

# Results

## 2024



Sound 

## Maximize your crop's access to nutrients, all season long.

In 2024, the Maximum Acre and Efficient Acre programs, powered by SOURCE® and BLUEPRINT™, delivered consistent yield improvements across a range of crops, maximizing both agronomic performance and grower ROI. These comprehensive solutions optimize nutrient efficiency, enhance plant resilience and drive higher yields across diverse growing conditions. From corn and soybeans to potatoes and sugarbeets, trials demonstrated measurable gains in productivity and economic returns, reinforcing the value of an integrated approach to crop management.

At the core of these programs, SOURCE and BLUEPRINT continued to prove their effectiveness in unlocking plant potential. With win rates exceeding 75% in key crops like corn and soybeans, growers saw meaningful improvements in nutrient uptake, root development and overall yield lift. SOURCE enhances microbial activity to increase nutrient availability, while BLUEPRINT strengthens plant-fungal interactions to expand root access to water and nutrients. Together, they provide a powerful biological foundation for improving plant health and maximizing farm productivity.

We invite you to explore the results in this report to see how these solutions performed across different environments. Whether you're looking to push yield potential, improve nutrient efficiency or enhance plant resilience, the data highlights how SOURCE and BLUEPRINT within the Maximum Acre and Efficient Acre programs drive consistent agronomic and economic returns.

**Jeff Divan**

Senior Director, Agronomy  
Sound Agriculture

Executive Summary .....	2
<b>CROPS</b>	
Corn: Maximum Acre .....	4
Corn: Efficient Acre .....	8
Corn: Silage .....	22
Soybean .....	28
Cotton .....	34
Wheat .....	38
Expansion Crops	
Forages .....	46
Sugarbeet .....	48
Potato .....	50
Canola .....	52
Pulses .....	54



# CORN MAXIMUM ACRE RESULTS

## All Time Average

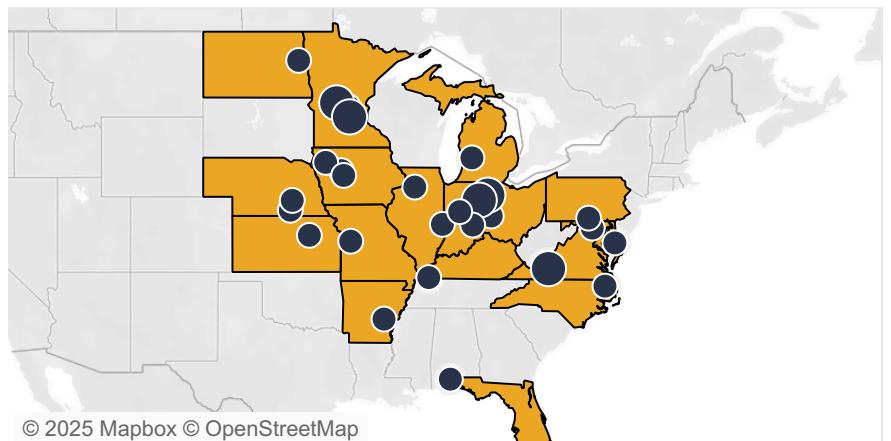
**Yield Impact**  
**6-12+ bu**  
**Win Rate**  
**84%**  
**Avg ROI/ac**  
**\$10-30+**

### What is NUE?

A Nutrient Use Efficiency (NUE) score is a way to capture the relationship between how much of a particular nutrient is applied and yield. For NUE, a lower number represents higher efficiency, or a smaller amount of an input like nitrogen fertilizer required per bushel.

$$\text{NUE} = \frac{\text{lbs N}}{\text{bu}}$$

CORN MAXIMUM ACRE  
Commercial Trials | 2024



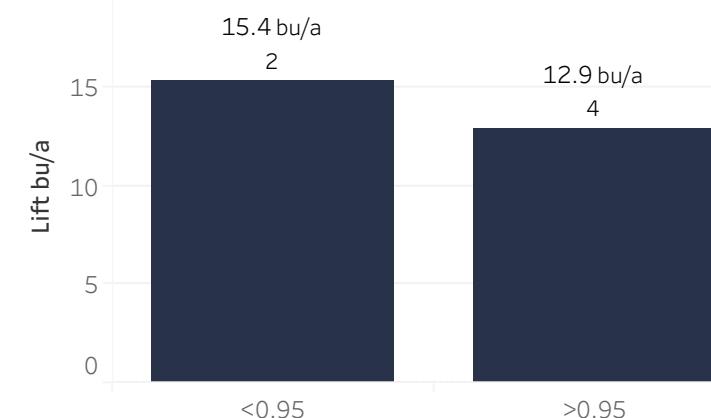
Yield Lift Average

7.4 bu/a

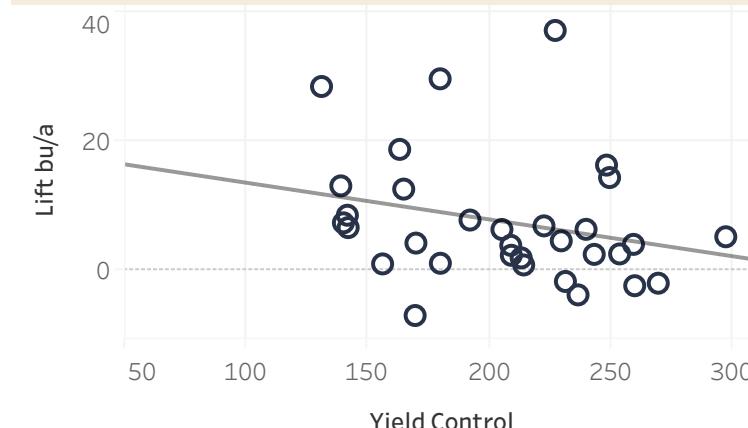
n= 32

Win Rate 84%

### Yield Lift by NUE



### Yield by Yield Environment



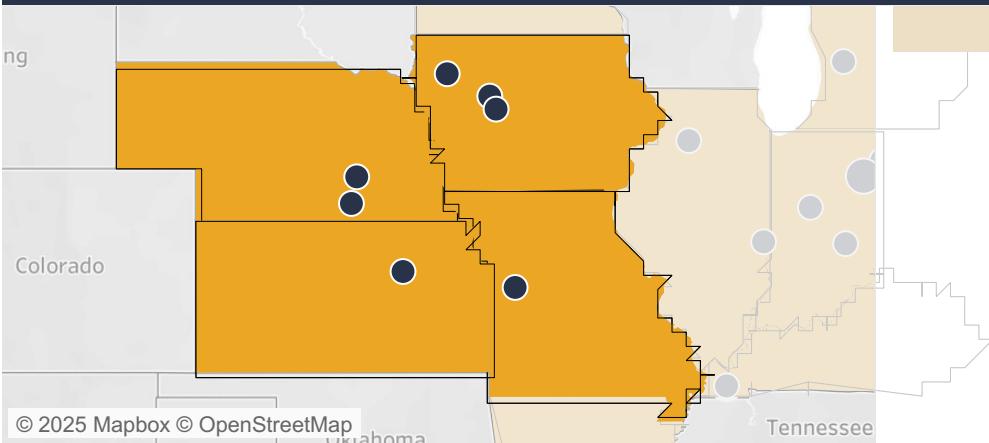
### Yield Lift by Yield Environment



### All Trials



## CORN MAXIMUM ACRE FEATURED REGIONS IA, NE, KS, MO | 2024



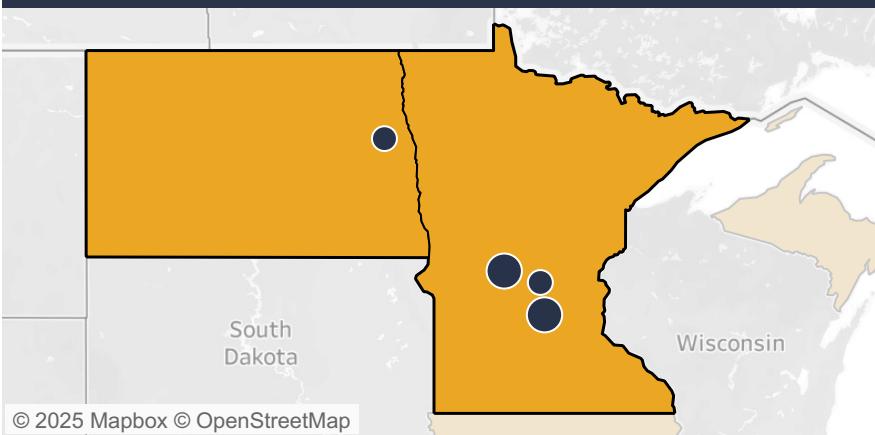
Yield Lift Average

13.3 bu/a

n= 7

Win Rate 83%

## MN, ND | 2024



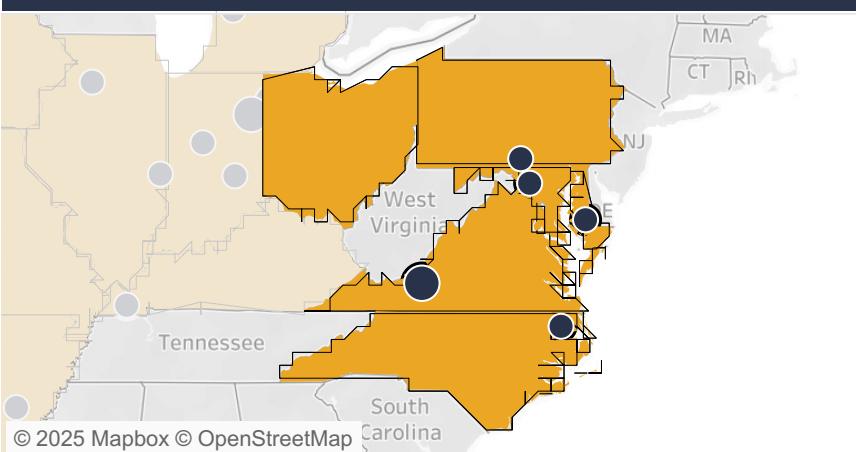
Yield Lift Average

9.2 bu/a

n= 6

Win Rate 83%

## OH, PA, MD, DE, VA, NC | 2024



Yield Lift Average

8.8 bu/a

n= 6

## CORN MAXIMUM ACRE COMPARISON PHOTOS Commercial Trials | 2024



SOURCE +  
BLUEPRINT

NON-TREATED



SOURCE +  
BLUEPRINT

NON-TREATED



SOURCE +  
BLUEPRINT

NON-TREATED



# CORN EFFICIENT ACRE RESULTS



Products  
SOURCE DC

N + P Reduction

**25** units N+P  
ROI/ac  
**\$40+**

N Reduction Only

**25** units N

ROI Win Rate

**60%**

ROI/ac

**\$10+**

P Reduction Only

**25** units P

ROI Win Rate

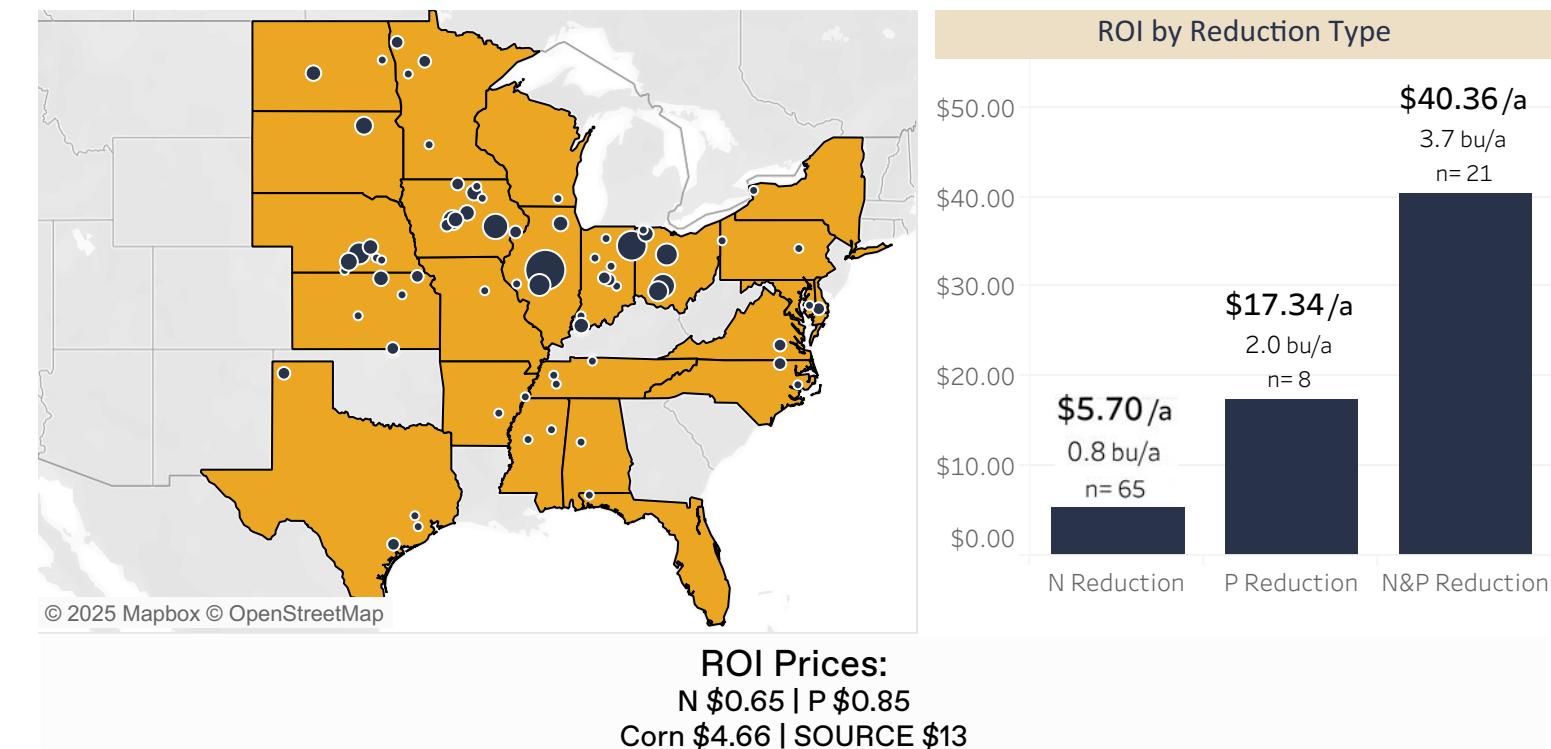
**77%**

ROI/ac

**\$20+**

\*ROIs include \$5/ac Efficient Acre incentive.

CORN EFFICIENT ACRE  
Nutrient Reduction Commercial Trials | 2021 - 2024



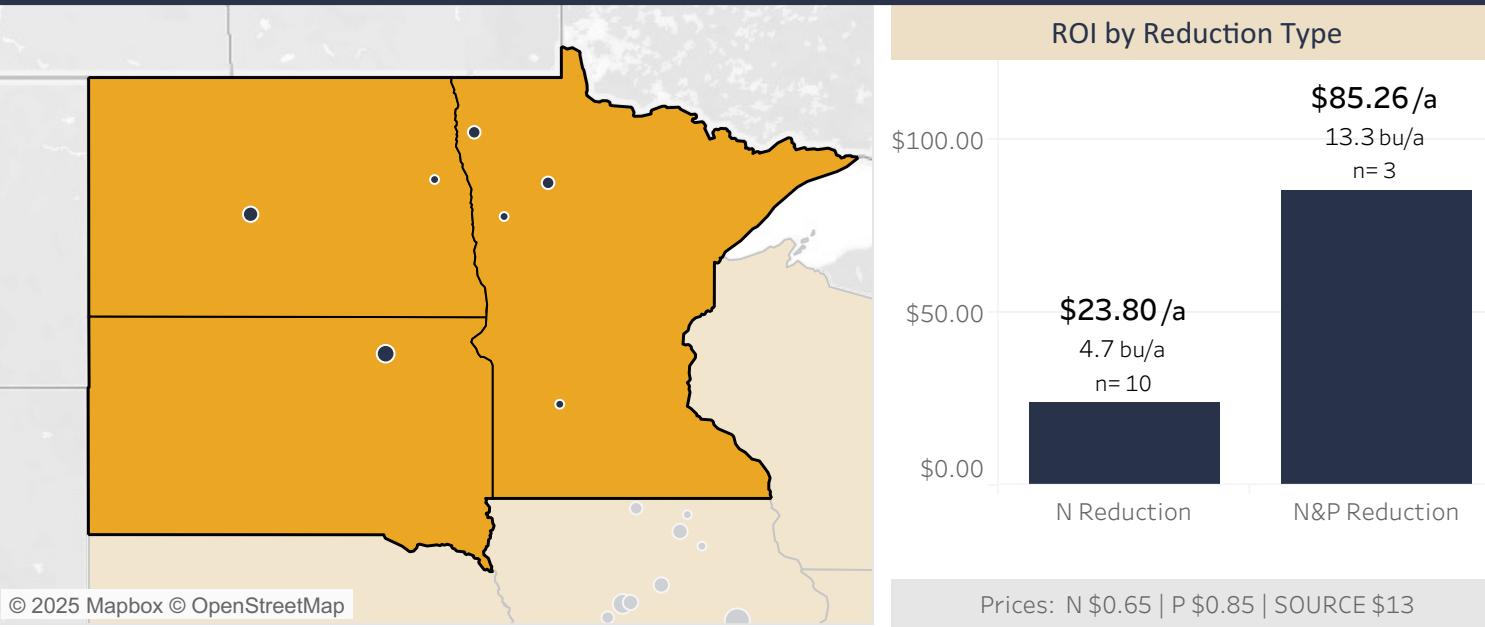
With Sound's Efficient Acre solution, you can take a proactive and more profitable approach to your fertility program and replace synthetic fertilizer with confidence. SOURCE's ability to replace 25 units of N and P without sacrificing yield has been rigorously tested in 121 trials over 4 years from 2021-2024.

