

## Dairy farming study evince Microbial Nitrogen efficacy boosts silage tonnage + profitability

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An extensive new study conducted in collaboration with over 30 dairy producers during the 2022 and 2023 growing seasons demonstrated that replacing up to 40 pounds per acre of synthetic nitrogen with Pivot Bio PROVEN® 40 significantly improved silage tonnage without sacrificing quality.

The results, presented at the Dairy Business Association's Dairy Strong event in Green Bay, Wisconsin, showed that farmers who used PROVEN 40 and a reduced rate of nitrogen saw a 0.91 increase in tonnage per acre, representing a 4.2% advantage over the grower standard. Along with increasing silage production PROVEN 40 also boosted farmer profitability. Replacing synthetic nitrogen with up to 40 pounds of PROVEN 40 led to a 3.4% increase in milk production per acre. While production per acre increased, milk per ton remained consistent, demonstrating that production can increase while

maintaining quality.

Andy Heath, a Pivot Bio agronomist from Central Wisconsin. “For the second year in a row, our results show that Pivot Bio’s revolutionary microbial nitrogen is a step toward a more prosperous future in corn silage production, optimizing tonnage, maintaining quality, improving environmental outcomes and ultimately driving profitability.”

Key findings include:

- **Consistent performance across varied weather conditions:** The study, conducted over two years, showcased the consistent advantages of PROVEN 40 in increasing silage yield across diverse weather conditions, soil types and corn silage management systems.
- **Impressive tonnage increase:** Dairy producers who replaced up to 40 pounds of synthetic nitrogen per acre with PROVEN 40 increased tonnage per acre by 0.91, a 4.2% boost when adjusted to 65% moisture content.
- **Maintaining quality while growing profitability:** In addition to increasing corn tonnage, replacing synthetic nitrogen with PROVEN 40 led to no statistical difference in quality metrics, including 30-hour neutral detergent fiber digestibility, starch content, 240-hour undigestible neutral detergent fiber and crude protein.

Pivot Bio is a leading sustainable agriculture company delivering farmers patented crop nutrition technologies that harness the power of nature to reliably and productively grow the food the world needs in the face of increasing volatility. Currently available in North America and soon in Brazil, provides climate solutions by delivering nitrogen to plants without the negative impacts of synthetic fertilizer. Pivot Bio is upending the \$190 billion nitrogen market.