Soybean Potassium Trial

Trial ID: 2017-SK01 – R.M. of North Norfolk

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_2O and compared to untreated check strips.

TRIAL INFORMATION	
Treatment	Broadcast – 120 lbs/ac K_2O
Rural Municipality	North Norfolk
Previous Crop	Soybean
Soil Description	Sandy Lacustrine
Tillage	Heavy Harrow
Planting Date	May 20, 2017
Variety	Legend Pro 2525
Row Spacing	16”
Seeding Rate	210,000 seeds/ac
Plant Stand @ V1	166,000 plants/ac
Harvest Date	October 11, 2017

SOIL PROPERTIES[ǂ]	
Soil Test Sample Timing	Spring
Soil K Level	130 ppm

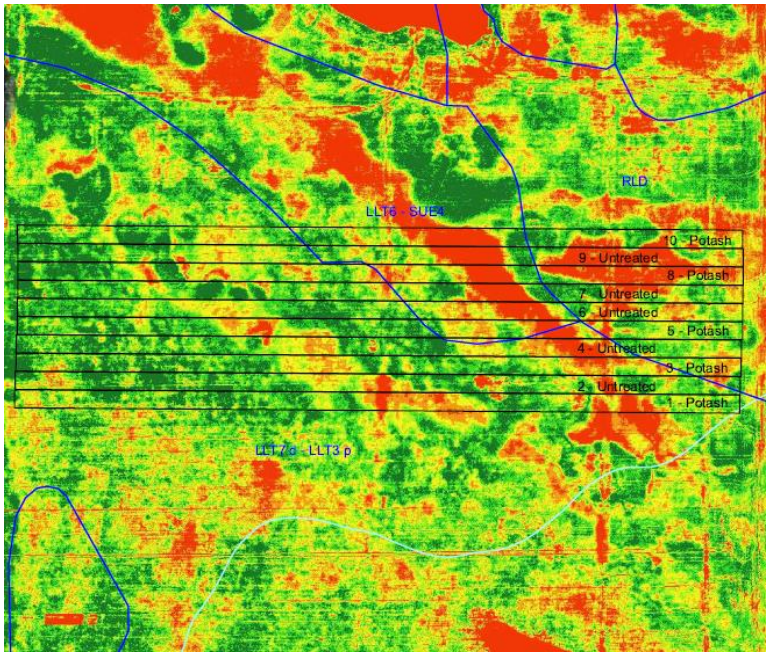
ǂ Composite soil sample of the trial area before seeding at 0-6” depth

PRECIPITATION[ǂ]	May	June	July	Aug
Rainfall	31.7	78.9	34.0	21.8
Normal	57.3	89.4	78.1	65.7

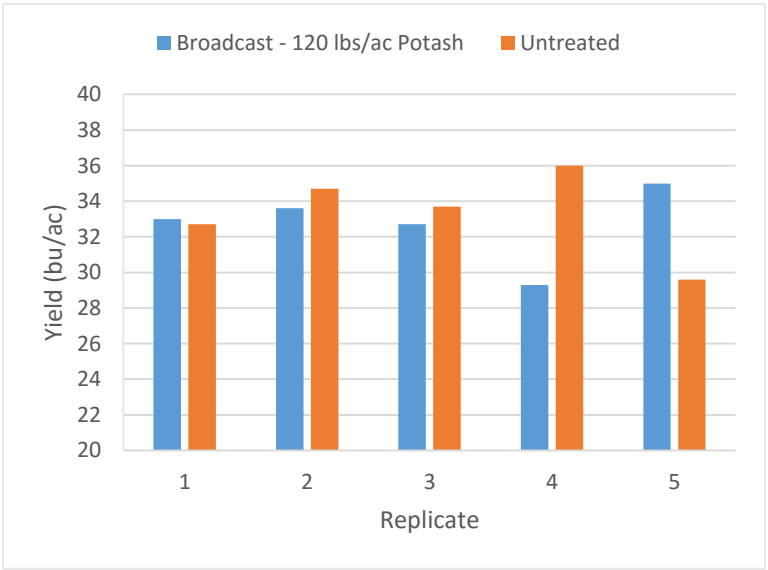
ǂ Growing season precipitation (mm)

OVERALL YIELD	Mean (bu/ac)
Broadcast – 120 lbs/ac Potash	32.7
Untreated	33.3
Yield Difference	-0.6
P-Value	0.7640
CV	6.5%
Significance	**No**

FIELD IMAGE – AUG. 29, 2017



STRIP YIELD



Summary: There was no significant yield difference between potash fertilizer broadcast and incorporated at 120 lbs/ac K_2O and untreated check strips. The soil test K level was 130 ppm based on a composite soil sample before seeding. This study is apart 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.

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