

Irrigated Soybean Population Study

Study ID: 0153101201903

County: Keith

Soil Type: Satanta loam 3-6% slopes; Satanta-Dix complex 3-9% slopes

Planting Date: 6/4/19

Harvest Date: 10/15/19

Row Spacing (in): 30

Variety: Pioneer® P23A32X

Reps: 4

Previous Crop: Corn

Tillage: No-Till

Herbicides: Pre: 32 oz/ac Roundup®, 8 oz/ac 2,4-D

Post: 32 oz/ac Roundup® and 15 oz/ac Authority®; 32 oz/ac Roundup® and 10 oz/ac Select Max®

Seed Treatment: Gaucho® insecticide and Lumisena™ fungicide

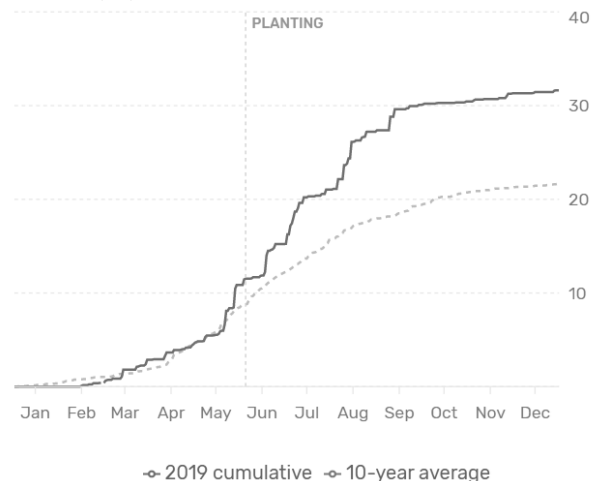
Foliar Insecticides: None

Foliar Fungicides: None

Fertilizer: None

Irrigation: Pivot, Total: 6.2"

Rainfall (in):



Introduction: Previous on-farm research has demonstrated that soybean planting rates of 80,000 to 120,000 seeds/ac resulted in the highest profitability. The purpose of this study was to evaluate five seeding rates to determine the seeding rate that maximized yield and profit. The target seeding rates were 80,000, 100,000, 120,000 150,000, and 180,000 seeds/ac.

Results:

	Yield (bu/ac)†	Marginal Net Return‡ (\$/ac)
80,000 seeds/acre	26 C*	176.20 A
100,000 seeds/acre	27 C	171.61 A
120,000 seeds/acre	27 BC	169.30 A
150,000 seeds/acre	29 AB	170.05 A
180,000 seeds/acre	31 A	174.84 A
P-Value	0.0004	0.828

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

†Yield values are from cleaned yield monitor data. Bushels per acre adjusted to 13% moisture.

‡Marginal net return based on \$8.10/bu soybean and \$60/140,000 seeds.

Summary:

- In this study, the 150,000 and 180,000 seeds/ac treatments had the highest yield. Actual stand counts are not available to confirm if target seeding rates were achieved.
- Yields at this site were limited due to hail.
- There was no difference in marginal net return between the seeding rates evaluated.

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