Nebraska On-Farm Research Network

POST-EMERGENCE WEED CONTROL VERSUS PREPLANT-INCORPORATED WEED CONTROL UNDER IRRIGATION

Study ID: 044155199001
Saunders County
1990

Objective: To determine and document the effect on profitability of a post-emergence weed control program versus a preplant-incorporated herbicide program.

TREATMENT	TREATMENT
POST-EMERGENCE WEED CONTROL	PREPLANT-INCORPORATED WEED CONTROL
Chisel plowing-east half	Chisel plowing-east half
Disking	Disking: incorporation of 1 pint Command, .33 pint Scepter, and 1.5 pints Treflan
Field cultivation	Field cultivation
Planting: Lynks 8280	Planting: Lynks 8280
Post-emergence application of .25 ounces Classic, .24 ounces Pinnacle, 1gallon 28% UAN, and 6 ounces surfactant	Cultivation
Cultivation	Irrigation
Ropewick application of Roundup	
Irrigation	

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COMPARATIVE COST BUDGET

Chemicals:		Chemicals:	
.25 ounces Classic	$ 4.11	1 pint Command	$ 8.33
.25 ounces Pinnacle	5.80	.33 pint Scepter	7.45
1 gallon 28% UAN	1.00	1.5 pints Treflan	4.84
6 ounces surfactant	0.73		
Roundup through ropewick	1.00		
Field operations:		Field operations	
Spraying	$ 3.67	Preplant incorporate	$ 0.30
Rope wicking	2.00		
Equipment cost:		Equipment cost:	
Sprayer ($2800)		Preplant-incorporate equipment	
Ropewick ($500)		($1000)	
Comparative cost	$18.31	Comparative cost	$20.92

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RESULTS:

Early population	
Pre-/post-emergence	106000
Preplant-incorporated	104.000
Final population	
Pre-/post-emergence	97000
Preplant-incorporated	100000
Population loss	
Pre-/post-emergence	8.4%
Preplant-incorporated	2.4%
Plant height	
Pre-/post-emergence	32.0" **
Preplant-incorporated	35.8"
Pod height	
Pre-/post-emergence	5.9" *
Preplant-incorporated	4.8"
Moisture	
Pre-/post-emergence	10.2%
Preplai:it-incorporated	10.0%
Sample weight	
Pre-/post-emergence	55.8
Preplant-incorporated	55.7
Yield(13%)	
Pre-/post-emergence	46.0
Preplant-incorporated	48.0

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

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