



**IT'S ALL ABOUT  
THE PLUS**

2018 SUL4R-PLUS® Trial Results  
Highlighted Summary





# SUL4R-PLUS®



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## Macronutrients



## Micronutrients



Delivers Calcium, Sulfur, Zinc,  
Boron, and other nutrients

100% plant-available nutrients  
when crops need them

Every granule contains the nutrients

Uniform particle size and density  
for consistent blending and spread

120' spread capability

More granules per square foot for  
even feeding

Dust free handling

Low salt index

Phosphorus free

Formulation flexibility

Lower operating costs

## Free sample

[SUL4R-PLUS.COM](http://SUL4R-PLUS.COM)



## SUL4R-PLUS® Fertilizer:

Delivers Calcium, Sulfur with  
options for Zinc, Boron, and  
other nutrients

100% plant-available nutrients  
when crops need them

Every granule contains the nutrients

Uniform particle size and density  
for consistent blending and spread

120' spread capability

More granules per square foot  
for even feeding

Dust free handling

Low salt index

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Formulation flexibility

Lower operating costs



It's all about the PLUS.







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Farmer Standard + K-Mag



May 18, 2018  
Pembroke, KY

DIFFERENCES:

- COLOR
- HEIGHT
- MATURITY STAGE

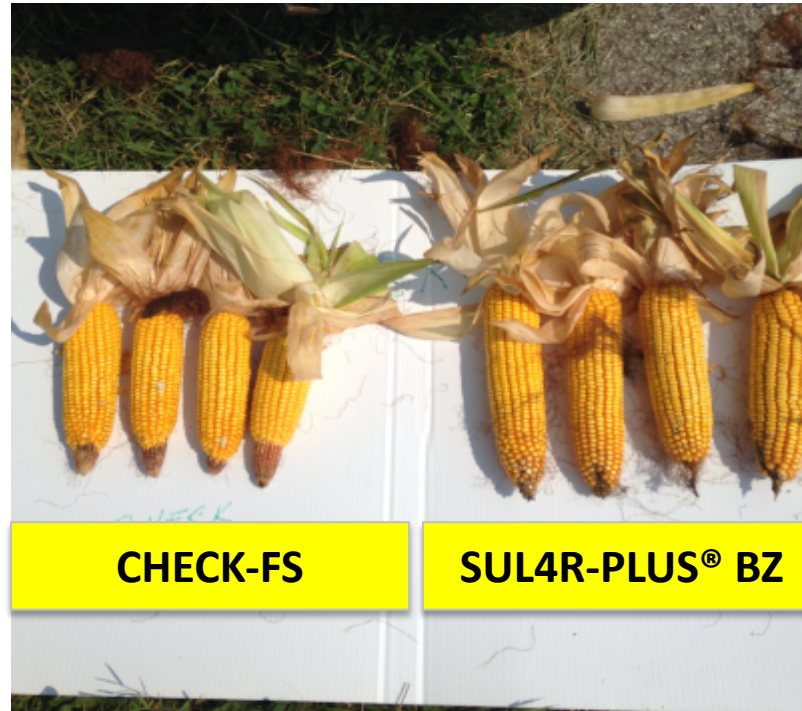
Which looks better?

Farmer Standard + SUL4R-PLUS® B+Z





CORN PHOTOS—2018 Pembroke, KY  
August 14, 2018





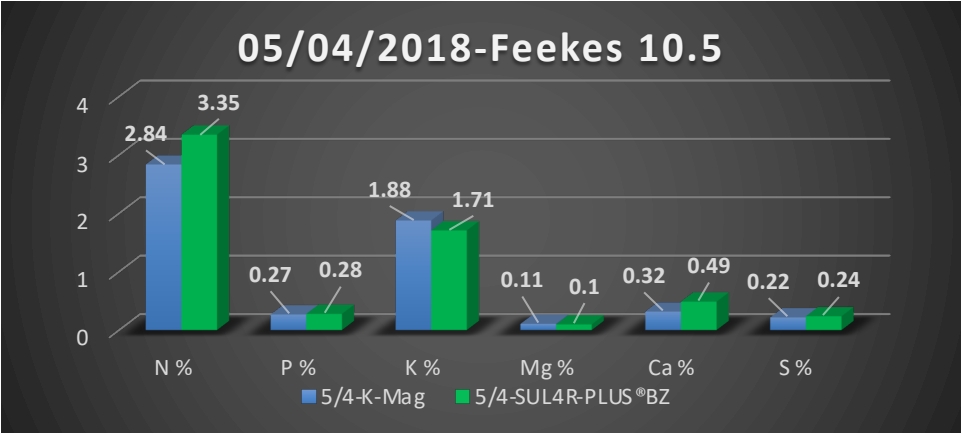
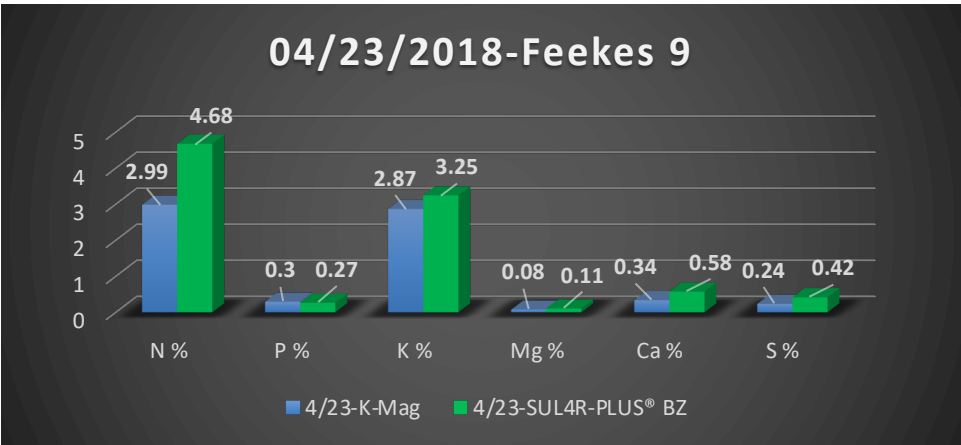
# 2018 SUL4R-PLUS® Wheat Trial Results



