

2023 GROWER HANDBOOK

For more information, contact

Pivot Bio Customer Success Center

515-436-4462 | support@pivotbio.com





IT'S

The Nitrogen You Need. Now On-Seed!

Pivot Bio PROVEN® 40 OS is now available directly on-seed. This convenient nitrogen on-seed application eliminates the need for extra equipment and field passes, saving you time and the hassle of dealing with synthetic nitrogen. One pro box of Pivot Bio PROVEN® 40 OS has the equivalent on-seed nitrogen to replace as much as 1,200 gallons of anhydrous, 1,700 gallons of UAN 28% or five tons of UREA. Plus, it's weatherproof, with no loss to leaching, denitrification or volatilization.

Plant a little predictability and turn to a *better* nitrogen.

Turn to Pivot Bio.





Pivot Bio has you covered in more ways than one.

The predictability of Pivot Bio PROVEN® 40 now comes in both in-furrow and on-seed. Our microbes adhere directly to your plant's roots to ensure it gets the nutrition it needs. It's also weatherproof, so there is no loss to leaching, denitrification or volatilization. Turn to a more predictable nitrogen.



Turn to a Better Nitrogen

pivotbio.com

Nitrogen that stays put. Weather or not.

SUCCESS IN GROWER DEMONSTRATIONS ACROSS THE COUNTRY





ALL-TIME LARGEST SINGLE SEASON IN-PLANT NITROGEN DATA COLLECTION

In more than 2,000 customer fields across the United States, plant biomass and nitrogen were compared between plants with Pivot Bio PROVEN® 40 (with up to 40 lbs. of synthetic nitrogen replaced) and an untreated check strip. Corn treated with Pivot Bio PROVEN® 40 had 14.8% more biomass, resulting in 13.9% more in-plant nitrogen.

PLANT BIOMASS

+14.8%

ACROSS GROWTH STAGES

IN-PLANT NITROGEN

+13.9%

ACROSS GROWTH STAGES

PROVE NAME

IT'S ALL IN THE NAME

Pivot Bio PROVEN® 40 lived up to its name by replacing up to 40 lbs. of synthetic nitrogen.

Data from samples as of August 5, 2022.



1.3 MILLION REPRESENTATIVE ACRES.

TESTS CONDUCTED ON PIVOT BIO CUSTOMER FIELDS

2022 GROWING SEASON >2,000) **Fields States**

PREDICTABILITY

In your annual battle against weather and input costs, Pivot Bio is on your side, bringing more certainty to your nitrogen plan.



PREDICTABLE

Adhering directly to the roots, Pivot Bio PROVEN® 40 predictably applies nitrogen daily throughout critical growth stages. It's right in the name—Pivot Bio PROVEN® 40 predictably applies 40 pounds of nitrogen per acre.



Level out performance across various soil types and topography.



WEATHERPROOF

Pivot Bio PROVEN® 40 stays put—weather or not. It is not susceptible to runoff, leaching or denitrification like synthetic nitrogen products.

THE NITROGEN YOU NEED-NOW ON-SEED

Experience the extraordinary benefits of Pivot Bio PROVEN® 40—delivered on-seed.





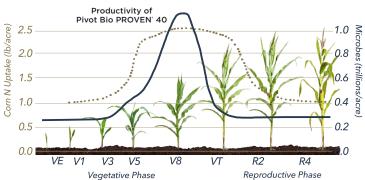
MAKE PIVOT BIO PROVEN® 40 YOUR FIRST FORTY POUNDS OF NITROGEN.



NITROGEN IS APPLIED DAILY

Pivot Bio PROVEN® 40 is the only microbial product available to U.S. corn growers that applies nitrogen everyday throughout the growing season, with peak nitrogen production when the crops need it the most. Applied at planting, the microbes adhere to the corn roots so growers can be confident their corn is getting a consistent daily source of nitrogen. Unlike traditional nitrogen, Pivot Bio PROVEN® 40 does not leach when it rains.

