

3rd Party Corn Trial 2021, Murdock, MN

Objective: The purpose of this trial was to demonstrate measurable yield improvements by including biology and carbon in in-furrow starter fertilizer for conventional corn

Starting strong with biology as an in-furrow starter with a carbon-based food source is a great opportunity to increase yield.

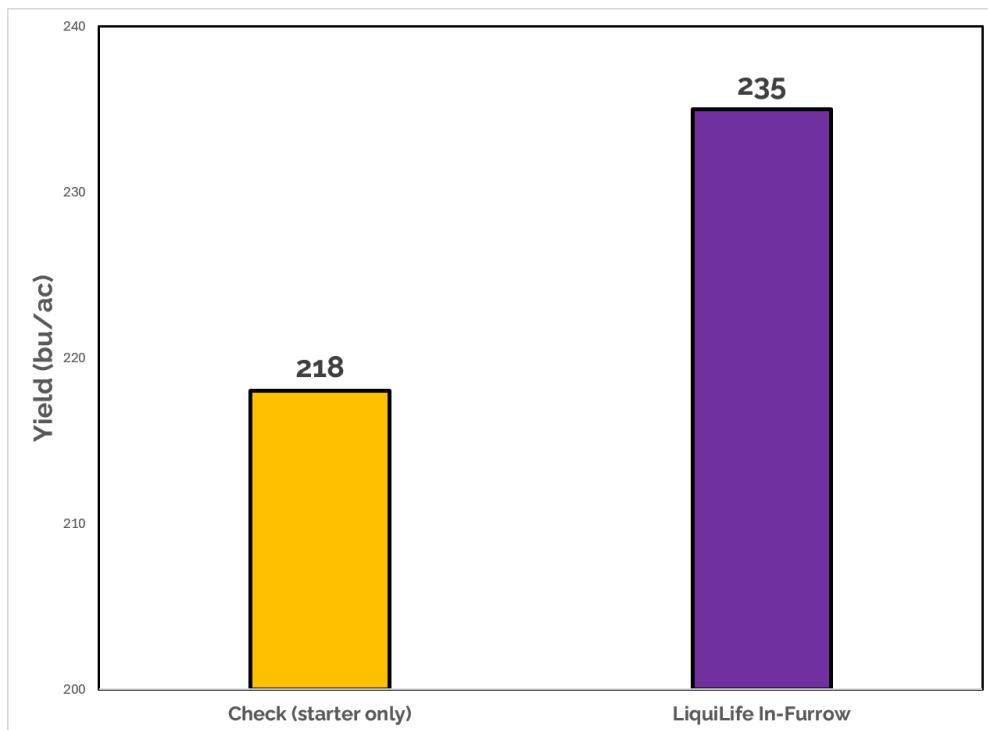
Fertility and Herbicide:

Fertilizer	Inputs	Rate
	Urea	300 lbs/ac
	Potas	180 lbs/ac
	MAP	50 lbs/ac)

Treatment

Placement	Treatment	Rate
In-furrow	Check (starter only)	4.75 gal/ac
In-furrow	LiquiLife* (with starter)	2 gal/ac

*Liquid Super Charger as the LiquiLife's food source



Key agronomic takeaways from the trial:

- +17 bushel per acre increase
- + \$58 ROI increase compared to the Check (water only)

3rd Party Corn Trial 2021, Whitewater, WI

With a comprehensive fertility plan in place (fall and mid-foliar), starting strong with biology as starter is a great opportunity to save cost and improve yield

