

On-Farm Comparison Results

- WINKELMAN

Nebraska Soybean & Feed Grains Profitability Project

Years: 2003-2005

Title: Commercial Fertilizer vs. Biosolids

Crop: Corn (2003), Soybeans (2004)

NSFGPP Operator: Dan Winkelman, Dodge County

Private Industry Cooperator: Ron Schultz

Objective: To determine and document the effect of replacing commercial fertilizer with municipal biosolids on the profitability of corn/soybean production, under furrow irrigation.

Soil Tests: pH 6.6, OM 5.1%, P 24 ppm, K 470 ppm

Treatments: Commercial fertilizer vs. 29 ton/ac biosolids

On-Farm Comparison Results

- WINKELMAN

Nebraska Soybean & Feed Grains Profitability Project

Results: Corn 2003 (Garst 9476 BT)

<u>Variable</u>	<u>Fertilizer</u>	<u>Biosolids</u>	<u>Prob >T/</u>
Yield, bu/ac at 15.5%	184	188	0.224 ns
Moisture, %	17.6	17.5	0.684 ns
Cost/ac (Comm Fert)	\$32.68*		
Cost/ac (spreading)		\$15.50	

* Nitrogen applied = 130/lbs.

Results: Soybeans 2004

<u>Variable</u>	<u>Fertilizer</u>	<u>Biosolids</u>	<u>Prob >/T/</u>
Yield, bu/ac at 13%	50	52	0.0043 ***
Moisture, %	10.4	10.5	0.7878 ns
Cost/ac (spreading)		\$7.75	

Results: Corn 2005

<u>Variable</u>	<u>Fertilizer</u>	<u>Biosolids</u>	<u>Prob >/T/</u>
Yield, bu/ac at 15.5%	170	181	0.0683 *
Moisture, %	14.4	14.4	1.0000 ns
Cost/ac (fertilizer)	\$33.35*	\$33.35*	
Cost/ac (spreading)	--	3.88	

* Nitrogen applied = 146/lbs.

Summary: In 2003, there was no significant difference in grain yield or moisture at harvest due to treatment. In 2004, soybean seed yield was higher where biosolids were applied in the fall, 2002. Corn yield was higher for biosolids in 2005.