PROVE N

## OUTPERFORMED SYNTHETIC FERTILIZER

BY 7.7 bu/A WHEN COMPARED TO PLOTS WITHOUT PLOTS WITHOUT BIO PROVENT IN 2018 TRIALS

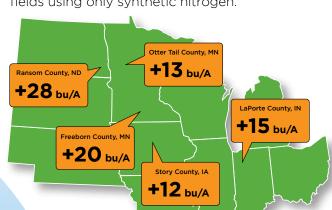


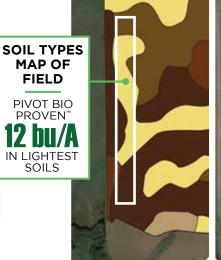
ACROSS 13 STATES AND 47 DIFFERENT SOIL TYPES

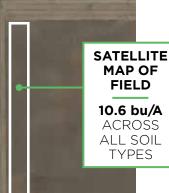
Pivot Bio PROVEN™ colonization on corn roots across the 2018 trials demonstrated that the microbes thrived in variable weather conditions in all 13 states and 47 different soil types tested.

#### STRONG PERFORMANCE IN CHALLENGING SOIL TYPES

Pivot Bio PROVEN™ microbes recorded strong performance in challenging soil conditions with a **17 bushel per acre advantage** against comparable fields using only synthetic nitrogen.

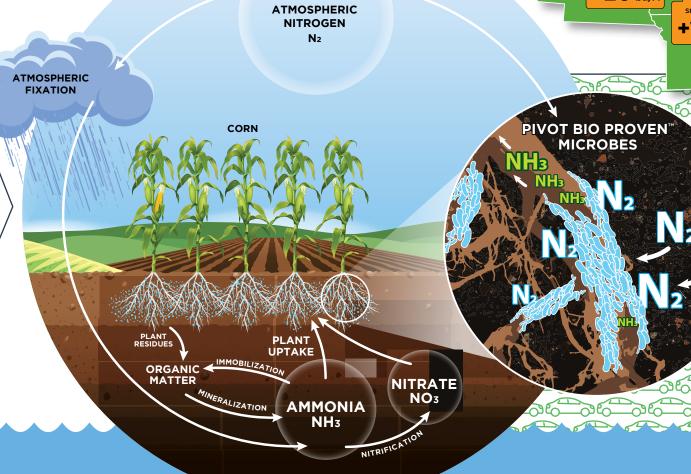






NITROGEN CYCLE WITH PIVOT BIO PROVEN™

REAWAKENING
MICROBIAL
NITROGEN
PRODUCTION



# NO LEACHING NO LOSS

OR A STRONG ROL

Based on conservative calculations, when the use of Pivot Bio PROVEN™ expands to 30 million acres, nearly 20,000 metric tons of nitrous oxide emissions will be reduced or prevented, which is equivalent to taking almost 1.5 million cars off the road,

AND WILL PREVENT

#### **500,000 METRIC TONS**

OF NITRATES
LEACHING INTO WATERWAYS

2

44 I do feel that Pivot Bio PROVEN™ is an important product that will help us capture upper-end yield potential without having negative effects on the environment or the added stress of responding to different weather events. As we gain more intuition for performance consistency and potential, I believe that we will start to alter our nitrogen management plan to optimize the economic return with Pivot Bio PROVEN™ as part of the standard plan.



### WHAT GROWERS **ARE SAYING**

evin Poppel, a grower in south central Minnesota, shared his experience using Pivot Bio PROVEN™ through the 2018 growing season. Prolonged heavy rains kept Kevin from his standard nitrogen application plans and gave him a unique insight to the value of Pivot Bio PROVEN™.

"We had a major rain event for a 30-day period of time that essentially put us on the sidelines from doing what we needed to do to grow a decent crop.

I saw the ability for Pivot Bio PROVEN™ to stay in the root zone over a conventional nitrogen fertilizer that moves readily in the soil.

We were able to bridge that gap and know that even with a large rain event, we're not going to have to supplement extra nitrogen because we know what's in that root zone. That's a win for us.

