

A Field Evaluation of Dry vs. Liquid Fertilizer Placement in Strip-Tilled Grain Corn Production

EXPERIMENT INFO

Planted: 05/20/2025

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

Population: 32,000 seeds/acre

Row Width: 30"

Prev. Crop: Soybeans

Plot Size: 30' x 1,608'

Replications: 4

Hog Manure Application

Date: 11/20/2024

Rate: 3,000 GPA

Fungicide Application

Date: 08/21/2025

Rate: 237 mL/ac Delaro

Complete + 82 mL/ac Proline

Harvested: 11/25/2025

Soil Data

pH: 6.4 – 7.0

CEC: 5.6 – 14.3

% OM: 1.8 – 3.6

P: 21 – 46 ppm

% K: 2.5 – 4.7

% Mg: 6.8 – 16.7

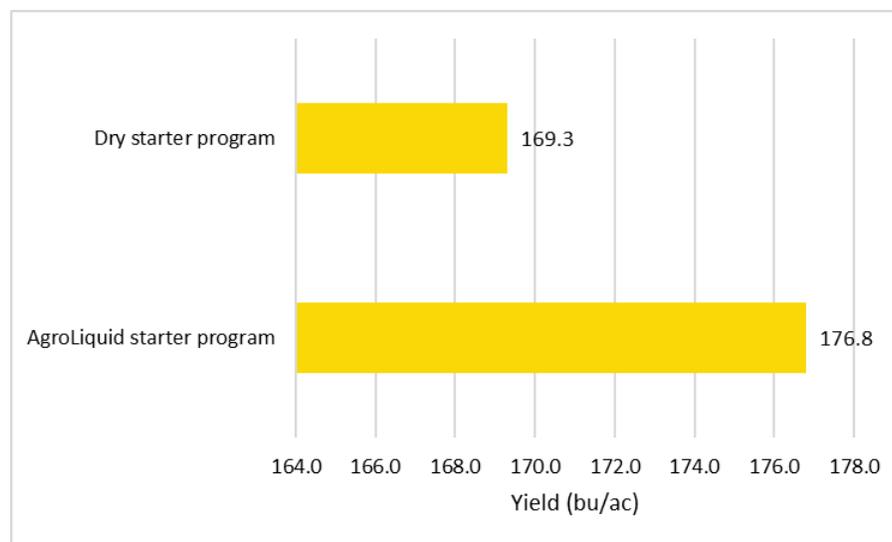
Ca: 500 – 2130 ppm

Strip tillage combines the soil conservation benefits of no-till with the seedbed advantages of conventional tillage. By tilling narrow planting strips while leaving the rest of the field undisturbed, strip tillage reduces erosion, improves soil structure, and retains moisture. The warmed, well-prepared strips support better seed placement, faster germination, and strong early-season corn growth.

The use of liquid fertilizer in strip-till systems offers several advantages compared with dry fertilizer. Liquid fertilizers allow for more uniform application, better nutrient distribution within the strip, and the ability to apply multiple nutrients in a single pass. They can also be placed more accurately at specific depths, improving early nutrient availability. While dry fertilizers can still be effective, liquid fertilizer in strip-till systems can enhance nutrient efficiency and support more consistent early season corn development.

AgroLiquid starter program: 5 GPA Pro-Germinator + 2 GPA Kalibrate + 2 L/ac Micro 500 + 0.5 L/ac Boron + 1 L/ac eNhanca

Dry starter program: 12-15-12-1Mg-13S-0.08B-0.12Zn



Treatment	Average moisture (%)
AgroLiquid starter program	24.4
Dry starter program	25.3

The AgroLiquid starter program yielded an additional 8 bushels/acre over the dry program.