



# Using Hawk-Eye Systems @ Baseball Fields



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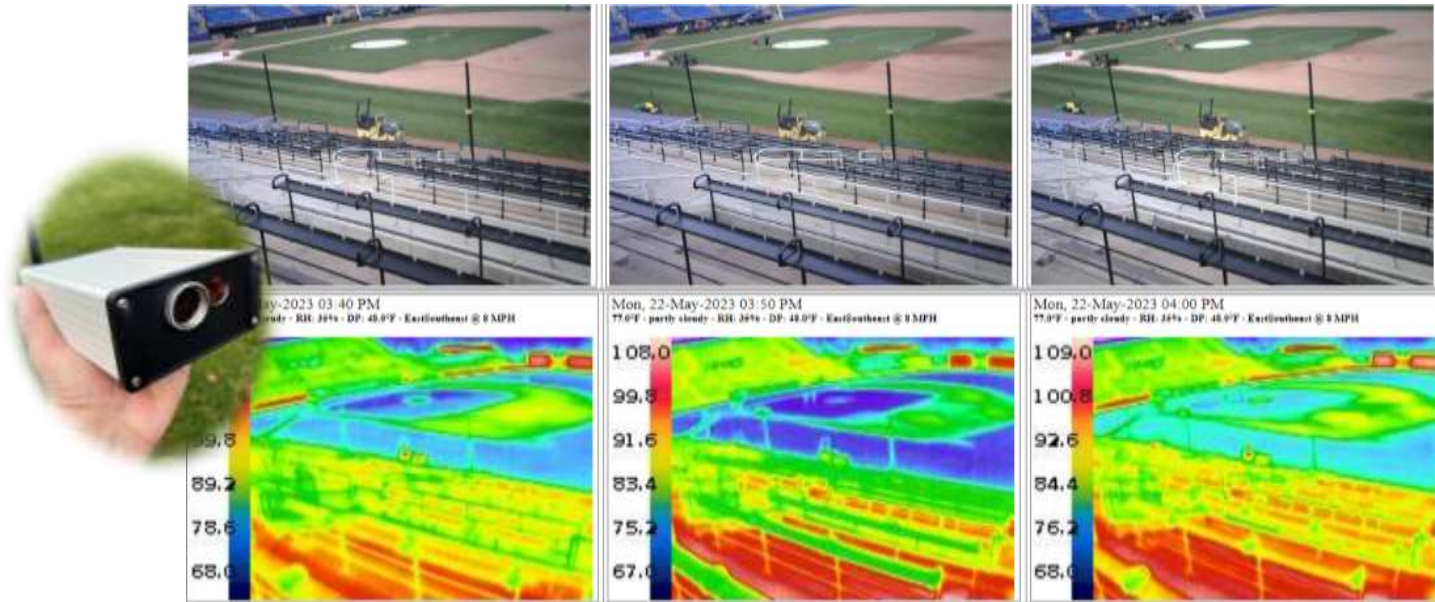
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**Hawk-Eye™ Systems precisely measures turfgrass canopies and the skin to support precision management of the playing field, helping to ensure excellent playability.**



**The Hawk-Eye™**



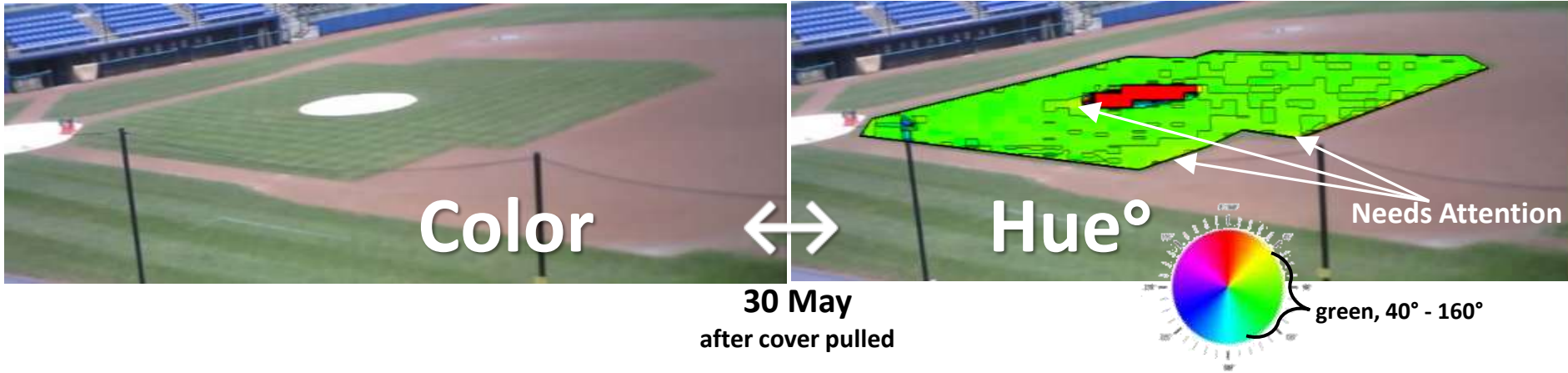
**It is a color and temperature image data system that autonomously measures and reports real-time and archived image data and pertinent indices, 24/7/365. A unit consists of one thermal camera, one visual camera, camera controller electronics, a communications module for access to/from the Internet, and all image data, indices and notices in real-time and archived.**

