

Study ID: 401155201603

County: Saunders

Soil Type: Judson silt loam; Aksarben silty clay

loam

Planting Date: 5/15/16 Harvest Date: 10/3/16 Row Spacing (in): 30 Hybrid: NK S30-C1

Reps: 4

Previous Crop: Corn

Tillage: Field Cultivator, May 3

Herbicides: *Pre:* BroadAxe®, 2,4-D, and Roundup® on 5/7/16 *Post:* 37 oz/acre Flexstar® GT, 32 oz/acre Warrant®, 6.2 oz/acre Volunteer, and 20 oz/acre

Class Act® on 6/14/16

Seed Treatment: CruiserMaxx® Vibrance®

Foliar Insecticides: None Foliar Fungicides: None

Fertilizer: None Irrigation: None Rainfall (in):



Introduction: Previous on-farm research has demonstrated that planting rates of 80,000 to 120,000 seeds/acre generally result in the highest profitability. The purpose of this study was to determine the most profitable soybean seeding rate. The populations chosen in this study are common to growers in the area. Soybeans were planted in 30" rows on May 15, 2016.

Results:

	Early Season	% of Planted	Harvest	% of Planted	Yield	Marginal
	Stand Count	Seeds	Stand	Seeds Present	(bu/ac)†	Net Return‡
	(June 8, 2016)	Emerged	Count	at Harvest		(\$/ac)
90,000 seeds/ac	74,250 D*	83 A	73,500 D	82 A	74.3 B	645.93
120,000 seeds/ac	99,750 C	83 A	90,750 C	76 AB	75.6 AB	651.57
150,000 seeds/ac	129,250 B	86 A	110,500 B	74 B	75.0 AB	629.46
180,000 seeds/ac	153,167 A	85 A	137,000 A	76 AB	76.2 A	625.86
P-Value	<0.0001	0.384	<0.0001	0.115	0.0669	N/A

^{*}Values with the same letter are not significantly different at a 90% confidence level.

Summary: Planting 90,000, 120,000 or 150,000 seeds/acre resulted in the same yield as did planting at 120,000, 150,000 or 180,000 seeds/acre. However, planting 180,000 seeds/acre resulted in higher yields than 90,000 seeds/acre. Based on the cost of seed, planting 120,000 seeds per acre rate maximized net returns.

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[†]Bushels per acre corrected to 13% moisture.

[‡]Marginal net return based on \$9.25/bu soybean and \$60/unit seed cost (140,000 seeds/unit).