## **Plot 1 Irrigation Optimization Plan**

Created By: Ctrl + Alt + Elite

Week: 2024-11-01 - 2024-11-08

## **Irrigation Amount:**

This week we reccomend you use 0.91mm of water

## **Summary:**

To determine the optimal irrigation amount for this week, we utilized a combination of historical weather data, soil moisture levels, and crop water requirements. Our predictive analytics model analyzes patterns in temperature, humidity, and precipitation forecasts to estimate the expected water needs for your specific plot. By integrating these variables, we can accurately predict the irrigation amount necessary to maintain healthy crop growth while minimizing water waste. This week's recommendation of 0.91mm is tailored to ensure that your crops receive the precise amount of water they need based on the latest weather insights.

The weather conditions are:

- Day 1: High 96.3f, Low 66.6f, Total Rain (mm) 0.53, Humidity 27, Weather Partly cloudy
- Day 2: High 92.6f, Low 65.1f, Total Rain (mm) 0.0, Humidity 25, Weather Sunny
- Day 3: High 91.2f, Low 68.7f, Total Rain (mm) 0.0, Humidity 28, Weather Sunny
- Day 4: High 92.7f, Low 67.4f, Total Rain (mm) 0.01, Humidity 38, Weather Sunny
- Day 5: High 86.7f, Low 61.6f, Total Rain (mm) 0.0, Humidity 45, Weather Sunny
- Day 6: High 93.0f, Low 64.1f, Total Rain (mm) 1.27, Humidity 48, Weather Sunny
- Day 7: High 93.9f, Low 67.4f, Total Rain (mm) 0.04, Humidity 47, Weather Partly cloudy

## **Cost and Energy Benefits:**

This optimization plan will save you \$191.76. The previous amount of gallons used is 1121.39, this approach asks for 1020.47 gallons of water

This optimization plan will save the average Kansas farmer \$150899.47. The previous amount of gallons used is 882453.03, this approach asks for 803032.26 gallons of water

This optimization plan will save you 1.51 killowat-hours in energy

This optimization plan will save the average Kansas farmer 1191.31 killowat-hours in energy