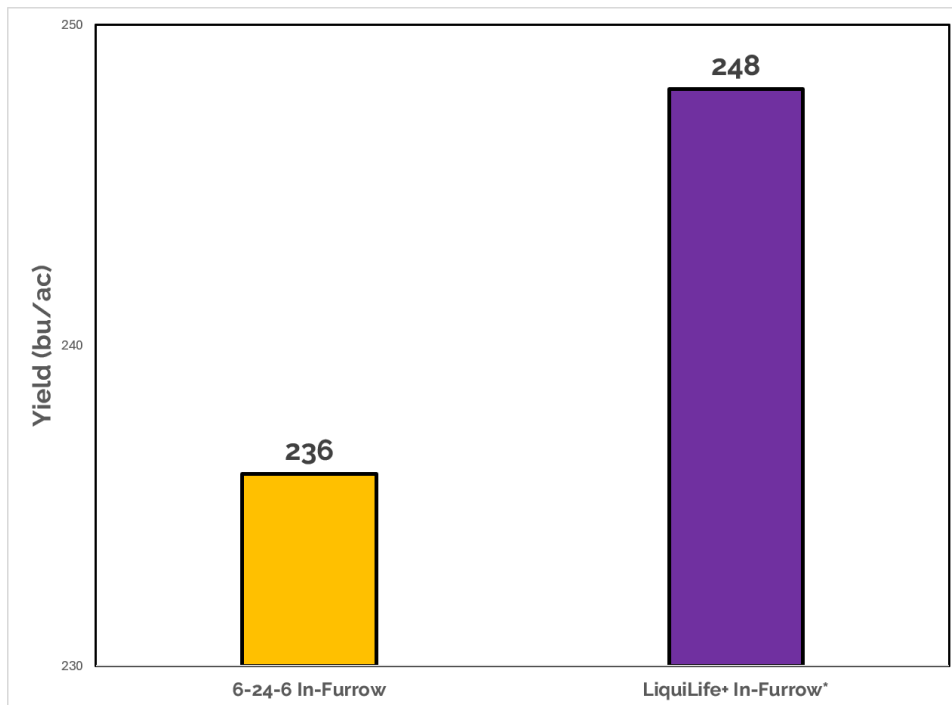
Fertility Program in Fall and Spring

Timing	Fertility	Rate
Fall	11-52-0	90 lbs/ac
Fall	0-0-62	200 lbs/ac
Foliar 1 (post-planting)	UAN	45 gal/ac
Foliar 2 (post-planting)	UAN	15 gal/ac

Treatment:

Timing	Treatment	Rate
At-planting	6-24-6	5 gal/ac
At-planting	LiquiLife+*	2.5 gal/ac

*Liquid Super Charger as the LiquiLife+'s food source



Key agronomic takeaways from the trial:

- +12 bushel per acre increase
- Including biology maintained and improved yield

3rd Party Corn Trial 2021, Wyoming, Illinois

Objective: The purpose of this trial was to demonstrate measurable yield improvements by including biology and carbon in in-furrow starter fertilizer for conventional corn

Starting strong with biology as an in-furrow starter with a carbon-based food source is a great opportunity to increase yield

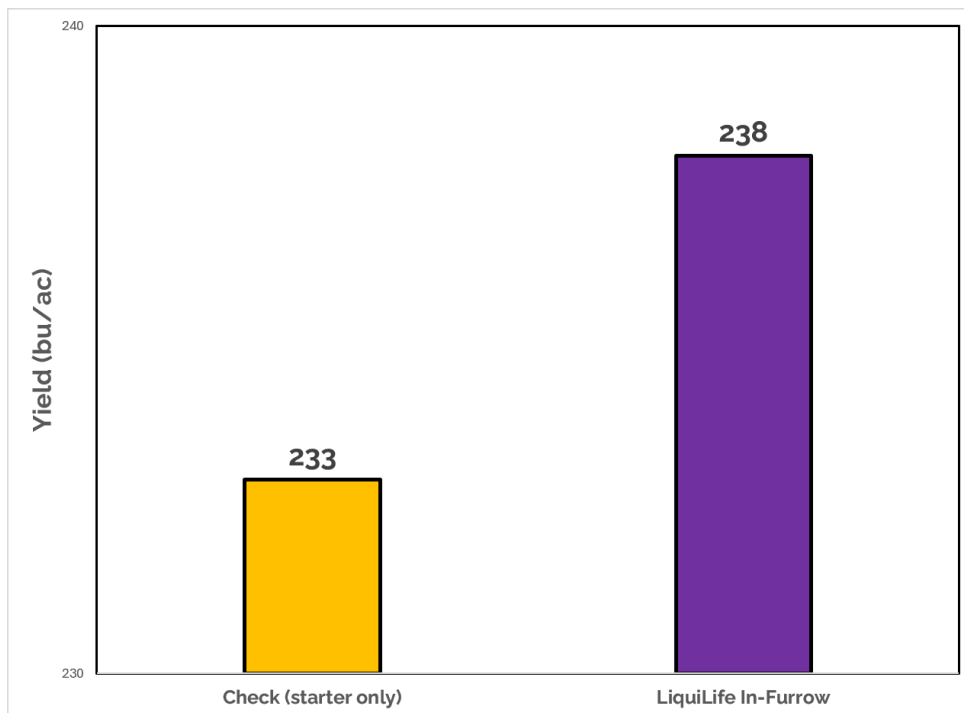
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In-furrow	Check (starter only)	4.75 gal/ac
In-furrow	LiquiLife* (with starter)	2 gal/ac

