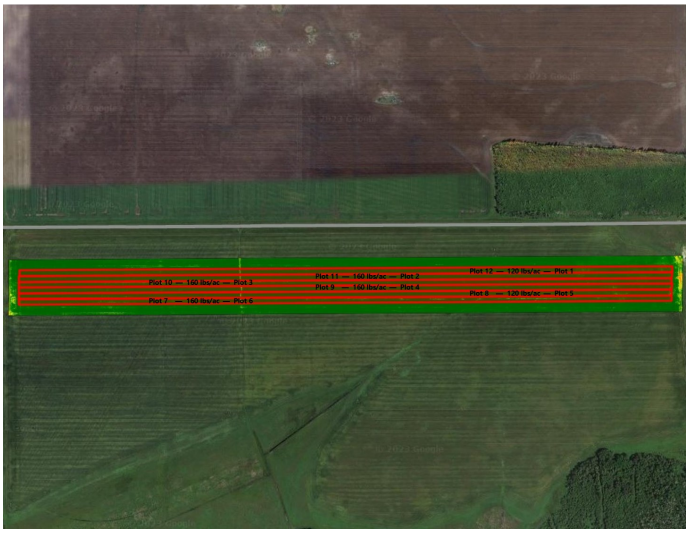
Objective: The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal seeding rate in wheat.

Summary: There was no significant yield difference between seeding rates of 80, 120 and 160 lbs/ac. As a result, there was a decrease in profit equivalent to the increase in seed cost for the higher seeding rates.

Trial Information

Treatment	80 lbs vs. 120 lbs vs. 160 lbs
Soil Texture	Fine Loams
Previous Crop	Soybeans
Tillage	Conventional Tillage
Seeding Equipment	45’ Air Drill
Seeding Date	May 23
Variety	Faller
Germination	96%
Row Spacing	10”
Harvest Date	September 19

NDVI Imagery July 21



Wheat Response

	Plants/ft²	Protein (%)	TWT (kg/hL)	Falling Number	Grade
80 lbs	15[B]	13.0	64	- -	2
120 lbs	20[A]	12.1	63	- -	2
160 lbs	22[A]	11.2	63	- -	2

Precipitation† (mm)

	May	June	July	Aug	Cumulative
Rainfall	41	79	63	37	**220**
Normal	69	109	105	73	**356**
% Normal	59%	73%	60%	51%	**62%**

†Growing season precipitation (mm)

Overall Yield & Economics

	Mean (bu/ac)	Cost†	Change in Profit/ac††
80 lbs	79.0	$22.10/ac	+ $11.90/ac
120 lbs	79.8	$34.00/ac	$0/ac
160 lbs	80.5	$45.90/ac	- $11.90/ac
P-Value	0.8000	**Economics: There is an increase in profit for the lower seeding rate due to the lower cost of seed/acre.**	
CV	3.59%		
Significance	**No**		

†Based on MB Agriculture 2023 Cost of Production Guidelines ($34.00/ac)
††Change in profit is calculated as the difference in cost between seeding rate treatments.

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