

Soybean Potassium Trial

Trial ID: 2017-SK15 – R.M. of Dauphin

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

TRIAL INFORMATION

Treatment	Mid Row Band – 60 lbs/ac K ₂ O
Rural Municipality	Dauphin
Previous Crop	Soybeans
Soil Description	Calcareous Loamy Till
Tillage	Heavy Harrow
Planting Date	May 24, 2017
Variety	Akras R2
Row Spacing	10"
Seeding Rate	210,000 seeds/ac
Plant Stand @ V1	146,000 plants/ac
Harvest Date	October 13, 2017

SOIL PROPERTIES[†]

Soil Test Sample Timing	Spring
Soil K Level	139 ppm

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

PRECIPITATION[†]

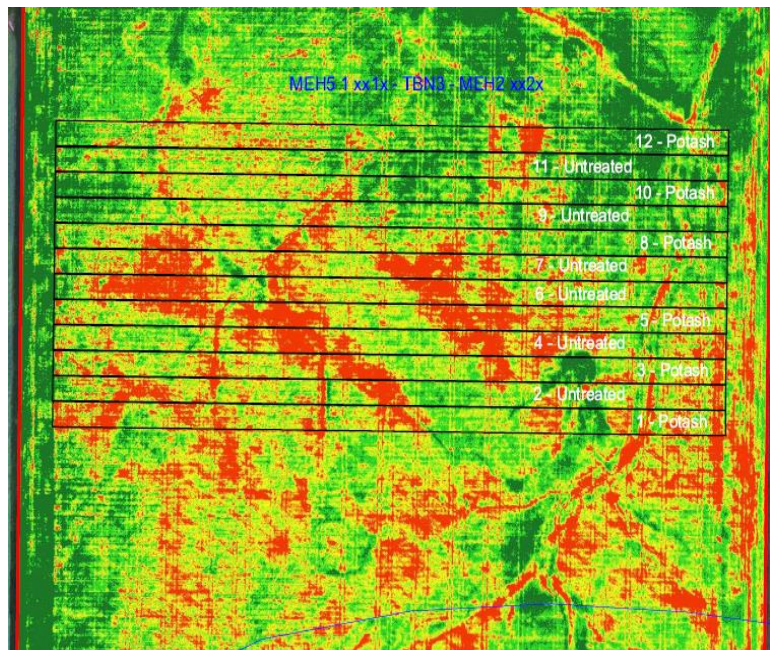
	May	June	July	Aug
Rainfall	47.6	65.8	90.6	19.3
Normal	52.9	81.7	73.1	61.3

[†] Growing season precipitation (mm)

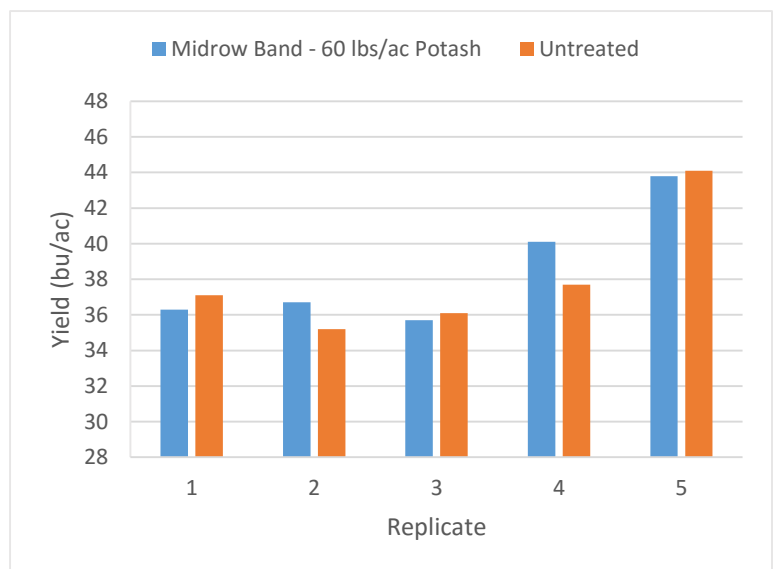
OVERALL YIELD

	Mean (bu/ac)
Midrow Band – 60 lbs/ac Potash	38.5
Untreated	38.0
Yield Difference	0.5
P-Value	0.4836
CV	8.6%
Significance	No

FIELD IMAGE – AUG. 16, 2017



STRIP YIELD



Summary: There was no significant yield difference between potash fertilizer mid row banded at 60 lbs/ac K₂O and untreated check strips. The soil test K level was 139 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.