

NO-TILLAGE VERSUS CONVENTIONAL-TILLAGE IN SOYBEANS
KEITH STEWART

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

NO-TILLAGE

Treatment:

Herbicide: 6oz Canopy and 1.5 pints Command

Planting

Cultivation

CONVENTIONAL-TILLAGE

Treatment:

Disking

Field cultivation

Field cultivation

Herbicide: 6oz Canopy and 1.5 pints Command

Planting

Cultivation

Costs:

Operations \$36.70

Comparative cost \$36.70

Costs:

Operations \$52.90

Comparative cost \$52.90

ON-FARM RESEARCH COMPARISON RESULTS - KEITH STEWART

VARIABLE	1990	1991	1992
Early population			
No- till	183000 **	164000 *	103000
Conventional-till	171000	155000	100000
Final population			
No-till	180000	141000	98000 *
Conventional-till	164000	141000	92000 *
Population loss			
No-till		12.3%	4.4%
Conventional-till		8.2%	7.8%
Plant height			
No-till	28.8" **	35.3"	35.9"
Conventional-till	30.1"	34.6"	36.3"
Pod height			
No-till	5.0" *	5.2"	5.5"
Conventional-till	4.0"	5.0"	5.5"
Moisture			
No-till	12.0% *	18.6%	10.7% **
Conventional-till	10.9%	18.9%	11.4% **
Sample weight			
No-till	57.0	55.3	55.5 **
Conventional-till	57.1	54.7	54.6 **
Yield(13%)			
No-till	35.3	40.2	52.1
Conventional-till	36.5	40.1	52.1

* - significantly different at 95% confidence level

** - significantly different at 99% confidence level