



Nebraska On-Farm Research Network

TWO PLANT POPULATIONS UNDER IRRIGATION

Study ID: 053155199101

Saunders County

1991

Objective: To determine and document the effect on profitability of a reduced plant population versus a conventional plant population for the Hobbit87 soybean variety under irrigation.

LOW POPULATION

Treatment:

Stalk shredding

Early preplant application of 1.5 pints Dual, 0.5 pound Sencor DF and 0.75 pint 2,4-D ester

Planting: Hobbit87, population based on recommendation of 150,000 plants per acre, actual planting rate of 52 pounds per acre; banded application of 0.16 pound Sencor DF and 0.5 pint Dual (broadcast rates)

Cultivation

Irrigation

Costs:

Seed \$ 9.88

Comparative cost \$ 9.88

HIGH POPULATION

Treatment:

Stalk shredding

Early preplant application of 1.5 pints Dual, 0.5 pound Sencor DF and 0.75 pint 2,4-D ester

Planting: Hobbit87, population based on recommendation of 225,000 plants per acre, actual planting rate of 78 pounds per acre; banded application of 0.16 pound Sencor DF and 0.5 pint Dual (broadcast rates)

Cultivation

Irrigation

Costs:

Seed \$ 14.82

Comparative cost \$ 14.82

Nebraska Soybean & Feed Grains Profitability Project



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RESULTS:

Early population		
Low population	120000	* *
High population	160000	
Final population		
Low population	98000	* *
High population	141000	
Population loss		
Low population	17.0%	
High population	11.3%	
Plant height		
Low population	19.5"	
High population	20.8"	
Pod height		
Low population	4.8"	
High population	5.1"	
Moisture		
Low population	9.2%	
High population	9.1%	
Sample weight		
Low population	57.2	
High population	57.5	
Yield(13%)		
Low population	58.8	
High population	59.0	

* - significantly different at 95 % confidence level

* * - significantly different at 99% confidence level

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