



Corn Nitrogen Fixing Biological Products

Trial ID: 2023-CRNB06 — R.M. of Stanley

Objective: The purpose of this project is to quantify the agronomic and economic impacts of a biological nitrogen fixing product on grain corn for yield and grain quality

Summary: There was no significant yield difference between the treatments. As a result, there was a decrease in profit equivalent to the increase in the use of Envita in addition to the regular fertilizer input.

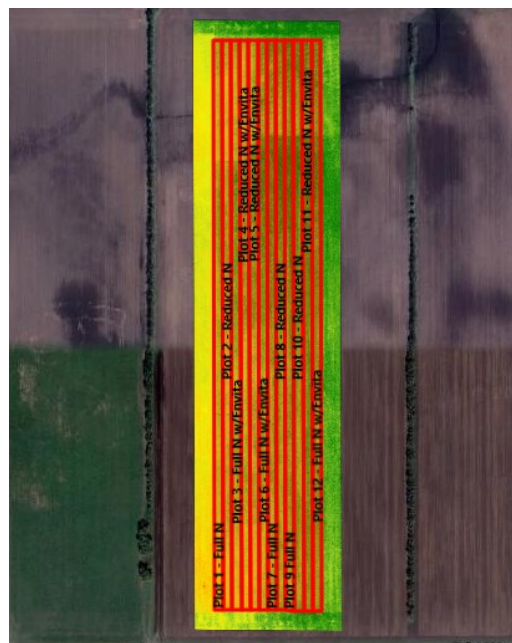
Trial Information

Product	Envita
Soil Properties (0-6")	54N 14P 176K
Soil Texture	Fine Loams
Fertilizer Application	140N (Full N) 110N (Reduced N) 65P 80K
Previous Crop	Potato
Tillage	Conventional Tillage
Planting Equipment	60' Planter
Planting Date	May 14
Planting Rate	34,000 seeds/ac
Variety	DKC35-29RIBVT2P
Row Spacing	30"
Harvest Date	November 02

Corn Response

	Plants/ac	Moisture (%)
Full N	33,333	17.9
Reduced N	34,333	18.0
Full N w/Envita	33,667	17.8
Reduced N w/Envita	34,167	18.2

NDVI Imagery August 11



Precipitation[†] (mm)

	May	June	July	Aug	Total
Rainfall	16	71	11	32	130
Normal	85	100	78	77	340
% Normal	19%	71%	14%	42%	38%

[†]Growing season precipitation (mm)

Overall Yield & Economics

	Mean (bu/ac)	Cost [†]	Change in Profit/ac
Full N	230.2	\$0/ac	
Reduced N	227.5	\$0/ac	
Full N w/Envita	228.4	\$14.50/ac	- \$14.50/ac
Reduced N w/Envita	227.2	\$14.50/ac	- \$14.50/ac
P-Value	0.9383	Economics: Because yields were not significantly different, there is no increased income to offset the increase in price. Profit per acre declines by the cost of the biological product used.	
CV	2.85%		
Significance	No		

[†]Estimated cost; represents product only.



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