

## Field Evaluation of Supplemental Foliar Phosphorus Applications in Grain Corn

### EXPERIMENT INFO

**Planted: 06/02/2025**

**Hybrid: MZ 4049SMX with Fortenza + Vibrance Cinco + Lumiante + Stamina (2975 CHU)**

**Population: 32,000 seeds/acre**

**Row Width: 30"**

**Prev. Crop: Soybeans**

**Plot Size: 12 rows x 675'**

**Replications: 3**

**Pre-Plant N Application**

**Date: 04/23/2025**

**Rate: 15 GPA High NRG-N**

**Starter Program**

**3 GPA Pro-Germinator + 3 GPA Kalibrate + 1 L/ac Micro 500 + 1 L/ac eNhanche + 1 L/ac MicroLink Ca + 1 L/ac Boron**

**Sidedress Application**

**Date: 07/05/2025**

**Rate: 30 GPA High NRG-N**

**Fungicide Application**

**Date: 08/21/2025**

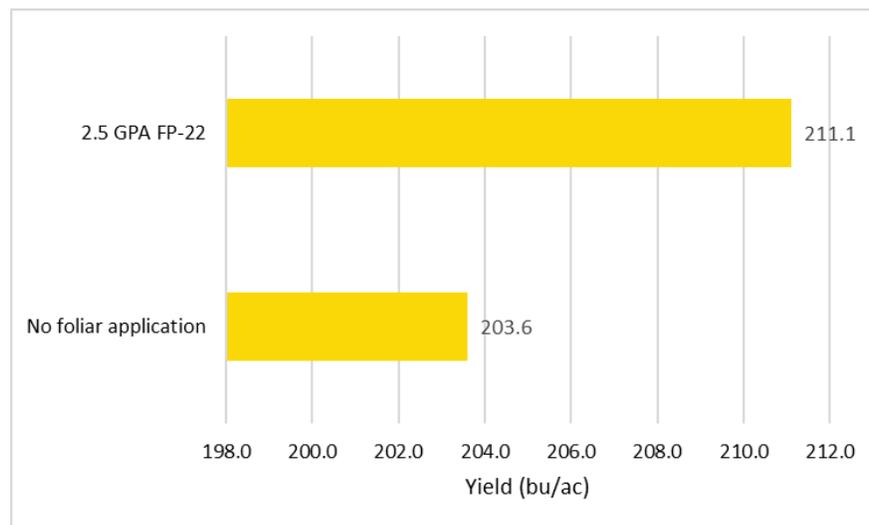
**Rate: 237 mL/ac Delaro Complete + 82 mL/ac Proline**

**Harvested: 11/27/2025**

**Soil Data**

**pH: 6.6 – 7.8**  
**CEC: 7.1 – 15**  
**% OM: 2.2 – 3.8**  
**P (bicarb): 24 – 55 ppm**  
**% K: 1.5 – 5.0**  
**% Mg: 7.1 – 18.9**  
**Ca: 840 – 2730 ppm**

Phosphorus plays a critical role in early corn plant development, energy transfer, and root growth. It is a key component of adenosine triphosphate (ATP), which drives many metabolic processes required for plant growth. Adequate phosphorus availability promotes strong root systems, improves early vigor, and supports kernel development, all of which contribute to higher grain yield. However, phosphorus availability in soil can be limited, particularly in cool or compacted soils where root uptake is reduced. In these situations, foliar phosphorus applications can help supplement plant nutrition by delivering small amounts of readily available phosphorus directly to the leaves. While foliar phosphorus cannot replace soil-applied phosphorus, it can serve as a useful management tool to support plant growth during periods when soil phosphorus uptake is restricted.



Treatment	Average moisture (%)
No foliar fertilizer application	25.4
2.5 GPA FP-22	25.1

The AgroLiquid foliar phosphorous program yielded an **additional 7.5 bushels** over the check.