

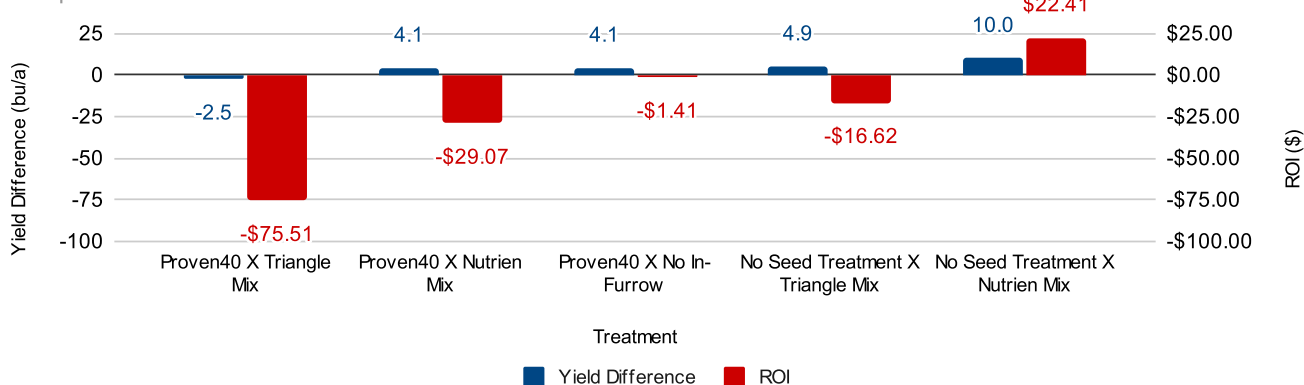
Planting Date	May 16, 2023	Agent Notes - This study looked at the impact of the biological seed treatment offered by PivotBio, "Proven40", along with the in-furrow application of recommended treatments from two companies. Nutrien Ag's mix includes Riser, a starter fertilizer, and Radiate, a plant growth regulator and Triangle Chemical's mix includes Challenge Liquid Plant Food, a starter fertilizer, and Mega Gro L, a plant growth regulator. I would like to thank Garrett Whitfield for his time and resources dedicated to this trial, the three represented companies for their partnership, the Corn Growers Association of North Carolina for their support, and NK Seeds for the use of their weigh wagon to collect yield data.
Seeding Rate	25,000	
Row Spacing	15"	
Variety	NK1444	
# of Replications	3	
Harvest Date	October 27, 2023	

Treatments:

<p>Biological Seed Treatment</p> <p>With Proven40</p> <p>No Seed Treatment</p>	<p>In-Furrow Treatments</p> <p>Triangle Mix: Challenge Liquid Plant Food @1 gal/ac Mega Gro L @ 2 oz/ac</p> <p>Nutrien Mix: Riser @2.5 gal/ac Radiate @2 oz/ac</p> <p>No In-Furrow</p>	<p><i>Plots received any of the following 6 treatments:</i></p> <p>Proven40 X Triangle Mix (\$63/ac) Proven40 X Nutrien Mix (\$49/ac) Proven40 X No In-Furrow (\$22/ac) No Seed Treatment X Triangle Mix (\$41/ac) No Seed Treatment X Nutrien Mix (\$27/ac) Untreated Check</p>
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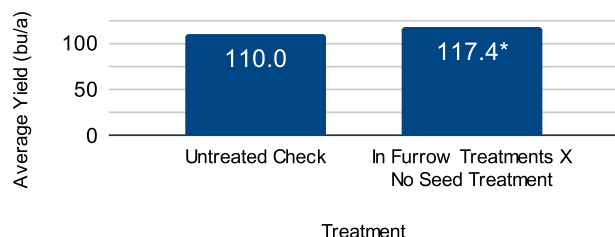
Difference in Yield and ROI for Treatments

Compared to untreated check



*The ROI was calculated using a corn price of \$4.98, which was the NCDA Central County Elevator Average Price on 11/27/23. Yield differences of treatments were not statistically significant.

In Furrow Treatments VS Check



*Plots with in-furrow treatments without seed treatment yielded higher than the untreated check

MAIN TAKE AWAYS:

- All but the Proven40 X Triangle Mix treatment had a positive yield response. The Nutrien Mix was the only treatment with a positive ROI.
- In plots with no biological seed treatment (Proven40), applying an in-furrow treatment did perform better than the check, though there were no differences between mixes (Nutrien VS Triangle).
- Proven40 seed treatment did not provide a statistically significant yield advantage. This could have been due to the dry nature of the season. It should be noted that other studies performed by NC State have found that Proven40 in-furrow treatment *did* provide yield advantages, and that this study does not disprove those findings.
- There was evidence that the interaction between Proven40 seed treatment and in-furrow products caused a decrease in yield response. This should be looked at in future plots to investigate this interaction.