*Liquid Super Charger as the LiquiLife's food source



Key agronomic takeaways from the trial:

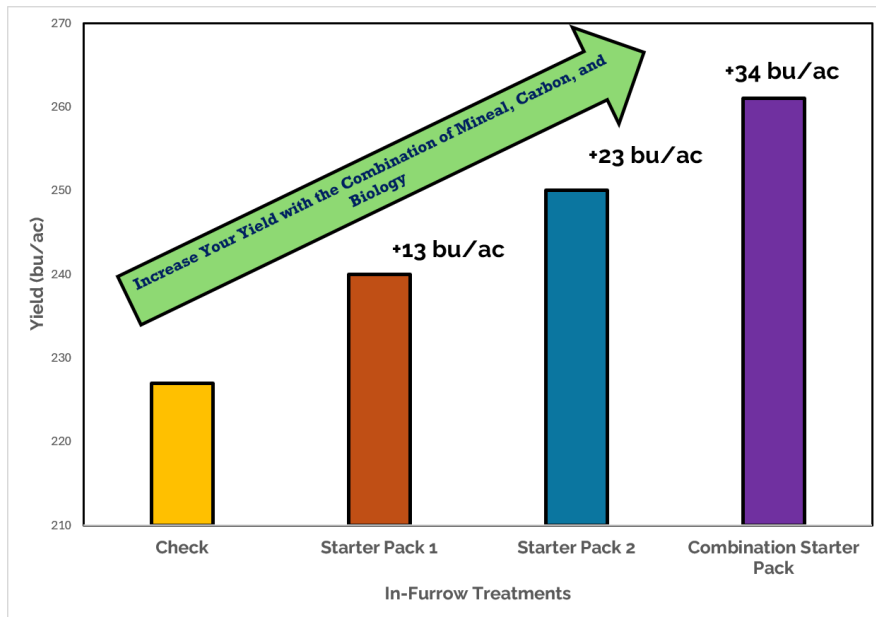
- +5 bushel per acre increase

3rd Party Corn Trial, 2020, Whitewater, WI

Objective: The purpose of this trial was to demonstrate measurable yield improvements from a wide range of organically approved in-furrow fertility inputs.

Treatment Description:

Treatment	Treatment Description
Check	Water-only
Starter Pack 2	5 gal/ac TerraFed and 5 gal/ac Liquid N (6%)
Starter Pack 3	5 gal/ac TerraFed and 5 gal/ac LiquiLife
Combination Starter Pack	5 gal/ac TerraFed, 5 gal/ac Liquid N (6%), and 3 gal/ac LiquiLife



Treatment	Yield Response compared to Check (bu/ac)
Check	0
Starter Pack 2	13
Starter Pack 3	23
Combination Starter Pack	34

Key agronomic takeaways from the trial:

A Combination of Mineral, Carbon, and Biology via In-Furrow Applications on Corn leads to:

