

## Soybean Potassium Trial

Trial ID: 2017-SK13 – R.M. of Alexander

**Objective:** Quantify the agronomic and economic impacts of potassium fertilizer on soybean fields with <150 ppm soil test K in Manitoba. Potash was broadcast and incorporated at 120 lbs/ac K<sub>2</sub>O and compared to untreated check strips.

### TRIAL INFORMATION

<b>Treatment</b>	Broadcast – 120 lbs/ac K <sub>2</sub> O
<b>Rural Municipality</b>	Alexander
<b>Previous Crop</b>	Corn
<b>Soil Description</b>	Shallow Organic Fen Peat
<b>Tillage</b>	Conventional
<b>Planting Date</b>	May 17, 2017
<b>Variety</b>	P006T46R
<b>Row Spacing</b>	10"
<b>Seeding Rate</b>	191,000 seeds/ac
<b>Plant Stand @ V1</b>	166,000 plants/ac
<b>Harvest Date</b>	October 7, 2017

### SOIL PROPERTIES†

<b>Soil Test Sample Timing</b>	Spring
<b>Soil K Level</b>	183 ppm

† Composite soil sample of the trial area before seeding at 0-6" depth

### PRECIPITATION†

	May	June	July	Aug
<b>Rainfall</b>	22.4	51.3	74.8	42.3
<b>Normal</b>	55.0	87.5	87.1	76.3

† Growing season precipitation (mm)

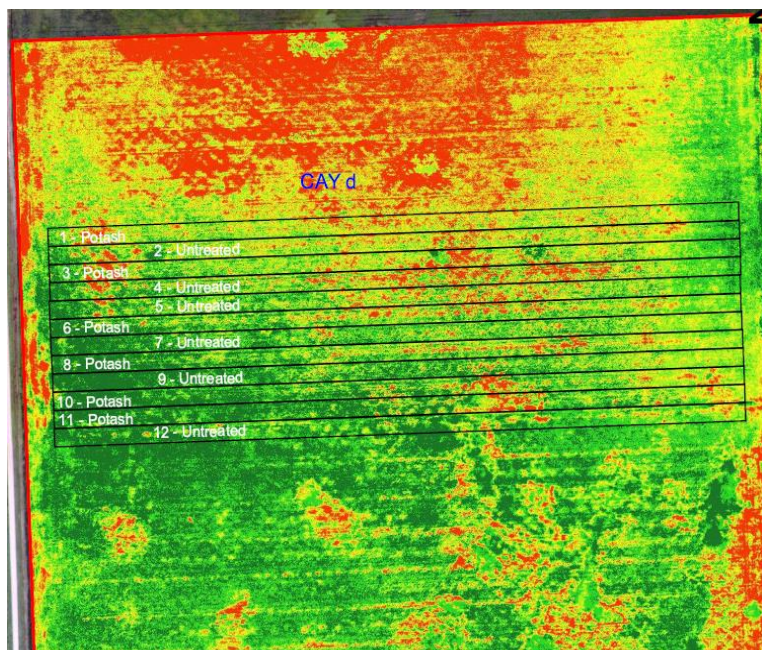
### OVERALL YIELD

	Mean (bu/ac)
<b>Broadcast – 120 lbs/ac Potash</b>	20.4
<b>Untreated</b>	22.1
<b>Yield Difference</b>	-1.7
<b>P-Value</b>	0.0187
<b>CV</b>	7.2%
<b>Significance</b>	Yes

**Summary:** There was a significant yield difference of -1.7 bu/ac for potash fertilizer broadcast and incorporated at 120 lbs/ac K<sub>2</sub>O and untreated check strips. The soil test K level was 183 ppm based on a composite soil sample before seeding. This study is part of a more detailed University of Manitoba small plot study which compares multiple rates and placements of potash fertilizer in soybeans. Potassium fertilization recommendations will not be made until this study is complete in 2018.

MPSG would like to thank Agrium for providing the Potash for this trial.

### FIELD IMAGE – AUG. 29, 2017



### STRIP YIELD

