



# Nebraska On-Farm Research Network

<b>Years:</b>	2006
<b>Title:</b>	Nitrogen Fertilizer Rates & Application Timing
<b>Crop:</b>	Corn
<b>Study ID:</b>	108155200602
<b>County:</b>	Saunders County
<b>Objective:</b>	Determine & document the effect of nitrogen fertilizer rates & application timing on the profitability of limited irrigation on corn.

## 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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**Treatments - Limited Irrigation:** 1. Side-dress(UAN) @ 64 lbs/ac  
30,000 plant population. 2. Preplant ENR @ 78 lbs/ac (NH<sub>3</sub>)  
Limited irrigation - 5.25 inches 3. Preplant UNL Rec @ 86 lbs/ac (NH<sub>3</sub>)  
4. Preplant FARM Rate @ 120 lbs/ac (NH<sub>3</sub>)

SD = Side-dressed

ENR=UNL economical nitrogen rate based on \$2.20/bu corn with 145 bu/ac limited irrigation yield goal

Hybrid: Pioneer 33R79

	<u>Nitrogen Treatment</u>				
	<u>64</u>	<u>78</u>	<u>86</u>	<u>120</u>	<u>Prob&gt;F</u>
Yield, bu/ac @15.5%	170	164	164	165	0.533 ns
Moisture, %	17.2	17.5	17.5	17.5	0.291 ns
Monitor, bu/ac	164	160	160	162	0.743 ns
Cost/ac (w/appl cust)	\$29.60	\$30.80	\$33.20	\$43.40	-----

Planting Date:

Harvest Date:

Summary: Rate of applied nitrogen had no significant effect on grain yield (weigh wagon or monitor) or grain moisture in either study. NH<sub>3</sub> Cost \$490/TNH<sub>3</sub> application cost included (\$7.40/ac) UAN cost \$245/T. UAN application cost included (\$5/ac).

Soil Test Results: N/A

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