

Wheat Plant Growth Regulator

Trial ID: 2018-WPGR08 – R.M. of Killarney-Turtle Mountain

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	Killarney-Turtle Mountain
Previous Crop	Soybean
Soil Texture	Loam to Clay Loam
Tillage	Reduced
Seeding Date	May 9, 2018
Variety	Brandon
Row Spacing	10"
Seeding Rate	135 lbs/ac
Residual N	---
Fertilizer (N-P-K-S)	170 lbs N – manure
Application Date	June 12, 2018
Application Timing	5-6 leaf stage
Application Rate	0.7 L/ac
Harvest Date	August 20, 2018

FIELD IMAGE – JULY 24, 2018



PRECIPITATION†

	May	June	July	Aug
Rainfall	35	131	29	23
Normal	61	90	68	72

† Growing season precipitation (mm)

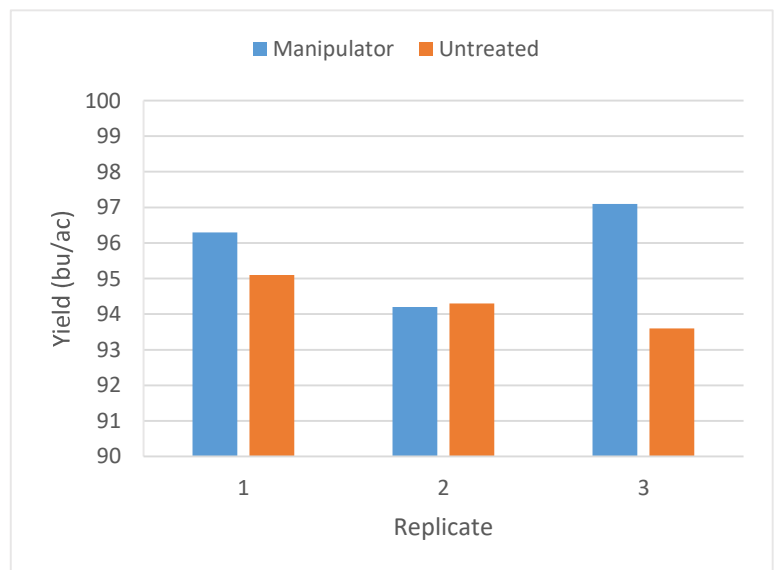
WHEAT RESPONSE

	Plant Height (inch)	Lodging	Protein
Manipulator	33.8	No	14.2
Untreated	35.3	No	14.1

OVERALL YIELD

	Mean (bu/ac)
Manipulator	95.9
Untreated	94.3
Yield Difference	1.5
P-Value	0.1823
CV	1.4%
Significance	No

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 normal for the month of June but below normal for the remainder of the growing season. There was no lodging observed within the trial. Manipulator reduced plant height by 1.5 inches and there was no significant difference in seed protein content between the two treatments.