

Soybean Potassium Fertility Trial

Trial ID: 2018-SK04 – R.M. of Rockwood

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

TRIAL INFORMATION

Treatment	Band application – 60 lbs K ₂ O/ac
Rural Municipality	Rockwood
Previous Crop	Corn
Soil Description	Very Fine Sandy Loam
Tillage	Reduced
Planting Date	May 22, 2018
Variety	S007-Y4
Row Spacing	10"
Seeding Rate	185,000 seeds/ac
Plant Stand @ V1	172,000 plants/ac
Harvest Date	October 1, 2018

SOIL PROPERTIES[†]

Soil Test Sample Timing	Spring
Soil K Level	216 ppm

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

PRECIPITATION[†]

	May	June	July	Aug
Rainfall	47	90	90	77
Normal	54	92	66	63

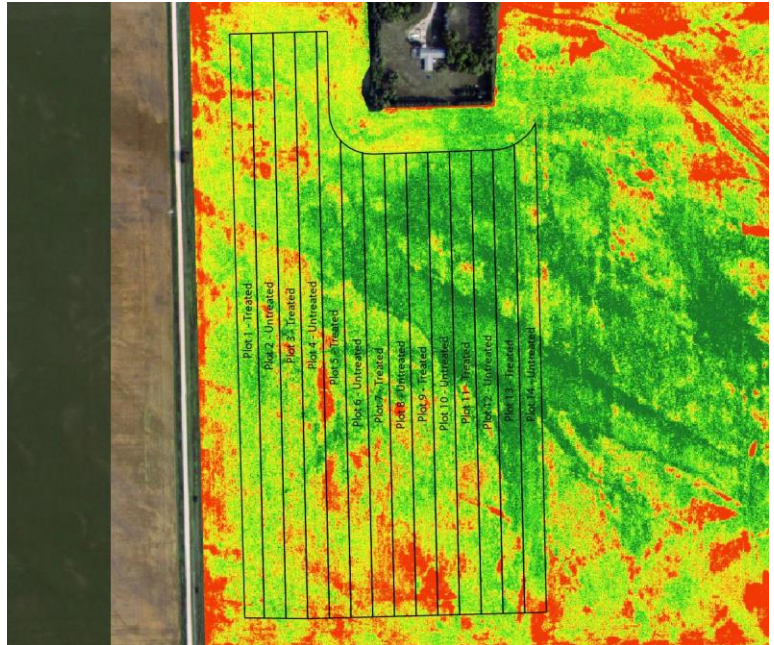
[†] Growing season precipitation (mm)

OVERALL YIELD

	Mean (bu/ac)
Broadcast – 120 lbs/ac Potash	43.5
Untreated	43.6
Yield Difference	-0.1
P-Value	0.8629
CV	5.5%
Significance	No

Summary: There was no significant yield difference observed for a band application of potash applied at seeding compared to an untreated check when assessed on a full strip basis. A spring composite soils sample of the trial area resulted in a soil K level of 216 ppm; higher than the target of <150 ppm soil test K. A fall zone soil sample resulted in a soil test K <150 ppm in one zone. A spatial analysis of the data is recommended to determine if there is a response to potash by soil zone.

NDVI FIELD IMAGE – AUGUST 13, 2018



STRIP YIELD

