

Wheat Plant Growth Regulator Trial

Trial ID: 2018-WPGR03 – R.M. of Grey

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 | Grey |
| Previous Crop | Soybean |
| Soil Texture | Clay |
| Tillage | Conventional |
| Seeding Date | April 30, 2018 |
| Variety | Brandon |
| Row Spacing | 7.5" |
| Seeding Rate | 2.2 bu/ac |
| Residual N | --- |
| Fertilizer (N-P-K-S) | 135-40-10-10 |
| Application Date | June 13, 2018 |
| Application Timing | 5-6 leaf stage |
| Application Rate | 0.7 L/ac |
| Harvest Date | August 10, 2018 |

PRECIPITATION[†]

| | May | June | July | Aug |
|-----------------|-----|------|------|-----|
| Rainfall | 29 | 70 | 41 | 22 |
| Normal | 54 | 81 | 66 | 71 |

[†] Growing season precipitation (mm)

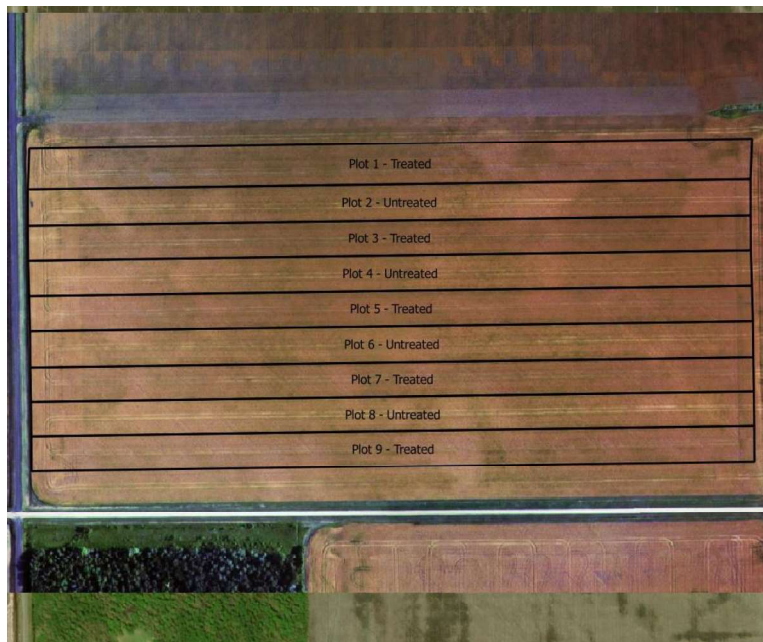
WHEAT RESPONSE

| | Plant Height (inch) | Lodging | Protein |
|--------------------|---------------------|---------|---------|
| Manipulator | 24.8 | No | 13.1 |
| Untreated | 28.7 | No | 13.1 |

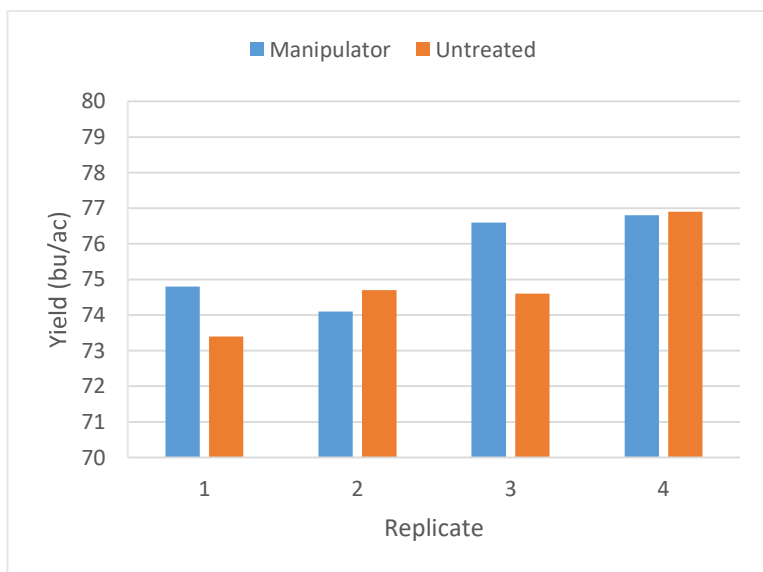
OVERALL YIELD

| | Mean (bu/ac) |
|-------------------------|--------------|
| Manipulator | 75.6 |
| Untreated | 74.9 |
| Yield Difference | 0.7 |
| P-Value | 0.3317 |
| CV | 1.8% |
| Significance | No |

FIELD IMAGE – JULY 28, 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 below normal for the entire growing season and there was no lodging observed within the trial. Manipulator reduced plant height by 3.9 inches and there was no significant difference in seed protein content between the two treatments.