

Wheat Plant Growth Regulator Trial

Trial ID: 2018-WPGR02 – R.M. of Rhineland

Objective: 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 vs. Untreated
Rural Municipality	Rhineland
Previous Crop	Dry Beans
Soil Texture	Clay Loam
Tillage	Heavy Harrow 1x
Seeding Date	May 2, 2018
Variety	Brandon
Row Spacing	7.5"
Seeding Rate	150 lbs/ac (36 g TKW)
Residual N	---
Fertilizer (N-P-K-S)	120-40-20-0
Application Date	June 12, 2018
Application Timing	5-6 leaf stage (GS 31)
Application Rate	0.7 L/ac
Harvest Date	August 10, 2018

PRECIPITATION[†]

	May	June	July	Aug
Rainfall	34	44	39	42
Normal	56	85	75	66

[†] Growing season precipitation (mm)

WHEAT RESPONSE

	Plant Height (inch)	Lodging	Protein
Manipulator	30.2	No	14.1
Untreated	34.0	Yes	14.5

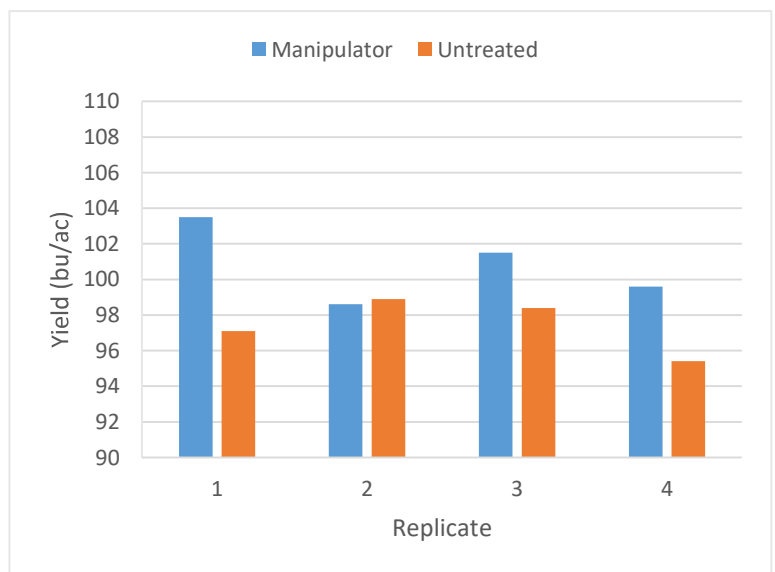
OVERALL YIELD

	Mean (bu/ac)
Manipulator	100.8
Untreated	97.5
Yield Difference	3.3
P-Value	0.0455
CV	2.5%
Significance	Yes

FIELD IMAGE – JULY 28, 2018



STRIP YIELD



Summary: There was a significant yield difference of 3.3 bu/ac between Manipulator applied at the 5-6 leaf growth stage (GS31) and untreated check strips. Rainfall was below average for the entire growing season; however, there was lodging observed in the untreated control strips. Manipulator reduced the plant height by 3.8 inches and there was no significant difference in seed protein content between the two treatments.