

Use Case | Aurora, South Dakota | 2025

Higher Corn Yield at Full Fertility

Executive Summary

A replicated South Dakota corn trial tested whether Rootella could add agronomic value when the crop already received the full nitrogen program. Rootella reached 265 bu/ac, adding 14 bu/ac and 5% over untreated corn.

The Challenge

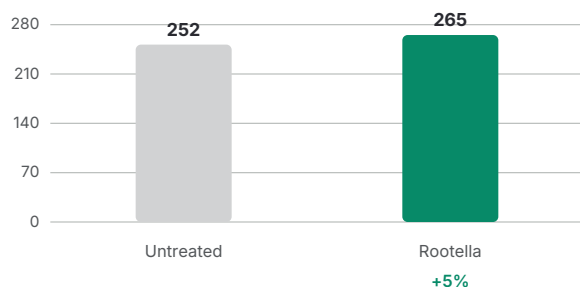
Aurora represents a high-yield South Dakota corn environment. With every plot already receiving full nitrogen, the trial tested whether a biological inoculant could create additional yield beyond a complete fertility program.

The Solution: Mycorrhiza

Mycorrhizal fungi partner with plants in a natural symbiosis that unlocks essential soil nutrients and makes fertilizer applications vastly more efficient.

Results: Performance Enhancement on High-Yield Acres

Corn Grain Yield (bu/ac)



Yield Advantage with Rootella

+5% versus untreated

+14 bu/ac



Untreated

252 bu/ac



Rootella

265 bu/ac

265

bu/ac
Rootella yield

p ~ 0.015

reported two-sample
t-test

83%

state win rate
10 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 (10 of 12).



Conclusion: Rootella Can Complement Full Fertility

Rootella increased yield by 14 bu/ac in a full-N program and delivered the highest mean yield among the three selected use cases, with a reported p-value of approximately 0.015.

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.