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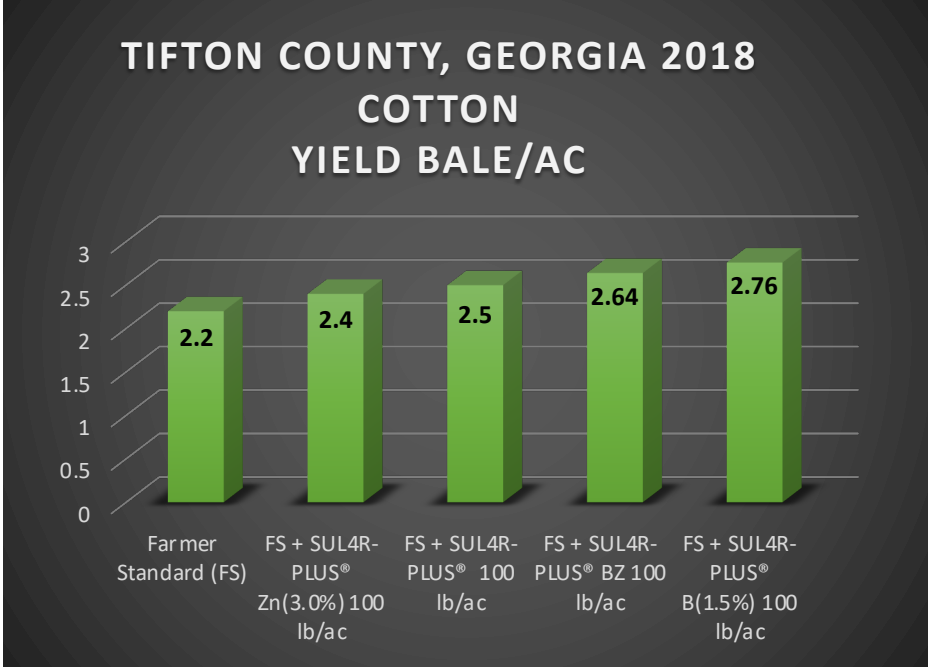


- Wheat—Herndon, KY
- Fall Application
- SUL4R-PLUS® B+Z @ 100 lbs./ac.
- K-Mag @ 100 lbs./ac.
- Analysis of Sulfur nutrient availability in spring utilizing fall application methods.
- Tissue analysis conducted during Feekes 9 and Feekes 11.5 growth stages.
- Increased Nitrogen availability during peak demand with SUL4R-PLUS® B+Z.
- Increased Sulfur availability during peak demand with SUL4R-PLUS® B+Z. Improved N:S ratio.
- Unusual weather pattern caused nitrogen leaching, which consequently reduced yield.
  - 36 inches rainfall from application in fall till harvest.
  - 23 inches rainfall from January 1 thru May 15.
- Yield was consistent for both treated and untreated areas. Both areas yielded 70 bushels per acre.
- SUL4R-PLUS® B+Z did demonstrate increase Calcium, Sulfur, Boron and Zinc nutrient uptake throughout growing season as illustrated in the tissue analysis.





# 2018 SUL4R-PLUS® Cotton Trial Results



## Trial Summary:

- Planting Date: May 5, 2018
- Soil Characteristic: Tifton-Loamy Sand
- Harvest Date: October 6, 2018

## Key Points:

- Addition of Calcium, Sulfur, Boron and Zinc contribute to yield and increased gross revenue per acre.
  - SUL4R-PLUS® B+Z – \$173.80 more per acre.
  - SUL4R-PLUS® BORON – \$221.20 more per acre.
- SUL4R-PLUS® Fertilizer advantages:
  - Homogeneous granule.
  - Superior spread.

PRODUCT	YIELD Bale/AC	YIELD LBS/AC	GROSS \$/AC @ \$0.79/LB	Difference Gross \$/AC
Farmer Standard (FS)	2.2	1100	\$ 869.00	
FS + SUL4R-PLUS® Zn(3.0%) 100 lb/ac	2.4	1200	\$ 948.00	\$ 79.00
FS + SUL4R-PLUS® 100 lb/ac	2.5	1250	\$ 987.50	\$ 118.50
FS + SUL4R-PLUS® BZ 100 lb/ac	2.64	1320	\$ 1,042.80	\$ 173.80
FS + SUL4R-PLUS® B(1.5%) 100 lb/ac	2.76	1380	\$ 1,090.20	\$ 221.20



# 2018 SUL4R-PLUS® Corn Trial Results

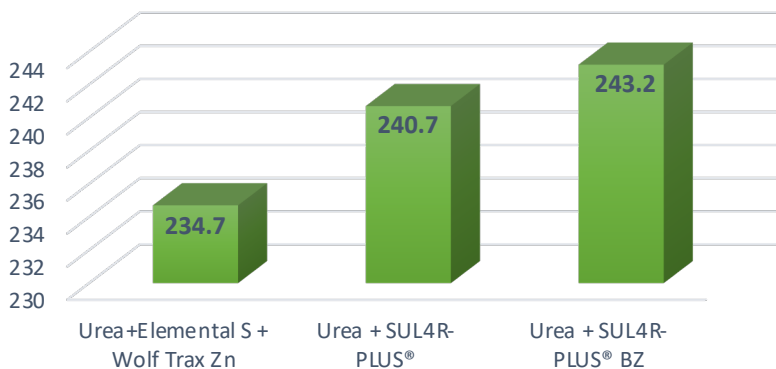


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## MADISON COUNTY, ALABAMA 2018

