



# Sunflower Planting Rate Trial

**Objective:** The purpose of this project is to quantify the agronomic and economic impacts of reducing and increasing normal planting rate in sunflowers.

**Summary:** One site-year of oil-seed sunflowers (Table 1) and one site-year of confection sunflowers (Table 2) showed a significant yield difference between the three planting rates.

**Table 1: Oil-seed Sunflower Single Site Analysis**

Trial ID	Rural Municipality	Seed Rate (check) seeds/ac	Plant Stand @ V2			Yield			CV %	P-Value	Statistically Significant @ 95%
			Low Seed Rate	Check Seed Rate	High Seed Rate	Low Seed Rate	Check Seed Rate	High Seed Rate			
			seeds/ac			lbs/ac					
2021-SFLP01	De Salaberry	22,000	18,000 <sup>A</sup>	23,250 <sup>B</sup>	25,000 <sup>C</sup>	2,170	1,910	2,143	14.04	0.4333	No
2021-SFLP02	Brokenhead	23,000	21,250	23,250	23,500	3,293	3,305	3,305	1.75	0.9463	No
2021-SFLP03	Stuartburn	25,000	17,500 <sup>A</sup>	19,750 <sup>B</sup>	19,250 <sup>AB</sup>	2,516 <sup>B</sup>	2,870 <sup>A</sup>	2,812 <sup>A</sup>	4.53	0.0141	Yes
2021-SFLP04	Ritchot	25,000	24,500 <sup>A</sup>	26,000 <sup>A</sup>	29,500 <sup>B</sup>	2,058	1,981	1,995	5.29	0.5854	No
2021-SFLP05	Thompson	22,000	19,500	20,750	21,750	1,498	1,613	1,571	7.16	0.3958	No
2021-SFLP08	St. Andrews	23,000	22,250	24,500	25,500	1,191	1,220	1,222	6.57	0.8378	No

**Table 2: Confection Sunflower Single Site Analysis**

Trial ID	Rural Municipality	Seed Rate (check) seeds/ac	Plant Stand @ V2			Yield			CV %	P-Value	Statistically Significant @ 95%
			Low Seed Rate	Check Seed Rate	High Seed Rate	Low Seed Rate	Check Seed Rate	High Seed Rate			
			seeds/ac			lbs/ac					
2021-SFLP06	Emerson-Franklin	18,000	14,000 <sup>A</sup>	16,500 <sup>AB</sup>	18,000 <sup>B</sup>	3,156	2,912	3,039	7.09	0.6089	No
2021-SFLP07	North Norfolk	16,500	10,500 <sup>A</sup>	11,000 <sup>AB</sup>	15,500 <sup>B</sup>	2,768 <sup>B</sup>	2,796 <sup>B</sup>	3,058 <sup>A</sup>	4.66	0.0405	Yes

**Table 3: Economic Analysis**

Trial ID	Seed Rate (check)	Seed Cost/Acre			Yield			Net Profit/Acre (Seed Costs)			CV %	P-Value	Statistically Significant @ 95%
		Low Seed Rate	Check Seed Rate	High Seed Rate	Low Seed Rate	Check Seed Rate	High Seed Rate	Low Seed Rate	Check Seed Rate	High Seed Rate			
		\$/ac			lbs/ac			\$/ac					
2021-SFLP03	25,000	\$ 43.45	\$ 49.37	\$ 55.30	2,516	2,870	2,812	\$1,063.59	\$1,213.43	\$1,181.98	4.53	0.0141	Yes

Indicates Statistical Difference at 95% confidence interval

Median Seed Cost of \$395/bag  
Sunflower Price (Nov 2021) - \$0.44/lb



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