**Why & How**

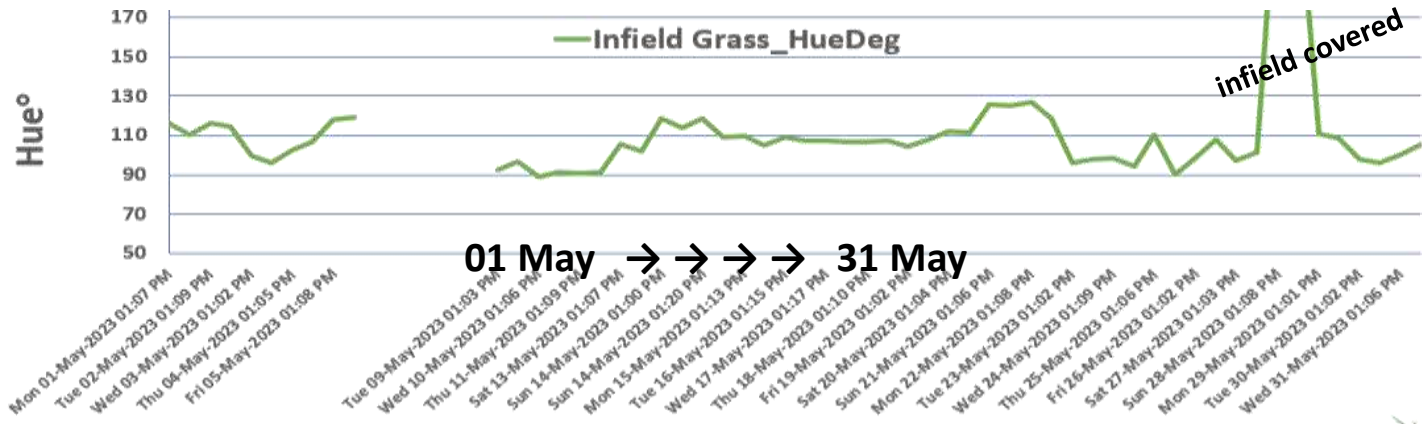




# Using Hue° to Assess Where Grass is Losing Uniformity



## Using Hue° to Assess Fertility





# Using Skin Temperature to Ensure Uniformity

Rain 2.5"



29-31 May

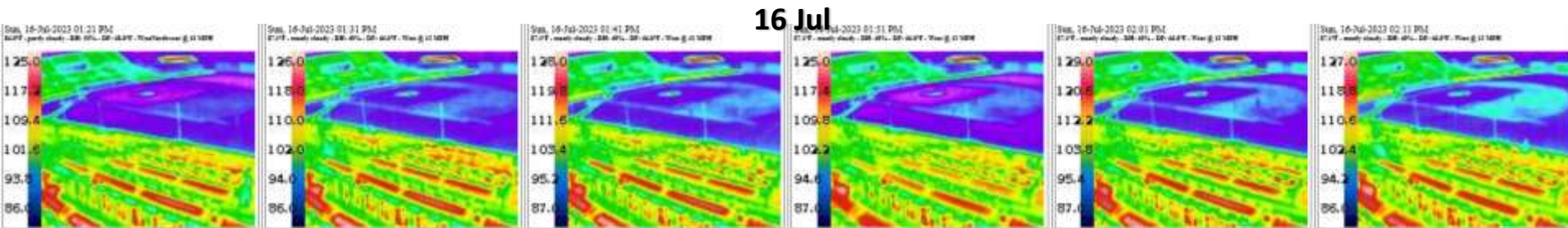


rain left puddles for 2 days

Part of the remediation was a Laser Grade 1<sup>st</sup> week of July

1.5" on 14jul, 50min of tarp pregame on 15th

Sat, 15-Jul-2023 02:09 PM  
78.0°F - overcast - RH: 73% - DP: 70.0°F - SouthWest @ 8 MPH Precip: 0.16 TBI: 152



The grade didn't improve drainage.

