

# Wheat Plant Growth Regulator Trial

Trial ID: 2018-WPGR04 – R.M. of Pembina

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

## TRIAL INFORMATION

<b>Treatment</b>	Manipulator vs. Untreated
<b>Rural Municipality</b>	Pembina
<b>Previous Crop</b>	Canola
<b>Soil Texture</b>	Clay Loam
<b>Tillage</b>	Reduced
<b>Seeding Date</b>	May 4, 2018
<b>Variety</b>	Faller
<b>Row Spacing</b>	7.5"
<b>Seeding Rate</b>	150 lbs/ac
<b>Residual N</b>	---
<b>Fertilizer (N-P-K-S)</b>	160-55-10-10
<b>Application Date</b>	June 19, 2018
<b>Application Timing</b>	5-6 leaf stage
<b>Application Rate</b>	0.7 L/ac
<b>Harvest Date</b>	August 23, 2018

## PRECIPITATION<sup>†</sup>

	May	June	July	Aug
<b>Rainfall</b>	59	111	41	38
<b>Normal</b>	55	83	79	65

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

## WHEAT RESPONSE

	Plant Height (inch)	Lodging	Protein
<b>Manipulator</b>	31.9	No	13.1
<b>Untreated</b>	35.6	Yes	13.4

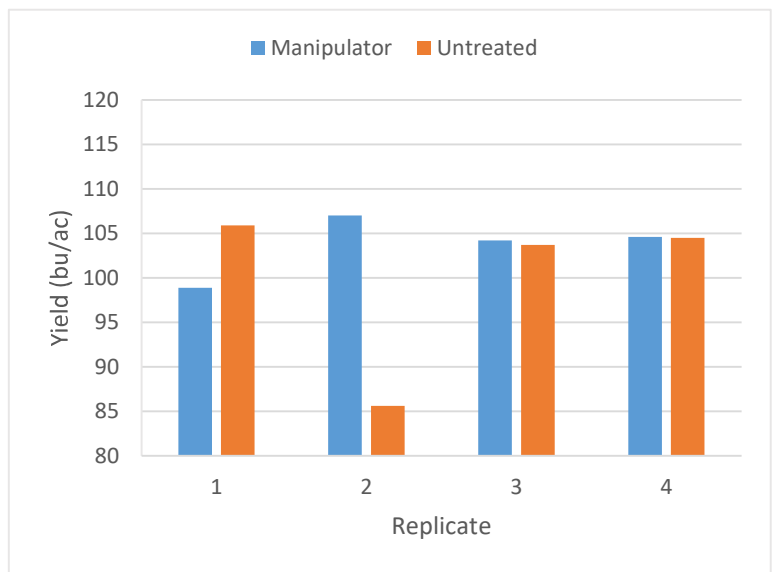
## OVERALL YIELD

	Mean (bu/ac)
<b>Manipulator</b>	103.7
<b>Untreated</b>	99.9
<b>Yield Difference</b>	3.7
<b>P-Value</b>	0.4920
<b>CV</b>	6.8%
<b>Significance</b>	No

## FIELD IMAGE – JULY 25, 2018



## STRIP YIELD



**Summary:** There was no significant yield difference between Manipulator applied at the 5-6 leaf growth stage and untreated check strips. Rainfall was above average for the month of June but below average for the remainder of the growing season. There was lodging observed within the untreated control strips at this location. Manipulator reduced plant height by 3.7 inches and there was no significant difference in seed protein content between the two treatments.