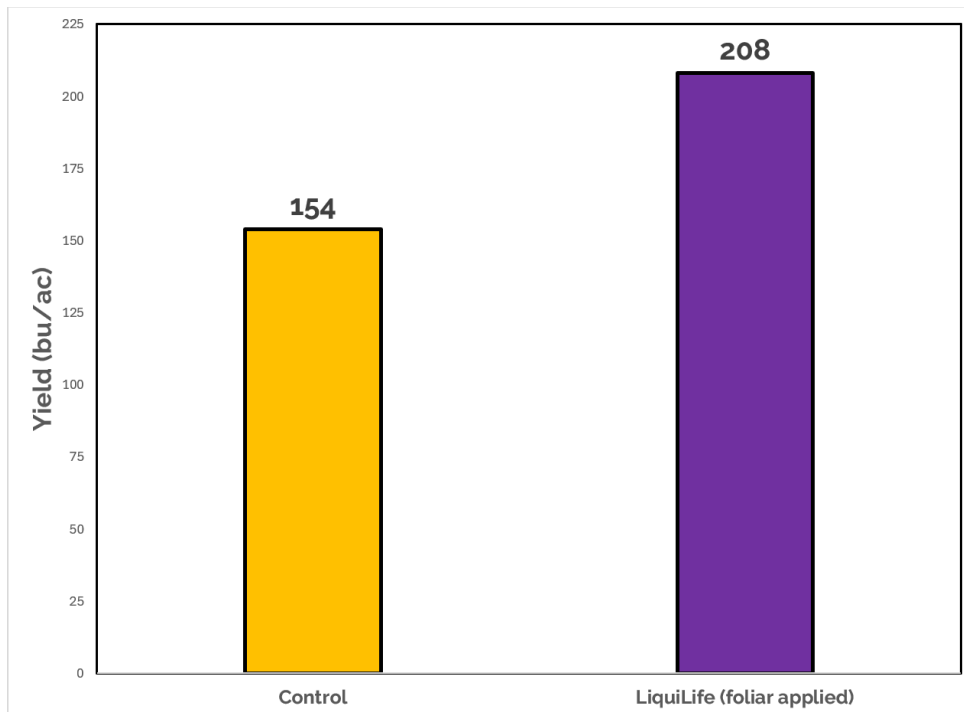
- +34 bu/ac increase in organically approved fertility inputs trial
- For every dollar you spend on nitrogen, you receive \$8.27 to \$11.34 when mineral carbon and biology are used together

3rd Party Organic Valley Corn Trial, LaFarge, WI 2019

Objective: The purpose of the study was to investigate the use of biology with a carbon-based food source as foliar application in an organic corn production system

Treatment	Treatment Description
Check	Water-only
LiquiLife	5 gal/ac LiquiLife
Carbon-based food source*	5 gal/ac

