

Mosaic® AgriFacts®

CORN



MicroEssentials® SZ™ Phosphorus Uptake (Greenhouse Trial)

Objective

- Quantify the increase of phosphorus uptake with MicroEssentials® SZ™ (12-40-0-10S-1Zn) applied to corn compared to DAP-based blends that supply the same rate of nitrogen, phosphorus, sulfur and zinc.

Overview

- Balanced crop nutrition is critical for corn production.
- MicroEssentials SZ supplies nitrogen, phosphorus, sulfur and zinc in one nutritionally-balanced granule.
- The MicroEssentials patented Fusion™ technology process creates a unique chemistry that results in increased nutrient uptake and crop yield compared to alternative sources.

Trial Details

CROP: Corn (Zea mays)

YEAR: 2013

LOCATION: Sabanci University, Turkey

DATA SOURCE: Dr. Ismail Cakmak

EXPERIMENTAL DESIGN: Pot trials conducted under greenhouse conditions on a clay loam soil.

CROPPING CONDITIONS:

Treatments:

- MicroEssentials SZ
- DAP + AS + ZnSO₄
- DAP + AS
- DAP

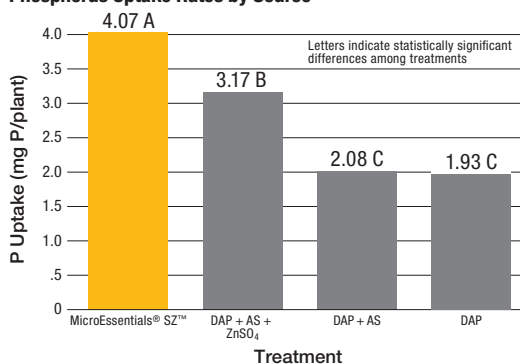
Study Details:

- All sulfur in the blend was supplied in the sulfate form.
- Fertilizers were homogeneously mixed with the soil, simulating broadcast incorporation.
- Corn above-ground dry matter and nutrient uptake were determined 20 days after planting.

Summary

- Corn phosphorus uptake was significantly higher for MicroEssentials SZ than any other treatment.
- MicroEssentials SZ increased P uptake by 28% compared to the DAP + AS + ZnSO₄ blend.
- MicroEssentials SZ resulted in a 100% phosphorus uptake increase compared to DAP and the DAP + AS blend.
- Through the MicroEssentials patented Fusion manufacturing process, nitrogen, phosphorus, sulfur and zinc are combined into one nutritionally balanced granule—creating a single source for balanced crop nutrition.
- The unique formulation of MicroEssentials SZ increases phosphorus uptake.

Phosphorus Uptake Rates by Source



MicroEssentials SZ DAP DAP + AS DAP + AS + ZnSO₄

MicroEssentials®

28%

Increased P uptake with MicroEssentials SZ compared to DAP + AS + ZnSO₄

100%

Increased P uptake with MicroEssentials SZ compared to DAP and a DAP + AS blend

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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.