



TrialID: BP01

Regional Information: Eastern, R. M. of De Salaberry

Objective: The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing targeted plant stands from normal seeding rate in Barley

Trial Information				
Treatment	120 lbs vs 150 lbs vs 180 lbs			
Previous Crop	Soybeans			
Tillage	Zero Till			
Seeding Equipment	60 ft Disk Drill			
Seeding Date	April 24, 2024			
Variety	AAC Connect (2-row)			
Germination	89%			
Row Spacing	10"			
Fertilizer (N-P-S)	110-59-6			
Harvest Date	August 14, 2024			
Grade	No. 1 CW			

Response							
	Plant stand (plants /ft2)	Plant height (cm)	Lodging Severity (1-10)	Moisture %	Protein %	Yield (bu/ac)	
120 lbs/ac	24.6 ^C	99	4	13.7	13.9	124.15	
150 lbs/ac	28.5 ^B	96	3	13.5	12.6	117.16	
180 lbs/ac	33.5 ^A	98	4	13.5	12.7	117.13	
P-Value	0.0008	0.2427	-	-	-	0.2898	
CV (%)	5.77	2.67	-	-	-	5.46	
Significance	Yes	No	-	-	-	No	

NDVI Imagery



Climate¹

ABC Indicate statistically significantly different from each other

Summary

There was no significant difference in overall yield among the different seeding rates in this trial.

Manitoba farmers are achieving recommended plant densities of 22-25 plant/ft2. Manitoba farmer have a good idea of the appropriate seeding rate on their farm.

Additional Considerations: Lower seeding rate and plant populations can reduce crop competitiveness to field pest. Uniformity of crop maturity will be more variable with lower seeding rates, reducing crop protection product efficiencies.

■ Heat Units ■ Rainfall





¹Climate normal from nearest Manitoba Agriculture weather station. Beginning April 15th





TrialID: BP02

Regional Information: Western, R. M. of Grassland

Response

Moisture

14.0

14.8

14.6

Protein

12.2

12.2

12.7

Yield

(bu/ac)

131.9^C

126.4B

129.5^A

0.0083

1.23

Yes

Lodging

Severity

(1-10)

3

2

3

Objective: The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing targeted plant stands from normal seeding rate in Barley

Plant

stand

(plants

/ft2)

23.00

23.67

30.09

0.0981

16.3

Plant

(cm)

97.45

95.90

98.10

0.7546

4.28

height

Trial Information			
Treatment	175 lbs vs 200 lbs vs 225 lbs		
Previous Crop	Corn		
Tillage	Fall: Pro-Till Spring: Harrow		
Seeding Equipment	70 ft Air Drill		
Seeding Date	April 25, 2024		
Variety	CDC Austenson		
Germination	99%		
Row Spacing	10"		
Fertilizer	55N 16K 12.5 CI		
Harvest Date	August 16, 2024		
Grade	No. 1 CW (No. 2 CW for 225 lbs)		
NDVI Imagery			



Climate¹



175 lbs/ac

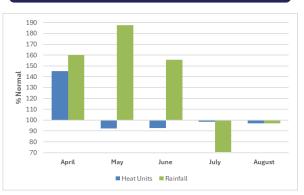
200 lbs/ac

225 lbs/ac

P-Value

CV (%)

Significance



¹Climate normal from nearest Manitoba Agriculture weather station. Beginning April 15th

Summary

In this trial there were significant differences in yield between seeding rates, however the lowest seeding rate had the highest yield. This is likely due to plant competition.

Additional Considerations: Lower seeding rate and plant populations can reduce crop competitiveness to field pest. Uniformity of crop maturity will be more variable with lower seeding rates, reducing crop protection product efficiencies.







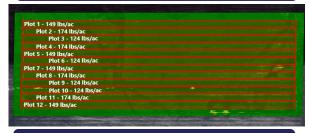


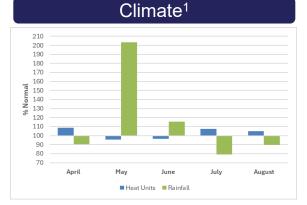
TrialID: BP04 Regional Information: Eastern, R. M. of De Salaberry

Objective: The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing targeted plant stands from normal seeding rate in Barley

Trial Information			
Treatment	124 lbs vs 149 lbs vs 174 lbs		
Previous Crop	Canola		
Tillage	Fall:Cultivate x1, Harrow x1		
Seeding Equipment	60 ft Disk Drill		
Seeding Date	May 8, 2024		
Variety	CDC Austenson		
Germination	96%		
Row Spacing	10		
Fertilizer (N-P-K)	120-45-10		
Harvest Date	August 20, 2024		
Grade	No. 2 CW		

NDVI Imagery





¹Climate normal from nearest Manitoba Agriculture weather station. Beginning April 15th

Response								
	Plant stand (plants /ft2)	Plant height (cm)	Lodging Severity (1-10)	Moisture %	Protein %	Yield (bu/ac)		
124 lbs/ac	21.92	97.00	4	12.7	12.7	94.93		
149 lbs/ac	27.25	96.78	4	13.1	12.3	91.89		
174 lbs/ac	26.34	97.30	5	12.3	13.0	92.36		
P-Value	0.1209	0.9090	-	-	-	0.6882		
CV (%)	12.94	1.74	-	-	-	5.58		
Significance	No	No	-	-	-	No		

 $^{^{\}mbox{\scriptsize ABC}}$ Indicate statistically significantly different from each other

Summary

There was no significant difference in overall yield among the different seeding rates in this trial.

