Nebraska On-Farm Research Network

Years:	2013
Title:	Nitrogen Rate
Crop:	Corn
Study ID:	113155201301
Objective:	Study effect of Sidedress Nitrogen application on corn production and profitability.
Treatments:	Base Rate vs +35

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Results: 2013 Nitrogen Rate

	Yield	Moisture	Cost/A
Base Rate	198.1 B	18.3 B	$55.44
Base + 35#	210.3 A	18.8 B	$72.94
Prob>/T/	0.009***	0.0183**	

Planted 5/13/13 Harvest 11/11/13. 8" irrigation. Yutan SCL;Filbert SL;Tomek SL Todd Valley
GH 9138 32K - Final 30,500 IRG GH 9138 21.5K - Final 20,000 NI
NH3 154N/ac Fall 2012 - IRG, NH3 111 lb Fall 2012 - NI, 32% 35 lb V7 stage Sidedress. Noticed a few more tipped ears in the non-sidedressed strips.

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~~The UNL Corn Nitrogen Calculator for Nebraska~~ ~~Revision Date:~~ 04/01/08

Farm:
Agronomist:
Date:

Enter N management programs to consider	Time of application	Proportion % of total N	N source for each	N content %	Price $/ton	Appl. cost $/acre
Split	Fall			0		
change names in boxes	Pre-plant & starter			0		
	Sidedress			0		
Error: sum not 100%	Fertigation			0		
Pre-plant	Fall			0		
	Pre-plant & starter			0		
	Sidedress			0		
Error: sum not 100%	Fertigation			0		
Fall	Fall	80	1 AA	82	$620	$8.00
	Pre-plant & starter			0		
	Sidedress	20	5 UAN 32	32	$320	$4.00
	Fertigation			0		

Enter short names in the column headers below (#1 to #4)

	Enter field-specific information in columns E to H			1 Example	#2	#3	#4
1	Yield goal	5-yr avg. yield + 5-10%	bu/acre	240			
2	Soil texture			Med./Fine			
3	Soil organic matter (OM)	in 0-8" depth	%	2.9			
4	Soil test nitrate-N	Effective rooting depth	inches	48			
		Soil layers sampled	no.	0 None			
		Layer 1 bottom	inches				
		Layer 2 bottom	inches				
	select nitrate unit in box	Layer 3 bottom	inches				
	ppm	Layer 1 nitrate	ppm				
		Layer 2 nitrate	ppm				
		Layer 3 nitrate	ppm				
5	Previous crop			02 Soybean			
6	Irrigation	Water amount	inches				
		Water nitrate-N	ppm				
7	Manure	Type					
		Terms (unit for application)					
		Amount (tons or 1000 gal/acre)					
		Ammonium N	lb/unit				
		Organic N	lb/unit				
		Year applied		Current			
		Application method					
8	Nitrogen management program			3 Fall			
9	Expected corn value		$/bu	$5.30	$5.00	$5.00	$5.00
#	N applied since harvest		lb/acre				

do not enter anything below

	UNL N recommendation		Unit	1 Example	#2	#3	#4
A	N algorithm components	Crop N requirement	lb/acre	323	Yield goal?	Yield goal?	Yield goal?
		SOM credit	lb/acre	97	OM?	OM?	OM?
		Soil nitrate-N credit	lb/acre	30	Depth?	Depth?	Depth?
		Legume N credit	lb/acre	45	Prev. crop?	Prev. crop?	Prev. crop?
		Irrigation N credit	lb/acre	Water?	Water?	Water?	Water?
		Manure N credit	lb/acre	Manure?	Manure?	Manure?	Manure?
B	**Recom. N amount (unadjusted)**		**lb/acre**	**151**	**#VALUE!**	**#VALUE!**	**#VALUE!**
C	Average nitrogen price		$/lb N	$0.40	N progr.?	N progr.?	N progr.?
D	Corn price : N price ratio			13.2	#VALUE!	#VALUE!	#VALUE!
E	**Recom. N amount (adjusted for time and prices)**		**lb/acre**	**184**	**#VALUE!**	**#VALUE!**	**#VALUE!**
F	Total N application cost		$/acre	$12.0	#N/A	#N/A	#N/A
G	Total cost of N fertilizer + N application		$/acre	$86.1	#VALUE!	#VALUE!	#VALUE!

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Summary:

(2013) The addition of 35# N as a sidedress application provided an economic increase in yield.

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