This level of data provides confidence in placement recommendations. Use SOURCE to replace N when the NUE is greater than or equal to 0.9 units of N/bu. Use SOURCE to replace P whenever soil test values are not low: Mehlich 3 ICP: >25 ppm; Olson: >9 ppm; Bray P1: > 15 ppm.

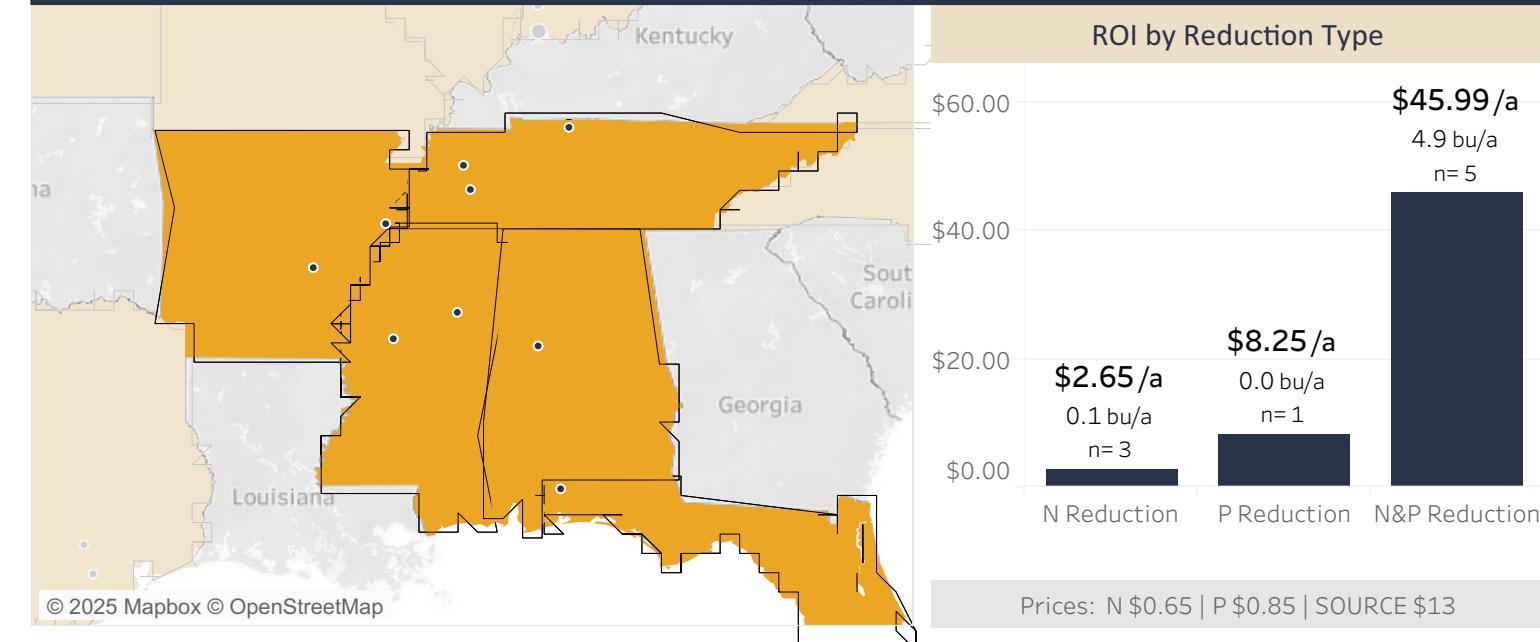
These trials demonstrate the value of using SOURCE as a core part of a fertilizer plan, delivering over \$30 of fertilizer savings with the potential for added bushels in the right environments. Combined with our Efficient Acre incentive of up to \$10/ac, SOURCE helps growers maximize the return on their fertilizer investment without risk.



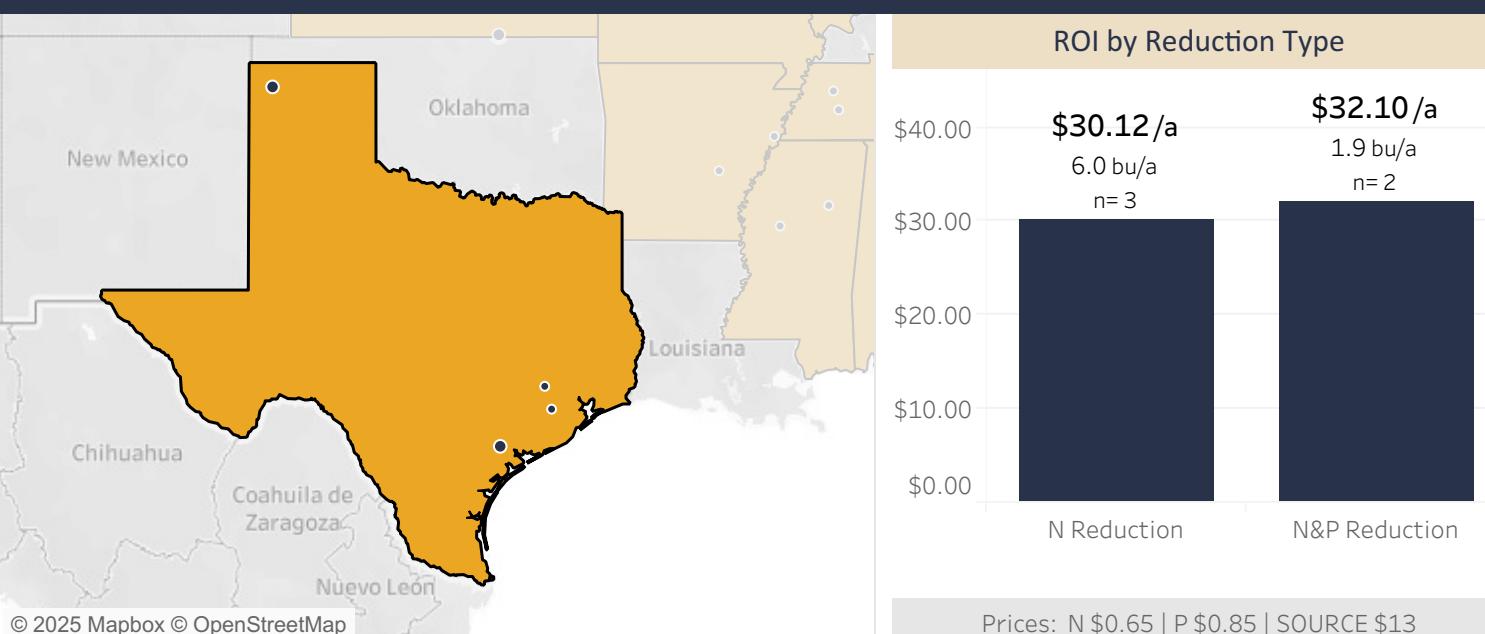
## CORN EFFICIENT ACRE FEATURED REGIONS MN, ND, SD | 2021-2024



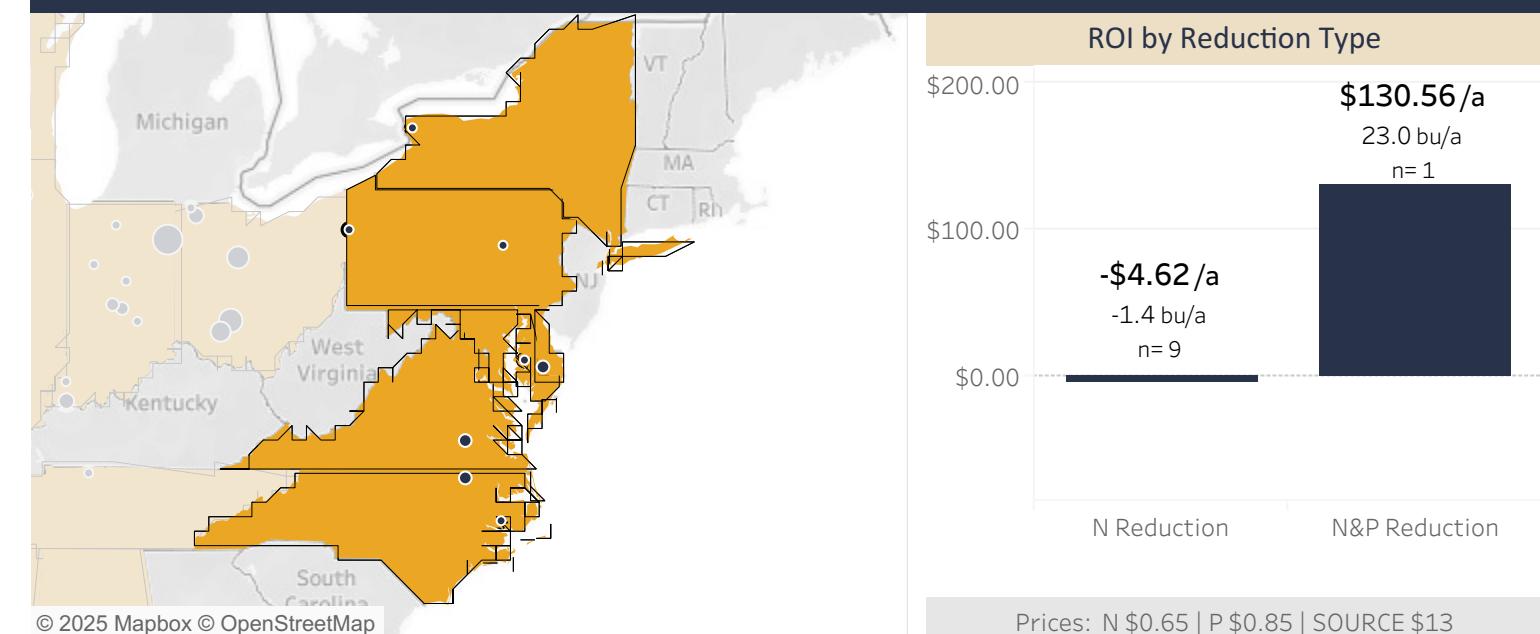
## CORN EFFICIENT ACRE FEATURED REGIONS AR, MS, TN, AL, FL | 2021-2024



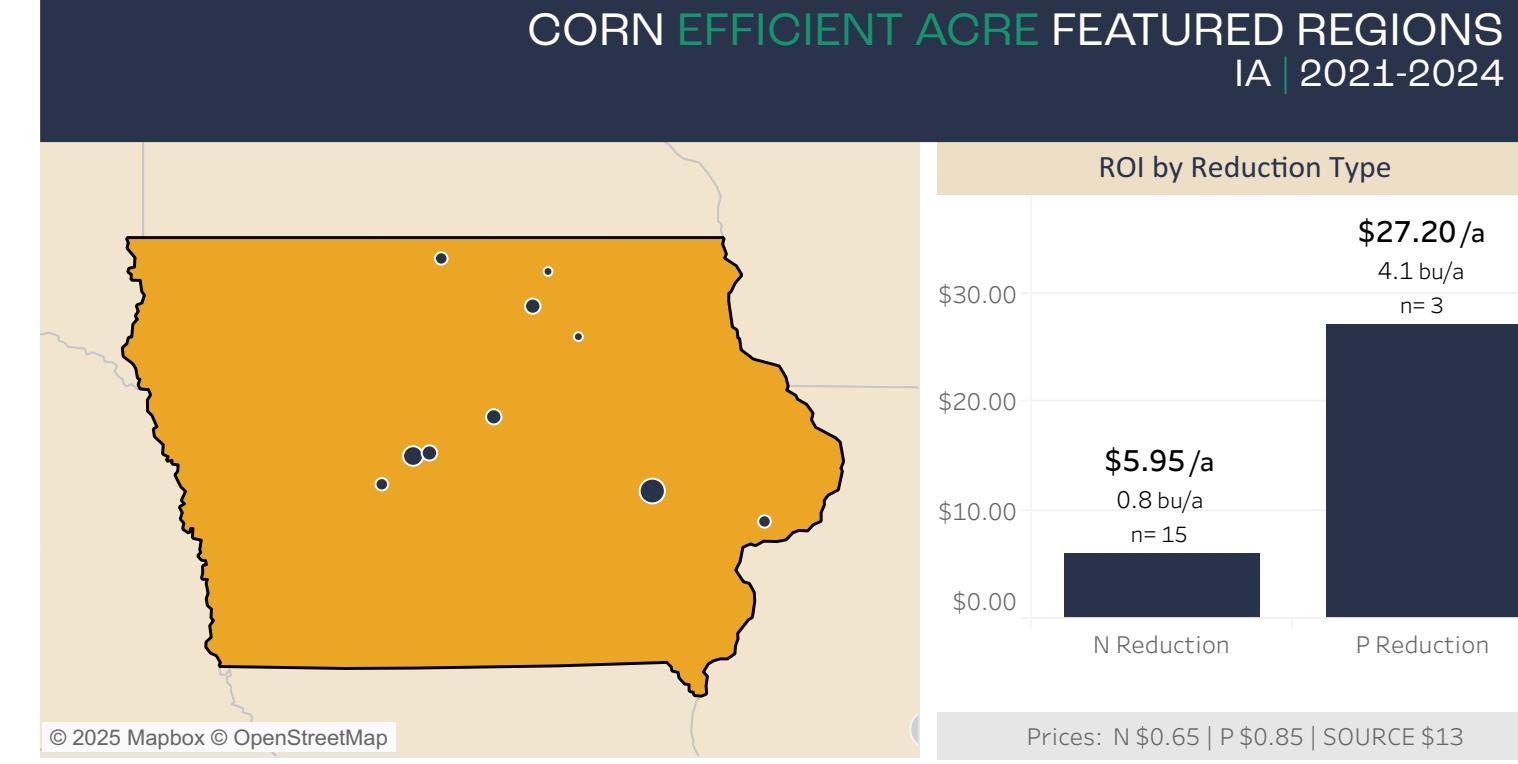
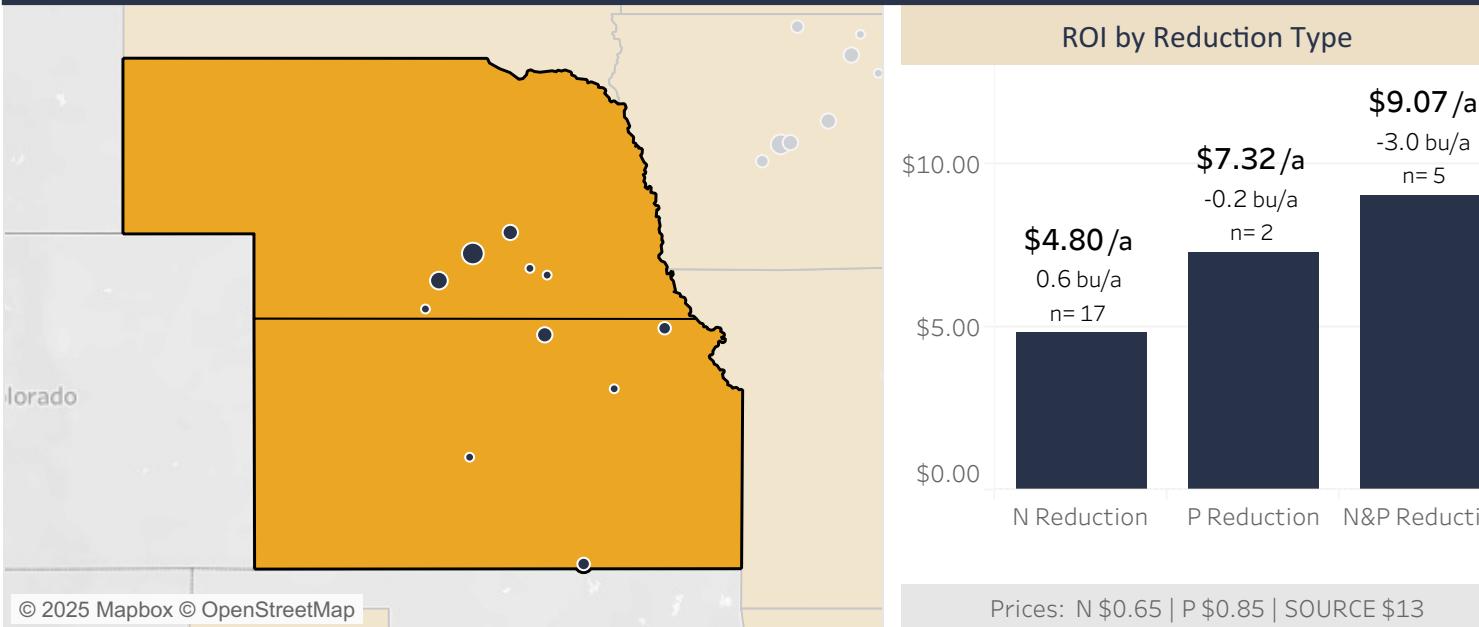
## TX | 2021-2024



