2018 SUL4R-PLUS® Trial Results
Highlighted Summary - CORN
SUL4R-PLUS®

Macronutrients
- S
- Ca

Micronutrients
- Zn
- B

Macrobenefits
- 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

It's all about the PLUS!

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
- Phosphorus free
- Formulation flexibility
- Lower operating costs

SUL4R-PLUS.COM
FREE SAMPLE AT SUL4R-PLUS.COM

It's all about the PLUS.
SUL4R-PLUS® B+Z Difference

Farmer Standard + K-Mag

May 18, 2018
Pembroke, KY

Farmer Standard + SUL4R-PLUS® B+Z

DIFFERENCES:
➢ COLOR
➢ HEIGHT
➢ MATURITY STAGE

Which looks better?
CORN PHOTOS—2018 Pembroke, KY
August 14, 2018

CHECK-FS  SUL4R-PLUS® BZ
### 2018 SUL4R-PLUS® Corn Trial Results

#### MADISON COUNTY, ALABAMA 2018
**CORN**
Yield BU/AC

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

#### HENDERSON COUNTY, KENTUCKY 2018
**CORN**
Yield BU/AC

<table>
<thead>
<tr>
<th>Product</th>
<th>Application</th>
<th>Time</th>
<th>Yield BU/AC</th>
<th>Test Weight</th>
<th>Moisture %</th>
</tr>
</thead>
<tbody>
<tr>
<td>P&amp;K --Farmer Standard</td>
<td>SUL4R-PLUS® BZ + P&amp;K</td>
<td>FALL</td>
<td>205.1</td>
<td>57</td>
<td>17.5</td>
</tr>
<tr>
<td>SUL4R-PLUS® BZ + P&amp;K</td>
<td>SUL4R-PLUS® BZ + P&amp;K</td>
<td>SPRING</td>
<td>210.3</td>
<td>59.5</td>
<td>17.7</td>
</tr>
</tbody>
</table>
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.
**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.

### 2018 SUL4R-PLUS® Corn Trial Results

#### NORTHEAST, IN 2018 CORN TRIAL

YIELD BU/AC @ 15.5% Moisture

<table>
<thead>
<tr>
<th>Date</th>
<th>Treatment</th>
<th>Yield Bushels/Acre @ 15.5% Moisture</th>
<th>Gross $/AC @ $3.50/BU</th>
<th>Gross $/AC Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/11/2018</td>
<td>CK-FS+AMS</td>
<td>257.4</td>
<td>$900.90</td>
<td></td>
</tr>
<tr>
<td>6/11/2018</td>
<td>FS+SUL4R-PLUS® BZ</td>
<td>268.7</td>
<td>$940.45</td>
<td>$39.55</td>
</tr>
<tr>
<td>8/20/2018</td>
<td>CK-FS+AMS</td>
<td>257.4</td>
<td>$900.90</td>
<td></td>
</tr>
<tr>
<td>8/20/2018</td>
<td>FS+SUL4R-PLUS® BZ</td>
<td>268.7</td>
<td>$940.45</td>
<td>$39.55</td>
</tr>
</tbody>
</table>
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® @ 100lb/ac at $300.00/ton = $15.00/AC.
  ➢ AMS @ 100lb/ac at $300.00/ton = $15.00/ac x 2 = $30.00/ac.

➢ SUL4R-PLUS® Fertilizer advantages:
  ➢ Homogeneous granule.
  ➢ Superior spread and dust free.
  ➢ Nutrient release characteristics that most closely mimic the nutrient uptake curve of the crop.
  ➢ Same yield combined with lower fertilizer and application cost per acre.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yield Bushels/Acre @ 15.5% Moisture</th>
<th>Gross $/AC @ $3.50/BU</th>
<th>Gross $/AC Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>FARMER STANDARD + AMS-2 Applications</td>
<td>331</td>
<td>$1,158.50</td>
<td></td>
</tr>
<tr>
<td>FARMER STANDARD + SUL4R-PLUS®</td>
<td>331</td>
<td>$1,158.50</td>
<td>-</td>
</tr>
</tbody>
</table>

2018 Tissue Analysis-CORN

<table>
<thead>
<tr>
<th>Date</th>
<th>Treatment</th>
<th>Ca %</th>
<th>S %</th>
<th>Mg %</th>
<th>B ppm</th>
<th>Zn ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/20/2018</td>
<td>CK-FS+AMS</td>
<td>0.4</td>
<td>0.24</td>
<td>0.11</td>
<td>20</td>
<td>32</td>
</tr>
<tr>
<td>6/20/2018</td>
<td>FS+SUL4R-PLUS®</td>
<td>0.48</td>
<td>0.22</td>
<td>0.14</td>
<td>21</td>
<td>25</td>
</tr>
</tbody>
</table>
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.

## 2018 SUL4R-PLUS® Corn Trial Results

### POSEY COUNTY, IN 2018 CORN TRIAL

**YIELD BU/AC @ 15.5% Moisture**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yield Bushels/ Acre @ 15.5% Moisture</th>
<th>Gross $/AC @ $3.50/BU</th>
<th>Gross $/AC Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>FARMER STANDARD + KMAG</td>
<td>228</td>
<td>$798.00</td>
<td></td>
</tr>
<tr>
<td>FARMER STANDARD + SUL4R-PLUS® BZ</td>
<td>234</td>
<td>$819.00</td>
<td>$21.00</td>
</tr>
</tbody>
</table>

### Corn Tissue Analysis—Posey Co, IN

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

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

### 2018 SUL4R-PLUS® Corn Trial Results

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

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yield Bushels/Acre @ 15.5% Moisture</th>
<th>Gross $/AC @ $3.50/BU</th>
<th>Gross $/AC Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>FARMER STANDARD + AMS</td>
<td>182.4</td>
<td>$638.40</td>
<td></td>
</tr>
<tr>
<td>FARMER STANDARD + SUL4R-PLUS® BZ</td>
<td>193.7</td>
<td>$677.95</td>
<td>$39.55</td>
</tr>
</tbody>
</table>
2018 SUL4R-PLUS® Corn Trial Results

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

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yield Bushels/Acre @ 15.5% Moisture</th>
<th>Gross $/AC @ $3.50/BU</th>
<th>Gross $/AC Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>FARMER STANDARD</td>
<td>187</td>
<td>$654.50</td>
<td></td>
</tr>
<tr>
<td>ESN + SUL4R-PLUS® BZ</td>
<td>201</td>
<td>$703.50</td>
<td>$49.00</td>
</tr>
</tbody>
</table>
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.