



Corn Nitrogen Fixing Biological Products

Trial ID: 2023-CRNB03 — R.M. of Ritchot

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.

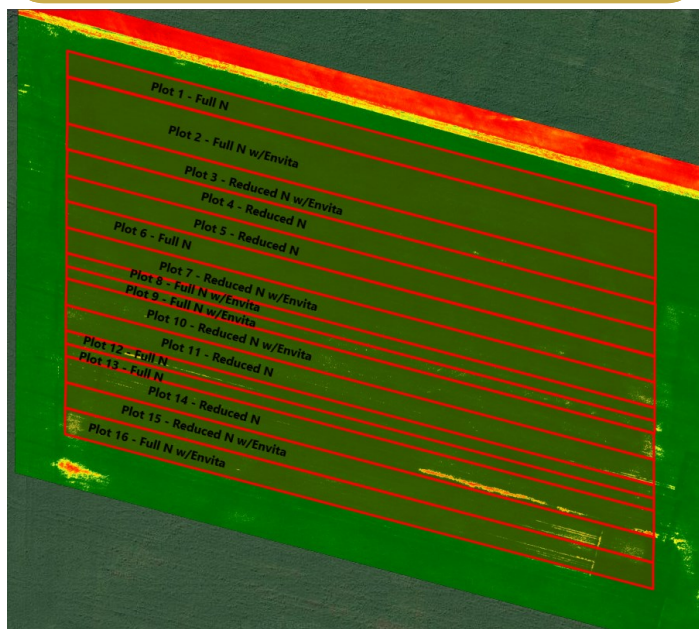
Trial Information

Product	Envita
Soil Properties (0-6")	20N 16P 563K
Soil Texture	Clay
Fertilizer Application	140N (Full N) 115N (Reduced N) 40P 30S
Previous Crop	Canola
Tillage	Zero Tillage
Planting Equipment	80' Planter
Planting Date	May 20
Planting Rate	34,687 seeds/ac
Variety	TH6977 VT2P
Row Spacing	20"
Harvest Date	November 08

Corn Response

	Plants/ac	Moisture (%)
Full N	34,250	20.2
Reduced N	35,750	20.8
Full N w/Envita	34,000	20.7
Reduced N w/Envita	34,750	20.6

NDVI Imagery August 09



Precipitation[†] (mm)

	May	June	July	Aug	Total
Rainfall	22	49	59	49	179
Normal	62	100	92	72	325
% Normal	35%	49%	64%	68%	55%

[†]Growing season precipitation (mm)

Overall Yield & Economics

	Mean (bu/ac)	Cost [†]	Change in Profit/ac
Full N	118.6	\$0/ac	
Reduced N	109.7	\$0/ac	
Full N w/Envita	110.6	\$14.50/ac	- \$14.50/ac
Reduced N w/Envita	108.4	\$14.50/ac	- \$14.50/ac
P-Value	0.1219	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	5.17%		
Significance	No		

[†]Estimated cost; represents product only.



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