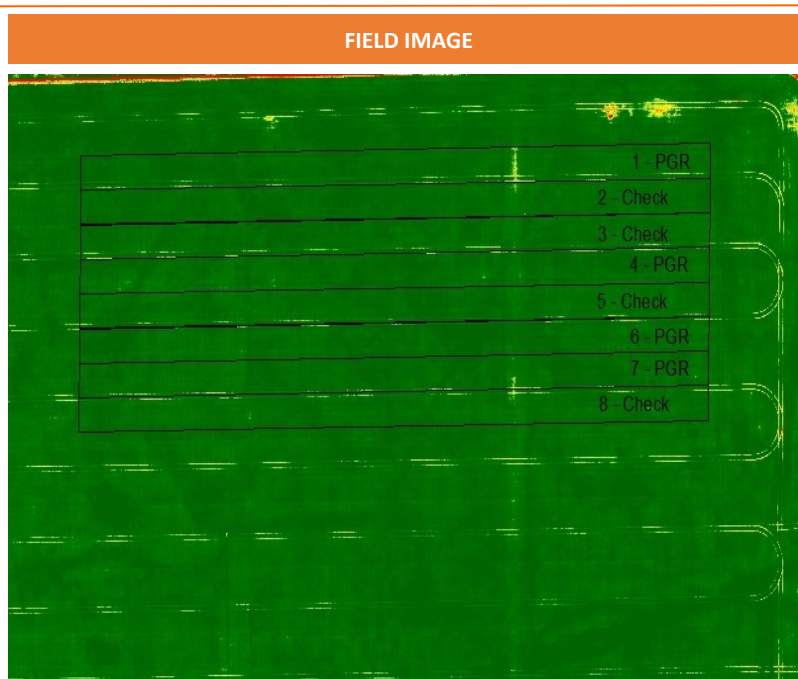


Wheat Plant Growth Regulator

Trial ID: 2019-WPGR02 — R.M. of Roland

Objective: The purpose of this project is to quantify the impact of the plant growth regulator Manipulator™ 620 (chlormequat chloride) on plant height, lodging, yield and quality of spring wheat

TRIAL INFORMATION	
Treatment	Manipulator™ 620 vs. Untreated
Location	Rosebank
Previous Crop	Soybeans
Soil Texture	Clay
Tillage	Zero Tillage
Planting Date	April 22, 2019
Variety	AAC Brandon
Row Spacing	7.5"
Seeding Rate	168 lbs/ac
Residual N	---
Fertilizer (N-P-K-S)	47N 28P 11K 6S
Application Date	June 05, 2019
Application Timing	5L
Application Rate	0.7 L/ac
Harvest Date	August 10, 2019



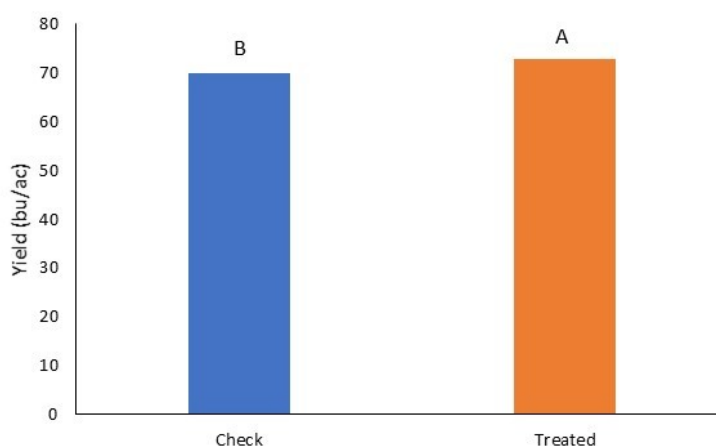
PRECIPITATION†					
	May	June	July	Aug	Total
Rainfall	45	37	57	0	141
Normal	75	78	76	21	252

†Growing season precipitation (mm)

WHEAT RESPONSE				
	Plant Height (inches)	Lodging		Protein
		Incidence	Severity	
Manipulator™ 620	36	0	1	15.2
Untreated	27	0	1	15.5

OVERALL YIELD	
	Mean (bu/ac)
Manipulator™ 620	72.7
Untreated	70.0
Yield Difference	2.8
P-Value	0.0253
CV	2.5%
Significance	Yes

STRIP YIELD



Summary: There was a significant yield difference of 2.8 bu/ac between the Manipulator™ 620 plant growth regulator application and the untreated check. There was a significant reduction in plant height of 1" with plant growth regulator application. There was no lodging observed within the trial. Rainfall was below normal for the entire growing season.