

2020 - 2022 Pivot Bio PROVEN® 40 Nitrogen Management Study

Research Conducted by Precision Planting

Objective

The objective of the Nitrogen Management Study is twofold:

1. Measure the effect on yield using PROVEN® 40 with 45 lbs. N reduction
2. Measure the return on investment using PROVEN® 40

Location

Precision Planting's
Precision Technology
Institute Farm,
Central Illinois

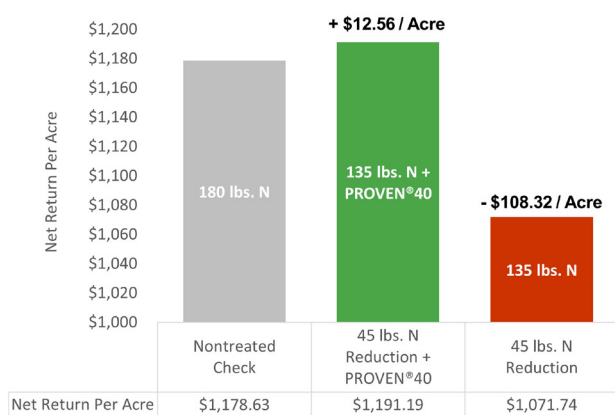
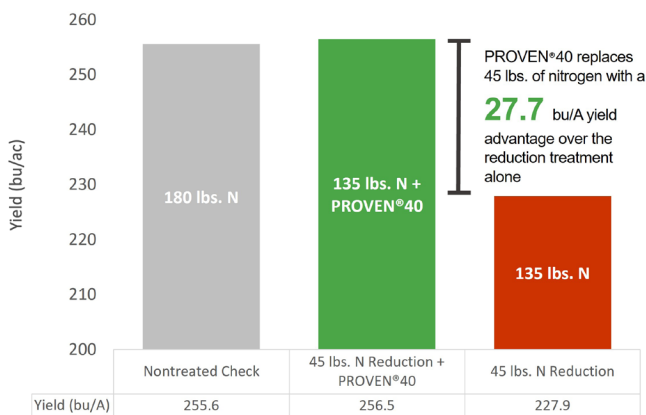


Trial Years

2020-2022

Protocol	For this agronomic study, nitrogen rates are evaluated at: <ul style="list-style-type: none"> • 180 lbs. N - 100% full N rate (nontreated check) • 135 lbs. N - 25%/45 lbs. N reduction • 135 lbs. N - 25%/45 lbs. N reduction + PROVEN® 40
Details	<ul style="list-style-type: none"> • Planting Date: April 28, 2022, April 28, 2021, May 27, 2020 • Hybrid: AgriGold 639-70 (2022), DKC 66-17 (2021), DKC 59-82 (2020) • Population: 36k • Row Width: 30" • Application: In-furrow at planting via Precision Planting FurrowJet® treatments

PROVEN® 40 has consistently demonstrated that N can be reduced by 45 lbs. while increasing yield and revenue.



Yield Performance

Results indicate that when PROVEN® 40 was added to the reduced N rate of 135 lbs., a **+27.7 bu/A** yield advantage was reported versus the 135 lbs. alone.

When PROVEN® 40 was added to the nitrogen reduction treatment (135 lbs.), the product not only replaced the 45 pounds of N but also yielded slightly higher, **+0.9 bu/A**, than the 100% nitrogen nontreated check (180 lbs.).

Return on Investment

To calculate the return on investment, the following assumptions were used:

- Corn Price: \$6.00
- UAN32%: \$0.78/lb.
- PROVEN® 40 Price: \$21/A.

When the 100% nitrogen rate was reduced by 45 lbs. of N and replaced with PROVEN® 40, revenue was increased by **+\$12.56/A**.

