

Soybean Potassium Trial

Trial ID: 2017-SK09 – R.M. of Portage la Prairie

Objective: Quantify the agronomic and economic impacts of potassium fertilizer on soybean fields with <150 ppm soil test K in Manitoba. Potash was pre-plant banded at 60 lbs/ac K₂O and compared to untreated check strips.

TRIAL INFORMATION

Treatment	Pre-plant Band - 60 lbs/ac K ₂ O
Rural Municipality	Portage la Prairie
Previous Crop	Fall Rye
Soil Description	Sandy Lacustrine
Tillage	Conventional
Planting Date	May 11, 2017
Variety	Legend 003R234
Row Spacing	7.5"
Seeding Rate	154,500 seeds/ac
Plant Stand @ V1	145,000 plants/ac
Harvest Date	September 29, 2017

SOIL PROPERTIES[†]

Soil Test Sample Timing	Spring
Soil K Level	78 ppm

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

PRECIPITATION[†]

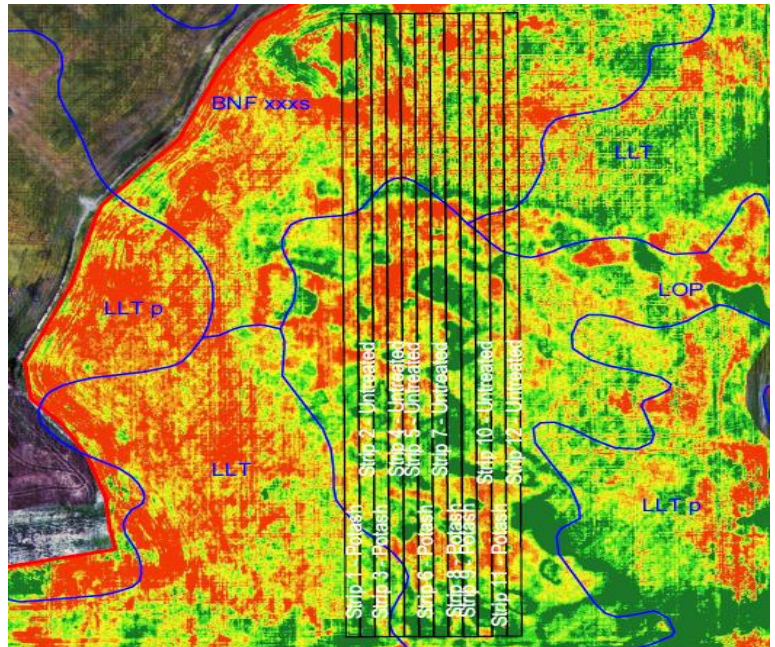
	May	June	July	Aug
Rainfall	26.9	69.9	29.6	8.9
Normal	54.4	90.0	78.4	68.3

[†] Growing season precipitation (mm)

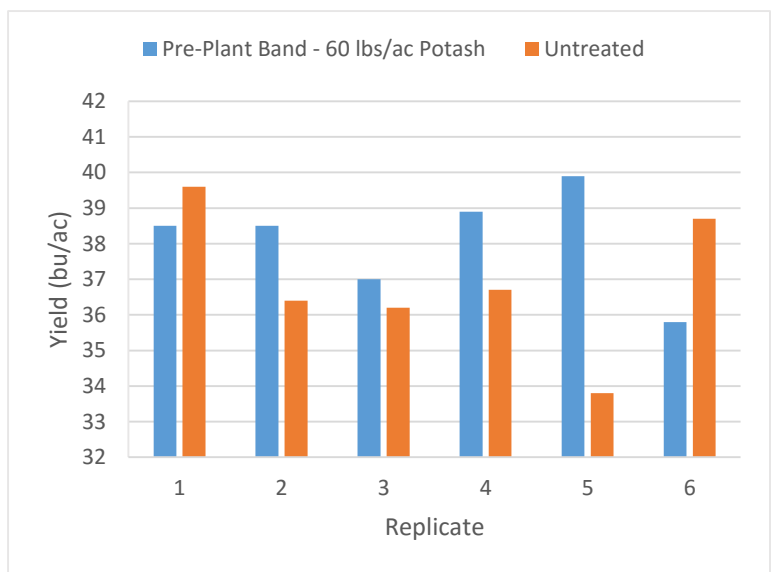
OVERALL YIELD

	Mean (bu/ac)
Pre-plant Band - 60 lbs/ac Potash	38.1
Untreated	36.9
Yield Difference	1.2
P-Value	0.3867
CV	4.8%
Significance	No

FIELD IMAGE – AUG. 29, 2017



STRIP YIELD



Summary: There was no significant yield difference between potash fertilizer pre-plant banded at 60 lbs/ac K₂O and untreated check strips. The soil test K level was 78 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.