

Soybean Potassium Trial

Trial ID: 2017-SK06 – R.M. of Two Borders

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	Two Borders
Previous Crop	Soybeans
Soil Description	Loamy Lacustrine
Tillage	Minimum Till
Planting Date	May 14, 2017
Variety	S007-Y4
Row Spacing	10"
Seeding Rate	200,000 seeds/ac
Plant Stand @ V1	157,000 plants/ac
Harvest Date	September 20, 2017

SOIL PROPERTIES†

Soil Test Sample Timing	Spring
Soil K Level	155 ppm

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

PRECIPITATION†

	May	June	July	Aug
Rainfall	10.7	79.2	8.9	37.7
Normal	51.1	77.7	70.4	51.6

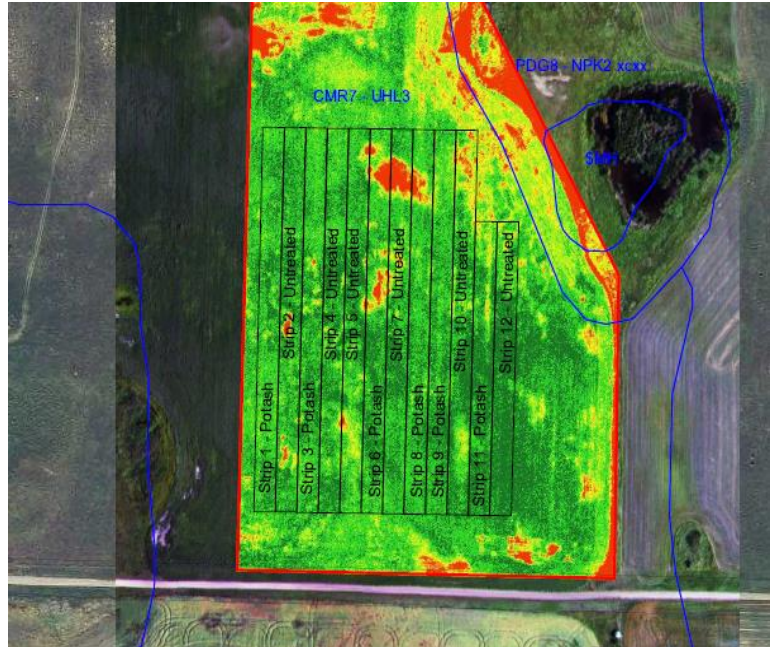
† Growing season precipitation (mm)

OVERALL YIELD

	Mean (bu/ac)
Broadcast – 120 lbs/ac Potash	47.5
Untreated	45.3
Yield Difference	2.2
P-Value	0.0428
CV	4.6%
Significance	Yes

Summary: There was a significant yield difference of 2.2 bu/ac for potash fertilizer broadcast and incorporated at 120 lbs/ac K₂O compared to untreated check strips. The soil test K level was 155 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.

FIELD IMAGE – AUG. 18, 2017



STRIP YIELD