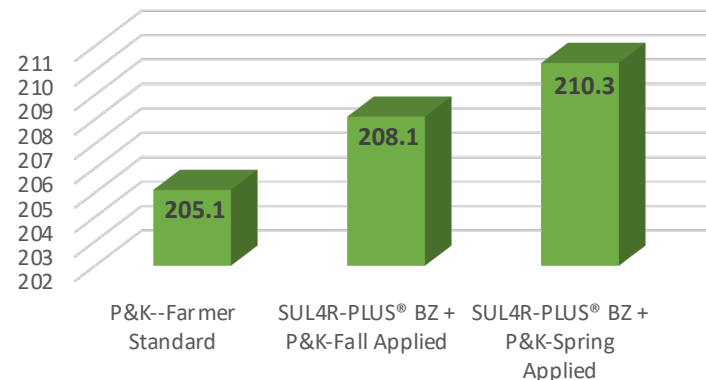
### CORN Yield BU/AC



Treatment	Yield Bushels/Acre @ 15.5% Moisture	Yield Difference/Acre	Gross \$/AC @ \$3.50/BU	Gross \$/AC Difference
Urea+Elemental S + Wolf Trax Zn	234.7		\$ 821.45	
Urea + SUL4R-PLUS®	240.7	6	\$ 842.45	\$ 21.00
Urea + SUL4R-PLUS® BZ	243.2	8.5	\$ 851.20	\$ 29.75

## HENDERSON COUNTY, KENTUCKY 2018

### CORN Yield BU/AC



Product	Application Time	Yield BU/AC	Test Weight LBS./BU	Moisture %
P&K --Farmer Standard	FALL	205.1	57	17.5
SUL4R-PLUS® BZ + P&K	FALL	208.1	58.5	17
SUL4R-PLUS® BZ + P&K	SPRING	210.3	59.5	17.7



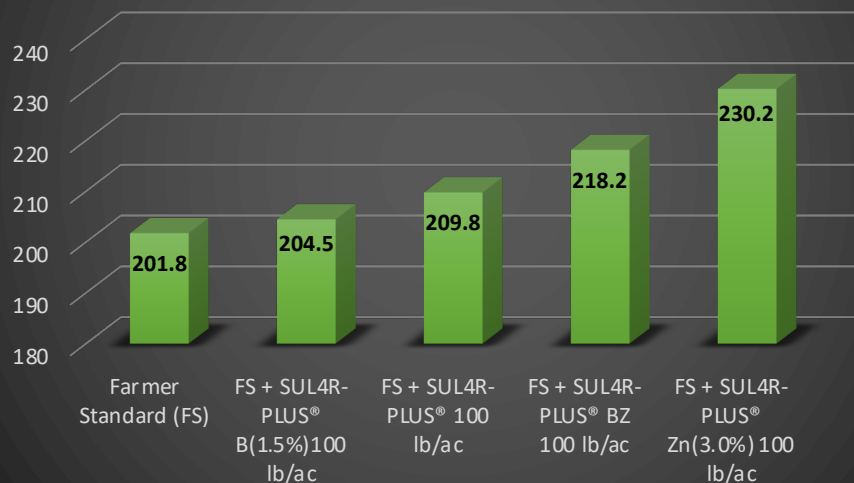
# 2018 SUL4R-PLUS® Corn Trial Results



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## TIFTON COUNTY, GEORGIA 2018 CORN TRIAL



PRODUCT	YIELD BU/AC	GROSS \$/AC @ \$3.50/BU	Difference Gross \$/AC
Farmer Standard (FS)	201.8	\$ 706.30	
FS + SUL4R-PLUS® B(1.5%)100 lb/ac	204.5	\$ 715.75	\$ 9.45
FS + SUL4R-PLUS® 100 lb/ac	209.8	\$ 734.30	\$ 28.00
FS + SUL4R-PLUS® BZ 100 lb/ac	218.2	\$ 763.70	\$ 57.40
FS + SUL4R-PLUS® Zn(3.0%) 100 lb/ac	230.2	\$ 805.70	\$ 99.40

## Trial Summary:

- Planting Date: April 2, 2018
- Soil Characteristic: Tifton-Loamy Sand
- Harvest Date: August 25, 2018
- Farmer standard (FS) was N, P, K no additional secondary or micronutrients.

## Key Points:

- Addition of Calcium, Sulfur, Boron and Zinc contribute to yield and increased gross revenue per acre.
  - SUL4R-PLUS® B+Z – \$57.40 more per acre.
  - SUL4R-PLUS® ZINC –\$99.40 more per acre.
- SUL4R-PLUS® Fertilizer advantages:
  - Homogeneous granule.
  - Superior spread.

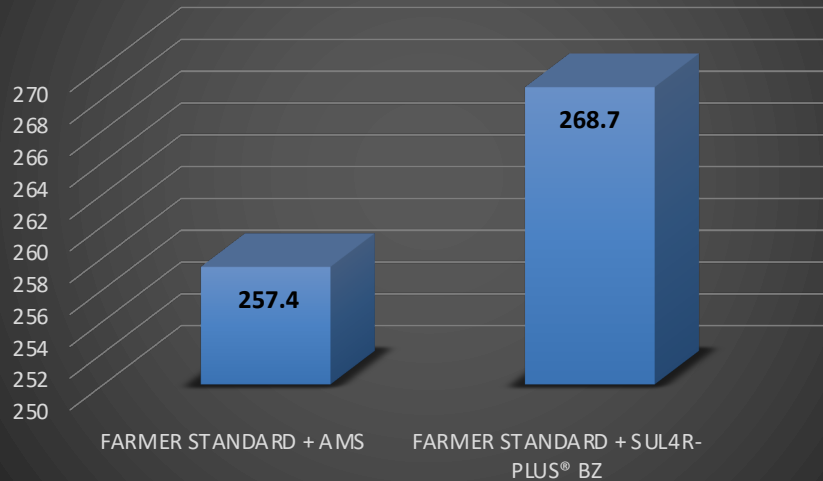
# 2018 SUL4R-PLUS® Corn Trial Results



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## NORTHEAST, IN 2018 CORN TRIAL YIELD BU/AC @ 15.5% Moisture



## Key Points:

- Addition of Calcium, Sulfur, Boron and Zinc contribute to yield and increased gross revenue per acre.
  - SUL4R-PLUS® B+Z – **\$39.55** more per acre.
  - Additional margin potential \$5.00 to \$10.00 per acre— results from added cost of AMS, foliar nutrients and additional application charges.
  - 154 Acre Field Average—260.4 BU/AC.
- SUL4R-PLUS® Fertilizer advantages:
  - Homogeneous granule.
  - Superior spread and dust free.
  - Sulfate from SUL4R-PLUS® B+Z was there at ear fill— AMS left the plant deficient.