*TerraFed was used as the carbon-based food source

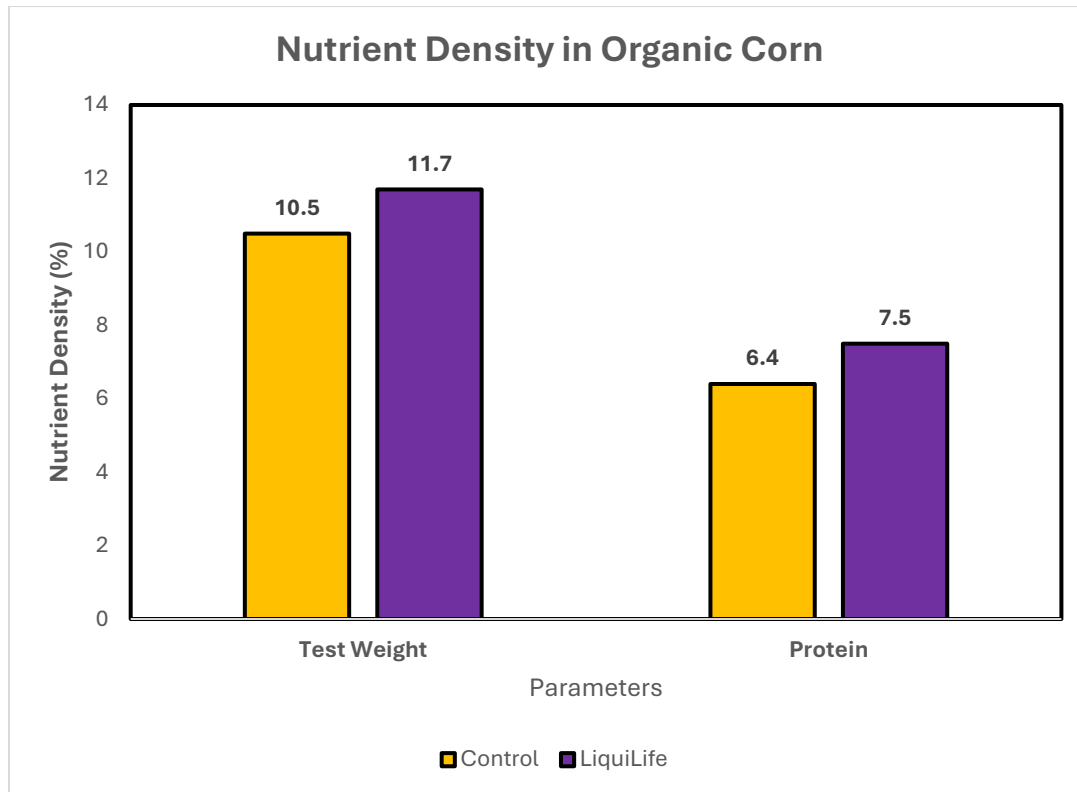


Key agronomic takeaways from the trial:

- +54 bu/ac increase in an organically managed corn production system
- ROI is \$420.68/ac (*ROI figured on \$8.70/bushel organic corn basis)

On-Farm Trial 2018

A 2018 on-farm trial was conducted to determine the benefits of LiquiLife with a carbon-based food source in furrow as a bio-starter in organic corn production.



Key agronomic takeaways from the on-farm trial:

- +17 bushel per acre increase
- Input cost of less than \$40 per acre
- ROI increase per acre north of \$160
- Net profit approx. \$12,000 for every 100 acres planted
- Higher test weight and protein content (NIR)

On-Farm Biology and Carbon Inclusion Strategy Trial 2023, Brandon, WI

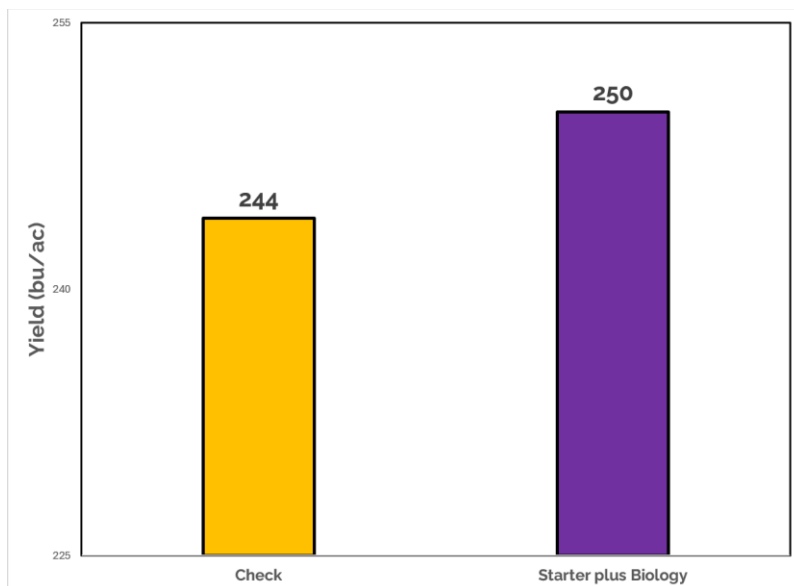
Objective: The objective of this trial was to assess LiquiLife's performance with in-season UAN and manure on corn yield

At-planting starter composition

Input	Rate
UAN	10 gal/ac
LiquiLife	2 gal/ac
Liquid Carbon	2 gal/ac
Manure	70 units of N

In-season treatment description (applied at **post-herbicide, V-8 stage** of the corn)

Treatments	Description	UAN	LiquiLife	Liquid Carbon	Yield (bu/ac)	N: bu ratio
Check	Only Starter	No	No	No	244	0.42
Starter plus Biology	Starter plus in-season LiquiLife with liquid carbon	No	Yes (4 gal/ac)	Yes (5 gal/ac)	250	0.45



