



# Nebraska On-Farm Research Network

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

Study ID: 131131199401

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

LOW RATE

Treatment:

Treatment:

Field Cultivate

Field Cultivate

Plant: 1994 - May 11

Plant: 1994 - May 11

Fertilize: 1994 - 100 pounds nitrogen per acre.

*liquid nitrogen (28%) banded 3"*  
*from seed with planter versus*  
*sidedress anhydrous ammonia in*  
*72" knife spacings (June 11)*

Fertilize: 1994 - 40 pounds nitrogen per acre.

*liquid nitrogen (28%) banded 3"*  
*from seed with planter versus*  
*sidedress anhydrous ammonia in 72"*  
*knife spacings (June 11)*

**Nebraska Soybean & Feed Grains Profitability Project**



Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska–Lincoln cooperating with the Counties and the United States Department of Agriculture.

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- Corn

Page 2

Comparative cost (per acre)			Comparative cost (per acre)		
	<u>1994</u>	<u>Anhydrous</u>		<u>1994</u>	<u>Anhydrous</u>
	<u>Liquid</u>	<u>Ammonia</u>		<u>Liquid</u>	<u>Ammonia</u>
Fertilizer	\$19.64	\$12.20	Fertilizer	\$ 7.87	\$ 4.88
Anhydrous Rig	\$ 0.00	\$ 6.00	Anhydrous Rig	\$ 0.00	\$ 6.00
Planter Fertilizer			Planter Fertilizer		
Attachment	\$ 1.23	\$ 0.00	Attachment	\$ 1.23	\$ 0.00
<b>Total</b>	<b>\$20.87</b>	<b>\$18.20</b>	<b>Total</b>	<b>\$ 9.10</b>	<b>\$10.88</b>

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- Corn

Page 3

VARIABLE	1994 CORN
Moisture (%)	
High Liquid (28%) at planting	15.0
High Anhydrous sidedress	15.0
Low Liquid (28%) at planting	14.9
Low Anhydrous sidedress	15.0
Means for Liquid	15.0
Means for Anhydrous	15.0
Means for High Rate	15.0
Means for Low Rate	15.0
Test Weight (pounds/bushel)	
High Liquid (28%) at planting	59.8
High Anhydrous sidedress	60.2
Low Liquid (28%) at planting	59.7
Low Anhydrous sidedress	60.1
Means for Liquid	59.8**/1
Means for Anhydrous	60.1
Means for High Rate	60.0
Means for Low Rate	59.9

\*\*/1 source significant at 95% confidence level

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- Corn

Page 4

VARIABLE	1994 CORN
Yield (bushels/acre @ 15.5%)	
High Liquid (28%) at planting	134
High Anhydrous sidedress	138
Low Liquid (28%) at planting	123 ***/3
Low Anhydrous sidedress	134
Means for Liquid	129 ***/1
Means for Anhydrous	136
Means for High Rate	136 ***/2
Means for Low Rate	128

\*\*\* /1 source significant at 99% confidence level

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

\*\*\* /3 rate by source interaction significant at 99% confidence level

**Summary:** In 1994, anhydrous ammonia sidedress fertilized corn yield was significantly higher than liquid (28%) nitrogen treatment. High rate treatments of both anhydrous ammonia and liquid (28%) nitrogen yielded significantly higher than low treatment rates. The interaction among fertilizer sources and rates was also significant to yields. The low rate of liquid (28%) yielded poorly.

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