On-Farm Comparison Results

- LARSEN

Years: **1999-2001**

Title: **Mead Cattle Manure as a Replacement for Commercial Fertilizer.**

Crop: **Corn**

NSFGPP Operator: **Ron Larsen, Saunders County**

Private Industry Consultant: **Tom Vrbka**

Objective: **To determine and document the profitability of using Mead Cattle manure as a replacement for commercial fertilizer.**

Treatments: **200# N + 52# $P_2 0_5$ + 1# Zn vs. 200# N + 58# $P_2 0_5$ + 167# $K_2 0$ + 35# S + 1# Zn vs. 25 tons Mead Cattle Manure**

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Results:

Corn 1999

Soil P = 20 ppm

Variable		NPZn	NPKSZn	Manure	Prob >F
Yield , bu/ac at 15.5%		179***	187	185	0.018**
Moisture, %		15.8	15.7	15.7	0.70 ns
Test Wt., lbs/bu		58.3*	58.8	58.5	0.201 ns
Cost/ac	NH	$22.47	NH_3 $22.35	$30.00	
	Appl.	4.00	4.00	12.00 (Delivery)	
	Dry (50%)	6.88	22.68	8.00 (Incorporation)	
	Appl. (50%)	1.00	1.00		
	Total	$34.35	$50.03	$50.00	
				50% $25.00	

NSFGPP Nebraska Soybean & Feed Grains Profitability Project

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Results:

	Variable	NPZn	NPKSZn	Manure	Prob >F
Soybeans 2000	Yield , bu/ac at 13%	55	54	55	0.129 ns
	Moisture, %	12.8	12.5	12.7	0.558 ns
	Test Wt., lbs/bu	55.9	56.1	56.1	0.80 ns
	Cost (1999 Resid)	$7.88	$23.68	$25.00	

	Variable	NPZn	NPKSZn	Manure	Prob >F
Corn 2001	Yield , bu/ac at 15.5%	176	179	179	0.143 ns
	Moisture, %	17.0	16.8	16.9	0.782 ns
	Test Wt., lbs/bu	58.1	59.1***	59.8***	0.0001***
	Cost/ac	170 lbs N as Anhydrous Ammonia in 2001 ($33.66)			

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Summary: The application of K and S in addition to NPZn increased grain yield significantly in 1999. Yield from this treatment was equal to the yield from manure. Test weight was slightly lower for the NPZn treatment when compared to the NPKSZn treatment. There was a slight carry-over effect on soybeans in 2000. Seed yield from the manure treatment was slightly higher than from the NPKSZn treatment. In 2001, grain test weight was increased by KS and increased more by manure. Yield and grain moisture were not affected by treatment.