

Soybean Potassium Trial

Trial ID: 2017-SK11 – R.M. of Lac du Bonnet

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 K₂O and compared to untreated check strips.

TRIAL INFORMATION

Treatment	Broadcast – 120 lbs/ac K ₂ O
Rural Municipality	Lac du Bonnet
Previous Crop	Buckwheat
Soil Description	Sandy Loam Lacustrine
Tillage	-
Planting Date	May 29, 2017
Variety	OAC Prudence
Row Spacing	9"
Seeding Rate	300,000 seeds/ac
Plant Stand @ V1	217,000 plants/ac
Harvest Date	October 16, 2017

SOIL PROPERTIES[†]

Soil Test Sample Timing	Spring
Soil K Level	87 ppm

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

PRECIPITATION[†]

	May	June	July	Aug
Rainfall	22.4	51.3	74.8	42.3
Normal	64.5	98.8	89.1	65.3

[†] Growing season precipitation (mm)

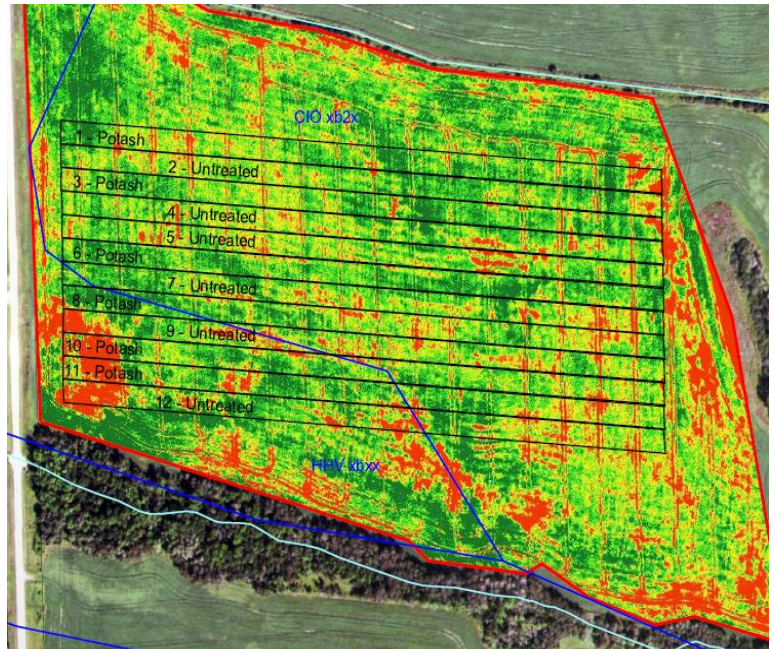
OVERALL YIELD

	Mean (bu/ac)
Broadcast – 120 lbs/ac Potash	19.4
Untreated	17.7
Yield Difference	1.7
P-Value	0.0167
CV	7.4%
Significance	Yes

Summary: There was a significant yield difference of 1.8 bu/ac for potash fertilizer broadcast and incorporated at 120 lbs/ac K₂O compared to untreated check strips. The soil test K level was 87 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.

FIELD IMAGE – AUG. 20, 2017



STRIP YIELD

