Nebraska On-Farm Research Network

Pre-emergence vs. Sidedress Nitrogen at Two Rates-Corn

Study ID: 097155199401
Saunders County

OBJECTIVE: To determine and document the effect on profitability of nitrogen application timing at two rates on com.

HIGH RATE

Treatment:

Fertilizer: 160 pounds per acre 28% Nitrogen and 57.5 pounds per acre 10-34-0 (actual) *Pre-plant and Sidedress*

Herbicide: 1 piµt Banvel, 3.5 quarts Bullet and 1 pound Bladex (Banded)

Insecticide: 3 pints per acre Penncap

Plant

Cultivate

Harvest

Comparative cost (per acre)

Fertilizer	$33.32
Total	**$33.32**

LOW RATE

Treatment:

Fertilizer: 110 pounds per acre 28% Nitrogen and 55 pounds per acre 10-34-0 (actual) *Pre-plant and Sidedress*

Herbicide: 1 pint Banvel, 3.5 quarts Bullet and 1 pound Bladex (Banded)

Insecticide: 3 pints per acre Penncap

Plant

Cultivate

Harvest

Comparative cost (per acre)

Fertilizer	$24.58
Total	**$24.58**

Nebraska Soybean & Feed Grains Profitability Project

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Early population		
	High Preplant	27,500 ****
	High Sidedress	26,200
	Low Preplant	25,100
	Low Sidedress	25,400
Moisture		
	High Preplant	16.3%
	High Sidedress	16.3%
	Low Preplant	16.4%
	Low Sidedress	16.2%
Test weight		
	High Preplant	59.6
	High Sidedress	59.4
	Low Preplant	58.8
	Low Sidedress	59.6
Yield (15.5%)		
	High Preplant	172.2
	High Sidedress	164.4
	Low Preplant	169.6
	Low Sidedress	176.0

* significantly different at 95% confidence level
** timing significantly different at 99% confidence level
*** timing and rate interaction significant at the 99% confidence level
**** rate significantly different at 95% confidence level

Summary: The 1994 on-farm comparison indicated a significant early plant population difference between nitrogen application rates. Yield differences between treatments were inconsistent; thus, resulting in no statistical significance.