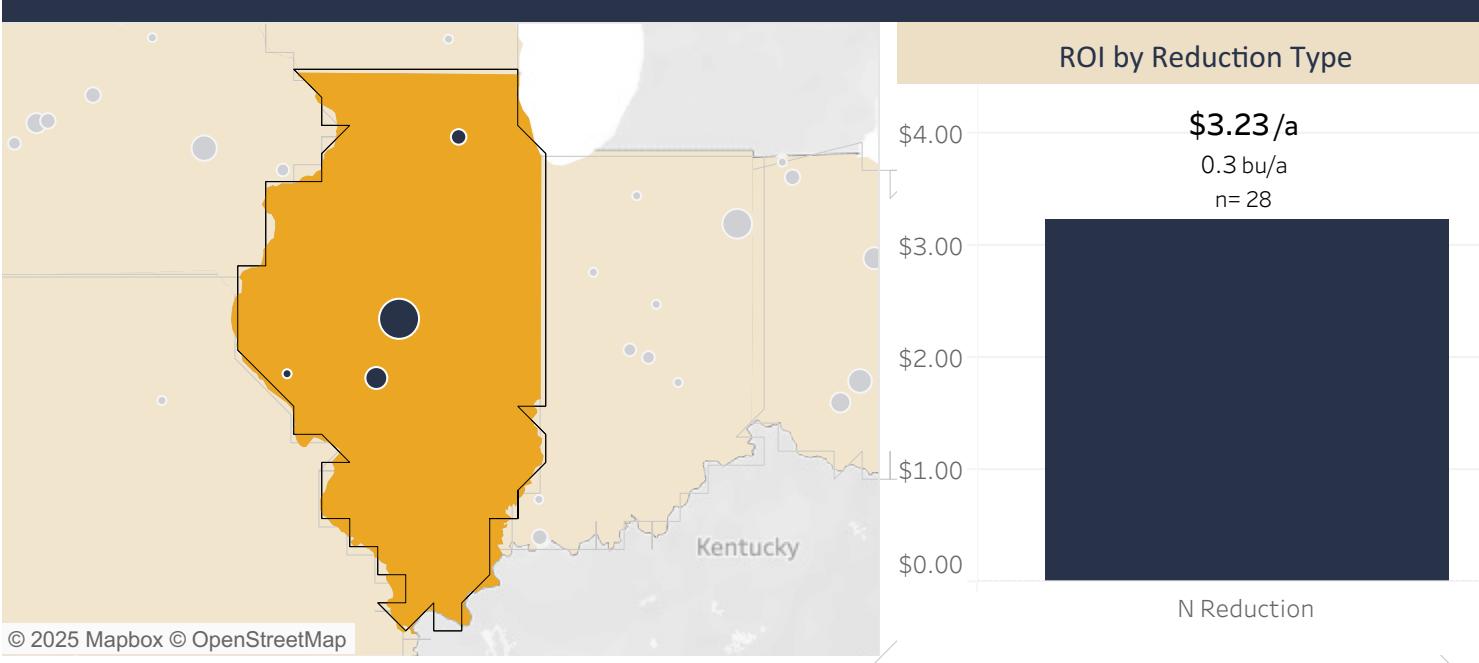
## NY, PA, MD, DE, VA, NC | 2021-2024

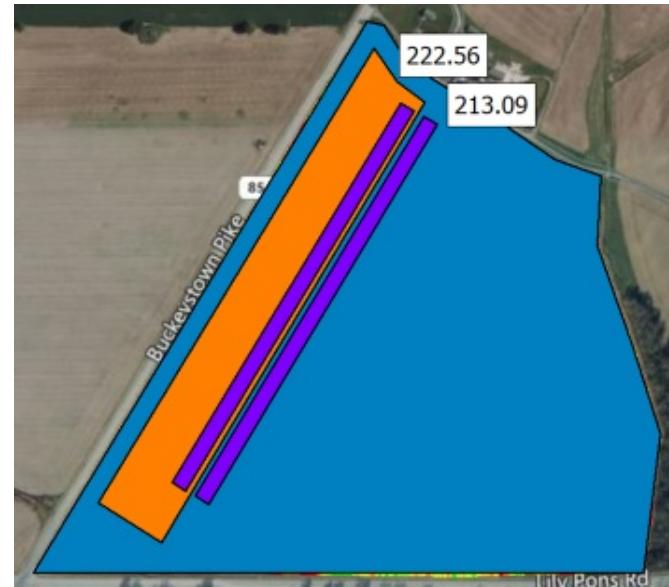


## CORN EFFICIENT ACRE FEATURED REGIONS NE, KS | 2021-2024



## IL | 2021-2024





Full Nutrients & No SOURCE  
SOURCE & Reduced Nutrients



#### Financial Impact (per acre)

SOURCE Cost: \$15.00  
SOURCE Lift Profit: \$44.27  
Fertilizer Savings: \$21.25

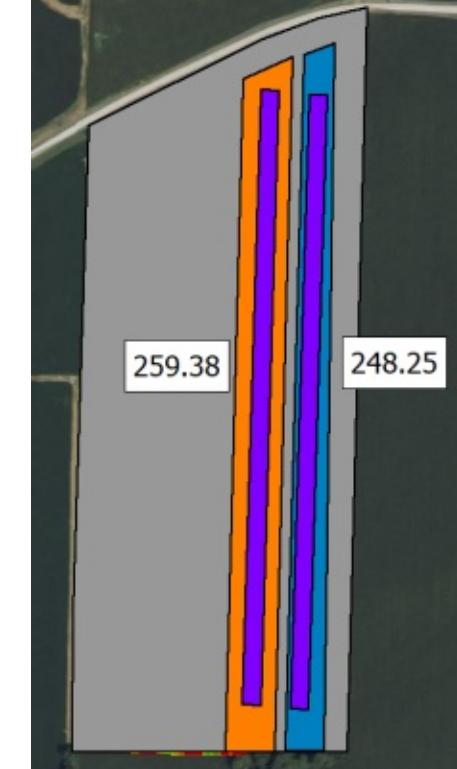
Profitability per acre: + \$50.52

SOURCE Cost	Crop Price	N cost/unit	P cost/unit
15.00	4.66	0.00	0.85

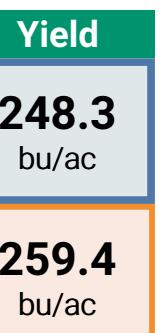


#### Yield

Nutrients Reduced  
0.0% N  
100.0% P



Full Nutrients & No SOURCE  
SOURCE & Reduced Nutrients



Yield  
248.3 bu/ac  
Nutrients Reduced  
12.5% N

#### Trial Summary

Prior Crop: Corn  
Cover Crop: Wheat  
Tillage: No Till  
Irrigation: None  
Manure: None  
NUE: 1.1  
Yield Lift: 9.5

#### Financial Impact (per acre)

SOURCE Cost: \$15.00  
SOURCE Lift Profit: \$51.73  
Fertilizer Savings: \$15.00

Profitability per acre: + \$51.73

SOURCE Cost	Crop Price	N cost/unit	P cost/unit
15.00	4.66	0.60	0.00

#### Trial Summary

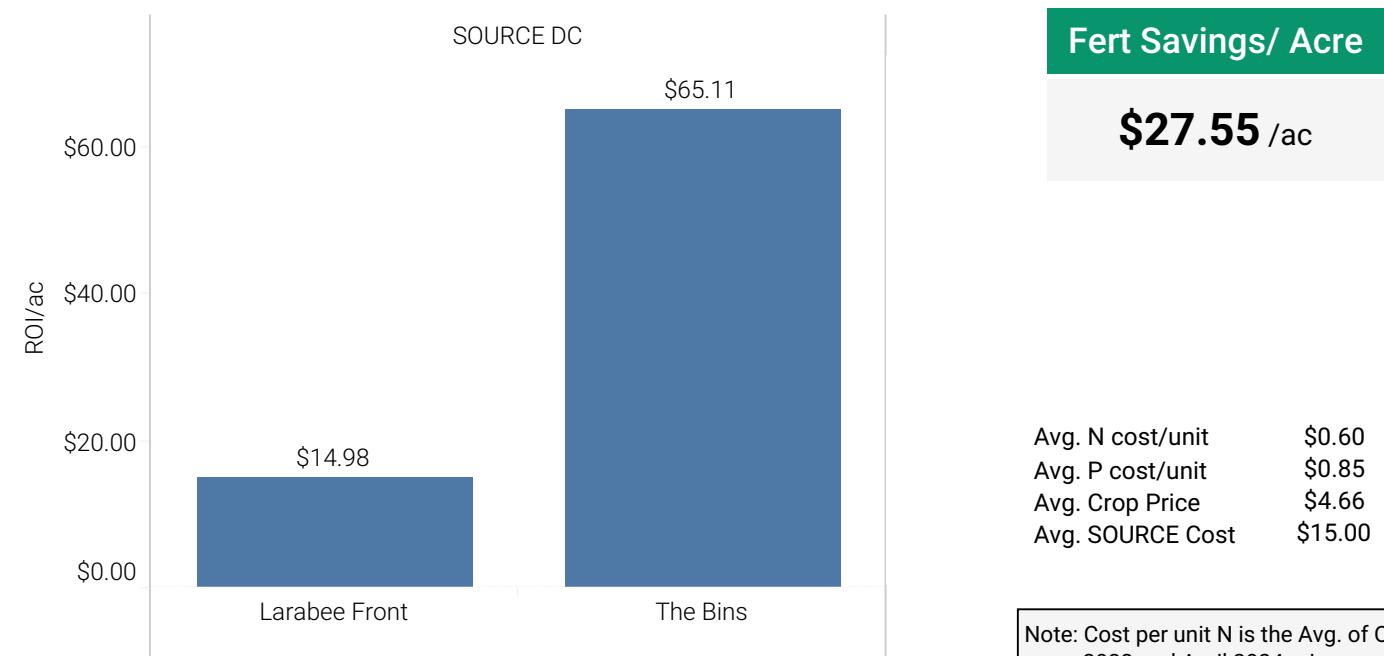
Prior Crop: Soybean  
Cover Crop: None  
Tillage: Full Tillage  
Irrigation: None  
Manure: None  
NUE: 0.8  
Yield Lift: 11.1



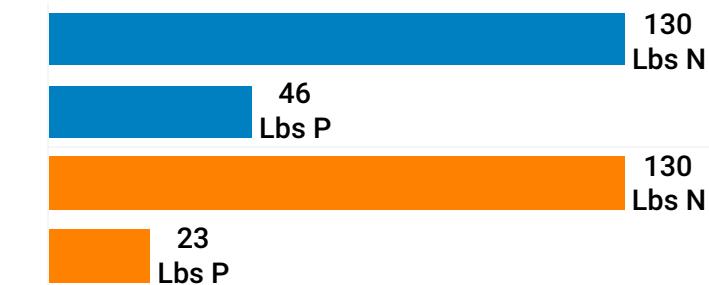
### Program Summary

Field	Product	App Stage	N	N Reduced	P	P Reduced
The Bins	DC	V4	250.0	15.0	100.0	25.0
Larabee Front	DC	V4	200.0	6.0	100.0	25.0

### Return on Investment per Acre



Full Nutrients & No SOURCE  
SOURCE & Reduced Nutrients



### Financial Impact (per acre)

SOURCE Cost: \$15.00  
SOURCE Lift Profit: \$117.43  
Fertilizer Savings: \$19.55

Profitability per acre: **+ \$121.98**

SOURCE Cost	Crop Price	N cost/unit	P cost/unit
15.00	4.66	0.00	0.85

### Nutrients Reduced

50.0% P

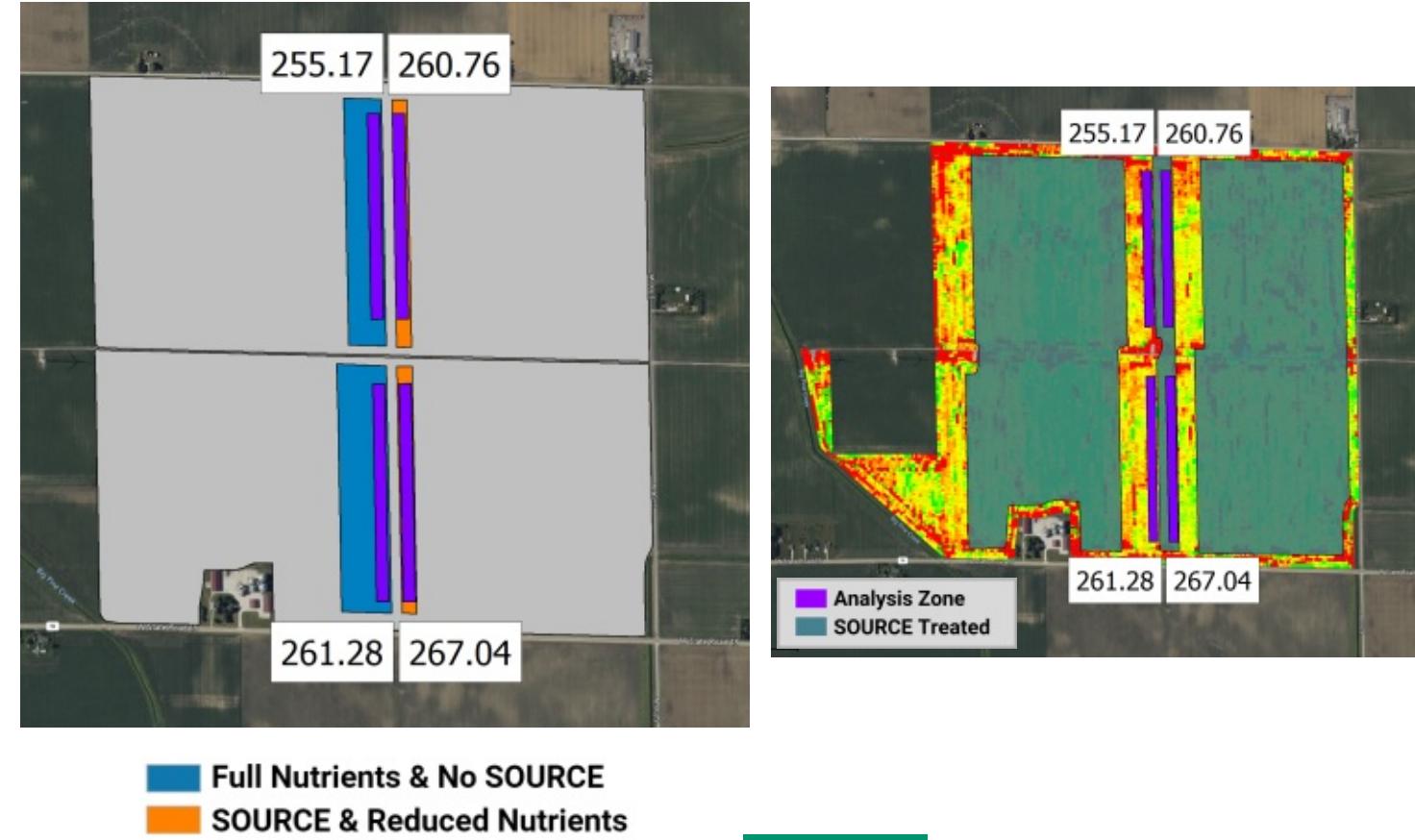
### Trial Summary

Prior Crop:	Soybean
Cover Crop:	Cereal Rye
Tillage:	No Till
Irrigation:	None
Manure:	None
NUE:	1.0
Yield Lift:	25.2

