

On-Farm Comparison Results

- BRT Farms

Nebraska Soybean & Feed Grains Profitability Project

Year: 2001, 2003-2004

Title: Non-Irrigated Corn Plant Population

Crop: Corn

NSFGPP Operator: Bob Bartek, BRT Farms, Saunders County

Private Industry Cooperator: Ed Penas

Objective: To determine and document the effect of plant population on the profitability of non-irrigated corn production

Treatments: Plant one hybrid at two different densities
(2001- Low @ 21,300 and High @ 26,650 seeds/acre)
(2003- Low @ 21,000 and High @ 26,000 seeds/acre)
(2004- Low @ 21,300 and High @ 26,700 seeds/acre)

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Results:

	<u>Variable</u>	<u>Low Pop.</u>	<u>High Pop.</u>	<u>Prob >/T/</u>
2001	Yield, bu/ac at 15.5%	121	120	0.312 ns
	Moisture, %	15.2	15.2	0.811 ns
	Plants, 1000 /ac	17.3	22.0	0.0001 ***
	Seed Cost/ac (LG2610BT)	\$26.93	\$33.65	

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	<u>Variable</u>	<u>Low Pop.</u>	<u>High Pop.</u>	<u>Prob >/T/</u>
2003	Yield, bu/ac at 15.5%	148	145	0.424 ns
	Moisture, %	15.9	15.2	0.004 ***
	Test Wt, lbs/bu	56.4	56.3	0.922 ns
	Plants, 1000 /ac	19.5	25.6	<0.0001 ***
	Seed Cost/ac			
	(LGEX60-700BT)	\$21.26	\$26.33	

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	<u>Variable</u>	<u>Low Pop.</u>	<u>High Pop.</u>	<u>Prob >/T/</u>
2004	Yield, bu/ac at 15.5%	170	181	0.070 *
	Moisture, %	14.1	14.1	0.847 ns
	Test Wt, lbs/bu	57.8	58.6	0.144 ns
	Plants, 1000 /ac	19.7	25.3	0.0035 ***
	Seed Cost/ac	\$25.76	\$32.17	-----
	(LG2587 CL Poncho 250)			

Summary: In 2001, plant population had no effect on grain yield or grain moisture at harvest. In 2003, higher planting rate did not affect yield; however, grain moisture was lower at harvest. Grain yield was increased by higher planting rate in 2004.