

Ridge vs. Conventional Tillage

Ray Kucera, Jr.

Private Industry Cooperator: Jerry Mulliken

OBJECTIVE: To determine and document the profitability of a ridge till system versus a conventional till system.

RIDGE TILL

Treatment:

Harrow

None

Herbicide: 1 pint Command banded and
1 pint Roundup.

Plant

Cultivate

Cultivate

CONVENTIONAL TILL

Treatment:

Disk

Field Cultivate

Herbicide: 1 pint Command banded.

Plant

Cultivate

Cultivate

Comparative cost (per acre)

Herbicide	\$ 8.90
Operations	\$44.30
Total	<u>\$53.20</u>

Comparative cost (per acre)

Herbicide	\$ 4.00
Operations	\$52.50
Total	<u>\$56.50</u>

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VARIABLE	1990	1991	1992
Early population			
Ridge Tillage	170,000 **	99,000	106,000
Conventional Tillage	164,000	102,000	110,000 *
Final population			
Ridge Tillage	159,000	82,000 *	91,000
Conventional Tillage	152,000	92,000	93,000
Population loss			
Ridge Tillage	6.6%	17.6%	14.1%
Conventional Tillage	7.8%	15.1%	15.7%
Plant height			
Ridge Tillage	37.3"	35.4"	37.4"
Conventional Tillage	39.9"	34.3"	37.6"
Pod height			
Ridge Tillage	7.2"	3.6"	6.5"
Conventional Tillage	6.6"	3.7"	7.3"
Moisture			
Ridge Tillage	9.2%	9.4%	13.3%
Conventional Tillage	9.4%	9.5%	13.5%
Test weight			
Ridge Tillage	56.2	57.5	55.4
Conventional Tillage	56.4	57.4	55.5
Yield (13 %)			
Ridge Tillage	45.2	51.7	47.5 *
Conventional Tillage	46.2	51.5	48.6

* significantly different at 95 % confidence level

** significantly different at 99% confidence level