



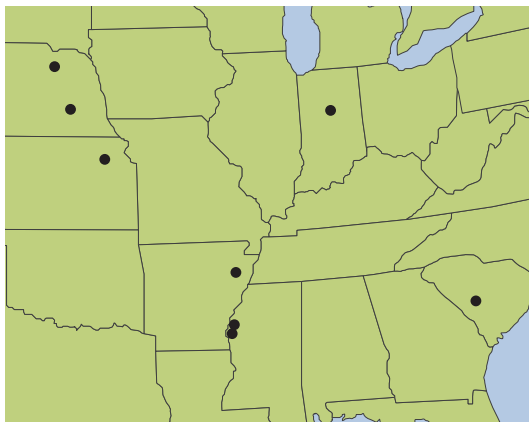
# MicroEssentials® S10® vs. MAP Blend

## Objective

- Evaluate corn yield response to MAP (11-52-0), MAP + Elemental Sulfur (90% ES), MAP + AS (21-0-0-24S), MAP + AS (split-application) and MicroEssentials® S10® (12-40-0-10S).

## Overview

- Monoammonium phosphate (MAP) is a common phosphorus (P) source used on corn.
- Sulfur is a secondary macronutrient that is critical to maximize corn yield, but is mobile in the soil and can be prone to leaching beyond crop accessibility.
- Ammonium Sulfate (AS) or Elemental Sulfur (ES) is often added to MAP and applied Preplant. Additionally, growers may apply AS as a split application to better provide late-season S.
- MicroEssentials S10 is a performance phosphate source that contains both sulfate- and elemental-sulfur to provide season-long availability.



**LOCATIONS:** 14 trials across the following states - AR, IN, KS, MS, NE, SC,

## Trial Details

### Locations and Crop Management:

**CROP:** Corn (*Zea mays*)

**YEARS:** 2018-2019

**DATA SOURCE:** Field studies conducted by third-party, independent researchers.

**EXPERIMENTAL DESIGN:** Small-plot RCBD with 4 replications.

### CROPPING CONDITIONS:

All trials conformed to local cropping practices

**N Rate:** Applied according to local recommendations

**P Rate:** 80 lbs P<sub>2</sub>O<sub>5</sub>/ac

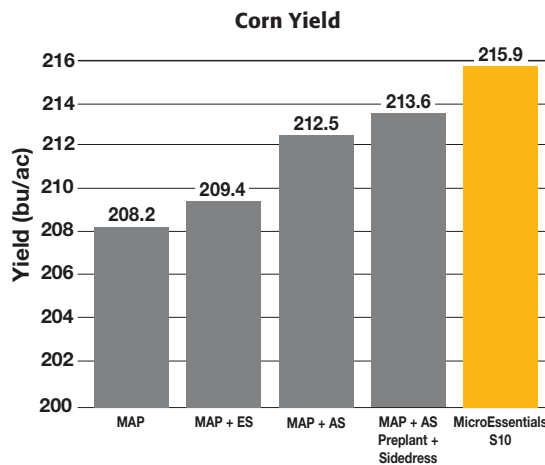
**K Rate:** 60 lbs K<sub>2</sub>O/ac

**S Rate:** 20 lbs S/ac

**Application Timing:** All treatments applied Preplant except for one MAP + AS treatment where 10 lbs S/ac was applied at Preplant and 10 lbs S/ac was applied as AS at V3-V5 (Sidedress)

**Application Method:** Broadcast Incorporated

## Results



## Summary

- Corn yields increased with applications of sulfur.
- Sulfur sources applied at Preplant and containing only one form of S (either Elemental or Sulfate) increased yield 1.2 - 4.3 bu/ac over MAP alone.
- A split application (10 lbs S/ac Preplant + 10 lbs S/ac Sidedress) of AS increased yield by 5.4 bu/ac over MAP and 1.1 bu/ac over MAP+AS applied Preplant.
- MicroEssentials S10 increased yield by 7.7 bu/ac over MAP and added 2.3-6.5 bu/ac when compared to traditional applications of ES, AS, or split-applied AS, demonstrating the benefits of season-long sulfur availability.

MicroEssentials®

2.3-  
6.5  
bu/ac

MicroEssentials S10 over  
MAP Blends



©2020 The Mosaic Company. All rights reserved. AgriFacts, S10 and MicroEssentials are registered trademarks of The Mosaic Company.

Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible.

For more information, go to [MicroEssentials.com](http://MicroEssentials.com).

CornSUL\_18-19