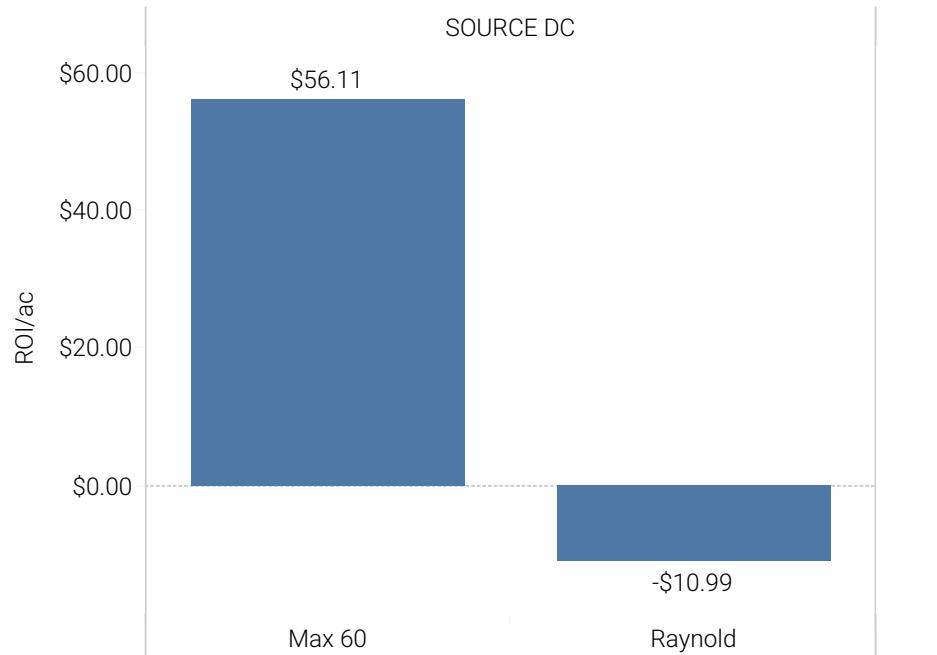


### Program Summary

Field	Product	App Stage	P	P Reduced	Yield Lift
Max 60	DC	V4	78.00	25.00	10.74
Raynold	DC	V4	72.20	25.00	-3.74



### Return on Investment per Acre

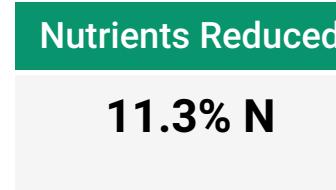
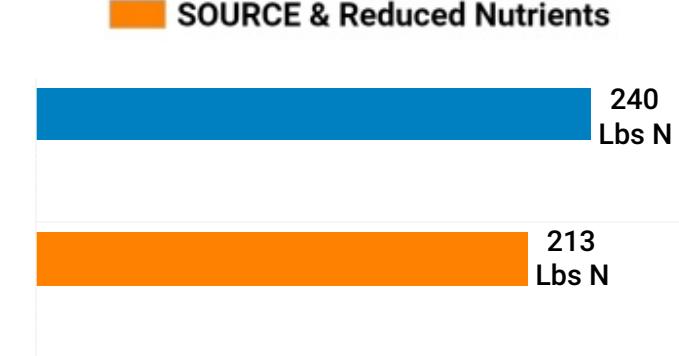


### Fert Savings/ Acre

**\$21.25 /ac**

Avg. N cost/unit \$0.00  
Avg. P cost/unit \$0.85  
Avg. Crop Price \$4.66  
Avg. SOURCE Cost \$15.00

Note: Cost per unit N is the Avg. of Oct 2023 and April 2024 prices



### Financial Impact (per acre)

SOURCE Cost: \$15.00  
SOURCE Lift Profit: \$26.56  
Fertilizer Savings: \$16.20

Profitability per acre: **+ \$27.76**

SOURCE Cost Crop Price N cost/unit P cost/unit

### Trial Summary

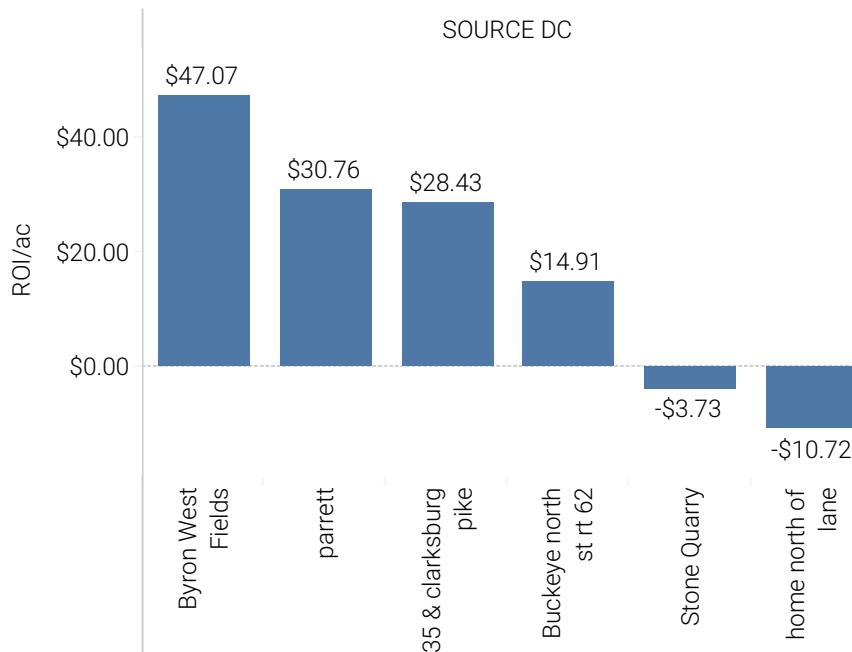
Prior Crop: Corn  
Cover Crop: None  
Tillage: Full Tillage  
Irrigation: None  
Manure: None  
NUE: 0.9  
Yield Lift: 5.7



### Program Summary

Field	Product	App Stage	N	N Reduced	Yield Lift	ROI/ac
Byron West Fields	DC	V4	195.0	25.0	10.1	\$47.07
parrett	DC	V4	195.0	25.0	6.6	\$30.76
35 & clarksburg pike	DC	V4	195.0	25.0	6.1	\$28.43
Buckeye north st rt ..	DC	V4	195.0	25.0	3.2	\$14.91
Stone Quarry	DC	V4	195.0	25.0	-0.8	-\$3.73
home north of lane	DC	V4	195.0	25.0	-2.3	-\$10.72

### Return on Investment per Acre

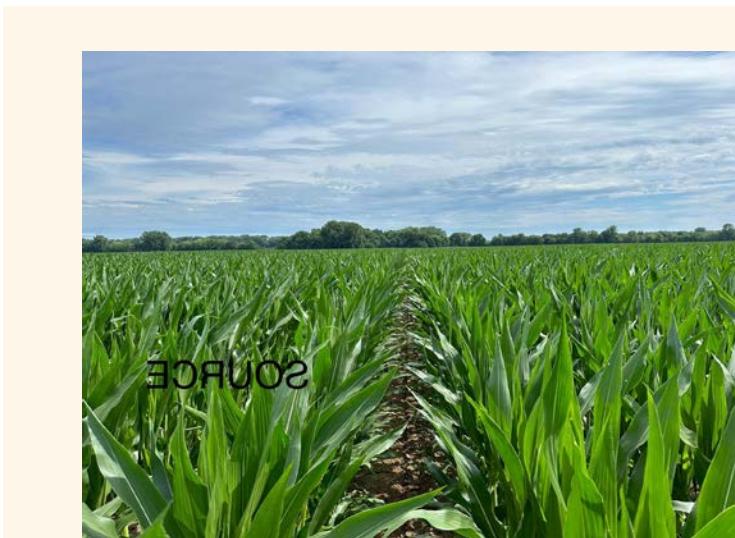


### Fert Savings/ Acre

**\$15.00** /ac

Avg. N cost/unit      \$0.60  
Avg. P cost/unit      \$0.00  
Avg. Crop Price      \$4.66  
Avg. SOURCE Cost      \$15.00

Note: Cost per unit N is the Avg. of Oct 2023 and April 2024 prices



SOURCE NON-TREATED



SOURCE

SOURCE NON-TREATED



SOURCE NON-TREATED



SOURCE NON-TREATED



# CORN SILAGE RESULTS



## Products

SOURCE DC



**SOURCE consistently delivers value for silage growers by increasing biomass and quality. The 4-year average yield improvement is nearly 1 T/ac with a 77% win rate.**

Our experience with silage over 4 years has revealed two important aspects of proper placement. First, the application timing matters: we recommend the V4–V6 timing window. Next, as shown in the chart, growers who apply less than 100 units of synthetic nitrogen achieve even greater results, averaging 1.4 T/ac uplift.

SOURCE has been tested in every major silage-producing region and consistently provides \$30+ per acre in return to silage growers.

