

Use Case | Degraff, Minnesota | 2025

Double-Digit Corn Yield Gain at Full Fertility

Executive Summary

A replicated Minnesota corn trial evaluated Rootella in a productive northern environment under the full nitrogen program. Rootella averaged 220 bu/ac compared with 199 bu/ac untreated, delivering a 20 bu/ac and 10% yield advantage.

The Challenge

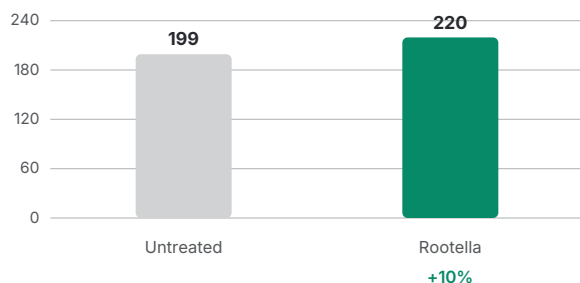
In Degraff's northern corn-growing environment, every plot received the full nitrogen rate. The trial tested whether a mycorrhizal inoculant could still capture additional yield beyond conventional fertility.

The Solution: Mycorrhiza

Through a natural plant symbiosis, mycorrhizal fungi optimize nutrient uptake so plants get the highest possible yield from every bit of fertilizer.

Results: Double-Digit Yield Gain at Full Fertility

Corn Grain Yield (bu/ac)



Yield Advantage with Rootella

+10% versus untreated

+20 bu/ac



Untreated

199 bu/ac



Rootella

220 bu/ac

220

bu/ac
with Rootella

+10%

yield advantage
at full N

67%

state win rate
8 of 12 comparisons

State win rate: Percentage of block-level Rootella-vs-untreated comparisons with a positive yield difference across three N levels at this location (8 of 12).



Conclusion: Additional Yield Beyond Full Fertility

Rootella increased yield by 20 bu/ac under full fertility. The 10% response demonstrates that mycorrhizal inoculation can contribute agronomic value even when nitrogen is not reduced.

Farmer benefit: Rootella-treated plots had higher mean yield than untreated plots under the same full-N program at this location.

*Displayed yields, yield lifts and percentages are rounded; differences use unrounded source data.