

Wheat Plant Growth Regulator Trial

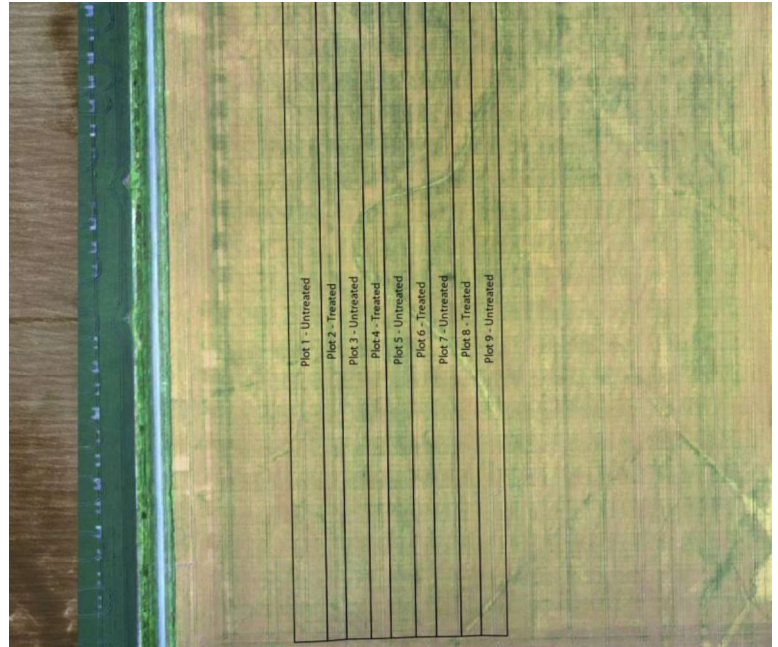
Trial ID: 2018-WPGR10 – R.M. of Macdonald

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	Macdonald
Previous Crop	Soybean
Soil Texture	Clay
Tillage	Reduced
Seeding Date	May 2, 2018
Variety	Ellie
Row Spacing	7.5"
Seeding Rate	132 lbs/ac
Residual N	29 lbs N/ac
Fertilizer (N-P-K-S)	150-45-0-10
Application Date	June 14, 2018
Application Timing	5-6 leaf stage
Application Rate	0.7 L/ac
Harvest Date	August 12, 2018

FIELD IMAGE – JULY 28, 2018



PRECIPITATION†

	May	June	July	Aug
Rainfall	40	81	74	24
Normal	59	92	78	68

† Growing season precipitation (mm)

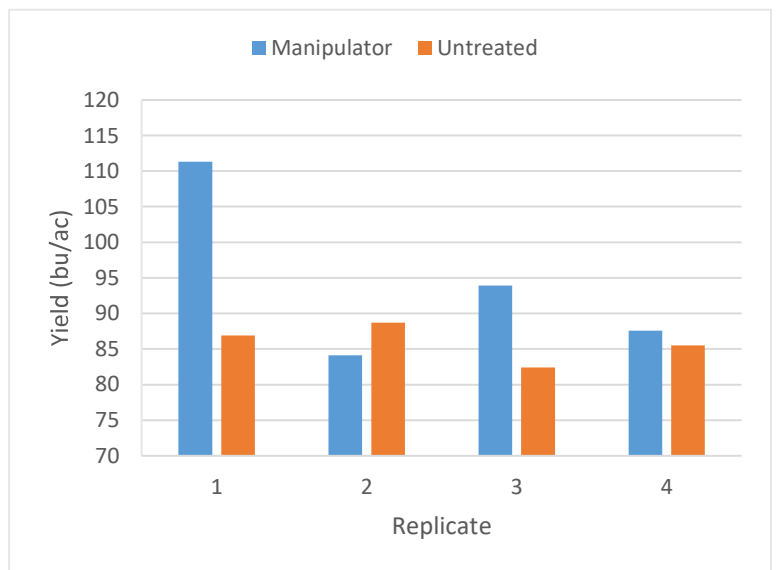
WHEAT RESPONSE

	Plant Height (inch)	Lodging	Protein
Manipulator	25.0	No	15.4
Untreated	28.1	No	15.5

OVERALL YIELD

	Mean (bu/ac)
Manipulator	94.2
Untreated	85.9
Yield Difference	8.3
P-Value	0.2249
CV	10.2%
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. It is unclear why there was such a yield difference observed within the first replicate of this trial. Rainfall was near normal for the June and July and there was no lodging observed within the trial. Manipulator reduced plant height by 3.1 inches and there was no difference in seed protein content between the two treatments.