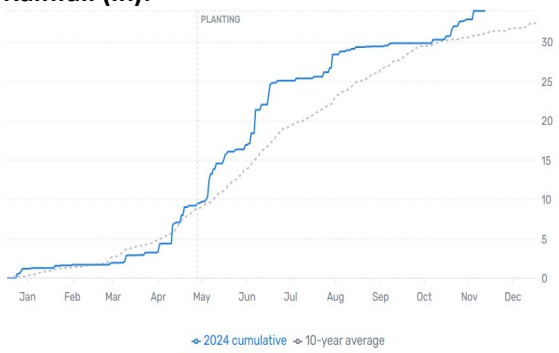
# Test of Irrigation Scheduling Tools in Corn

**Study ID:** 1543141202501
**County:** Platte
**Soil Type:** Ovina loamy fine sand
**Planting Date:** 5/12/24
**Harvest Date:** 10/19/24
**Population:** 32,000
**Row Spacing (in):** 30”
**Hybrid:** DEKALB® DKC62-69, Wyffels™ 6826
**Reps:** 6
**Previous Crop:** Corn
**Tillage:** Conventional till
**Seed Treatment:** Company standard

**Irrigation:** Pivot, Total: Varied
**Rainfall (in):**




**Introduction:** This study evaluated the use of Aluvio™ (https://aluvio.us/) as an irrigation scheduling tool on corn. 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 or Aluvio™ recommended an irrigation, an irrigation prescription map was uploaded in the FieldNET system and irrigation started.

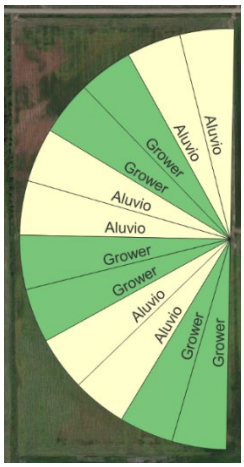



**Figure 1**: Project Design and Layout

**Results:**

| | Total Irrigation (in) | Moisture (%) | Yield (bu/ac)† | Marginal Net Return‡ ($/ac) |
|---|---|---|---|---|
| Grower’s Decision | 5.80 | 11.8 A* | 168 A | 723 A |
| Aluvio™ | 4.05 | 11.9 A | 168 A | 722 A |
| P-Value: | - | 0.89 | 0.96 | 0.74 |

*Values with the same letter are not significantly different at a 90% confidence level.
†Bushels per acre corrected to 15.5% moisture.
‡Marginal net return based on $4.30/bu corn, $8/ac cost for Aluvio™ technology, and $6/ac-in irrigation water applied.

**Summary:**

- There were no significant differences in moisture, yield, or marginal net return between the treatments.
- Although they were not statistically the same, the total irrigation water applied was 1.8 in lower when using Aluvio™ system.
- It suggests that there is an opportunity for irrigation water savings while sustaining crop yield, mainly in years like 2024 in which spring rainfall was abundant.