Deep compaction is the problem.





# Remediate Compaction

A Hydrogation Device, put in an irrigation line, runs a small electric current through the water.

- It conditions the water by converting the crystalline structure of calcium carbonate to aragonite.
- And agitates the water as it passes through so that much of the  $\text{CO}_2$  comes out of solution.

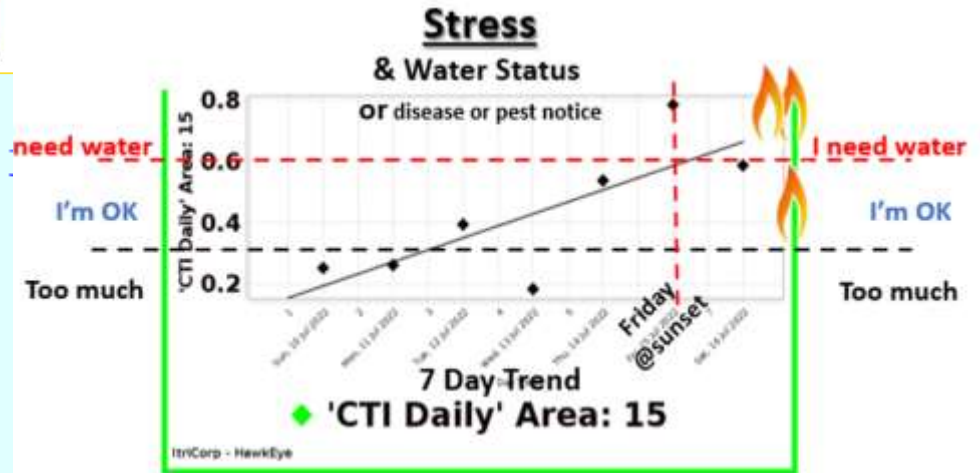
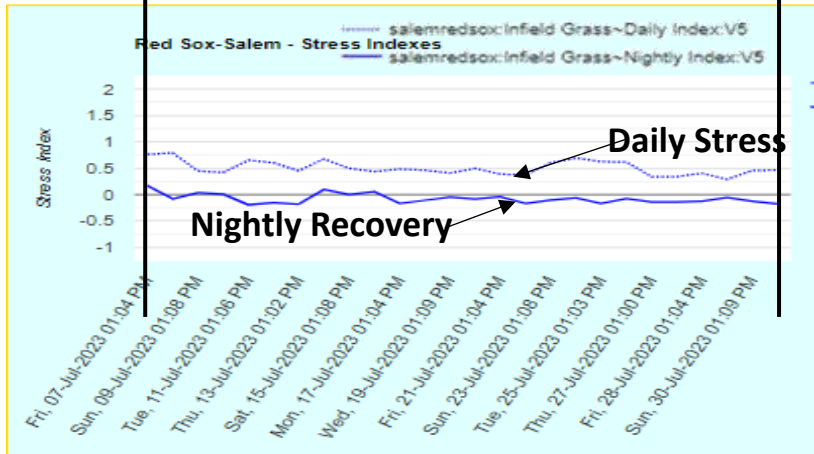
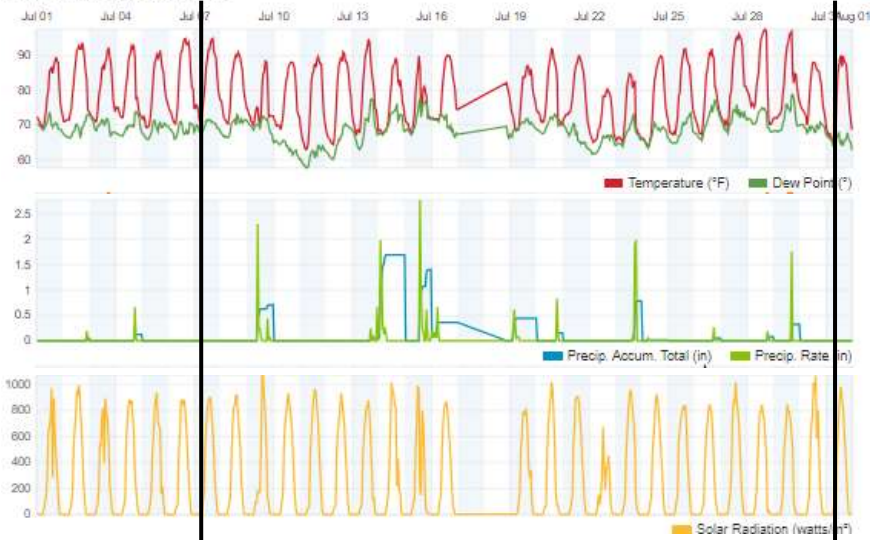
In clay soils the water percolates quickly.





