Nebraska On-Farm Research Network

Preplant vs. Sidedressed Liquid (28%) and Anhydrous Ammonia Fertilizer - Corn

Study ID: 131131199601

County: Otoe

OBJECTIVE: To determine and document the profitability of two liquid nitrogen application rates at planting and two sidedress anhydrous ammonia rates.

HIGH RATE

Treatment:

Field Cultivate

Plant: 1996 - May 11

Fertilize: 1996 - 100 pounds nitrogen per acre. *liquid nitrogen* (28%) banded 3" from seed with planter versus sidedress *anhydrous ammonia* in 72" knife spacings (June 15)

LOW RATE

Treatment:

Field Cultivate

Plant: 1996 - May 15

Fertilize: 1996 - 40 pounds nitrogen per acre. *liquid nitrogen* (28%) banded 3" from seed with planter versus *sidedress anhydrous ammonia* in 72" knife spacings (June 15)

Comparative cost (per acre)

	Liquid	Anhydrous Ammonia
Fertilizer	$19.64	$12.20
Anhydrous Rig	$ 0.00	$ 6.00
Planter Fertilizer Attachment	$ 1.23	$ 0.00
Total	**$20.87**	**$18.20**

Comparative cost (per acre)

	Liquid	Anhydrous Ammonia
Fertilizer	$ 7.87	$ 4.88
Anhydrous Rig	$ 0.00	$ 6.00
Planter Fertilizer Attachment	$ 1.23	$ 0.00
Total	**$ 9.10**	**$10.88**

Nebraska Soybean & Feed Grains Profitability Project

Nebraska On-Farm Research Network

Moisture (%)	
High Liquid (28%) at planting	17.7
High Anhydrous sidedress	17.9
Low Liquid (28%) at planting	18.6
Low Anhydrous sidedress	17.9
Means for Liquid	18.2
Means for Anhydrous	17.9
Means for High Rate	17.8*
Means for Low Rate	18.3
Test Weight (pounds/bushel)	
High Liquid (28%) at planting	56.0
High Anhydrous sidedress	55.4
Low Liquid (28%) at planting	55.1
Low Anhydrous sidedress	55.4
Means for Liquid	55.6
Means for Anhydrous	55.4
Means for High Rate	55.7
Means for Low Rate	55.3
Yield (bushels/acre @ 15.5%)	
High Liquid (28%) at planting	120
High Anhydrous sidedress	121
Low Liquid (28%) at planting	109
Low Anhydrous sidedress	110
Means for Liquid	115
Means for Anhydrous	115
Means for High Rate	120 ***/2
Means for Low Rate	110

* rate significant at 90% confidence level
***/2 rate significant at 99% confidence level

Summary: In 1996, yields were increased by higher rates of nitrogen. There was no difference between liquid and anhydrous ammonia.

Nebraska Soybean & Feed Grains Profitability Project