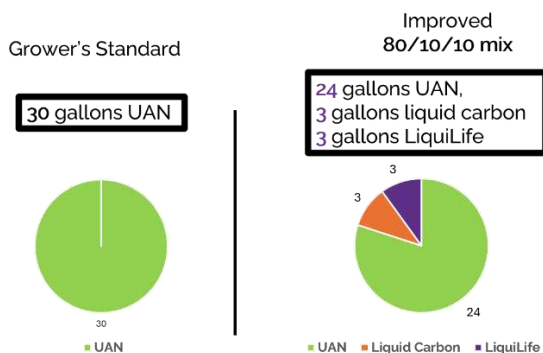
Key agronomic takeaways from the trial:

- +6 bushels per acre increase
- The In-season inclusion of broad-spectrum biology drove the yield up

On-Farm Carbon and Biology Inclusion Strategy Trial 2024 Waldo, WI

Objective: This on-farm trial evaluated the effectiveness of LiquiLife (LL) as a biological inclusion, in conjunction with in-season liquid nitrogen applications, for corn in a corn/soybean rotation (no manure applied), to assess its impact on nutrient utilization and crop yield.

The inclusion strategy, or the 80-10-10 strategy, includes 10% biology and 10% liquid carbon in the liquid nitrogen application.

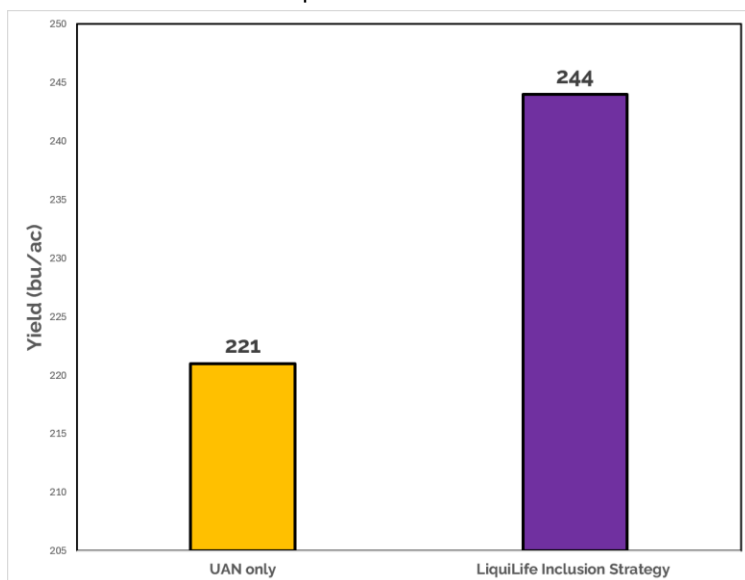


Treatment at in-season sidedress with UAN (32% with S)

Timing	Treatment	Rate
In-season (V6)	UAN only	30 gal/ac
In-season (V6)	UAN with LiquiLife with liquid carbon	24 gal UAN with 3 gal/ac of LL with 3 gal/ac of liquid carbon as LL's food source

Fertility	Rate
46-0-0	30 lbs/ac
0-0-62	22.5 lbs/ac
21-0-024S	11lbs/ac

*Boost was used as the liquid carbon for LL's food source



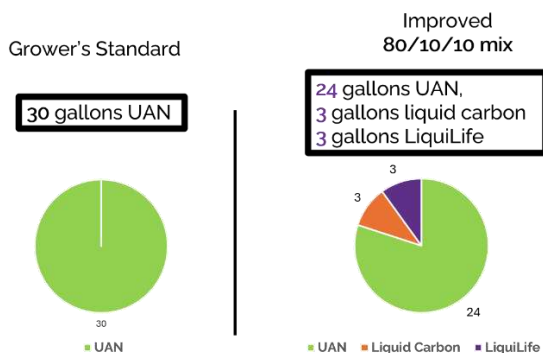
Key agronomic takeaways from the trial:

- +23 bushels per acre increase
- +\$98.67 revenue gain (ROI is calculated at \$4.29 bu/ac of corn)

On-Farm Carbon and Biology Inclusion Strategy Trial 2025 Kohler, WI

Objective: This on-farm trial evaluated the effectiveness of LiquiLife (LL) as a biological inclusion in conjunction with in-season liquid nitrogen applications for corn in a corn/soybean rotation with no manure applied, to assess its impact on nutrient utilization and crop yield.

The inclusion strategy, or the 80-10-10 strategy, includes 10% biology and 10% liquid carbon in the liquid nitrogen application.