Treatment	Yield Bushels/Acre @ 15.5% Moisture	Gross \$/AC @ \$3.50/BU	Gross \$/AC Difference
FARMER STANDARD + AMS	257.4	\$ 900.90	
FARMER STANDARD + SUL4R-PLUS® BZ	268.7	\$ 940.45	\$ 39.55

Date	Treatment	Ca %	S %	B ppm	Zn ppm
6/11/2018	CK-FS+AMS	0.37	0.3	6	65
6/11/2018	FS+SUL4R-PLUS® BZ	0.24	0.29	7	64
8/20/2018	CK-FS+AMS	0.63	0.17	10	21
8/20/2018	FS+SUL4R-PLUS® BZ	0.65	0.23	8	28



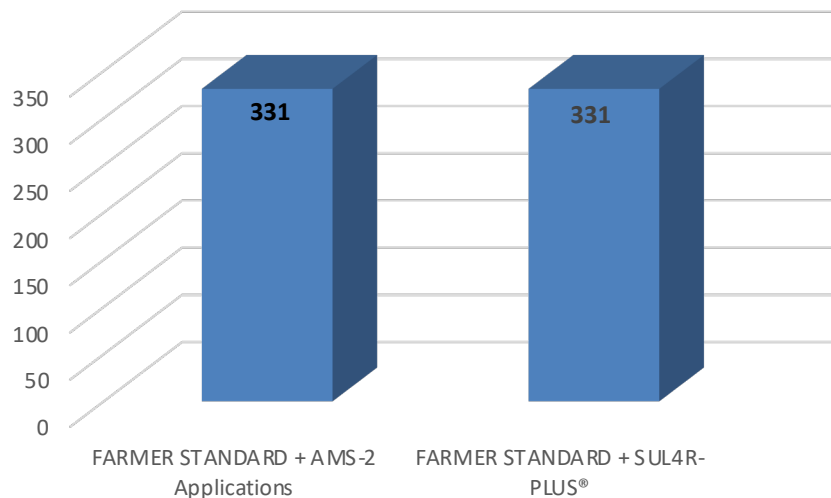
# 2018 SUL4R-PLUS® Corn Trial Results



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OWENSBORO, KY 2018 CORN TRIAL  
YIELD BU/AC @ 17 % Moisture



Treatment	Yield Bushels/Acre @ 15.5% Moisture	Gross \$/AC @ \$3.50/BU	Gross \$/AC Difference
FARMER STANDARD + AMS-2 Applications	331	\$ 1,158.50	
FARMER STANDARD + SUL4R-PLUS®	331	\$ 1,158.50	\$ -

## Key Points:

- Addition of Calcium and Sulfur using SUL4R-PLUS® yielded same as TWO (2) applications of AMS.
  - Cost of SUL4R-PLUS®/acre one time application.
  - Cost of AMS/acre applied twice.
  - Irrigated.
  - Fertility levels in soil DID NOT REQUIRE MICRONUTRIENTS.
  - SUL4R-PLUS® @ 100 lbs./ac. at \$300.00/ton = \$15.00/ac.
  - AMS @ 100 lbs./ac. at \$300.00/ton = \$15.00/ac. x 2 = \$30.00/ac.
- SUL4R-PLUS® Fertilizer advantages:
  - Homogeneous granule.
  - Superior spread and dust free.
  - Greater margin potential per acre with only one application of SUL4R-PLUS® as opposed to two applications of AMS.

## 2018 Tissue Analysis-CORN

Date	Treatment	Ca %	S %	Mg %	B ppm	Zn ppm
6/20/2018	CK-FS+AMS	0.4	0.24	0.11	20	32
6/20/2018	FS+SUL4R-PLUS®	0.48	0.22	0.14	21	25

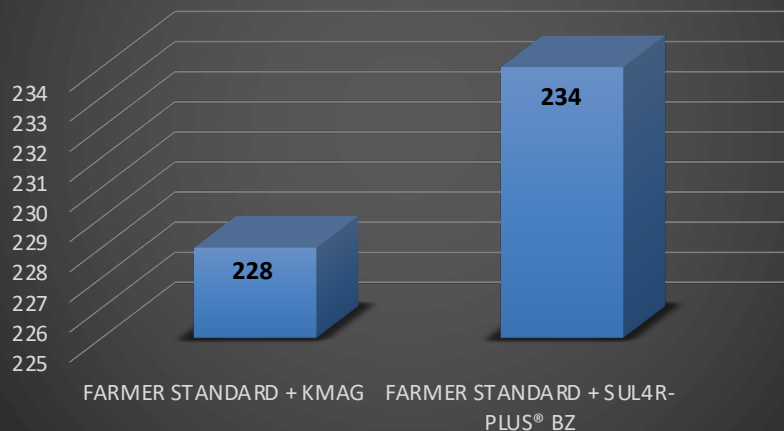
# 2018 SUL4R-PLUS® Corn Trial Results



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## POSEY COUNTY, IN 2018 CORN TRIAL YIELD BU/AC @ 15.5% Moisture



## Key Points:

- Addition of Calcium, Sulfur, Boron and Zinc contribute to yield and increased gross revenue per acre.
  - SUL4R-PLUS® B+Z – \$21.00 more per acre.
  - Additional margin potential of \$5.00 to \$10.00—resulting from the added cost per acre of K-Mag.
- SUL4R-PLUS® Fertilizer advantages:
  - Homogeneous granule.
  - Superior spread.
  - Cost of 100# of K-Mag compared to the cost of SUL4R-PLUS® B+Z, return on investment is better with the B+Z.
  - Where is Magnesium from K-Mag?—SUL4R-PLUS® B+Z tissue analysis show more Magnesium in tissue.