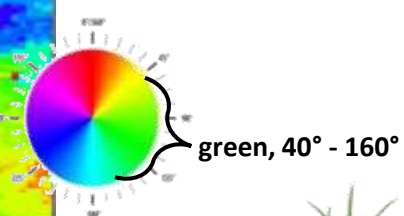
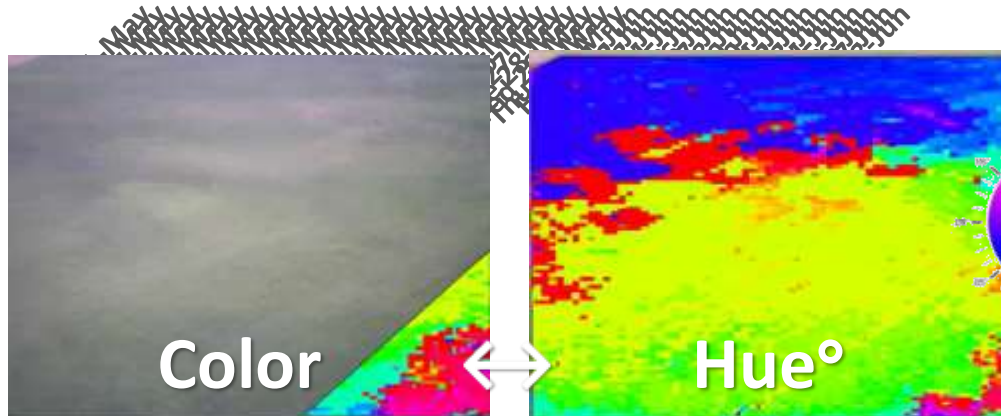
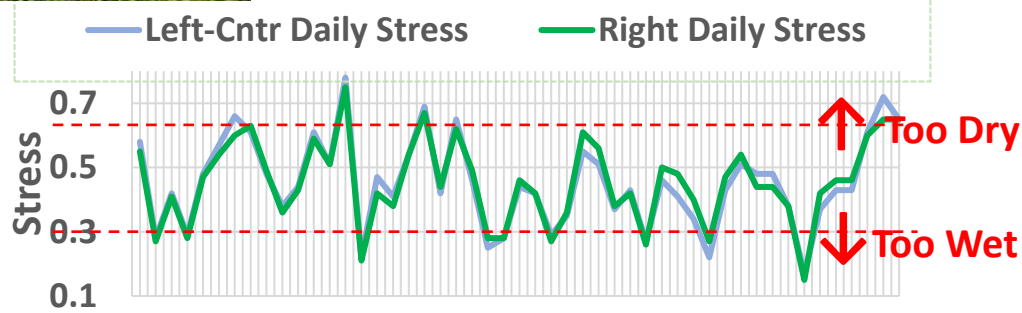
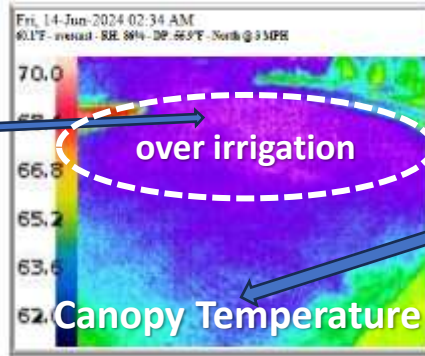
# Using Persistent Canopy Temperature & WX to Assess Turfgrass Stress & Guide Irrigation

July 1, 2023 - July 31, 2023





# Persistently Measuring Color, Canopy Temperature, & Weather





# Hawk-Eye's Scout & Measure & Report All Day – Every Day To Whom Ever You Want Using a Std Browser

