Nebraska On-Farm Research Network

No-Tillage vs. Conventional-Tillage in Soybeans
Study ID: 120155199101
County: Saunders
Year: 1991

Objective: To determine and document the effect on profitability of a no-till system versus a conventional till system.

NO-TILLAGE		CONVENTIONAL-TI LLAGE	
Treatment:		Treatment:	
Early preplant application of 1.5 pints Prowl, 0.33 pound Sencor DF, 1 pint 2,4-D ester and crop oil		Discing	
Planting: application of 1 pint Prowl and 0.26 pound Sencor DF		Field cultivation: incorporation of 2 pints Prowl, 0.33 pint Scepter and 0.6 pint Command	
Rouging		Field cultivation	
		Planting	
		Cultivation	
		Rouging	
Costs:		Costs:	
Herbicide	$ 22.08	Herbicide	$ 18.40
Operations	42.90	Operations	56.21
Comparative cost	$ 64.98	Comparative cost	$ 74.61

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ON-FARM RESEARCH COMPARISON RESULTS

VARIABLE	1991
Early population	
No- till	164000 *
Conventional-till	155000
Final population	
No-till	141000
Conventional-till	141000
Population loss	
No-till	12.3%
Conventional-till	8.2%
Plant height	
No-till	35.3”
Conventional-till	34.6”
Pod height	
No-till	5.2”
Conventional-till	5.0”
Moisture	
No-till	18.6%
Conventional-till	18.9%
Sample weight	
No-till	55.3
Conventional-till	54.7
Yield (13%)	
No-till	40.2
Conventional-till	40.1

* significantly different at 95% confidence level
** significantly different at 99% confidence level

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