## Corn Tissue Analysis—Posey Co, IN

Date	Treatment	Ca %	S %	Mg %	B ppm	Zn ppm
6/5/2018	CK-FS+KMAG	0.29	0.2	0.11	2	24
6/5/2018	FS+SUL4R-PLUS® BZ	0.41	0.26	0.16	5	27
7/5/2018	CK-FS+KMAG	0.52	0.14	0.15	6	16
7/5/2018	FS+SUL4R-PLUS® BZ	0.74	0.18	0.2	5	18

Treatment	Yield Bushels/Acre @ 15.5% Moisture	Gross \$/AC @ \$3.50/BU	Gross \$/AC Difference
FARMER STANDARD + KMAG	228	\$ 798.00	
FARMER STANDARD + SUL4R-PLUS® BZ	234	\$ 819.00	\$ 21.00



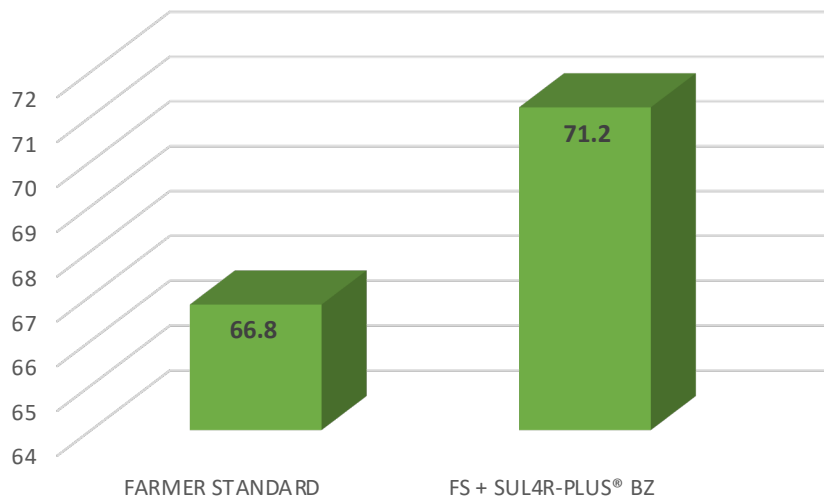
# 2018 SUL4R-PLUS® Soybean Trial Results



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WILLIAMSBURG, IN 2018 SOYBEAN TRIAL  
YIELD BU/AC



## Key Points:

- Addition of Calcium, Sulfur, Boron and Zinc contribute to yield and increased gross revenue per acre.
  - SUL4R-PLUS® B+Z – **\$39.60** more per acre.
- SUL4R-PLUS® Fertilizer advantages:
  - Homogeneous granule.
  - Superior spread and dust free.

Treatment	Yield Bushels/Acre	Gross \$/AC @ \$9.00/BU	Gross \$/AC Difference
FARMER STANDARD	66.8	\$ 601.20	
FS + SUL4R-PLUS® BZ	71.2	\$ 640.80	<b>\$ 39.60</b>

Date	Treatment	Ca %	S %	B ppm	Zn ppm
6/25/2018	CK-FS	0.99	0.27	36	25
6/25/2018	FS+SUL4R-PLUS® BZ	1.05	0.3	43	31
8/20/2018	CK-FS	2.5	0.23	44	33
8/20/2018	FS+SUL4R-PLUS® BZ	2.81	0.24	43	43

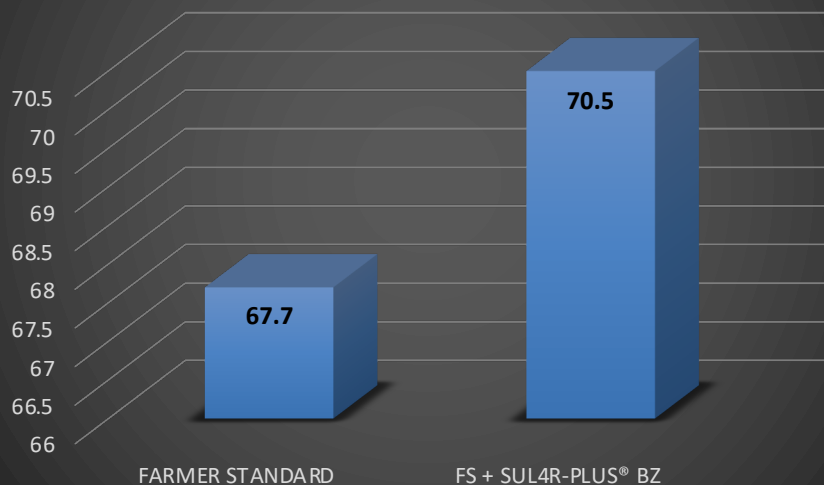
# 2018 SUL4R-PLUS® Soybean Trial Results



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## LARUE COUNTY, KY 2018 SOYBEANS TRIAL YIELD BU/AC



## Key Points:

- Addition of Calcium, Sulfur, Boron and Zinc contribute to yield and increased gross revenue per acre.
  - SUL4R-PLUS® B+Z – \$25.20 more per acre.
  - Additional margin potential \$5.00 to \$10.00 per acre—results from added cost of AMS, foliar nutrients and additional application charges.
- SUL4R-PLUS® Fertilizer advantages:
  - Homogeneous granule.
  - Superior spread—Dust Free.
  - Tissue sampling on 8-23 at R6 (full reproductive) stage demonstrated the importance of even timely feeding of micronutrients—demonstrated in yield and verified by tissue analysis.
  - Good fertility in field, due to proper grower management—replacing AMS and foliar micronutrients—did not surpass the attributes of applying SUL4R-PLUS® B+Z.

