

Soybean Seeding Equipment Trial

Trial ID: 2025-SSE01 – R.M. of St. Andrews

Objective: Quantify the agronomic and economic impacts of different row spacings planted by different seeding equipment on soybean production.

Summary: There was no significant yield difference between 10" row spacing done with an air seeder and 30" row spacing done with a planter. At R1, R3 and R5 canopy closure in the 10" spacing was significantly greater than in the 30" spacing. Weed pressure was assessed at R5, and the 30" spacing had significantly more weeds than the 10" spacing. Disease pressure was assessed at R5 and again at R6, and there were no significant differences between the two spacings.

Trial Information

Treatments	Air seeder on 10" rows vs. Planter on 30" rows
Soil Texture	Clay
Previous Crop	Wheat
Tillage	Conventional Tillage
Seeding Equipment	Borugault 3820/1775 NY John Deere
Seeding Date	5/11/2025
Variety (maturity)	P004Z87E (00.4)
Seeding Rate	160,000 seeds/ac
Harvest Date	9/29/2025

Precipitation (mm)

	May	June	July	Aug	Total
Rainfall	23.5	29.8	29.1	116.8	199.2
Normal	64.02	94	83.76	79.33	321.11
% Norm	37%	32%	35%	147%	62%

Plant Stand (plants/ac) †

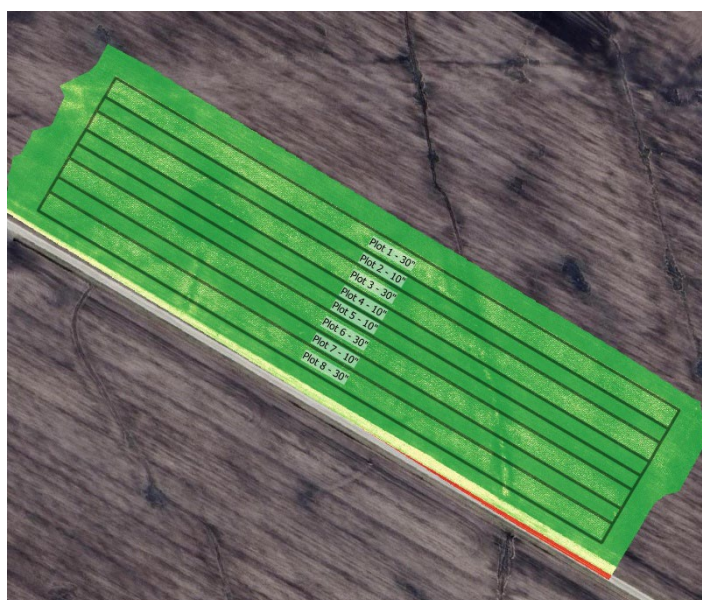
	R1	R5
10"	140,125	143,625
30"	145,625	146,500

% Canopy Closure †

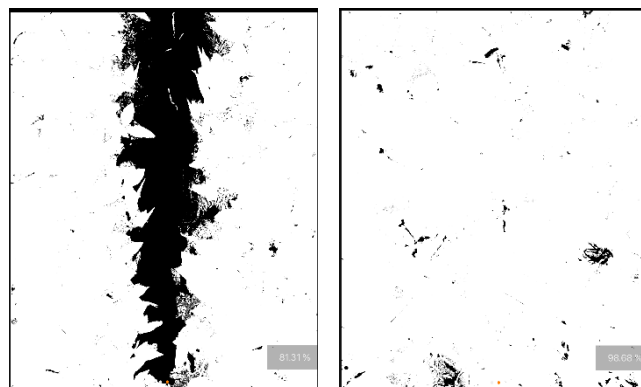
	R1	R3	R5
10"	65.6 A	86.4 A	98.6 A
30"	52.4 B	69.8 B	84.3 B

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

NDVI Field Image August 13



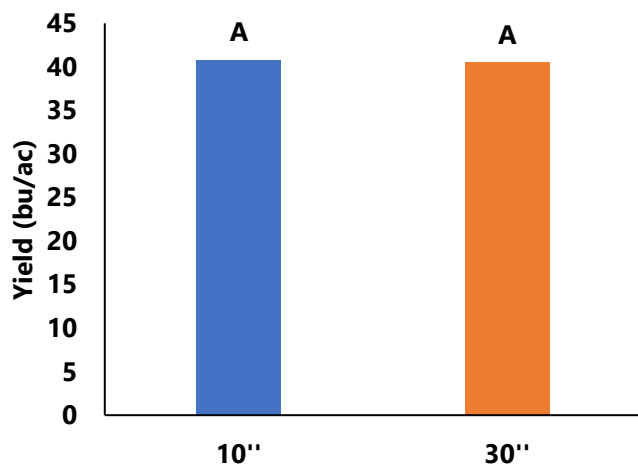
Canopy Closure Images



Canopeo app measurements of 30" row spacing (left) and 10" row spacing (right) canopy closure at R5.

Soybean Row Spacing Trial

Yield by Treatment



Overall Yield & Economics[†]

	Mean (bu/ac) ^{††}	Change in Profit/ac [†]
10"	40.8	n/a
30"	40.5	n/a
Yield	-0.3	
P-Value	3%	
CV	0.7781	
Significance	No	Economic N/A

[†] Economics of how different row widths are achieved in the field are very farm and equipment specific. As a result, they are not estimated here.

Summary of First Disease Rating (R5)[†]

	Incidence (% plants infected)			
	Septoria	Frog Eye	White Mould	Bacterial Blight
10"	93 (1.9)	8	60 (0.7)	95
30"	100 (2.0)	15	50 (0.5)	97

[†] Septoria brown spot and white mould severity, listed in brackets, were rated on a 0-5 scale.

Late Season Weed Pressure (R5)[†]

	Average Number of Weeds/ft ²
10"	4.8 B
30"	21.5 A

[†] Higher late season weed pressure in the 30" spacing compared to the 10" row spacing.

Summary of Second Disease Rating (R6)[†]

	Incidence (% plants infected)					
	Septoria	Frog Eye	Downy Mildew	White Mould	Bacterial Blight	Powdery Mildew
15"	100 (2.4)	10	0	55 (2.4)	82.5	5 (0.08)
30"	100 (2.47)	12.5	2.5 (0.02)	35 (2.47)	90	5 (0.05)

[†] Septoria brown spot, white mould, powdery mildew, and downy mildew severity, listed in brackets, were rated on a 0-5 scale.