**CORN SILAGE RESULTS**  
Commercial Trials | 2021 - 2024

**Yield Lift Average**

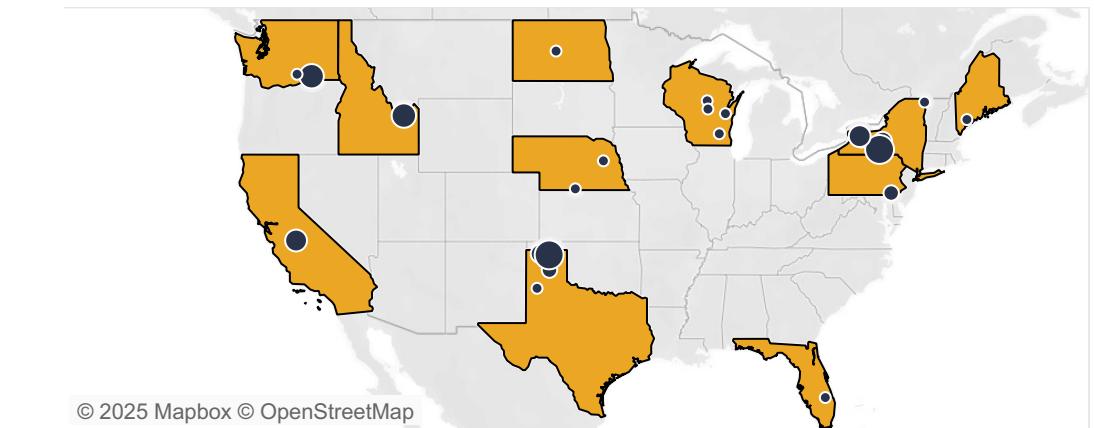
**0.9 tons/a**

**n= 56**

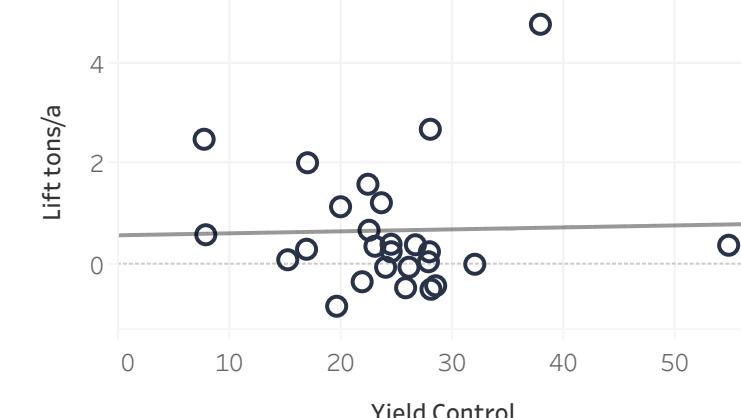
**77% Win Rate**

**Year**  
2020 to 2024

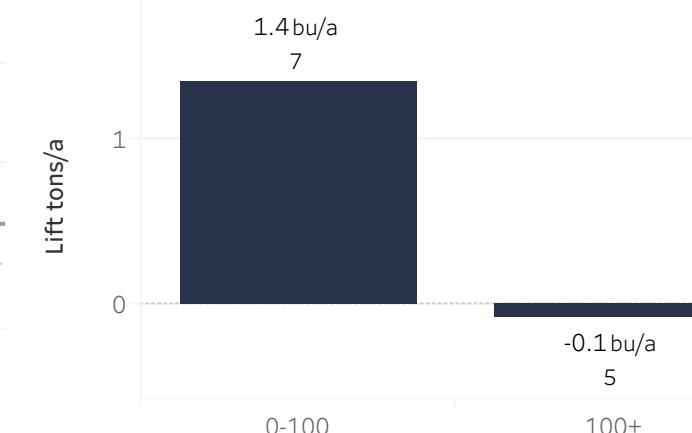
**Field Type**  
All



## Yield lift by Yield Environment

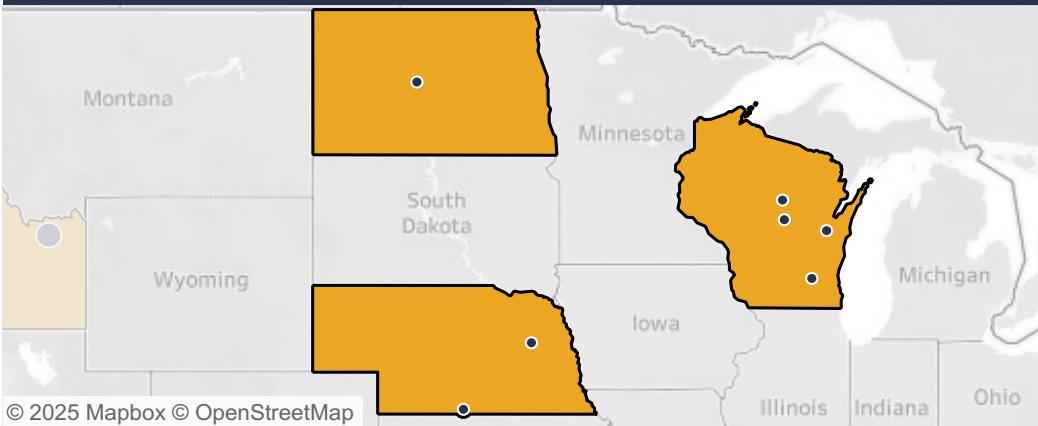


## Yield Lift by Total N Applied



## CORN SILAGE FEATURED REGION

ND, NE, WI | 2021-2024



### Yield Lift Average

1.1 tons/a

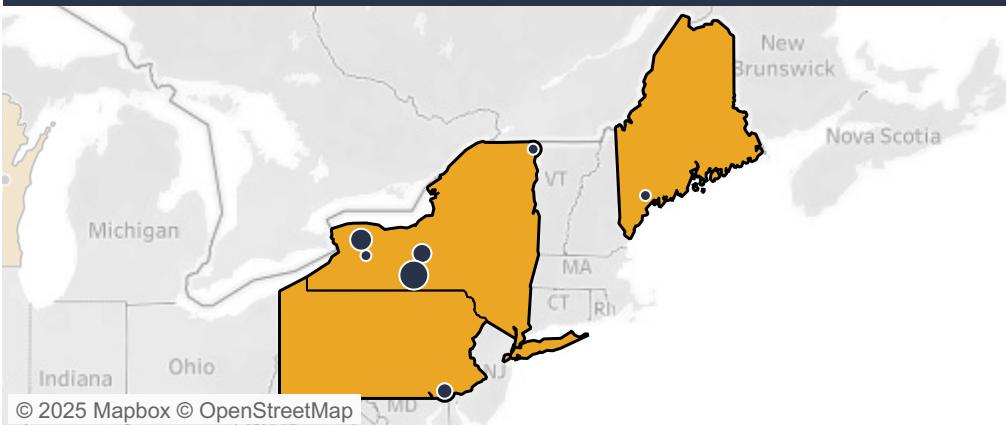
n= 7

86% Win Rate

Year  
2020 to 2024

Field Type  
All

## ME, NY, PA | 2021-2024



### Yield Lift Average

0.8 tons/a

n= 19

73% Win Rate

Year  
2020 to 2024

Field Type  
All

## CA, WA, ID | 2021-2024



### Yield Lift Average

1.3 tons/a

n= 16

81% Win Rate

Year  
2020 to 2024

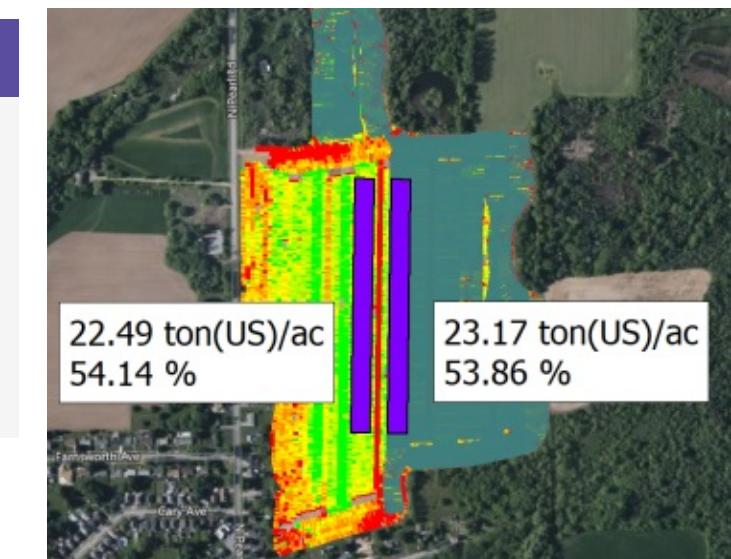
Field Type  
All

## CORN SILAGE FEATURED TRIAL

NY | 2024

### Field Information

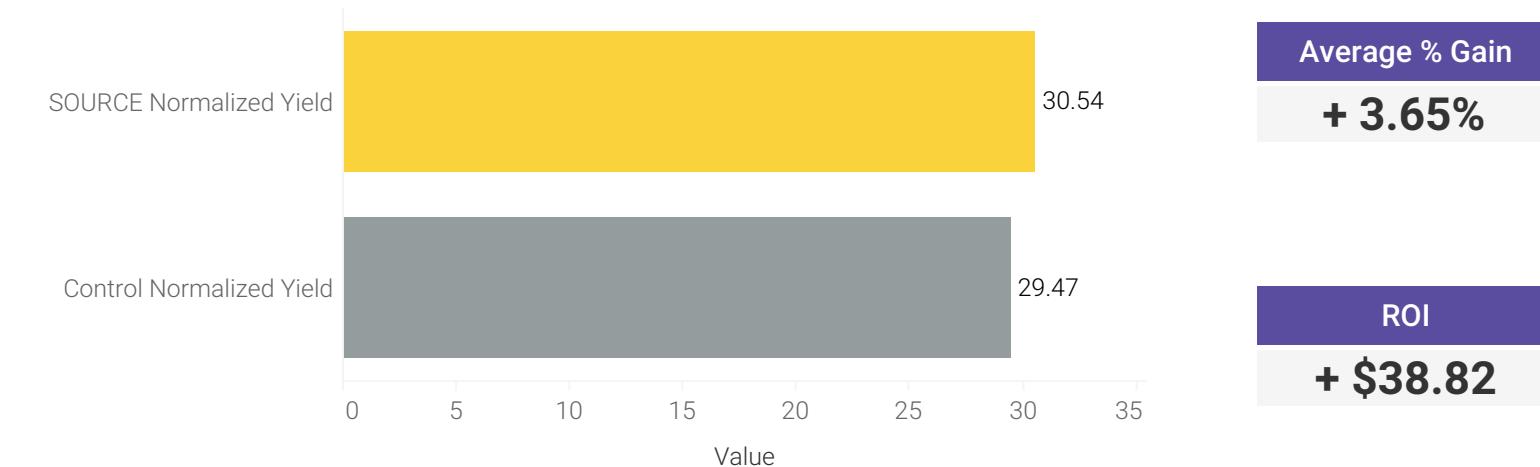
Prior Crop: Silage Corn  
Cover Crop: None  
Tillage: Strip Till  
Irrigation: None  
Manure: Dairy/Cattle  
Manure (Liquid-Lagoon)  
Total N:



### Trial Results

\* Yield below are normalized to 65% moisture for consistency \*

Field	Crop	Product	Application Stage	SOURCE Normalized Yield	Control Normalized Yield	Normalized Yield Lift
Field 307	Silage Corn	DC	Null	30.54	29.47	1.08



NY

Crop Price \$50.00  
SOURCE Cost \$15.00

# CORN SILAGE FEATURED TRIAL

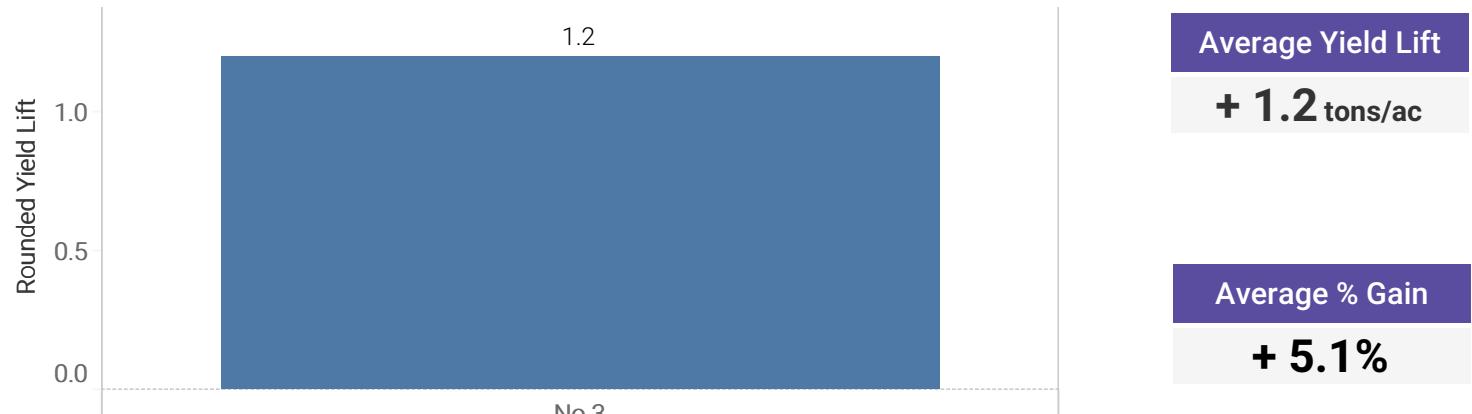
WA | 2024

## Trial Summary



Field	SOURCE Yield	Control Yield	Yield Lift	ROI
No 3	<b>24.8</b>	<b>23.6</b>	<b>1.2</b>	<b>\$45.00</b>

### Yield Lift by Application Stage



WA

SOURCE DC

Crop Price \$50.00  
SOURCE Cost \$15.00



# SOYBEAN MAXIMUM ACRE RESULTS



## Products

### SOURCE DC

### BLUEPRINT Liquid

### BLUEPRINT Powder

**Yield Impact**  
**2-4+ bu**

Win Rate

**60%**

Avg ROI/ac

**\$10-20+**

**The Maximum Acre Solution is the ultimate chemistry and biology 1-2 punch, ensuring your crop gets the nutrients it needs all season long. SOURCE + BLUEPRINT work together to unlock and deliver essential nutrition, maximizing your crops' health and yield.**

This powerful synergy provides up to a 2-4+ bu increase with a 60% win rate in soybeans. With a strong dependence on weather, yield can be challenging to impact on soybeans. But the Maximum Acre solution provides insurance that your soybeans get what they need and have the potential to take advantage of favorable conditions.

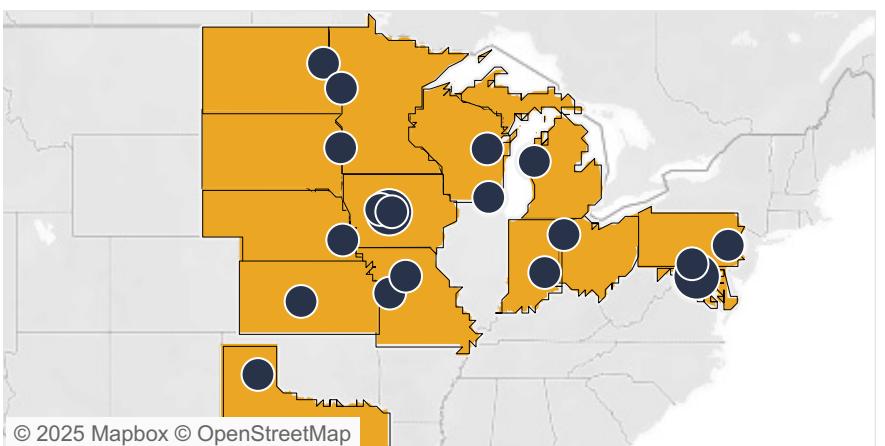
SOYBEAN MAXIMUM ACRE  
Commercial Trials | 2024

Yield Lift Average

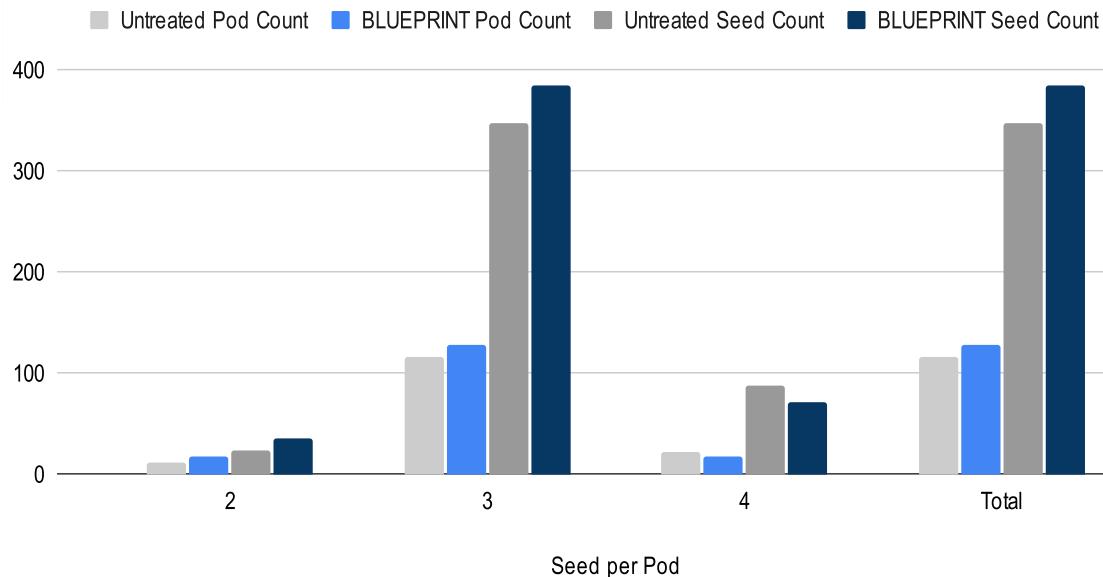
**2 bu/a**

**n=22**

**Win Rate: 59%**



### Featured Trial - Seed & Pod Count

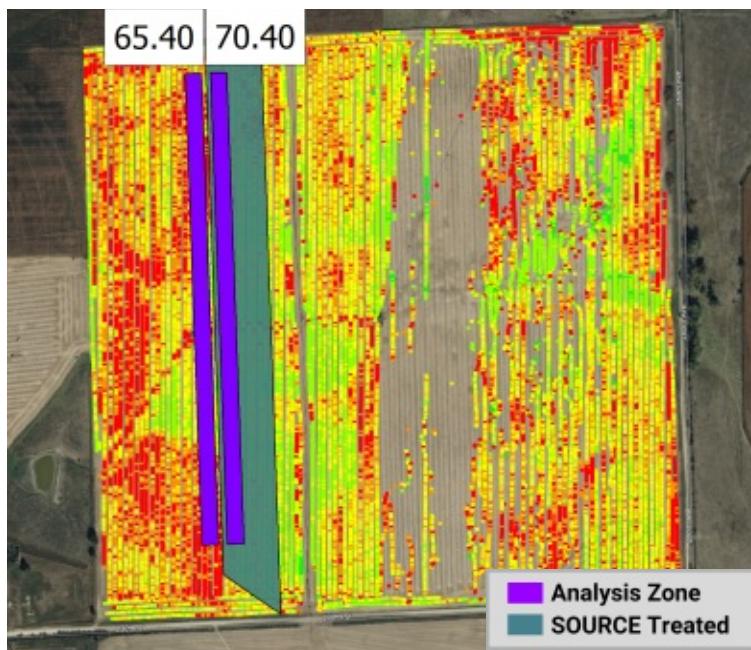


Notes: In this soybean trial, SOURCE & BLUEPRINT are shown here to increase both pod count and seed count vs. the control.



Field Information

Prior Crop: Corn  
Cover Crop: None  
Tillage: No Till  
Irrigation: Pivot  
Manure: None  
Total N: 0.00

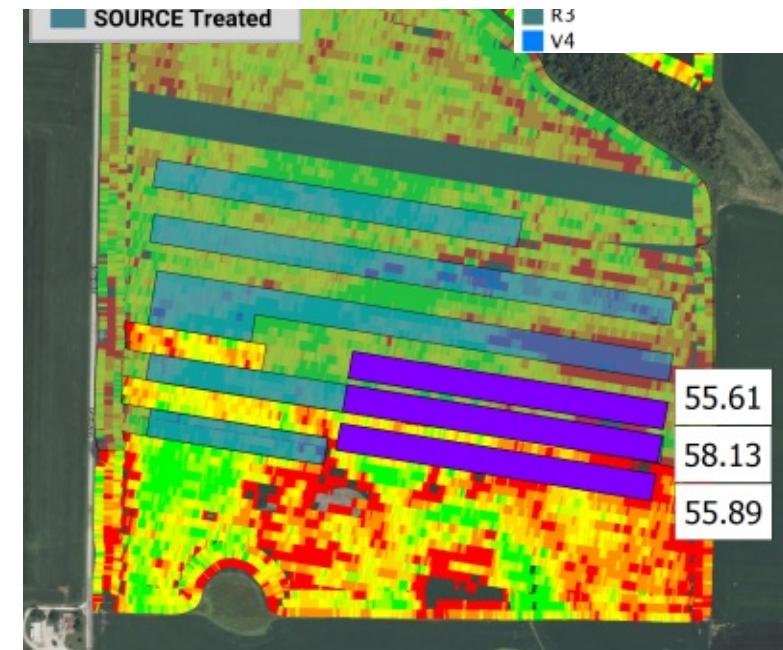


Trial Results

Field	Crop	Product	Application Stage	Treated Yield	Control Yield	Yield Lift
Wilson SE	Soybean	DC	Null	<b>70.4</b>	<b>65.4</b>	<b>5.0</b>

Field Information

Prior Crop: Corn  
Cover Crop: None  
Tillage: Full Tillage  
Irrigation: None  
Manure: None  
Total N:

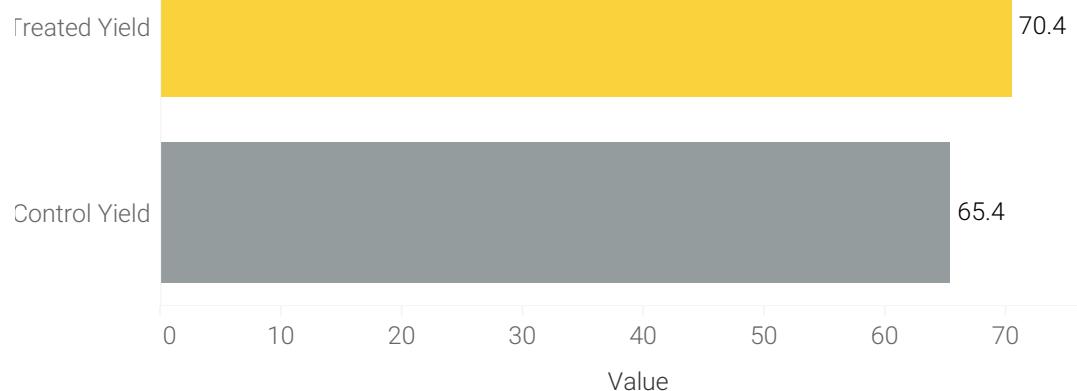


Trial Results

Field	Crop	Product	Application Stage	SOURCE Yield	Control Yield	Yield Lift
Miller	Soybean	DC	V4	<b>58.1</b>	<b>55.9</b>	<b>2.2</b>