## 2018 Soybean Tissue Analysis

Date	Treatment	Ca %	S %	B ppm	Zn ppm
8/23/2018	CK-FS + AMS	2.33	0.27	57	37
8/23/2018	FS+SUL4R-PLUS® BZ	2.29	0.29	62	40

Treatment	Yield Bushels/Acre	Gross \$/AC @ \$9.00/BU	Gross \$/AC Difference
FARMER STANDARD	67.7	\$ 609.30	
FS + SUL4R-PLUS® BZ	70.5	\$ 634.50	\$ 25.20



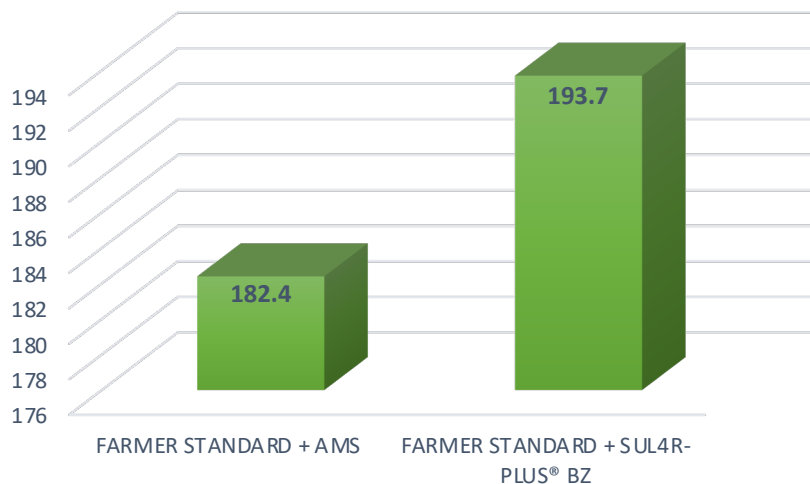
# 2018 SUL4R-PLUS® Corn Trial Results



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## HARDIN COUNTY, KY 2018-CORN TRIAL YIELD BU/AC @ 15.5% MOISTURE



Treatment	Yield Bushels/Acre @ 15.5% Moisture	Gross \$/AC @ \$3.50/BU	Gross \$/AC Difference
FARMER STANDARD + AMS	182.4	\$ 638.40	
FARMER STANDARD + SUL4R-PLUS® BZ	193.7	\$ 677.95	\$ 39.55

## Key Points:

- Addition of Calcium, Sulfur, Boron and Zinc contribute to yield and increased gross revenue per acre.
  - SUL4R-PLUS® B+Z – \$39.44 more per acre.
  - Additional margin potential \$5.00 to \$10.00 per acre—results from added cost of AMS, foliar nutrients and additional application charges.
- SUL4R-PLUS® Fertilizer advantages:
  - Homogeneous granule.
  - Superior spread.
  - Noted ear difference with the Farmer Standard + AMS not filling out to the end – SUL4R-PLUS® B+Z more complete kernel fill.

## Corn Tissue Analysis Hardin County, KY—Corn

Date	Treatment	Ca %	S %	B ppm	Zn ppm
6/5/2018	CK-FS+AMS	0.37	0.28	3	25
6/5/2018	FS+SUL4R-PLUS® BZ	0.39	0.36	6	28
7/5/2018	CK-FS+AMS	0.63	0.22	6	28
7/5/2018	FS+SUL4R-PLUS® BZ	0.69	0.25	7	37

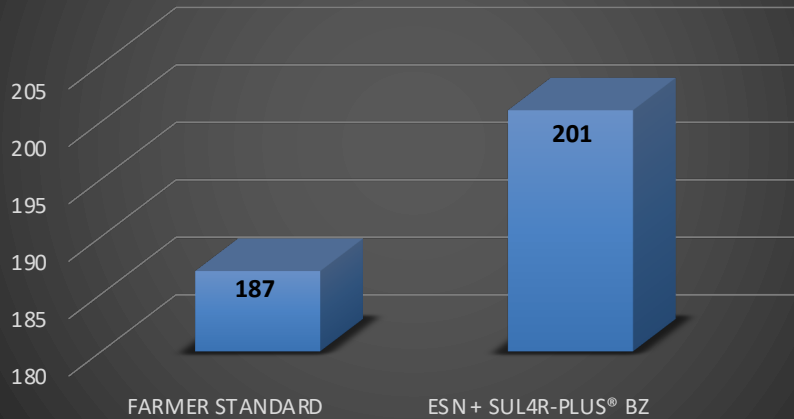
# 2018 SUL4R-PLUS® Corn Trial Results



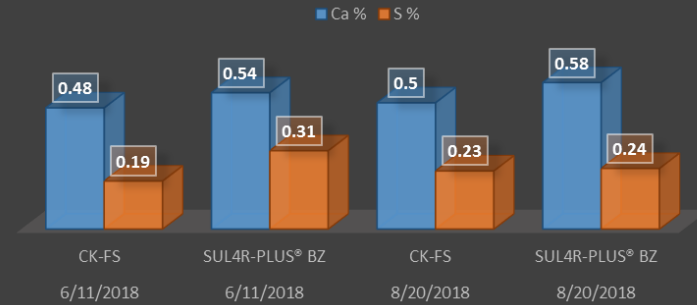
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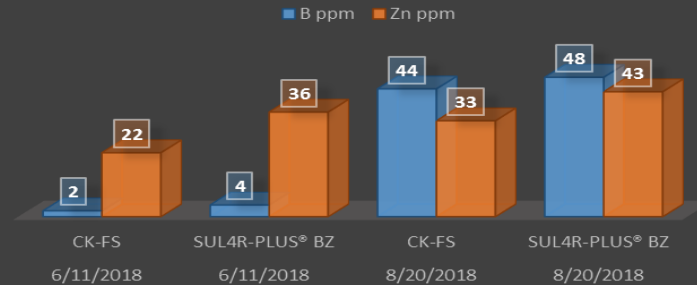
## BROOKVILLE, IN 2018 CORN TRIAL YIELD BU/AC @ 15.5% Moisture



## BROOKVILLE, IN 2018 TISSUE ANALYSIS- CORN



## BROOKVILLE, IN 2018 TISSUE ANALYSIS-CORN



Treatment	Yield Bushels/Acre @ 15.5% Moisture	Gross \$/AC @ \$3.50/BU	Gross \$/AC Difference
FARMER STANDARD	187	\$ 654.50	
ESN + SUL4R-PLUS® BZ	201	\$ 703.50	\$ 49.00