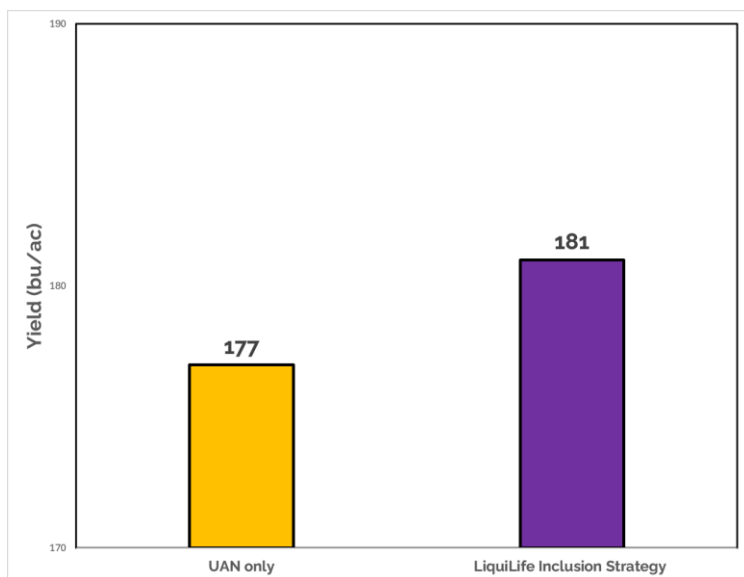


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46-0-0	30 lbs/ac
0-0-62	22.5 lbs/ac
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*Boost was used as the liquid carbon for LL's food source



Key agronomic takeaways from the trial:

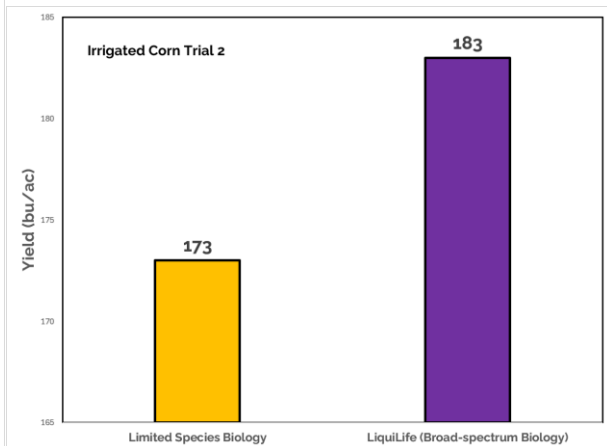
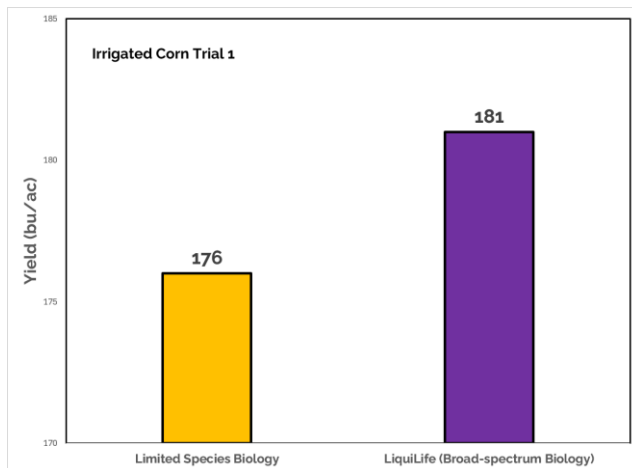
- +4 bushel per acre increase
- +\$7 ROI/ac

On-Farm Trial, 2022, Halstead, KS

Objective: Two on-farm irrigated corn trials were conducted to compare yield performance and cost efficiency between a limited-species biological product and LiquiLife.

