



Corn Nitrogen Fixing Biological Products

Objective: The purpose of the project is to quantify the agronomic and economic impact of a nitrogen fixing biological product (Envita) on grain corn for yield and quality.

Summary: One site-year showed a significant yield difference between the treatments.

Summary of 2023 corn nitrogen fixing biological product trial yield results by site-year

| Trial ID | Rural Municipality | Row Spacing (inches) | Planting Rate (plants/ac) | Envita Application (growth stage) | Yield by Treatment | | | | Precipitation (% of Normal) | CV (%) | P-Value | Statistically Significant @ 95% |
|----------|--------------------|----------------------|---------------------------|-----------------------------------|--------------------|---------------------|--------------------------|----------------------------|-----------------------------|--------|---------|---------------------------------|
| | | | | | Full N (bu/ac) | Reduced N (bu/ac) | Full N w/ Envita (bu/ac) | Reduced N w/Envita (bu/ac) | | | | |
| CRNB01 | De Salaberry | 22 | 34,000 | V6 | 127.4 | 126.8 | 128.3 | 126.7 | 47 | 1.25 | 0.6243 | No |
| CRNB02 | North Norfolk | 30 | 32,000 | V5 | 166.8 | 167.0 | 164.1 | 163.0 | 46 | 3.45 | 0.6921 | No |
| CRNB03 | Ritchot | 20 | 34,687 | V5 | 118.6 | 109.7 | 110.6 | 108.4 | 55 | 5.17 | 0.1219 | No |
| CRNB04 | Rockwood | 10 | 34,000 | V5 | 109.5 | 106.3 | 105.0 | 104.9 | 50 | 2.46 | .2100 | No |
| CRNB05 | Springfield | 15 | 36,000 | V2 | 175.5 ^A | 161.8 ^{BC} | 169.9 ^{AB} | 154.5 ^C | 66 | 4.53 | 0.0152 | Yes |
| CRNB06 | Stanley | 30 | 34,000 | V3 | 230.2 | 227.5 | 228.4 | 227.2 | 38 | 2.85 | 0.9383 | No |



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