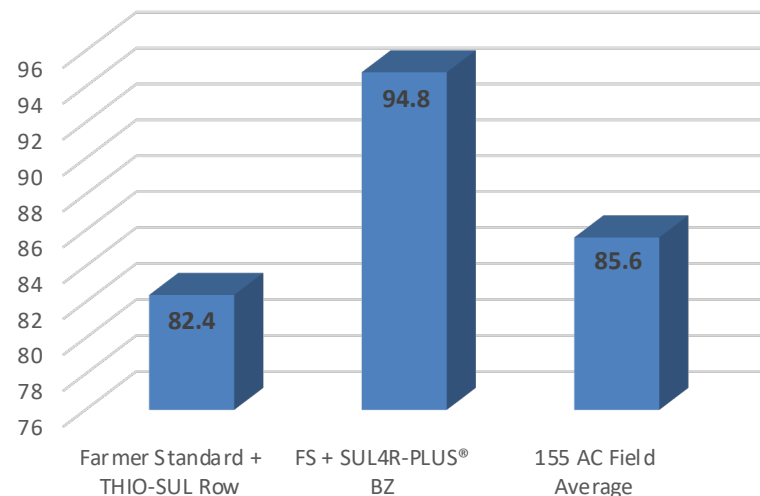
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## Key Points:

- Addition of Calcium, Sulfur, Boron and Zinc contribute to yield and increased gross revenue per acre.
  - SUL4R-PLUS® B+Z – **\$111.60** more per acre.
  - Plant Population—110,000 per acre.
  - 155 Acre Field Average—85.6 BU/AC.
- SUL4R-PLUS® Fertilizer advantages:
  - Homogeneous granule.
  - Superior spread, dust free and ease of use.

NORTHEAST INDIANA 2018 SOYBEAN TRIAL  
YIELD BU/AC



## 2018 SOYBEAN Tissue Analysis

Date	Treatment	Ca %	S %	B ppm	Zn ppm
6/11/2018	CK-FS-THIO-SUL Row	1.11	0.38	35	66
6/11/2018	FS+SUL4R-PLUS® BZ	1.39	0.35	34	79
8/20/2018	CK-FS-THIO-SUL Row	1.35	0.29	31	26
8/20/2018	FS+SUL4R-PLUS® BZ	1.5	0.32	39	34

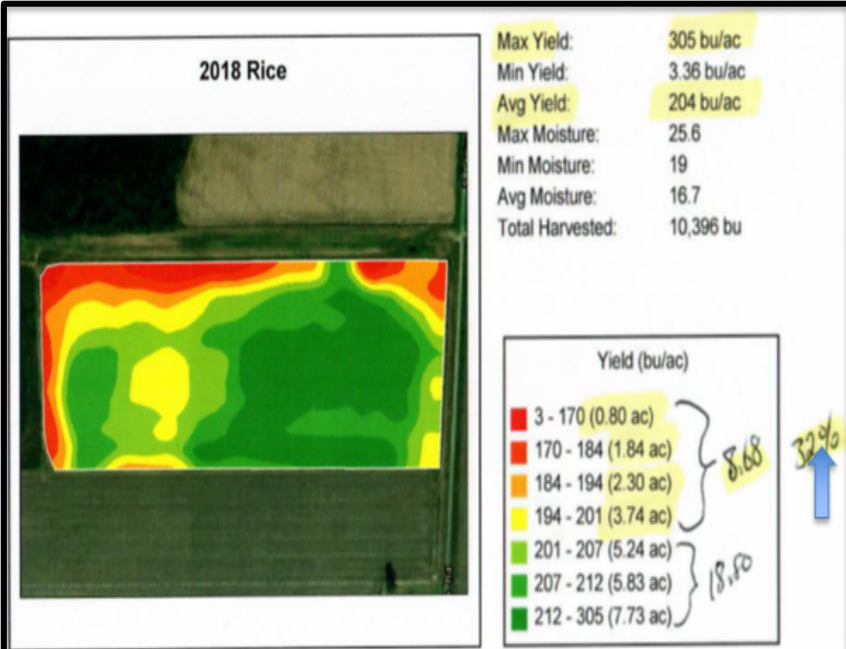
PRODUCT	YIELD BU/AC	GROSS \$/AC @\$9.00/BU	GROSS \$/AC DIFFERENCE
Farmer Standard + THIO-SUL Row	82.4	\$ 741.60	
Farmer Standard + SUL4R-PLUS® BZ	94.8	\$ 853.20	\$ 111.60
154 AC Field AVERAGE YIELD	85.6	\$ 770.40	\$ 28.80



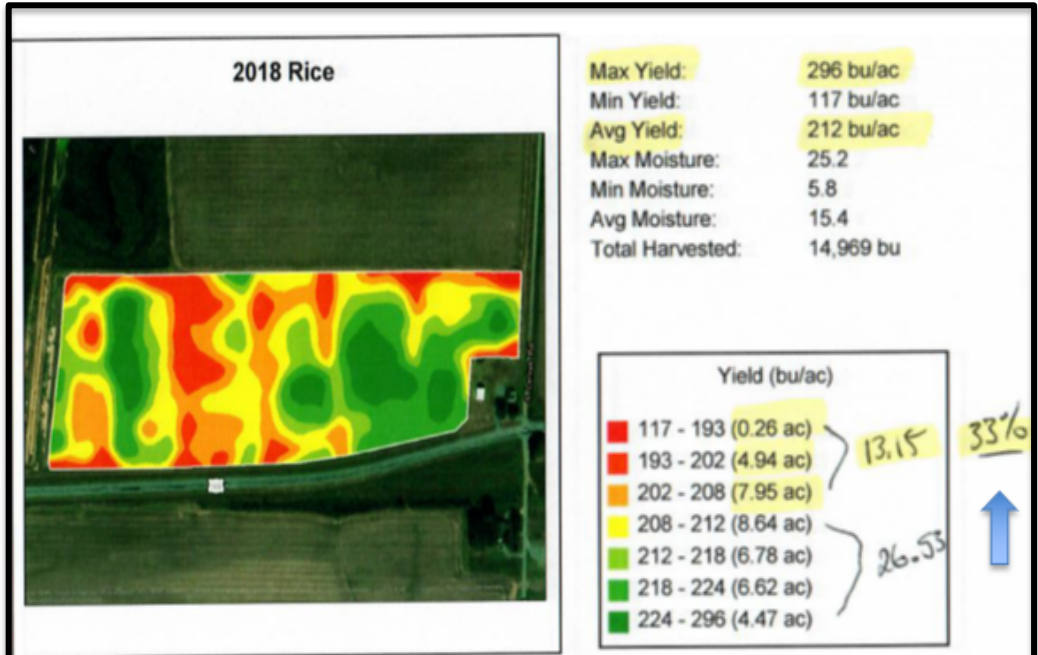
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LOCATION: Stuttgart, Arkansas