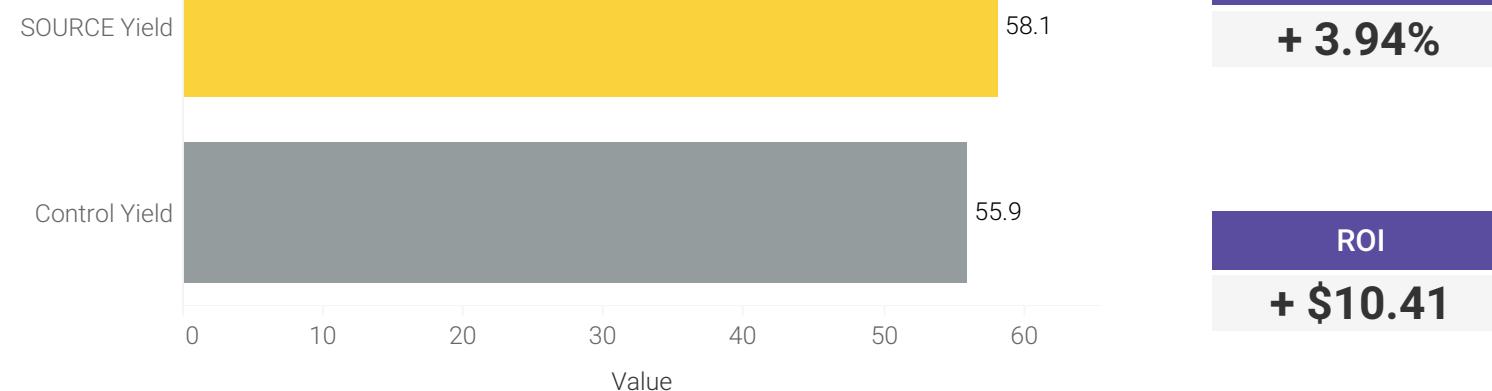
Average % Gain

**+ 7.65%**



Average % Gain

**+ 3.94%**



NE

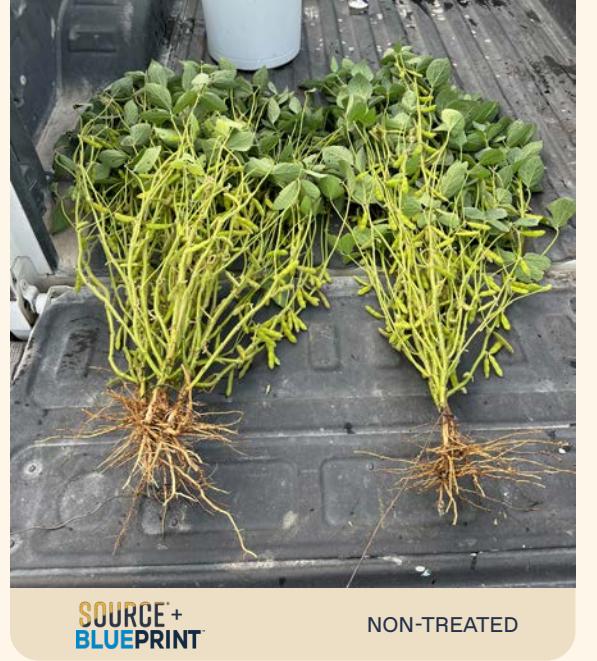
Crop Price \$11.55  
SOURCE + Charge Cost \$21.00

IL

Crop Price \$11.55  
SOURCE Cost \$15.00

# SOYBEAN COMPARISON PHOTOS

Commercial Trials | 2024



# COTTON RESULTS



## Products

### SOURCE XC

#### SINGLE APPLICATION

Yield Impact  
**70+ lb**

Win Rate  
**73%**

ROI/ac  
**\$30+**

#### DOUBLE APPLICATION

Yield Impact  
**90+ lb**

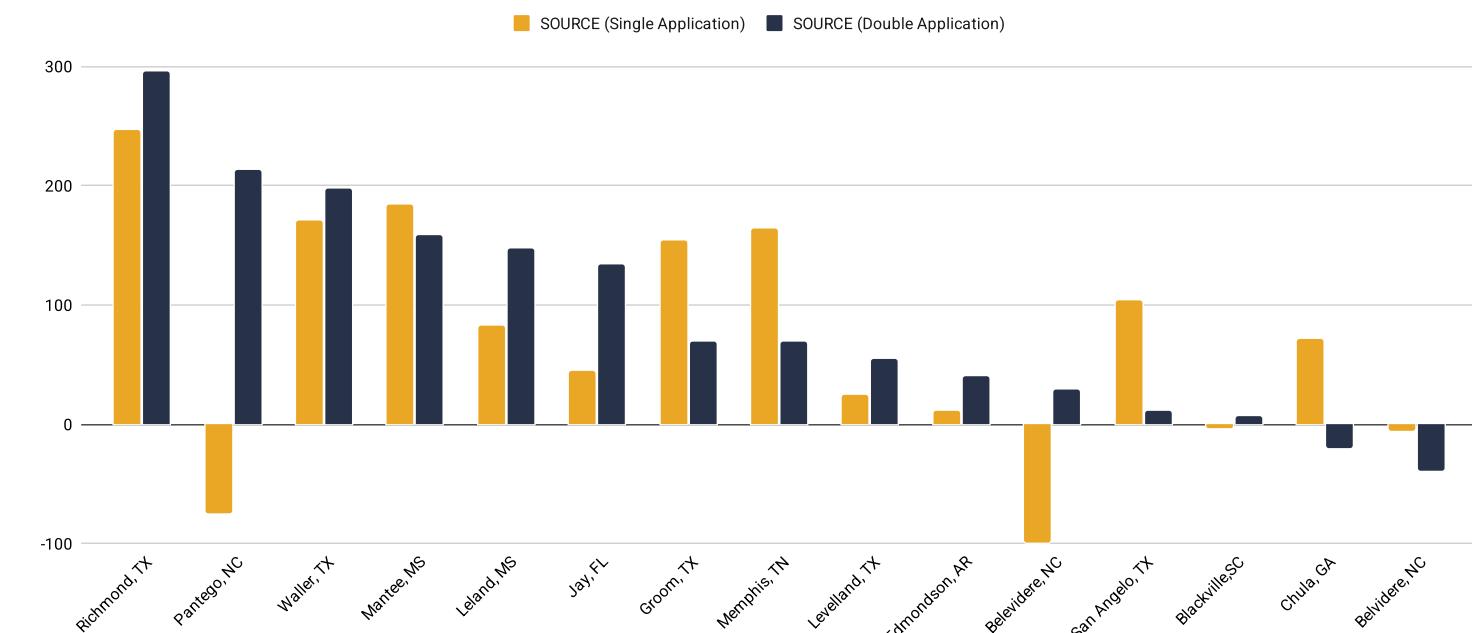
Win Rate  
**87%**

ROI/ac  
**\$30+**

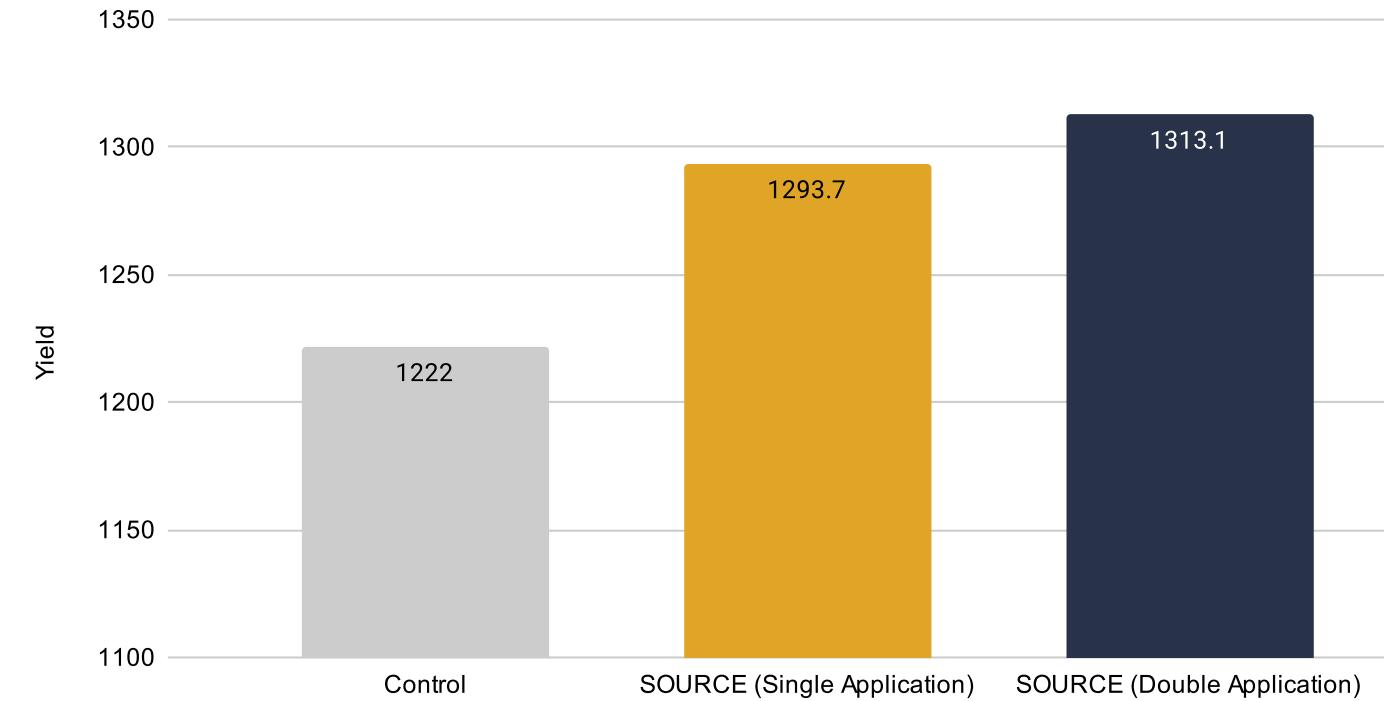
**SOURCE XC** is the ultimate nutrient optimization solution for cotton. By improving nutrient availability and plant health, **SOURCE** helps cotton maximize yield potential while maintaining a strong return on investment.

A single application delivers 70+ lb/ac with a 73% win rate, and a double application boosts yield to 90+ lb/ac with an impressive 87% win rate, showing the power of an additional pass. Backed by extensive field trials across all major cotton-producing regions, growers are consistently seeing over \$30 per acre ROI, making **SOURCE** a proven solution for maximizing cotton yield and profitability.

#### SOURCE vs. Control (Single and Double Application)

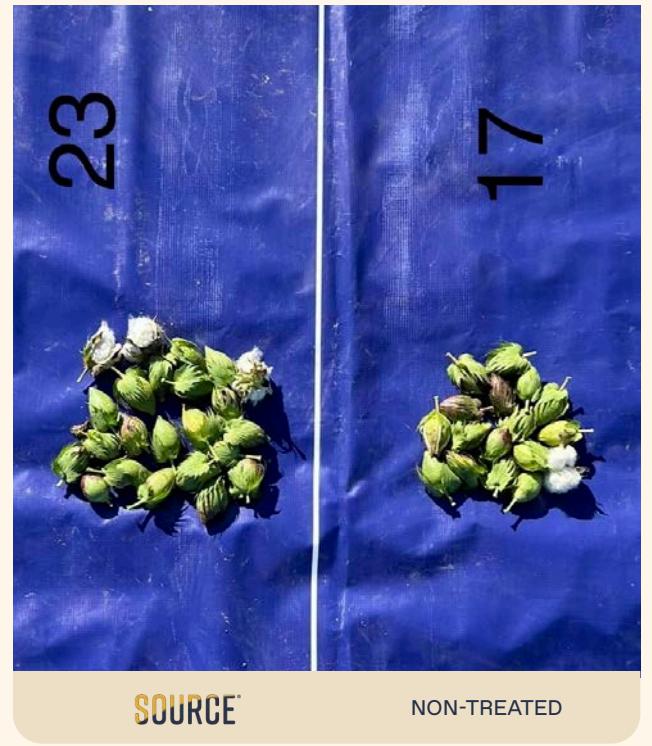
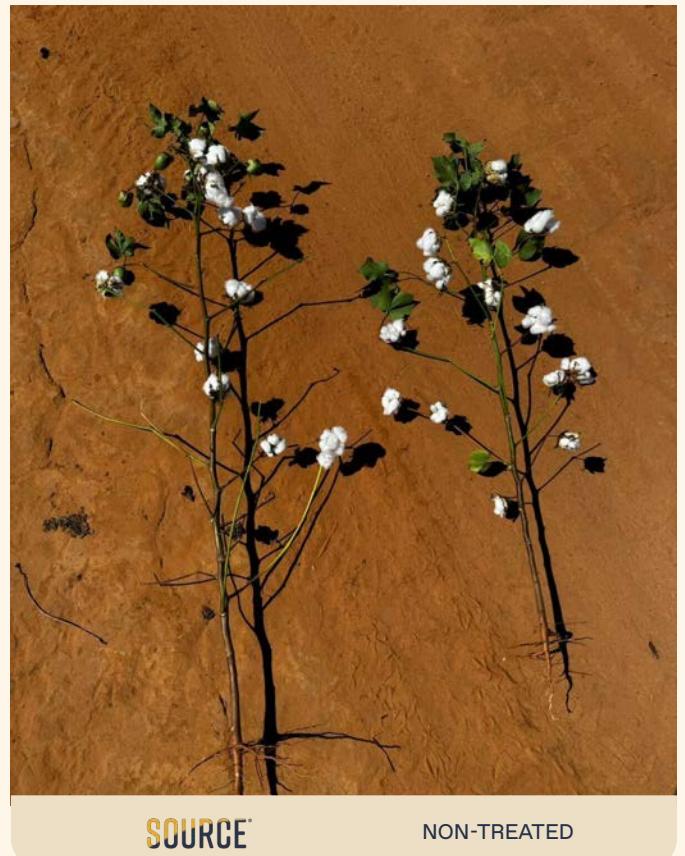


#### SOURCE vs. Control Averages (Single and Double Application)



# COTTON COMPARISON PHOTOS

Commercial Trials | 2021 -2024



# WHEAT RESULTS



## Products

### SOURCE XC

#### Yield Impact

**2-4+ bu**

#### Win Rate

**80%**

**SOURCE XC** is the ultimate nutrient efficiency tool for wheat, delivering up to 2-4 bushels per acre with an 80% win rate.

By enhancing nutrient uptake and improving plant resilience, SOURCE helps wheat growers push for higher yields while maintaining strong standability. Trial data has shown impressive results in the Pacific Northwest. Growers can count on SOURCE XC to drive plant and soil health on every acre.