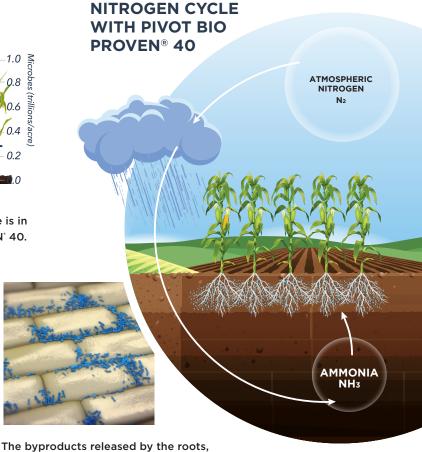
NITROGEN UTILIZATION



The corn plant's demand for nitrogen over the growth cycle is in correlation to the nitrogen production of Pivot Bio PROVEN' 40.



As the seed germinates and the roots reach out into the soil, the microbes adhere to the root structure. The microbes and roots quickly form a mutually beneficial relationship.



PIVOT BIO PROVEN® 40 PRODUCT INFORMATION



Pivot Bio PROVEN' 40 produces ammonia, a readily available nitrogen source for corn.



In-furrow liquid formulation comes ready to use or on-seed formulation applied by a Pivot Bio representative.



Pivot Bio PROVEN* 40 contains living microbes that must be stored between 32°F - 70°F and away from direct sunlight.



called exudates, support robust colonization of the

microbes along the rhizoplane of the roots and give the

microbes the energy they need to fix atmospheric nitrogen.

Applied in-furrow or on-seed.



In-furrow liquid formulation can be tank mixed with pop-up fertilizers and insecticides.



2023 COUNTDOWN TO SAVINGS

PROVE N40



SAVINGS:

\$9/ACRE





N-OVATOR PROGRAM PARTICIPATE AND RECEIVE \$2/ACRE DATA COLLECTION INCENTIVE

SYNTHETIC NITROGEN REPLACEMENT PROGRAM

Replace between

25-40

Lbs./Acre of synthetic nitrogen with

PIVOT BIO PRODUCTS

Enroll a minimum of

520

Acres or whole farm in the

N-OVATOR PROGRAM*

VALIDATE NITROGEN REPLACEMENT TO GENERATE OFFSET/INSET CREDITS

Requirements are farm-level geospatial, purchase and field management data submitted by Aug. 16, 2023, actual yield by December 15, 2023 and signed affidavit by January 17, 2024.

Ask your local representative for details.

*2023 N-OVATOR Program will include Pivot Bio RETURN®, Pivot Bio PROVEN® 40 & Pivot Bio PROVEN® 40 OS

Equipment Reimbursement Program



Pivot Bio PROVEN® 40 must be applied in-furrow at planting and participating growers may be entitled to reimbursement of the cost of purchasing qualified application equipment.* All equipment reimbursed under this program is the sole property of the participating grower.**

PIVOT BIO NLIGHTEN SYSTEM EQUIPMENT REIMBURSEMENT PROGRAM

IN-FURROW/DIRECT INJECTION ADOPTION

THREE-YEAR COMMITMENT

520 ACRES x THREE YEARS UP TO \$5,000 REIMBURSEMENT

1,000 ACRES x THREE YEARS
UP TO \$10,000 REIMBURSEMENT

EQUIPMENT INVOICE REQUIRED FOR REIMBURSEMENT

PURCHASE OF APPLICATION EQUIPMENT MUST BE COMPLETED ON OR BEFORE FEBRUARY 1, 2023.

^{*}Qualified means the ability to get liquid in a precisely measured application in-furrow. Minimum requirements apply. Refer to "Pivot Bio Minimum System Specification" document, or contact your local sales representative for more details.

^{**}Restrictions and rules apply. See program contract for all details.



