

# Plot 1 Irrigation Optimization Plan

*Created By: Ctrl + Alt + Elite*

*Week: 2024-10-30 - 2024-11-06*

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## Irrigation Amount:

This week we recommend 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

This optimization plan will save the average Kansas farmer \$3733020.68. The previous amount of gallons used is 21830530.3, this approach asks for 19865782.57

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

This optimization plan will save the average Kansas farmer 29471.22 kilowatt-hours in energy