Manitoba farmers are achieving recommended plant densities of 22-25 plant/ft2. Manitoba farmer have a good idea of the appropriate seeding rate on their farm.

Additional Considerations: Lower seeding rate and plant populations can reduce crop competitiveness to field pest. Uniformity of crop maturity will be more variable with lower seeding rates, reducing crop protection product efficiencies.



MCA would like to thank Tone Ag Consulting Ltd. For the research support and SGS Canada Inc for quality Analysis for this trial







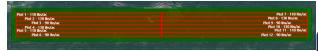
TrialID: BP05

Regional Information: Interlake, R. M. of Balmoral

Objective: The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing targeted plant stands from normal seeding rate in Barley

Trial Information				
Treatment	90 lbs vs 110 lbs vs 130 lbs			
Previous Crop	Canola			
Tillage	Fall: Harrow x 1			
Seeding Equipment	60 ft Disk Drill			
Seeding Date	May 11, 2024			
Variety	CDC Austenson			
Germination	96%			
Row Spacing	10			
Fertilizer (N-P-K)	20-40-15			
Harvest Date	August 21, 2024			
Grade	No. 1 CW			

Response						
	Plant stand (plant s/ft2)	Plant height (cm)	Lodging Severity (1-10)	Moisture %	Protein %	Yield (bu/ac)
90 lbs/ac	21.0 ^B	94.38	3	14.2	12.1	114.7
110 lbs/ac	26.0 ^{AB}	94.55	3	14.2	12.4	115.6
130 lbs/ac	29.6 ^A	93.53	3	14.3	12.0	113.5
P-Value	0.018	0.7825	-	-	-	0.067
CV (%)	11.61	2.30	-	-	-	0.85
Significance	Yes	No	-	-	-	No



Climate¹

500 450

400

350 300

250

200

150

50

NDVI Imagery

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Summary

There was no significant difference in overall yield among the different seeding rates in this trial.

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Additional Considerations: Lower seeding rate and plant populations can reduce crop competitiveness to field pest. Uniformity of crop maturity will be more variable with lower seeding rates, reducing crop protection product efficiencies.

August





[■] Heat Units ■ Rainfall

Climate normal from nearest Manitoba Agriculture weather station. Beginning April 15th





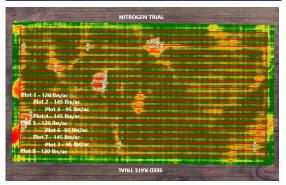
TrialID: BP06

Regional Information: Eastern, R. M. of Tyndall

Objective: The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing targeted plant stands from normal seeding rate in Barley

Trial Information				
Treatment	95 lbs vs 120 lbs vs 145 lbs			
Previous Crop	Dry Beans			
Tillage	Zero Till			
Seeding Equipment	60 ft Disk Drill			
Seeding Date	May 19, 2024			
Variety	AAC Synergy			
Germination	94%			
Row Spacing	10			
Fertilizer	68N 6S			
Harvest Date	September 2, 2024			
Grade	No.2 CW			

NDVI	Imagery



			Cli	mate ¹		
	130					
	120	_				
	110					
al	100					
% Normal	90					
%	80					
	70					
	60					
	50					
		April	May ■ Heat U	June Jnits ■ Rainfall	July	August

Response						
	Plant stand (plant s/ft2)	Plant height (cm)	Lodging Severity (1-10)	Moisture %	Protein %	Yield (bu/ac)
95 lbs/ac	18.66	70.07	1	11.6	10.3	48.74
120 lbs/ac	22.89	73.37	1	11.5	10.7	50.28
145 lbs/ac	24.55	72.47	1	11.1	10.0	53.82
P-Value	0.1526	0.4135	-	-	-	0.1335
CV (%)	13.53	3.90	-	-	-	4.76
Significance	No	No	-	-	-	No

ABC Indicate statistically significantly different from each other

Summary

There was no significant difference in overall yield among the different seeding rates in this trial.

Manitoba farmers are achieving recommended plant densities of 22-25 plant/ft2. Manitoba farmer have a good idea of the appropriate seeding rate on their farm.

Additional Considerations: Lower seeding rate and plant populations can reduce crop competitiveness to field pest. Uniformity of crop maturity will be more variable with lower seeding rates, reducing crop protection product efficiencies.



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