Wheat Seeding Rate

Trial ID: 2023-WP08 — R.M. of Brokenhead

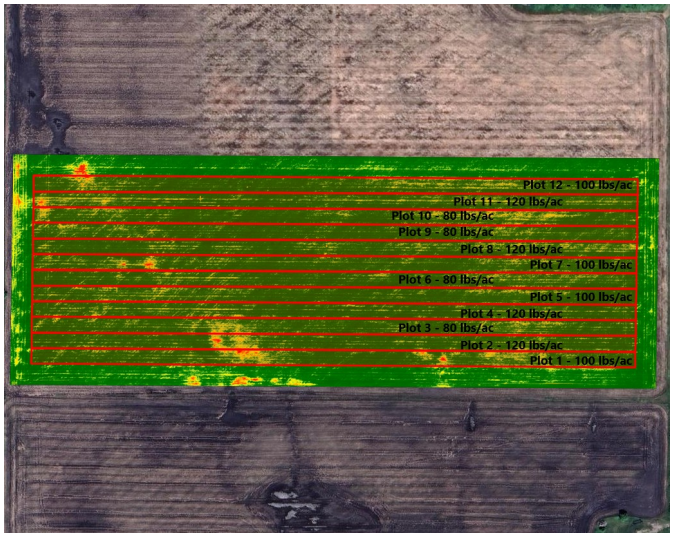
Objective: The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal seeding rate in wheat.

Summary: There was no significant yield difference between seeding rates of 80, 100 and 120 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. 100 lbs vs. 120 lbs
Soil Texture	Clay Loams
Previous Crop	Soybeans
Tillage	Conventional Tillage
Seeding Equipment	60’ Hoe Drill
Seeding Date	May 16
Variety	AC Carberry
Germination	94%
Row Spacing	10”
Harvest Date	September 01

NDVI Imagery July 18



Wheat Response

	Plants/ft²	Protein (%)	TWT (kg/hL)	Falling Number	Grade
80 lbs	18	14.6	64	300	2
100 lbs	17	14.5	64	313	2
120 lbs	21	14.3	64	315	2

Precipitation† (mm)

	May	June	July	Aug	Cumulative
Rainfall	8	106	50	39	**203**
Normal	58	88	87	76	**309**
% Normal	14%	121%	57%	51%	**66%**

†Growing season precipitation (mm)

Overall Yield & Economics

	Mean (bu/ac)	Cost†	Change in Profit/ac††
80 lbs	57.7	$22.66/ac	+ $5.67/ac
100 lbs	56.6	$28.33/ac	$0/ac
120 lbs	57.4	$34.00/ac	- $5.67/ac
P-Value	0.8598	**Economics: There is an increase in profit for the lower seeding rate due to the lower cost of seed/acre.**	
CV	1.73%		
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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