

# Wheat Plant Growth Regulator

Trial ID: 2018-WPGR09 – R.M. of St. Andrews

**Objective:** Quantify the impact of the plant growth regulator Manipulator 620 (chlormequat chloride) on plant height, yield and quality of spring wheat.

## TRIAL INFORMATION

Treatment	Manipulator vs. Untreated
Rural Municipality	St. Andrews
Previous Crop	Canola
Soil Texture	Clay
Tillage	1x high speed disc
Seeding Date	May 4, 2018
Variety	Brandon
Row Spacing	7.5"
Seeding Rate	105 lbs/ac
Residual N	---
Fertilizer (N-P-K-S)	135-24-0-0
Application Date	June 14, 2018
Application Timing	5-6 leaf stage
Application Rate	0.7 L/ac
Harvest Date	August 18, 2018

## PRECIPITATION<sup>†</sup>

	May	June	July	Aug
Rainfall	39	93	32	63
Normal	54	91	81	74

<sup>†</sup> Growing season precipitation (mm)

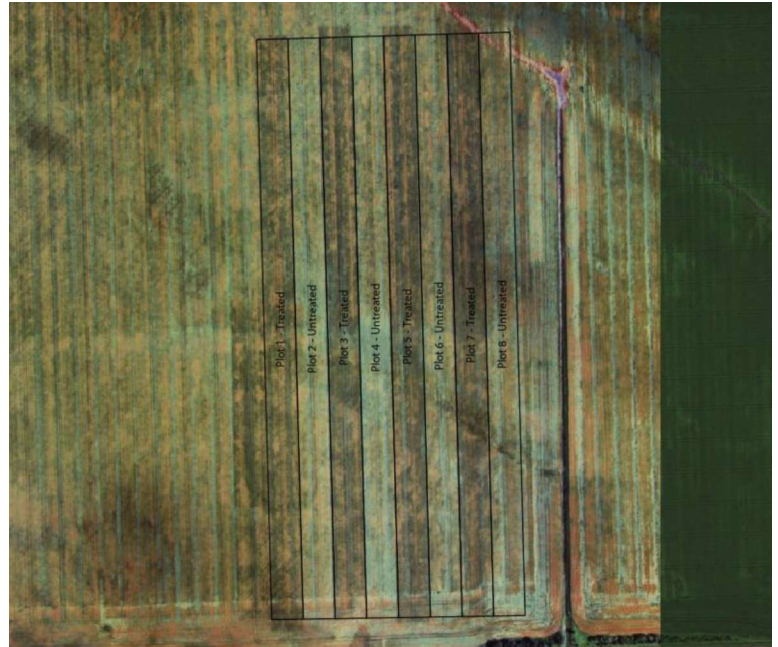
## WHEAT RESPONSE

	Plant Height (inch)	Lodging	Protein
Manipulator	32.9	No	12.7
Untreated	35.8	No	12.3

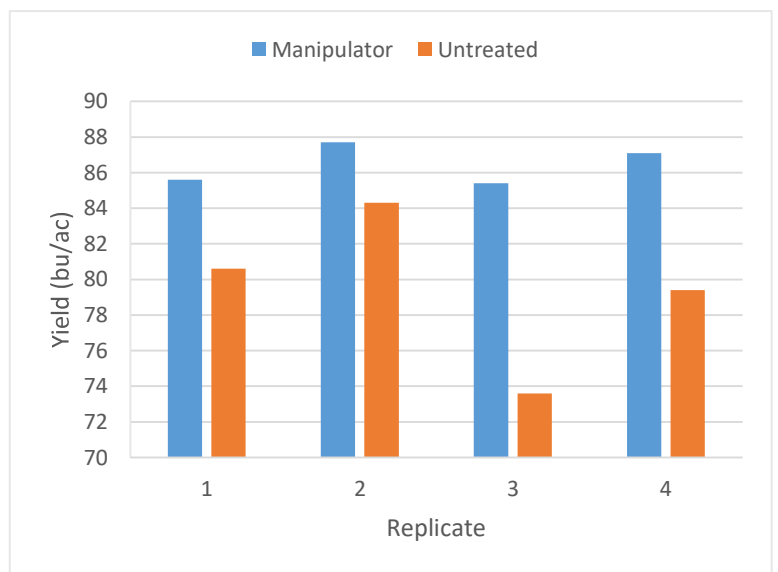
## OVERALL YIELD

	Mean (bu/ac)
Manipulator	86.5
Untreated	79.5
Yield Difference	7.0
P-Value	0.0323
CV	5.8%
Significance	Yes

## FIELD IMAGE – JULY 29, 2018



## STRIP YIELD



**Summary:** There was a significant yield difference of 7 bu/ac between Manipulator applied at the 5-6 leaf growth stage and untreated check strips. Rainfall was near normal for the month of June but below normal for the remainder of the growing season. There was lodging observed within the untreated check strip at this location. Manipulator reduced plant height by 2.9 inches and there was no significant difference in seed protein content between the two treatments.