

On-Farm Comparison Results EMANUEL

Nebraska Soybean & Feed Grains Profitability Project

<i>Years:</i>	2004, 2006
<i>Title:</i>	Commercial Fertilizer vs. Biosolids
<i>Crop:</i>	Corn
<i>NSFGPP Operator:</i>	Chuck Emanuel, Dodge County
<i>Private Industry Cooperator:</i>	Ron Schultz
<i>Objective:</i>	To determine & document the effect of replacing commercial fertilizer with municipal biosolids on the profitability of corn/soybean production.
<i>Treatments:</i>	Commercial fertilizer vs. 16 tons/ac Biosolids.

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Results:

2004

(Midwest 8125) Corn

Variable

Fertilizer

Biosolids

Prob>/T/

Yield, bu/ac at 15.5%

186

195

0.0023 ***

Moisture, %

16.2

16.2

1.000 ns

Cost/ac

\$16.25*

Cost/ac (spreading)

\$8.00

* 100 lbs/ac

Soil Test Results: pH 7.7, OM 3.0%, P(Olsen) 12 ppm, P(Bray-1) 8.3 ppm, K 253 ppm

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Results:

2006

(Midwest 77320) Corn

<u>Variable</u>	<u>Fertilizer</u>	<u>Biosolids</u>	<u>Prob>/T/</u>
Yield, bu/ac at 15.5%	202	215	0.0005 ***
Moisture, %	15.9	16.2	0.0053 ***
Cost/ac (spreading)		\$2.00	

Summary: Grain yield was significantly higher where biosolids replaced commercial nitrogen fertilizer in 2004 & 2006. Grain moisture was also slightly higher in 2006 where biosolids had been applied.

Soil Test Results:

North - Fertilizer: pH 8.1, OM 3.0, P 9 Olsen, K 239

North - Biosolids: pH 8.1, OM 3.2, P 20 Olsen, K 220

South - Fertilizer: pH 7.6, OM 2.4, P 9 Bray, K 222

South - Biosolids: pH 7.5, OM 2.3, P 19 Bray, K 212

Planting/Harvesting Date: