

Nebraska Soybean & Feed Grains Profitability Project

Years: 2004-2007
Title: Commercial Fertilizer vs. Biosolids
Crop: Corn (04 & 06), Soybeans (05 & 07)
NSFGPP Operator: Bob Clausen, Dodge County
Private Industry Cooperator: Ron Schultz
Objective: To determine & document the effect of replacing commercial fertilizer with municipal biosolids on the profitability of corn/soybean production.
Soil Test: Clausen Site: pH 6.0, OM 2.4%, P 8.3 ppm, K 151 ppm
Treatments: Clausen: Commercial fertilizer vs. 17 ton/acre biosolids

Nebraska Soybean & Feed Grains Profitability Project

Results: 2004		Corn (Pio 33B51) - Clausen Site		
<u>Variable</u>	<u>Fertilizer</u>	<u>Biosolids</u>	<u>Prob >/T/</u>	
Yield, bu/ac @ 15%	166	183	0.005	***
Moisture, %	14.2	14.4	0.154	ns
Test Wt, lbs/bu	59.9	60.1	0.477	ns
Cost/ac (spreading)		\$8.50		
Cost/ac (32%)	\$18.00			
Results: 2005		Soybeans (Pio 93M11) - Clausen Site		
<u>Variable</u>	<u>Fertilizer</u>	<u>Biosolids</u>	<u>Prob >/T/</u>	
Yield, bu/ac @ 13%	40	43	0.0078	***
Moisture, %	9.9	9.8	0.111	ns
Cost/ac, spreading		\$4.25		

Nebraska Soybean & Feed Grains Profitability Project

Results: 2006		Corn (Pio 34H44) - Clausen site		
Variable	Fertilizer	Biosolids	Prob>/T/	
Yield, bu/ac @ 15%	131	150	<.0001	***
Moisture, %	15.4	15.5	0.317	ns
Test wt, lbs/bu	58.4	58.6	0.148	ns
Cost/ac (spreading)		\$2.12		---
Soil Test Results:		Fertilizer: pH 6.0, OM 3.0, P 9.2, K 289 Biosolids: pH 6.3, OM 3.2, P 31, K 283		

Results: 2007		Soybeans (Pio 93M11) - Clausen site		
Variable	Fertilizer	Biosolids	Prob>/T/	
Yield, bu/ac @ 13%	58	61	0.001	***
Moisture, %	12.2	12.2	1.000	ns
Test wt, lbs/bu	55.9	56.1	0.172	ns
Cost/ac (spreading)	---	\$1.06		---
Planting Date: 5/10/07		Harvesting Date: 10/10/07		

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Summary: At the Clausen site in 2004 & 2006, grain yields were higher where biosolids had been applied. In 2005 & 2007, yields of soybeans were higher where biosolids had been applied.

