EXTENSION

Nebraska On-Farm Research Network

Feedlot Manure as a Source of Nitrogen for
Irrigated Corn on Fine Textured Soil
Study ID: 068155199701M2
County: Saunders

OBJECTIVE: To determine and document the effect of using feedlot manure as a replacement for nitrogen fertilizer on the profitability of corn production on a fine textured soil.

TREATMENTS: Various rates of nitrogen applied without manure vs. various rates of nitrogen applied where 27 tons per acre manure was applied in 1997.

RESULTS:

	Treatments	Grain Yield	Cost Bu/ac @ 15.5%
1997	None	185	------
	90 lbs. N	218	$12.06 + 6.75 Appl.
	180 lbs. N	211	$24.12 + 6.75 Appl.
	Manure alone	221	$21.50 (50%)
	Pioneer 33R87		
	59#N/ac 4 ft.		
	P= 18 ppm (Bray P_1)		
	Manure + 90 lbs. N	223	$33.56 + 6.75 Appl.
	Manure + 180 lbs. N	215	$45.62 + 6.75 Appl.
1998	None	95	------
	90 lbs. N	136	$10.35 + 6.75 Appl.
	180 lbs. N	153	$20.70 + 6.75 Appl.
	Manure alone		
	(Manure applied in '97)	123	$21.50 (50%)
	Manure + 90 lbs. N		
	(Manure applied in '97)	156	$31.85 + 6.75 Appl.
	Pioneer 33A14		
	50#N/ac 4 ft.[2]		
	P= 63 ppm (Bray P_1)		
	Manure + 180 lbs. N		
	(Manure applied in '97)	176	$42.20 + 6.75 Appl.

Summary: **The application of 27 tons/acre of manure (209 lbs/ac plant available nitrogen) resulted in grain yields comparable to 90 lbs/ac nitrogen from fertilizer in 1997. Plots that received manure in 1997 yielded 20-28 bu/ac more than those that did not receive manure when equal amounts of nitrogen fertilizer were applied in 1998**

Nebraska Soybean & Feed Grains Profitability Project

UNIVERSITY OF Nebraska Lincoln