Nebraska On-Farm Research Network

Anhydrous Ammonia Fertilizer vs. Liquid (28%) Fertilizer (Two rates of each)-Corn

Study ID: 028109199401

County: Lancaster

OBJECTIVE: To determine and document the profitability of anhydrous ammonia fertilizer versus Liquid (28 %) fertilizer at two application rates.

HIGH RATE

Treatment:

Fertilize: 110 pounds/acre liquid (28 %) nitrogen Starter 10-34-o at 57 pounds/acre (April 27) and anhydrous ammonia at 110 pounds/acre (April 10) (All nitrogen rates are actual.)

Herbicide: 2.4 quarts Bicep, .76 ounces Beacon, 1 pint Buctril and 1 pint Roundup

Plant

Harvest

Comparative cost (per acre)

	1994 Liquid	1994 Anhydrous Ammonia
Fertilizer	$17.69	$13.74
Anhydrous Rig	$ 0.00	$ 6.00
Liquid Sprayer	$ 3.50	$ 0.00
Total	**$21.19**	**$19.74**

LOW RATE

Treatment:

Fertilize: 60 pounds/acre liquid (28%) nitrogen Starter 10-34-o at 57 pounds/acre (April 27) and anhydrous ammonia at 60 pounds/acre (April 10) (All nitrogen rates are actual.)

Herbicide: 2.4 quarts Bicep, .76 ounces Beacon, 1 pint Buctril and 1 pint Roundup

Plant

Harvest

Comparative cost (per acre)

	1994 Liquid	1994 Anhydrous Amrnonia
Fertilizer	$ 9.63	$ 7.50
Anhydrous Rig	$ 0.00	$ 6.00
Liquid Sprayer	$ 3.50	$ 0.00
Total	**$13.13**	**$13.50**

Nebraska Soybean & Feed Grains Profitability Project

University of Nebraska Lincoln

Nebraska On-Farm Research Network

Anhydrous Ammonia Fertilizer vs. Liquid (28%) Fertilizer at Two rates—

VARIABLE	1994 CORN
Moisture (%)	
High Anhydrous Ammonia	16.2
High Liquid (28%)	16.2
Low Anhydrous Ammonia	16.4
Low Liquid (28%)	16.0
Test weight (pounds/bushel)	
High Anhydrous Ammonia	59.0
High Liquid (28%)	58.8
Low Anhydrous Ammonia	58.6
Low Liquid (28%)	58.5
Yield (15.5%) (bushels/acre)	
High Anhydrous Ammonia	151
High Liquid (28%)	143
Low Anhydrous Ammonia	142
Low Liquid (28%)	137
Mean Anhydrous Ammonia	147 **
Mean Liquid (28%)	140
Mean High Rate	147 **
Mean Low Rate	139

** source significantly different at 95% confidence level
** rate significantly different at 95% confidence level

Summary: **The anhydrous ammonia fertilizer treatments yielded significantly higher than the liquid (28%) fertilizer treatments. High rate treatments of both fertilizer sources also produced significantly higher yields than low-rate treatments.**