

## Test of Two Irrigation Scheduling Tools in Corn

**Study ID:** 1315141202401

**County:** Platte

**Soil Type:** Moody silty clay loam 0-2% slope

**Planting Date:** 4/25/24

**Harvest Date:** 9/24/24

**Population:** 33,500

**Row Spacing (in):** 30"

**Hybrid:** Channel® 212-02

**Reps:**

**Previous Crop:** Soybean

**Herbicides:** **Pre:** Harness Xtra® + dicamba + Roundup PowerMAX® + Callisto® **Post:** n/a

**Seed Treatment:** Company standard

**Foliar Insecticides:** n/a

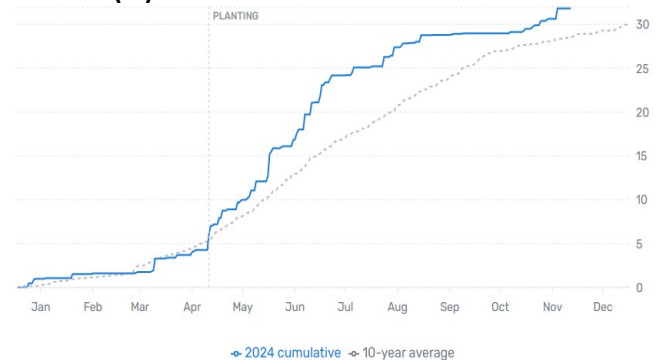
**Foliar Fungicides:** VT- Capture® + 7.5 gal/ac micro pak. July 5: 7.5 gal/ac azoxy

**Fertilizer:** Fall: NH<sub>3</sub> 110 lb N/ac. Preplant: 4.75

gal/ac (10-34-0). Sidedress: 31 gal/ac (24-0-0-10)

**Irrigation:** Pivot

**Rainfall (in):**



**Introduction:** This study evaluated the use of Aluvio™ (<https://aluvio.us/>) and Phytech™ (<https://www.phytech.com/>) as irrigation scheduling tools on corn. Note that this grower has been using the Phytech™ technology for many years to support his irrigation decisions. A center pivot equipped with a FieldNET system by Lindsay™ allowed for different irrigation rates applied in each irrigation event based on a speed control variable rate irrigation. A total of 180 degrees angle of the center pivot was used in this experiment (Figure 1). Whenever the grower decided to irrigate based on when the Phytech™ or Aluvio™ system was recommending irrigation, an irrigation prescription map was uploaded in the FieldNET system and irrigation started.



**Figure 1:** Project Design and Layout

### Results:

	Total irrigation (in)	Moisture (%)	Yield (bu/ac)†	Marginal Net Return‡ (\$/ac)
Phytech™ (grower's decision)	5.50	20.7 A*	327 A	1,408 A
Aluvio™	4.25	20.5 A	323 A	1,400 A
P-Value:	-	0.85	0.70	0.95

\*Values with the same letter are not significantly different at a 90% confidence level.

†Bushels per acre corrected to 13% moisture.

‡Marginal net return based on \$11/bu soybeans, \$8/ac cost for Aluvio™ technology, \$6.15/ac cost for Phytech™ technology, and \$6/ac-in water applied.

### Summary:

- There were no significant differences between moisture, yield, or marginal net return between treatments.
- The total irrigation water amount was 1.25" lower when using Aluvio™ system in comparison with Phytech™.