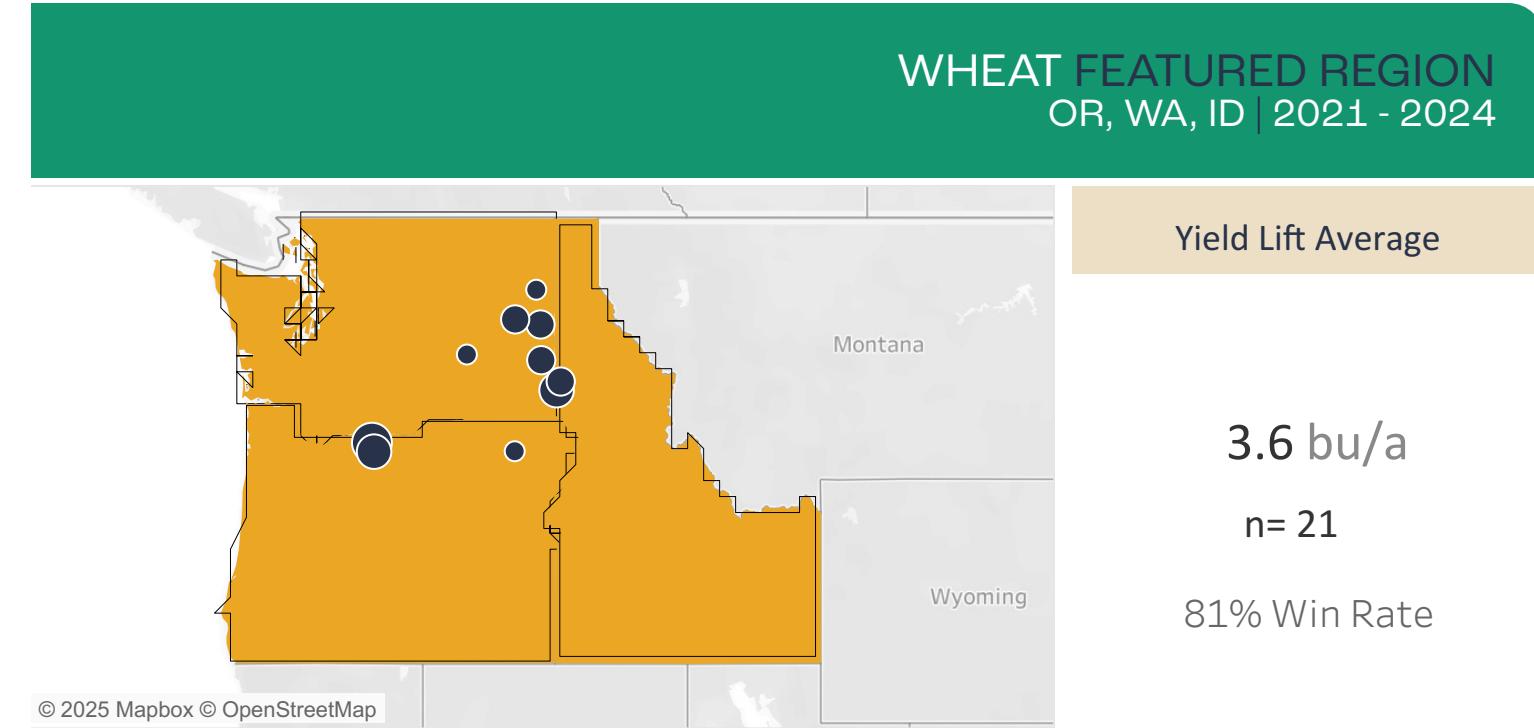
WHEAT FEATURED REGION  
OR, WA, ID | 2021 - 2024

Yield Lift Average

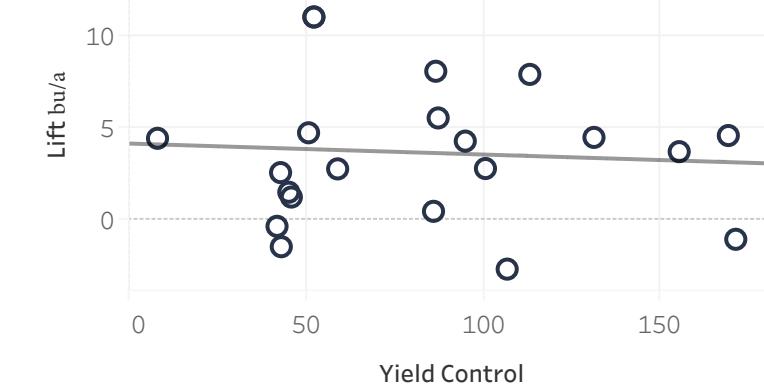
**3.6 bu/a**

**n = 21**

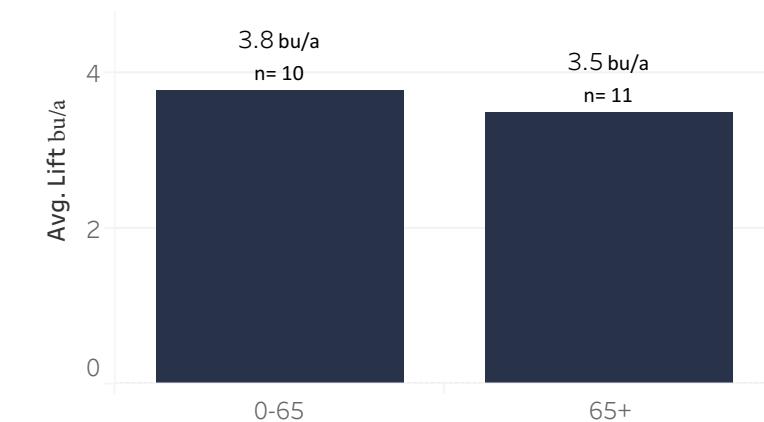
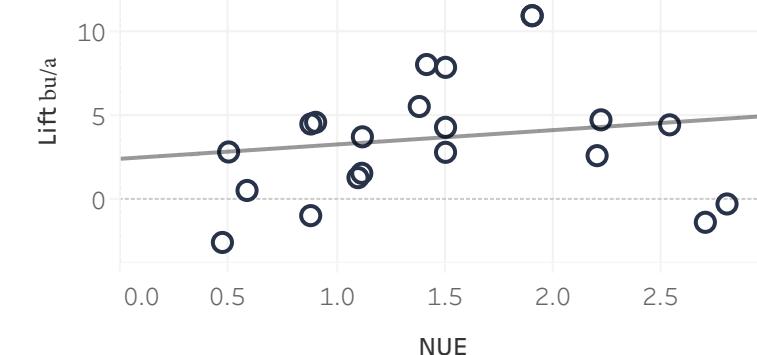
**81% Win Rate**



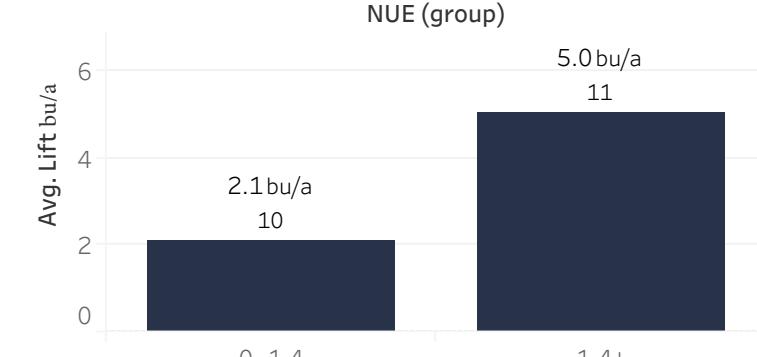
#### Yield Lift by Yield Environment



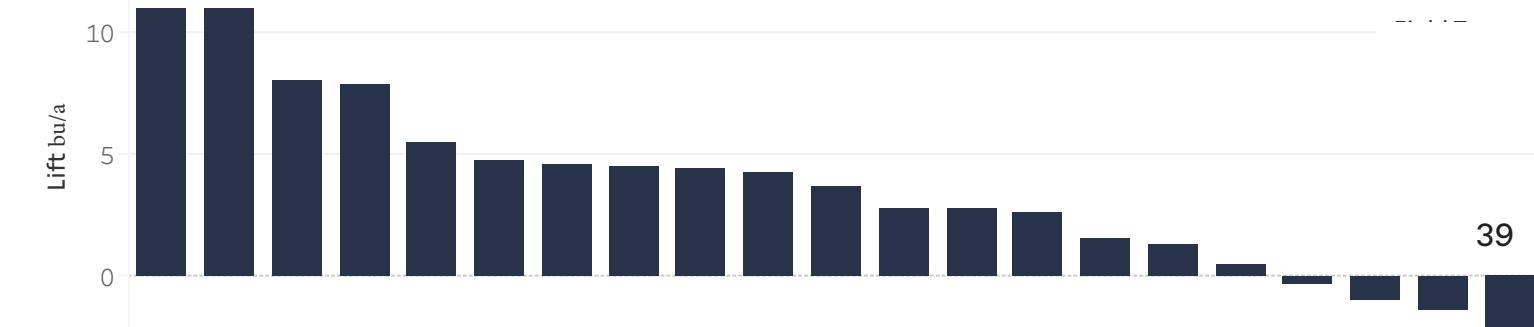
#### Yield Lift by Total N Applied



#### Yield by Total NUE

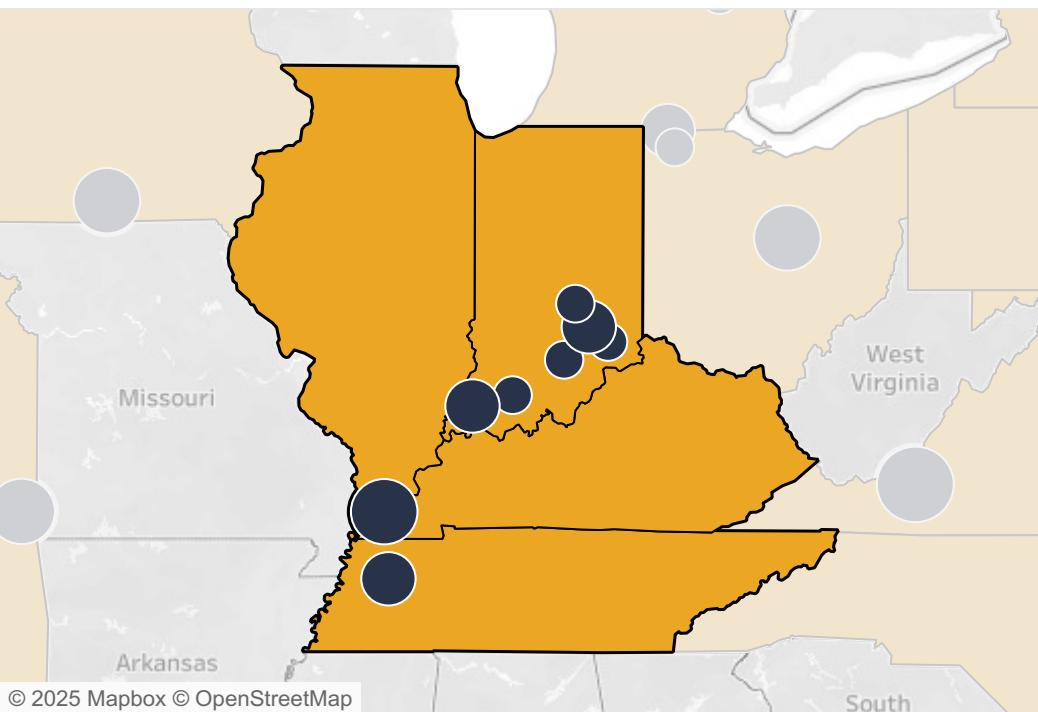


#### All Trials



## WHEAT FEATURED REGION

IL, IN, KY, TN | 2021 - 2024



Yield Lift Average

3.2 bu/a

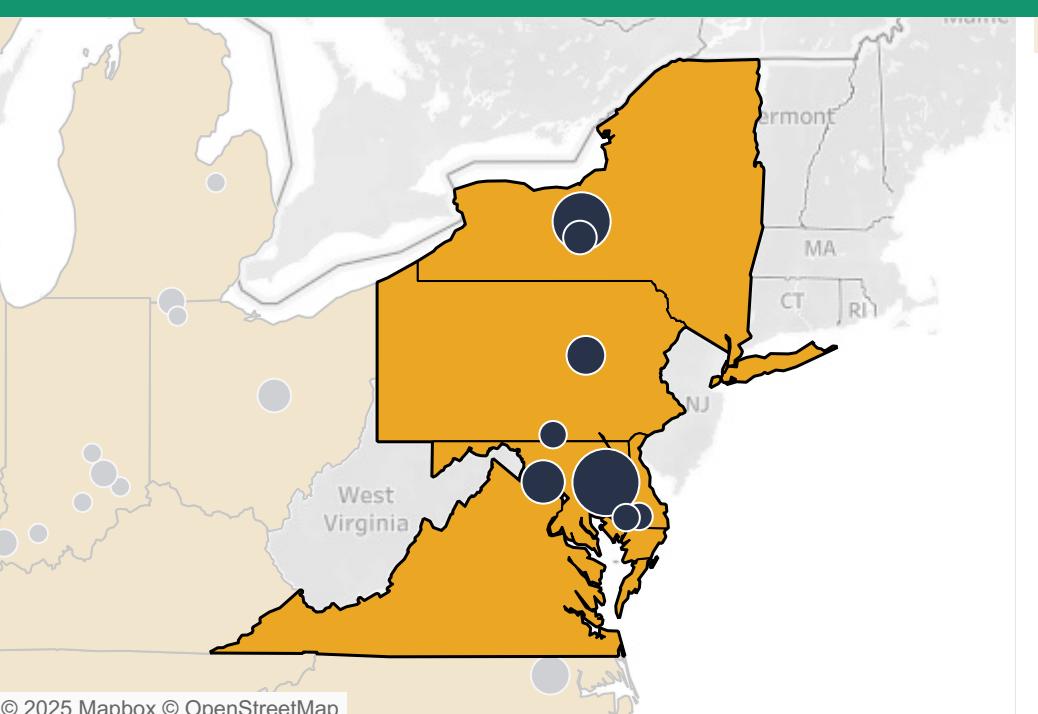
n= 13

Win Rate: 69%

### Field Summary

Farm	Crop	Field	Application Date	N Units Reduced	SOURCE Yield Avg	Control Yield Avg	Yield Lift per Acre
Pine Hurst Acres	Wheat	SOURCE + -10lbs N		10.0	124.4	117.5	6.9
		SOURCE			126.4	117.5	8.9

## NY, PA, VA, MD, DE | 2021 - 2024



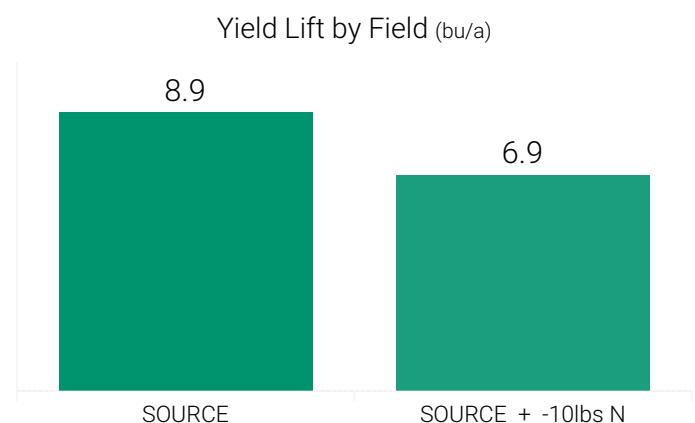
Yield Lift Average

1.7 bu/a

n= 43

Win Rate: 70%

Year



Average Yield Lift

Wheat + 7.9 bu/a

Average ROI by Acre

+\$39.98

Wheat: \$6  
SOURCE: \$13

+\$32.38

### Pennsylvania

## WHEAT FEATURED TRIAL

PA | 2024

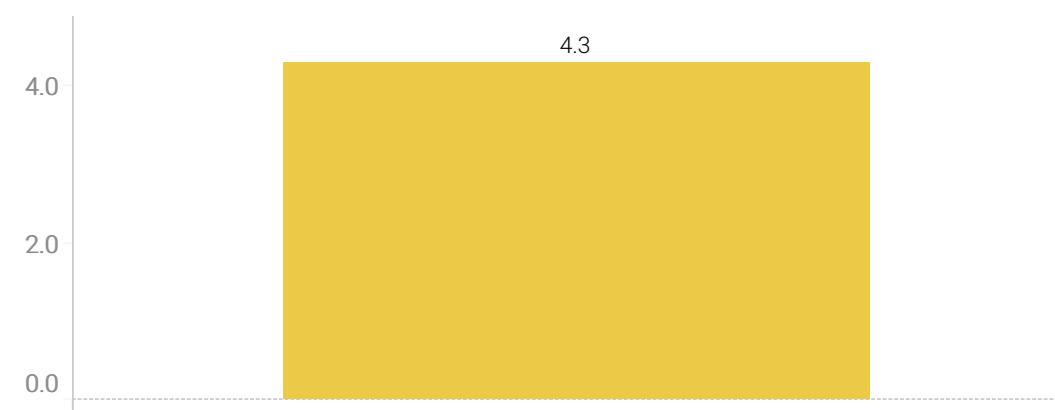




## Trial Summary

Field	Crop	Product	Application Stage	SOURCE Yield	Control Yield	Yield Lift per Acre
Baumgartner	Wheat	XC	F6	<b>99.0</b>	<b>94.7</b>	<b>4.3</b>

