

Soybean Row Spacing Trial

Trial ID: 2020_SRS01 – R.M. of Ste. Anne

Objective: Quantify the agronomic and economic impacts of different row spacings on soybean production

Summary: There was no significant yield difference between 15" spacing, at regular or high population, and 30" spacing. As a result, profit decreased by the extra cost of seed for the high population treatment. Canopy closure was significantly greater in the 15" (high pop) treatment than the 30" treatment at R1 and R5. At R3, canopy closure was not significantly different between treatments.

Trial Information†

Treatment	15" vs 15" (high pop) vs 30"
Soil Texture	Clay
Previous Crop	Wheat
Tillage	Conventional
Seeding Equipment	40 ft Planter
Seeding Date	May 22
Variety	Astro R2
Seeding Rate	160 000 seeds/ac
Harvest Date	September 25

† Trial included a 15" high population treatment, with an additional 25,000 seeds/ac (i.e. seedings rate of high pop treatment was 185,000 seeds/ac)

Precipitation (mm)

	May	June	July	August
Normal	58.1	91.3	80.1	66.1
Rainfall	14.2	60	91.5	81.7

Plant Stand (plants/ac)

	V1	R7
15"	153,000	137,000
15" (high pop)	152,500	138,000
30"	132,500	123,000

% Canopy Closure†

	R1	R3	R5
15"	57% AB	76% A	85% AB
15" High Pop	70% A	81% A	86% A
30"	53% B	73% A	79% B

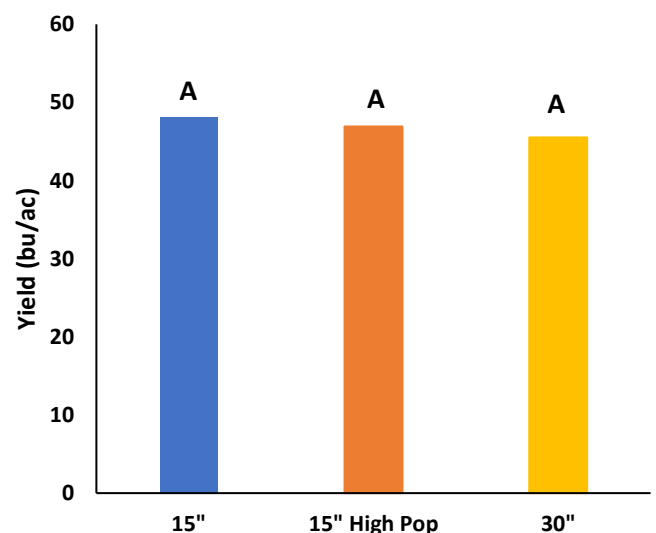
† Closure percentages in columns followed by different letters are significantly different from one another

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NDVI Field Image August 17



Yield by Treatment





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Overall Yield & Economics

	Mean (bu/ac)	Change in Profit/ac †
15"	48.1	
15" @ high seed rate	46.9	-\$12/ac
30"	45.5	
P-Value	0.1083	
CV	3.6%	
Significance	No	Economic No

† Does not account for any equipment/operating cost differences between spacings; loss reflects difference in seed cost (from MB Agriculture Cost of Production (\$66.50/unit)) between the standard 160,000 seeds/ac seeding rate and the 185,000 seeds/ac high seeding rate