When we finally got the combine into the field in the Pivot Bio trial, we saw some great results. We had put on nitrogen later than we had anticipated, probably at that V12 timeframe, so we were short nitrogen throughout the whole field, but what we saw in the trial site was definitely a positive. When we drove through the Pivot Bio trial, you could see

pass-for-pass how different the yield was. When the yield monitor is in five to ten bushel increments, and you see a green go to a dark green that really sparks your interest.

That gets me excited, because we actually spent less money on that acre by using a biological to supplement our nitrogen."

44 Pivot Bio PROVEN™ would reduce our overall applied N by ~20 units."

**Kvle Morrow** 

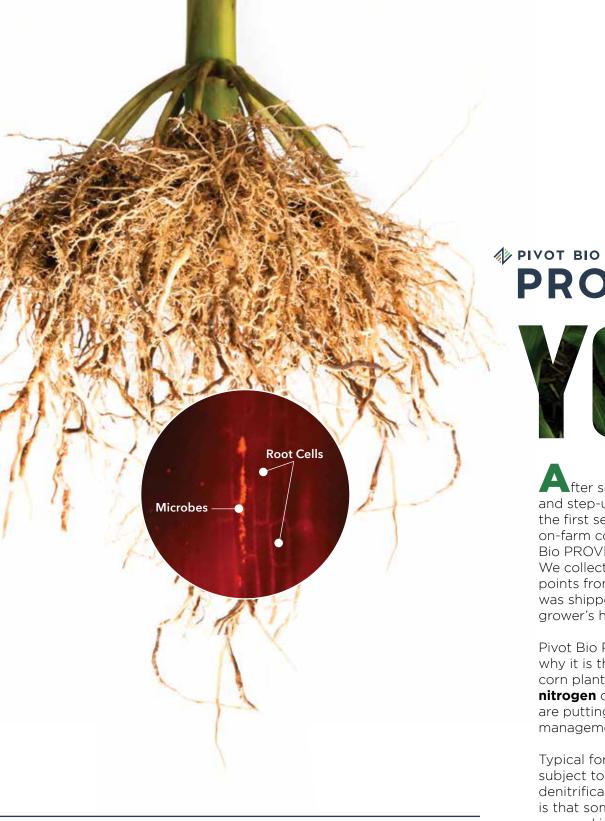




44 Pivot Bio PROVEN™ reduced our environmental impact by making N available throughout the season without applying additional N.\*\*

Joel Mathiowetz Southwest Minnesota





**Pivot Bio PROVEN™** microbes attached themselves firmly to corn roots and do not wash away even after extreme weather events, demonstrating they are a **consistent source of nitrogen**.

**Pivot Bio PROVEN™** is the **best nitrogen** for corn plants and should be your **first nitrogen** considered in your nitrogen management plan.

# PROVE N. YOUR BEST

After several years of research and step-up trials, 2018 marked the first season for wide-scale, on-farm commercial trials of Pivot Bio PROVEN™ in the United States. We collected millions of data points from the time our product was shipped to farmers, until each grower's harvest was complete.

Pivot Bio PROVEN™ demonstrated why it is the **best nitrogen** for corn plants and should be the **first nitrogen** considered when growers are putting together their nitrogen management plans.

Typical forms of nitrogen are subject to loss through runoff and denitrification. The only certainty is that some percentage of the growers' investment will be lost, forcing farmers to be constantly evaluating and re-adjusting input costs, yield projections and ROI throughout the season.

Pivot Bio PROVEN™ microbes deliver a **reliable source of nitrogen** by attaching firmly to the corn roots. They do not wash-away, even after extreme weather events.

Results showed that plant performance was dramatically improved using Pivot Bio PROVEN™ when nitrogen plans were delayed or became deficient. Even when nitrogen plans were properly executed under ideal conditions, Pivot Bio PROVEN™ showed increased performance, largely due to the fact that crops received consistent delivery.

Our commercial trials were conducted on farms from North Dakota to Louisiana, and Nebraska to North Carolina, under a wide range of growing conditions, proving that the **versatility of Pivot Bio PROVEN** microbes performed in all different soil types and climates, regardless of the hybrid or other inputs.

