

Wheat Seeding Rate

Trial ID: 2022-WP01 — 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 a significant yield difference between seeding rates of 90, 120 and 150 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	90 lbs vs. 120 lbs vs. 150 lbs
Soil Texture	Clay
Previous Crop	Sunflower
Tillage	Conventional
Seeding Equipment	60' Disc Drill
Seeding Date	May 16
Variety	AAC Viewfield
Germination	99%
Row Spacing	10"
Harvest Date	September 02



Wheat Response					
	Plants/ft ²	Protein (%)	TWT (kg/hL)	Falling Number	Grade
90 lbs	23	15.0	82	353	1.0
120 lbs	25	_	_	_	_
150 lbs	29	_	_	_	_

Precipitation ⁺ (mm)					
	May	June	July	Aug	Total
Rainfall	118	77	67	67	329
Normal	54	78	70	18	219
% Normal	218%	99%	96%	377%	150%

⁺Growing season precipitation (mm) - May 01—Aug 15

Overall Yield & Economics

	Mean (bu/ac)	Cost ⁺	Change in Profit/ac ^{††}		
90 lbs	82.2 ^A	\$24/ac	+\$9/ac		
120 lbs	81.9 ^A	\$33/ac	\$0/ac		
150 lbs	76.4 ^B	\$41/ac	-\$74/ac		
P-Value	0.0191		Economics: There is an increase in profit for the lower seeding rate due to		
сv	2.82%	the lower cost of seed/	the lower cost of seed/acre.		
Significance	Yes				

†Based on MB Agriculture 2022 Cost of Production Guidelines (\$32.50/ac)

++Change in profit is calculated as the difference in cost between seeding rate treatments. A price of \$12.00/bushel for #1 grade HRS wheat is used in the economic calculation (Nov 2022)





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