

2022 Pivot Bio PROVEN® 40 Efficacy Test Research Conducted by University of Illinois



Objective

This objective of this study was to evaluate the effect of Pivot Bio PROVEN® 40 (In-Furrow and On-Seed) on corn yield when applied alone and in combination with various carbon additives.

Location

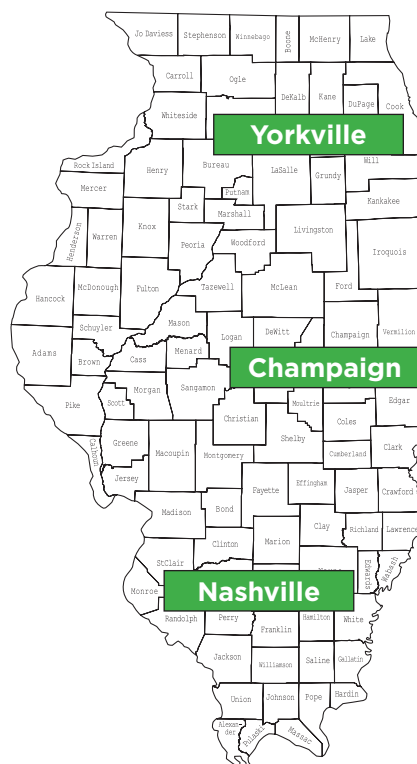
Four locations in Illinois. Nashville (1), Champaign (2), Yorkville (1)

Trial Year

2022

<p>Protocol</p>	<p>For this agronomic study, the following treatments were utilized:</p> <ul style="list-style-type: none"> • 140 lbs. N/acre (Nontreated Check) • 140 lbs. N/acre + PROVEN® 40 • 140 lbs. N/acre + PROVEN® 40 + Pivot Bio Experimental Carbon Additive #1 • 140 lbs. N/acre + PROVEN® 40 + Pivot Bio Experimental Carbon Additive #2 • 140 lbs. N/acre + PROVEN® 40 + High Fructose Corn Syrup • 140 lbs. N/acre + PROVEN® 40 + Humic Acid
<p>Details</p>	<ul style="list-style-type: none"> • Planting Date: May 16th Nashville, May 13th Champaign (On-seed and In-furrow), May 23rd Yorkville • Tillage: Fall chisel pass and field cultivation in the spring • Treatment Application: Pivot Bio PROVEN® 40 applied In-furrow at three locations and as an On-seed application at one location. Carbon sources were tank mixed with PROVEN® 40 for in-furrow applications. For On-seed PROVEN® 40, carbon additives were applied as an in-furrow application on top of the treated seed. • Nitrogen Application: 140 lbs./A 32% UAN applied pre-plant incorporated as a broadcast application. • Hybrid: Pioneer P1082AM

In-furrow applications of various carbon sources to support microbe growth is commonplace in the agricultural industry. Applying a carbon additive in conjunction with Pivot Bio PROVEN® 40 supplies the Pivot Bio microbe with a carbon-rich food source while the crop is still young. This carbon additive likely enhances PROVEN® 40's capacity to fix nitrogen from the atmosphere early in the growing season and returns that nitrogen to the developing crop. As the crop matures, Pivot Bio PROVEN® 40 will utilize root exudates from the corn plant as a food source and continue to provide nitrogen to the crop. Pivot Bio's goal is to design microbe specific carbon sources.



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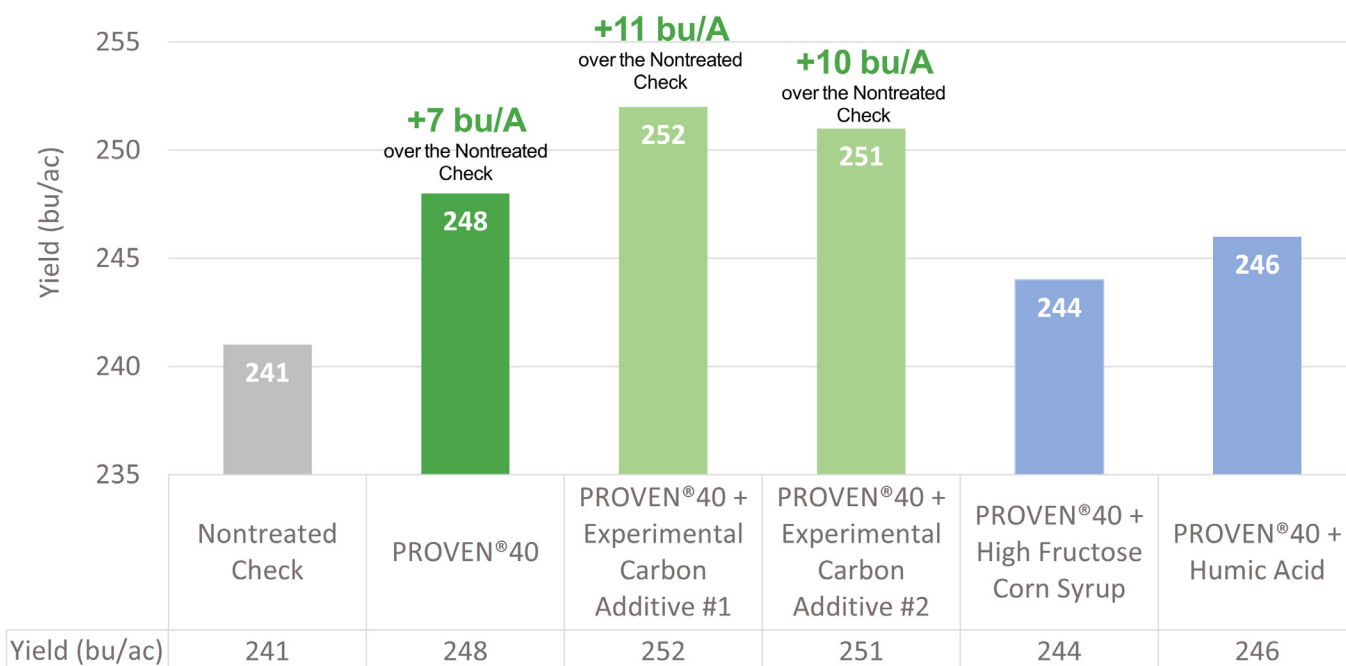
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PROVEN® 40 treated corn plants yielded more bushels per acre compared to the nontreated check and yield responses were enhanced using Pivot Bio’s proprietary carbon sources.

Influence of PROVEN®40 and carbon additives on corn yield averaged across four IL locations in 2022



Yield Performance

Averaged across four trial locations, corn yields increased numerically with all PROVEN® 40 treatments. When PROVEN® 40 was applied alone, corn yield increased **+7 bu/A** compared to the nontreated check.

Corn yields increased by an additional **3 to 4 bu/A** when PROVEN® 40 was applied with a Pivot Bio Experimental additive.