**AMS                      27.48 acres**  
**High Yield – 305 bu / acre**  
**Average Yield – 204 bu / acre**



**Sul4rPlus                      39.68 acres**  
**High Yield – 296 bu / acre**  
**Average Yield – 212 bu / acre**



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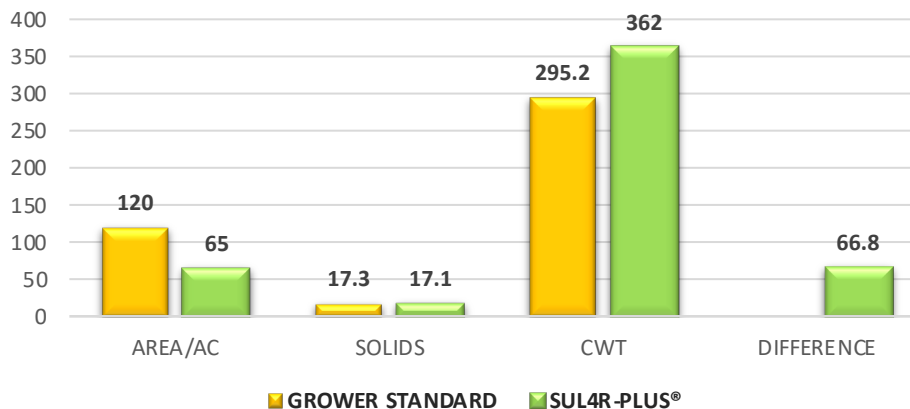


## Pearsall, Texas

Variety— FL 1867 Chipper

<b>Grower Standard</b>	<b>120 acres</b>	<b>Solids 17.3</b>	<b>295.2 cwt</b>	
<b>SUL4R-PLUS®</b>	<b>65 acres</b>	<b>Solids 17.1</b>	<b>362.5 cwt</b>	<b>+67.3 cwt</b>

### TEXAS POTATO TRIAL YIELD



**Grower traditionally uses 1000 lbs. per acre gypsum annually**





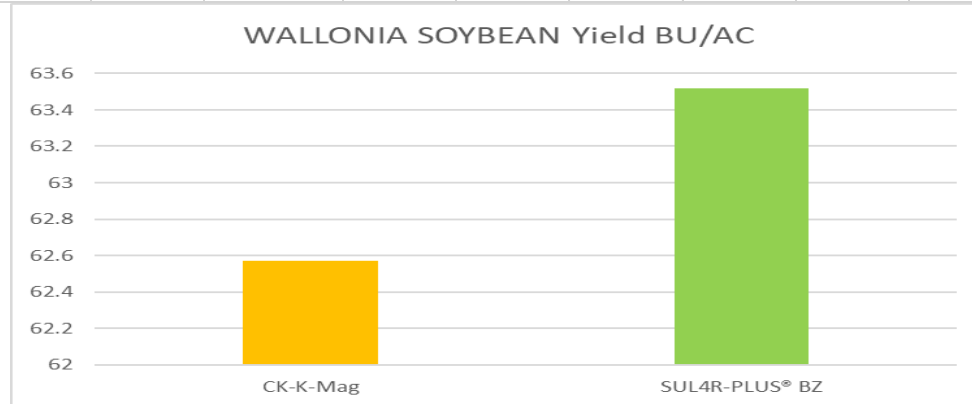
## Wallonia, KY Soybean Trial

### Key Points:

- **SUL4R-PLUS® B+Z vs K-Mag.**
  - Both SUL4R-PLUS® B+Z & K-Mag applied in October 2017.
  - 8 replications-alternating 90' swaths.
  - Tissue analysis reveals nutrient availability during growing season after fall application of SUL4R-PLUS® B+Z.
  - 1 bushel yield difference.
  - Notice the increase in Potassium (K) uptake with SUL4R-PLUS® B+Z vs K-Mag; a K nutrient supplier.
  
- **SUL4R-PLUS® Fertilizer advantages:**
  - Homogeneous granule.
  - Superior spread, dust free and ease of use.
  - Additional margin potential \$5.00 to \$10.00 per acre—results from added cost of K-Mag.

### Wallonia Tissue Analysis

DATE	PLOT	CROP STAGE	N %	K %	Ca %	S %	Mg %	B ppm	Zn ppm
6/19/2018	CK	R5	5.46	1.5	1.24	0.33	0.5	45	52
6/19/2018	BZ	R5	6.13	1.66	1.31	0.37	0.49	49	54
7/31/2018	CK	R5	5.92	1.39	1.69	0.37	0.48	39	47
7/31/2018	BZ	R5	6.7	1.47	1.38	0.39	0.36	45	38



PLOT	YIELD BU./AC	GROSS \$/AC @ \$9.00/BU	GROSS \$/AC DIFFERENCE
CK	62.57	\$ 563.13	
BZ	63.52	\$ 571.68	\$ 8.55

# SUL4R-PLUS® Field Success



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## SUL4R-PLUS® Product Engineered to maximize the value of your crop.

**New SUL4R-PLUS product is an innovative, in-demand pelletized sulfate proven to enhance soil quality and increase crop yields.**

- High solubility for immediate impact
- Maximizes nutrient uptake for stronger crops
- Spreads evenly in one pass, saving time and money
- Market leader in quality and consistency

Growers everywhere are talking about the next big thing in nutrient optimization—SUL4R-PLUS product.

Proven to  
increase  
crop yields