Pivot Bio Nitrogen Assurance

Pivot Bio, the leader in providing a clean alternative to synthetic nitrogen, offers a 100% Nitrogen Assurance for Pivot Bio PROVEN® 40 licensing agreements.¹ Pivot Bio is so confident in the benefits of Pivot Bio PROVEN® 40 technology, we guarantee synthetic nitrogen will not outperform Pivot Bio PROVEN® 40 when stewardship guidelines are followed.

WHAT IS THE PIVOT BIO NITROGEN ASSURANCE?

Pivot Bio's Nitrogen Assurance provides a promise of Pivot Bio PROVEN® 40 performance on your farm this season. Pivot Bio PROVEN® 40 performance is measured using in-field testing to determine plant nitrogen status. If the performance of Pivot Bio PROVEN® 40 is not parity with untreated check strips, a credit will be applied to your invoice.²

HOW DO I PARTICIPATE IN THE NITROGEN ASSURANCE?

Participation is simple and can be done by following these steps:

- Implement check strips within your fields at planting. The number of check strips necessary is determined by the total number of acres planted. (See table to the right.)³
- Submit digital data and identify the location of the untreated control check strip no later than three weeks post-planting.
- 3. Provide management data by completing the Stewardship Agreement.
- 4. Field visit from a Pivot Bio representative prior to the R3 growth stage.

Pivot Bio representatives will conduct in-season sampling for efficacy of Pivot Bio PROVEN® 40. Nitrogen replacement will be validated using techniques including assessment of leaf chlorophyll concentration, plant biomass, stalk diameter, number of firing leaves, and tissue nutrient testing.

Acres Planted	Number of Checks
Under 999	1
1,000 - 1,999	2
2,000 - 2,999	3
3,000 - 3,999	4
4,000 - 4,999	5
5,000 or greater	6

Pivot Bio PROVEN® 40 with up

to 40 lbs N/acre replacement

Untreated check with grower standard practice

PROGRAM PROTOCOLS AND TERMS

Pivot Bio guarantees the performance of Pivot Bio PROVEN® 40 by measuring its performance based on in-field testing for plant nitrogen status. Your digital data is used by the representative to locate the Pivot Bio PROVEN® 40 and untreated check areas in the field.

- Fields must be representative of the grower's operation and structured as a side-by-side trial comparing standard fertility practice to acres with Pivot Bio PROVEN® 40 that have replaced synthetic nitrogen by up to 40 lbs/acre.
- Treated and untreated locations must have consistent chemistry, germplasm, seed treatment, tillage, irrigation, and soil conditions.
 Note: Planting files will be requested for proper analysis.
- The same nutrient management practices (except for up to a 40 lbs/acre N replacement) must be used on the untreated check and the treated areas.⁴
- At the time of planting, the untreated check area must be labeled by putting "UTC" after the seed hybrid in the monitor (e.g., DKC64-35UTC).
- The same hybrid must be planted in both the untreated check and in the surrounding Pivot Bio PROVEN® 40 treated area next to the check.

To assess plant nitrogen status, it is required that digital data files be uploaded to the Pivot Bio Farmer Portal no later than three weeks following planting.

This data must indicate the location of the untreated check and any application data demonstrating the nitrogen application level and practices for 1) the area of the field treated with Pivot Bio PROVEN® 40 and 2) the check strip(s). If digital files cannot be provided, a Pivot Bio Sales Representative should be contacted to determine an alternative approach.

¹ To qualify for the Nitrogen Assurance the agreement must be for a minimum of 520 acres.

²The amount of the credit will be determined by the number of checks that do not reach N status parity (within 3%) with the treated areas. This is determined with pairwise comparison between checks and the proximate treated area.

³ In the case that the check strip requirements are not met, the Nitrogen Assurance will be reduced to the ratio of completed checks. For instance, if a 5,000 acre grower only completed three checks, they would only be eliqible for 50% of the claim.

⁴ Maximum replacement for the Pivot Bio PROVEN® 40 treatment area is 40 lbs N/acre to be eligible for this Nitrogen Assurance.

NOTES:		



pivotbio.com