Results comparison:

Trial	Mean Yield (bu/ac)	Units of N	Cost @.95/Unit of N	Total N program Expense	Income - N Program Expense	Income Difference Versus N Program
Irrigated Corn Trial 1						
LiquiLife	181	140	\$133.00	\$154.00	\$ 841.50	\$ 34.50
Limited species biology	176	140	\$133.00	\$161.00	\$ 807.00	
Irrigated Corn Trial 2						
LiquiLife	183	140	\$133.00	\$154.00	\$ 852.50	\$ 62.00
Limited species biology	173	140	\$133.00	\$161.00	\$ 790.50	



Key agronomic takeaways from the trial:

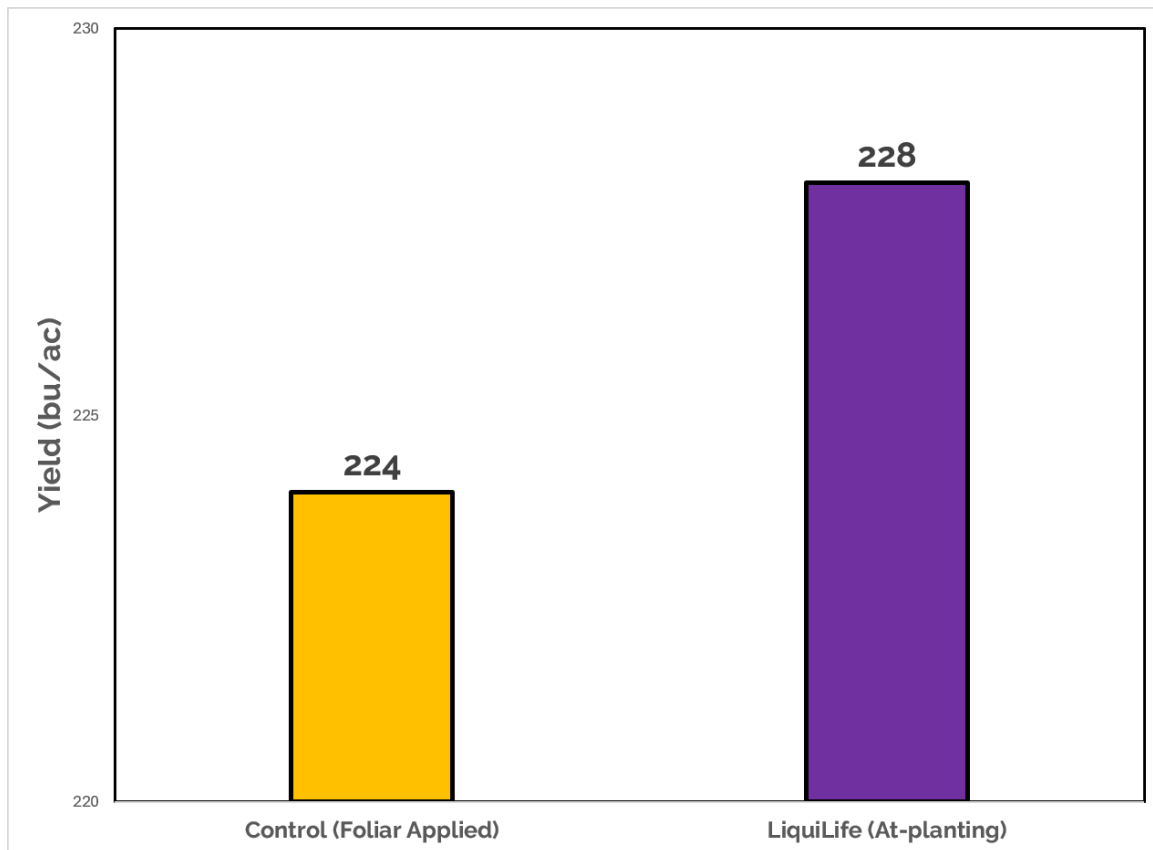
- +5 to 10 bushel per acre increase
- + \$34 to 62 income generated for the farmer

On-Farm Precision Placement Irrigated Corn Trial 2022

Objective: To evaluate the yield and economic impact of including carbon and broad-spectrum biology in a corn liquid starter fertilizer and foliar nutritional program in a high management irrigated environment.

Treatment	Placement
Control	Foliar program Only
LiquiLife*(1 gal/ac) with a liquid carbon based foliar	At-planting only

*Kelpak Double Strength (1 pint/gal of LiquiLife) was used as the carbon-based food source



Key agronomic takeaways from the trial:

- +4 bushel per acre increase in irrigated corn
- + \$35 ROI increase compared to Control