Mosaic® AgriFacts®

CORN

MicroEssentials® SZ™ Corn Zinc Rate Study

Objective

- Evaluate the yield response of MicroEssentials® SZ™ (12-40-0-10S-1Zn) compared to a MAP (11-52-0) + AS (21-0-0-24S) + $ZnSO_4$ (0-0-0-16.5S-36Zn) blend at varying Zn rates.

Overview

- MAP + AS + $ZnSO_4$ is often used as a fertilizer blend applied to corn.
- Nutrient recommendations often call for high rates of Zn due to uneven distribution and lack of crop uptake from a traditional blend.
- MicroEssentials SZ contains four nutrients fused into one nutritionally balanced granule, promoting uniform nutrient distribution, improved nutrient uptake and increased yield.

Trial Details

Locations and Crop Management:

CROP: Corn (*Zea Mays*)

YEARS: 2010–2012

LOCATIONS: 11 locations across the U.S. (IN, LA, MN, NE, OH, SC, SD, WI)

CROPPING CONDITIONS:

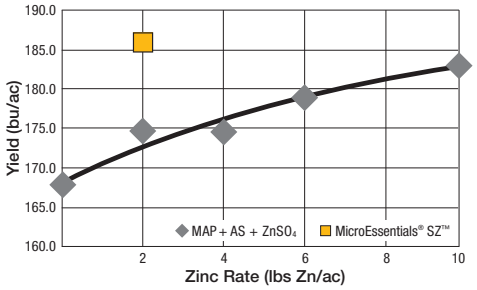
- Trials conformed to local cropping practices.
- N, P and S rates were balanced across treatments (80 lbs P_2O_5/ac, 20 lbs S/ac).

Treatments:

- MAP + AS + $ZnSO_4$: 0, 2, 4, 6, and 10 lbs Zn/ac:
- MicroEssentials SZ: 2 lbs Zn/ac (200 lbs MicroEssentials SZ/ac)
- **Application Timing:** Preplant
- **Application Method:** Broadcast

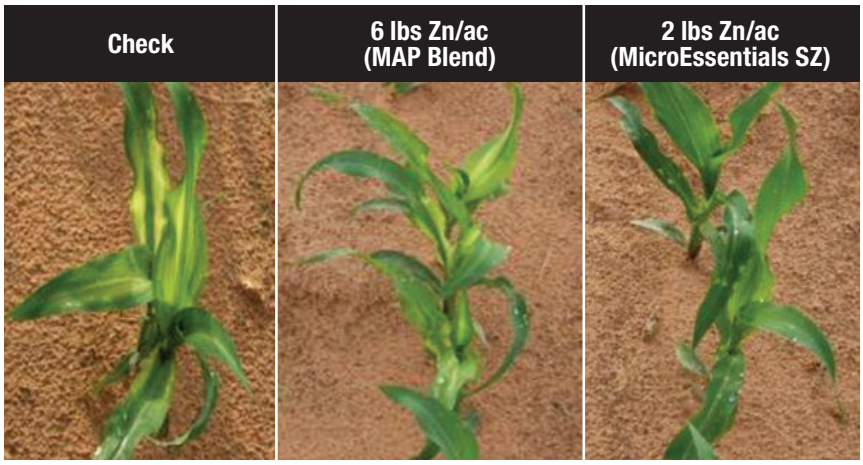
Yield

Corn Yield at Varying Zinc Rates



Summary

- With a MAP + AS + $ZnSO_4$ blend, corn yields increased with increasing rates of Zn.
- MicroEssentials SZ applied at 2 lbs Zn/ac produced the highest corn yield (186.2 bu/ac), which was statistically higher than 2, 4 and 6 lbs Zn/ac applied as a MAP blend.
- MicroEssentials SZ is at least 3X more efficient as a Zn source than a conventional MAP + AS + $ZnSO_4$ blend.



Zinc deficiency symptoms on Check (left) and 6 lbs Zn/ac as a blend (middle) and finally the lack of symptoms for MicroEssentials SZ at 2 lbs Zn/ac (right).

MicroEssentials

At least **3x**

MicroEssentials SZ is a more efficient Zn source than a traditional MAP blend.

Mosaic®

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**.