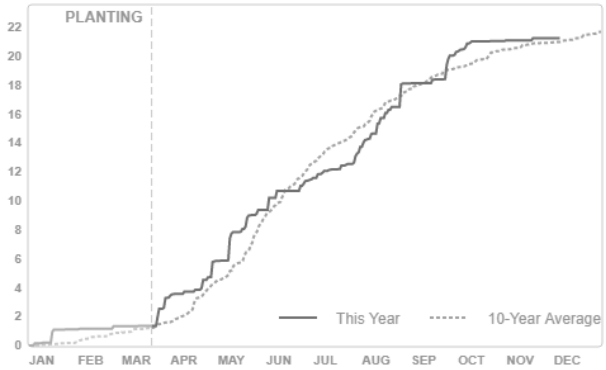
Irrigated Field Pea Seeding Rate

Study ID: 707057201701
County: Dundy
Soil Type: Valent sand 3-9% slopes; Overlake sand 0-3% slope
Planting Date: 3/20/17
Harvest Date: 7/10/17
Row Spacing (in): 7.5
Variety: SW Midas - bin run
Reps: 3
Previous Crop: Double Cropped Field Peas and Cane
Tillage: No-Till
Seed Treatment: None

Irrigation: Pivot, Total: 5"
Rainfall (in):



Introduction: The purpose of this study was to evaluate two seeding rates for field pea production. Because the grower was using bin run seed rather than certified seed, he was interested in seeding at a higher rate. The 2.8 bu/ac seeding rate was established by drilling once with a 7.5" drill. The 5.6 bu/ac seeding rate was established by drilling twice in a diamond pattern.

Results:

	Germination Rate (%)	Early Season Stand Count (plants/ac)	Moisture (%)	Yield (bu/acre)†	Marginal Net Return‡ ($/ac)
2.8 bu/ac	82% A*	285,754 B	11.7 A	47 B	243.12 B
5.6 bu/ac	76% A	534,336 A	11.7 A	55 A	295.25 A
P-Value	0.176	0.009	0.852	0.094	0.066

*Values with the same letter are not significantly different at a 90% confidence level.
†Bushels per acre corrected to 12% moisture.
‡Marginal net return based on $6.40/bu field pea selling price, $7/bu bin run seed cost, $17.17/acre for one planting pass, and $34.34 for two planting passes.

Summary:

- There was no difference in germination rate for the 2.8 and 5.6 bu/ac seeding rate as determined by early season stand counts.
- There was no moisture difference between the two treatments.
- Yield was 8 bu/ac higher for the 5.6 bu/ac double planted treatment.
- Net return was higher for the 5.6 bu/ac double planted treatment.
- If a grower is using certified seed, doubling the seeding rate to 5.8 bu/ac may not be economically justified as certified seed costs are around $15/bu.
- The grower noted better weed control in the 5.8 bu/ac treatment.

Sponsored by: University of Nebraska Lincoln; Nebraska Corn Board; Nebraska Soybean Checkoff

In Partnership with: Nebraska Corn Growers Association; Nebraska Dry Bean Commission