

Nebraska On-Farm Research Network

Years: 2008

Title: Nitrogen Fertilizer Rates & Application Timing

Crop: Corr

Study ID: 108155200803
County: Saunders

Objective: In 2008, fertilizer rates & application timing

were evaluated on non-irrigated corn after soybeans, also in a no-till cropping system.

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 - Non-Irrigated 1. Side-dress(UAN) @ 77 lbs/ac (UAN)

2. UNL Rec @ 86 lbs/ac Fall (NH₃)

3. Farm @ 120 lbs/ac Fall (NH₃)

4. Econ Rate @ 104 lbs/ac Fall (NH₃)

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Results: 2008 (Pioneer 33T56)

Non-Irrigated Nitrogen Treatment

77 S 86 P 120 P 104 P Yield, bu/ac @15.5% 171 a 168 a 0.0006 *** 158 b 161 b 15.3 15.3 0.8004 ns Moisture, % 15.3 15.3 Monitor, bu/ac 171 a 167 b 0.0002 *** 159 c 161 c Cost/ac (nitrogen) \$45.43 \$25.80 \$36.00 \$31.20 Cost/ac (application) \$5.00 \$7.50 \$7.50 \$7.50 Cost/ac (total) \$50.43 \$33.30 \$43.50 \$38.70

Plant Population, 23,350 seeds/ac

Planting Date: 4/23/08 Harvest Date: 10/20/08

Statistical Analysis (Duncans Multiple Range Test): Values with the same letter are not significantly different of 0.10 probability.

Summary: In 2008, grain yield was highest with the 120 and 104 pound rates. With the yield monitor data, the 120 pound rate resulted in the highest yield. Grain moisture at harvest was not affected by nitrogen treatment.

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