Yield Lift by Application Stage



Idaho

XC

Average Yield Lift per Acre

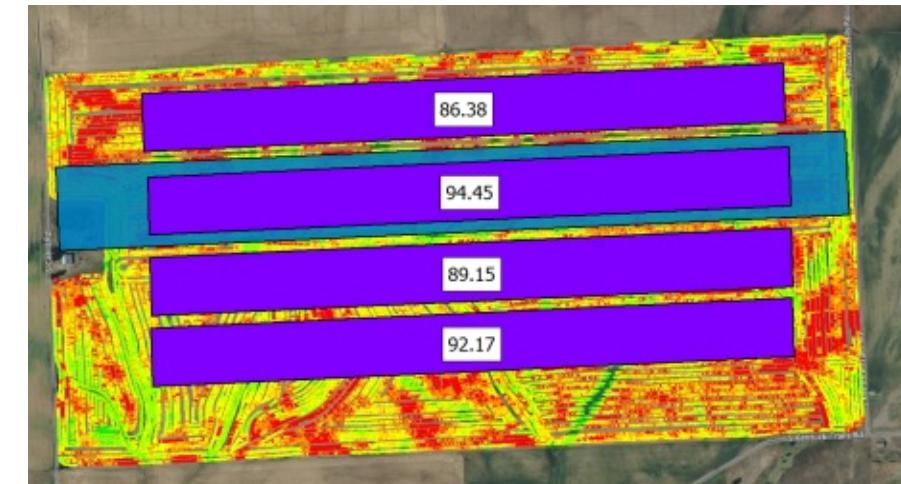
**+ 4.3 bu/ac**

Average % Gain per Acre

**+ 4.5% bu/ac**

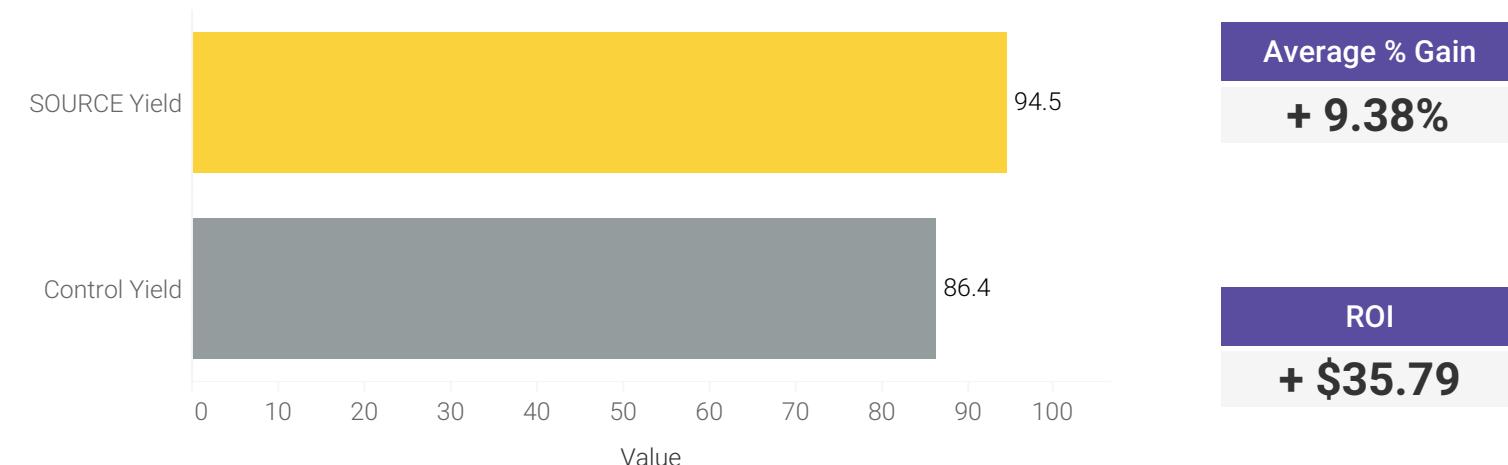
## Field Information

Prior Crop: Wheat  
Cover Crop: None  
Tillage: No Till  
Irrigation: None  
Manure: None  
Total N: 122.00



## Trial Results

Field	Crop	Product	Application Stage	SOURCE Yield	Control Yield	Yield Lift
Hein HWS	Spring Wheat	XC	Null	<b>94.5</b>	<b>86.4</b>	<b>8.1</b>

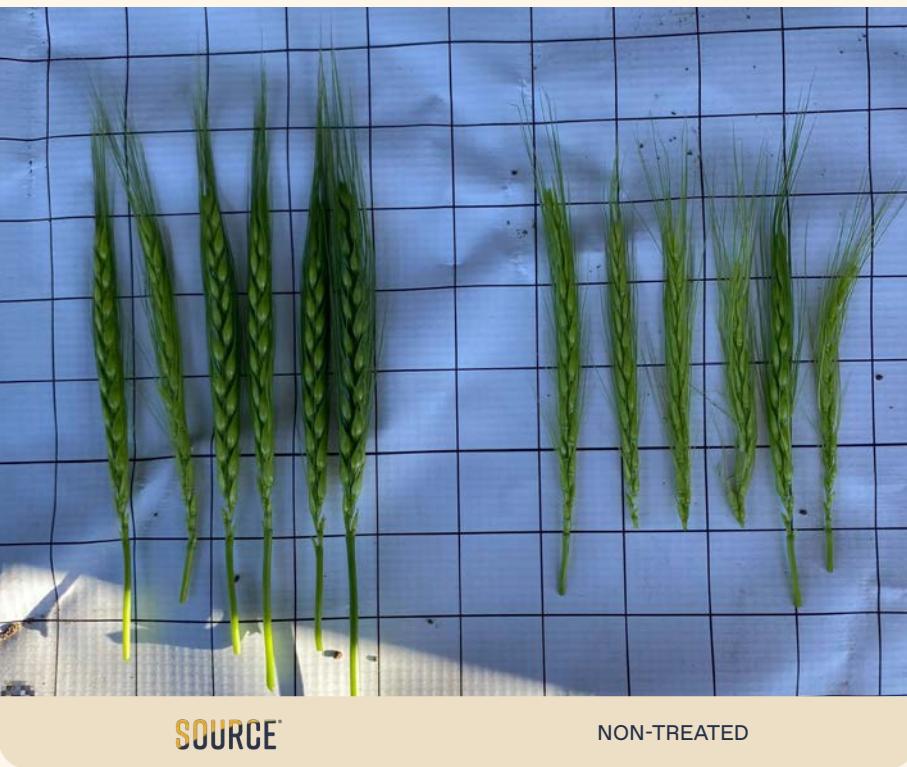


WA

Crop Price \$6.27  
SOURCE Cost \$15.00

# WHEAT COMPARISON PHOTOS

Commercial Trials | 2021 - 2024



# FORAGES

## RESULTS



### Products

#### SOURCE XC

#### GRASS HAY

Avg ROI/ac  
**\$100**

Win Rate  
**95%**

#### ALFALFA

Avg ROI/ac  
**\$21**

Win Rate  
**89%**

**SOURCE** delivers strong ROI on forages like grass hay and alfalfa by increasing biomass due to improved nutrient access throughout the season.

In grass hay, **SOURCE** generated an average of over \$100 per acre with a 95% win rate, delivering consistent profitability across all acres. For alfalfa, **SOURCE** delivered over \$20 per acre with an 89% win rate from increased biomass, while also supporting higher-quality forage.

Even more impressive, biomass increases were not limited to the first cutting after the **SOURCE** application, but were observed on subsequent cuttings throughout the season.

FORAGES COMPARISON PHOTOS  
Commercial Trials | 2021 - 2024



**SOURCE**

NON-TREATED



**SOURCE**

NON-TREATED



Notes: **SOURCE** was applied on the left half of this field. Trial administrator noted that the **SOURCE** applied half was visibly greener sooner than the non-treated part of the field.

# SUGARBEET RESULTS



## Products

SOURCE DC

Yield Impact

**1.2+ tons**

Win Rate

**67%**

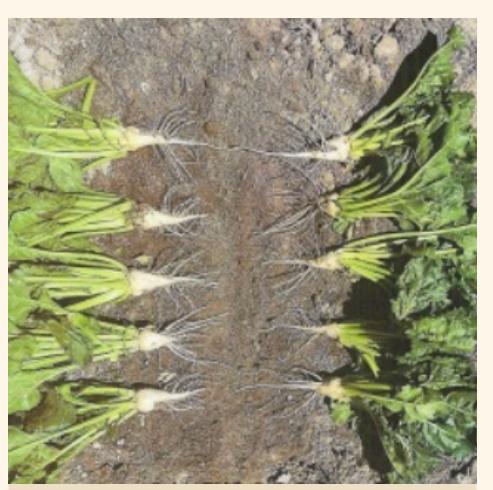
Avg ROI/ac

**\$72**

SOURCE is a proven nutrient efficiency tool for sugarbeets, delivering an average yield lift of 1.2 tons per acre with a 67% win rate and an average ROI of \$72 per acre.

By improving nutrient availability, SOURCE helps sugarbeets push yield without sacrificing sucrose levels. In fact, 71% of trials saw an increase in sucrose levels. Backed by six independent trials, growers are seeing proven performance and reliable returns across various environments.

SUGARBEET COMPARISON PHOTOS  
Commercial Trials | 2024



# POTATO RESULTS



Yield Impact  
**38+ cwt**  
Win Rate  
**75%**

## Products

SOURCE DC

**SOURCE** is a proven tool for improving nutrient access and delivery to potatoes. **SOURCE** provides an average yield lift of over 38 cwt per acre with a 75% win rate.

By optimizing nutrient availability throughout the season, **SOURCE** helps potatoes maximize their yield potential while maintaining crop quality and consistency in potato size.

POTATO COMPARISON PHOTOS  
Commercial Trials | 2024



**SOURCE**

NON-TREATED

Notes: In these trials, **SOURCE** was shown to increase both the uniformity and quantity of potatoes.



# CANOLA RESULTS



## Products

### SOURCE DC

Yield Impact  
**105 lb**

Win Rate  
**100%**

Avg ROI/ac  
**\$38**

**SOURCE DC is an easy-to-use tool to improve yields in canola.** By increasing access to nitrogen, phosphorus and micronutrients throughout the season, SOURCE delivers significant yield increases.

CANOLA COMPARISON PHOTOS  
Commercial Trials | 2024



# PULSES RESULTS



## Products

SOURCE DC

### BANNER PEA

Yield Impact  
**81+ lb**

Win Rate  
**100%**

### CHICKPEA

Yield Impact  
**95+ lb**

Win Rate  
**100%**

### LENTIL

Yield Impact  
**75+ lb**

Win Rate  
**100%**

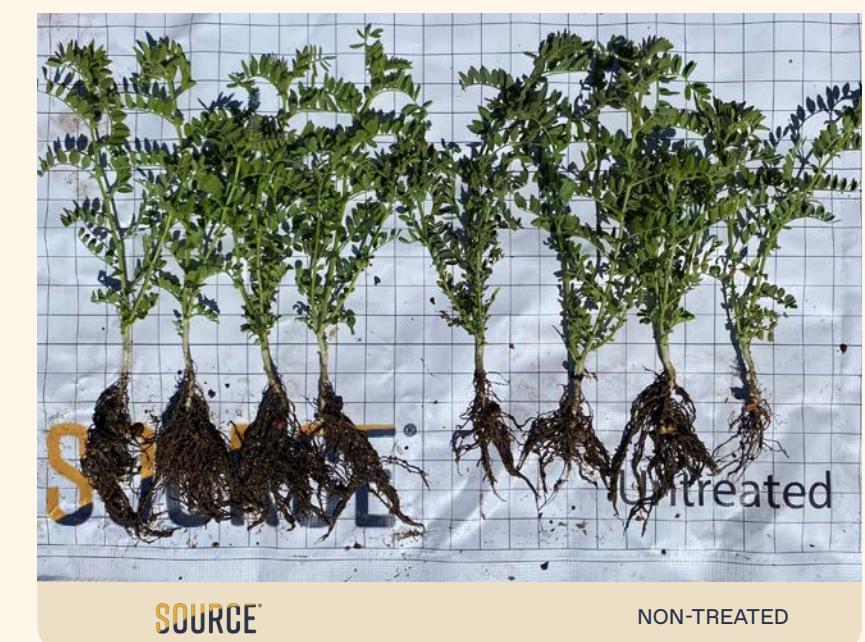
### EDIBLE BEANS

Yield Impact  
**251+ lb**

Win Rate  
**100%**

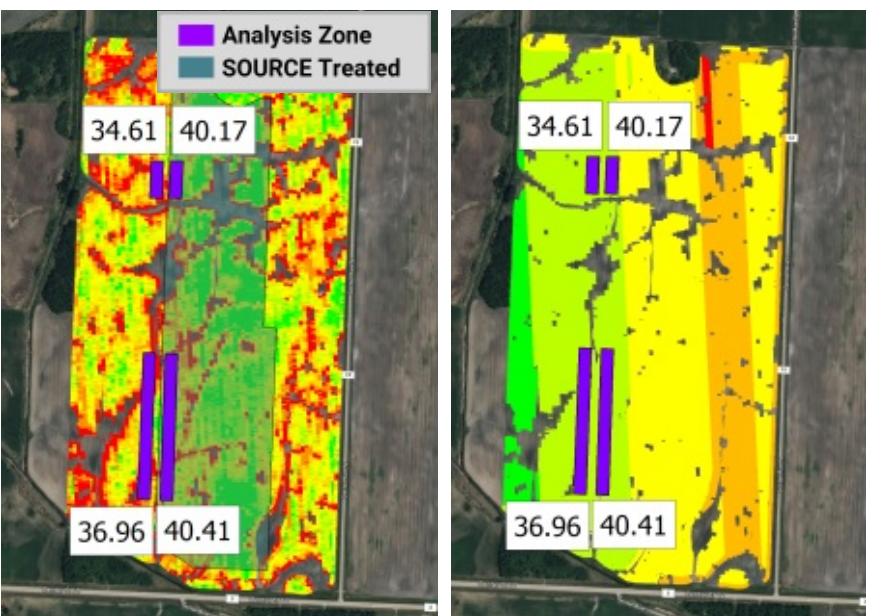
**SOURCE DC** is an easy-to-use tool to improve yields in pulses. By increasing access to nitrogen, phosphorus and micronutrients throughout the season, SOURCE delivers significant yield increases across a wide variety of pulses. SOURCE performed consistently, winning on all trials in this category.

While nutrient efficiency can be an afterthought, growers can see significant returns in pulses by activating beneficial microbes in their soil that deliver more nutrients throughout the season.



## Field Information

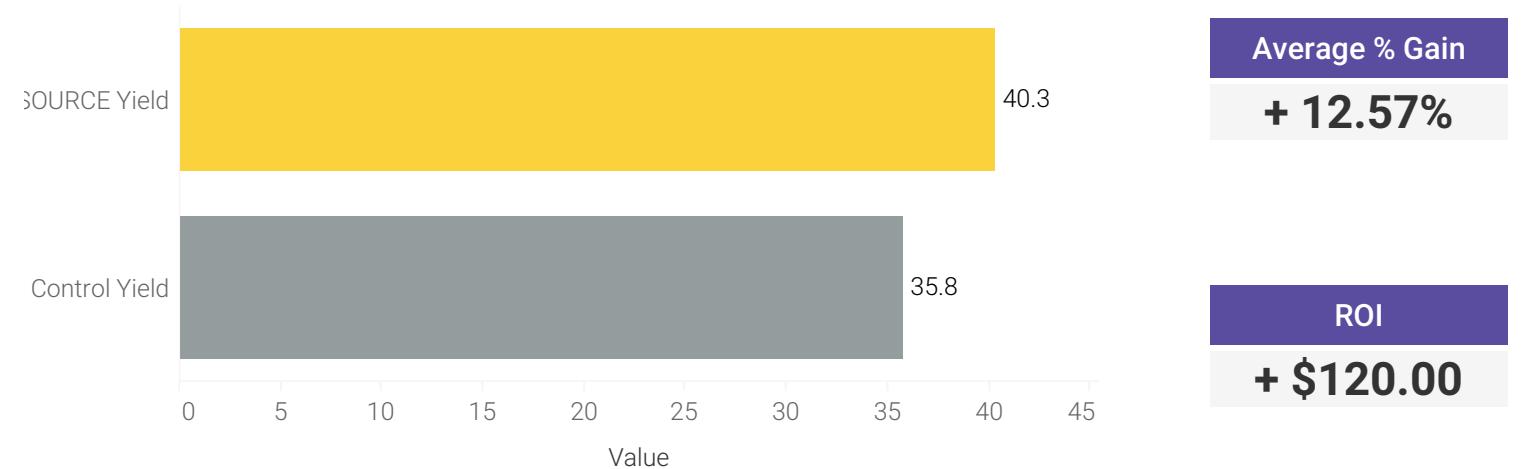
Prior Crop:  
Cover Crop:  
Tillage:  
Irrigation: None  
Manure:  
Total N:



## Trial Results

*Zones placed to keep harvest date c..*

Field	Crop	Product	Application Stage	SOURCE Yield	Control Yield	Yield Lift
Kyles	Black Beans	Null	Null	<b>40.3</b>	<b>35.8</b>	<b>4.5</b>



MN

Crop Price \$30.00  
SOURCE Cost \$15.00

# Sound



[www.sound.ag](http://www.sound.ag)

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# Sound

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