

DOCKETED

Docket Number:	15-WATER-02
Project Title:	WaterSaver Idea Exchange
TN #:	205060
Document Title:	Jeremy Otto Comments: Proven On Farm Water Efficiency Technology
Description:	N/A
Filer:	System
Organization:	Jeremy Otto
Submitter Role:	Public
Submission Date:	6/17/2015 10:25:28 PM
Docketed Date:	6/18/2015

Comment Received From: Jeremy Otto

Submitted On: 6/17/2015

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Proven On Farm Water Efficiency Technology

On-farm water conservation is the quickest, most cost-effective method to save water during the drought.

Imagine knowing exactly when to irrigate and how much water a crop actually needs.

This is achieved with the scientifically-proven measurement of real-time soil tension monitoring.

Soil tension tells us how hard a plant has to work to get the water it needs.

With this information available in real time via a computer or mobile device, a grower is able to monitor plant stress and determine whether the crop needs water or not.

Hortau precision irrigation management systems help take the guesswork out of irrigation management, and have been a proven system in the field since 2002.

On average, Hortau's irrigation management platform has helped California growers reduce water use (and associated pumping costs and energy use) by 25-35%.

Hundreds of growers across the state are already using the Hortau platform and seeing the benefits of water, fertilizer and energy savings. It's time to help others get on board!

Learn more at <http://hortau.com>

Additional submitted attachment is included below.



HORTAU



Introduction to Hortau

Founded in 2002, Hortau is a leader in real-time irrigation management systems.

Hortau helps growers manage irrigation and plant stress in real-time using “smart” soil tension sensors and stations, ensuring optimal crop growth while drastically reducing water use, energy consumption and the environmental impacts of agriculture.

With U.S. operations based in San Luis Obispo, Calif., Hortau has irrigation consultants and field technicians throughout California and North America, providing end-to-end support and training for its proven irrigation management platform.

Overview of the Hortau System

Hortau provides the most comprehensive and technically advanced real-time irrigation management platform on the market via the following components:

- Proprietary soil and temperature sensors.
- Proprietary smart stations for monitoring crop stress, weather conditions and for automation.
- Proprietary cloud-based data management and analysis software.

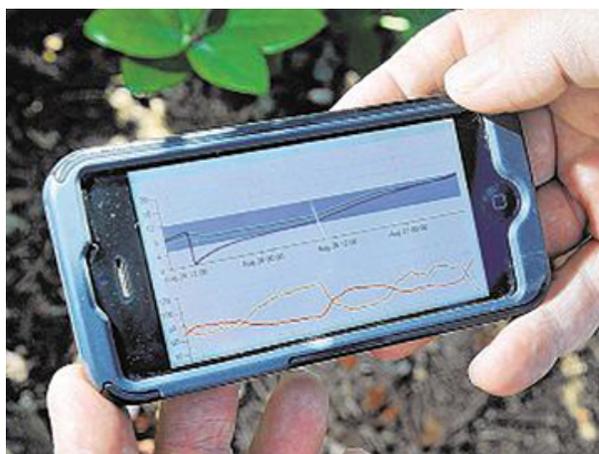
Hortau's sensors are connected to smart stations that are in constant communication with easy-to-use cloud software. The stand-alone stations are powered by solar, connecting to the cloud seamlessly using existing cellular data networks.



Benefits of the Hortau System

Hortau's platform gives growers visibility into a plant's exact water needs, so they can make more informed decisions and focus on productivity without guesswork. The system allows growers to:

- Manage irrigation and crop stress in real-time by mobile device or computer
- Improve overall crop health
- Drastically cut back water use
- Use significantly less energy
- Track weather data and trigger frost alerts
- Eliminate fertilizer and pesticide leaching



For more benefits and independent grower video testimonials, visit hortau.com/portfolio

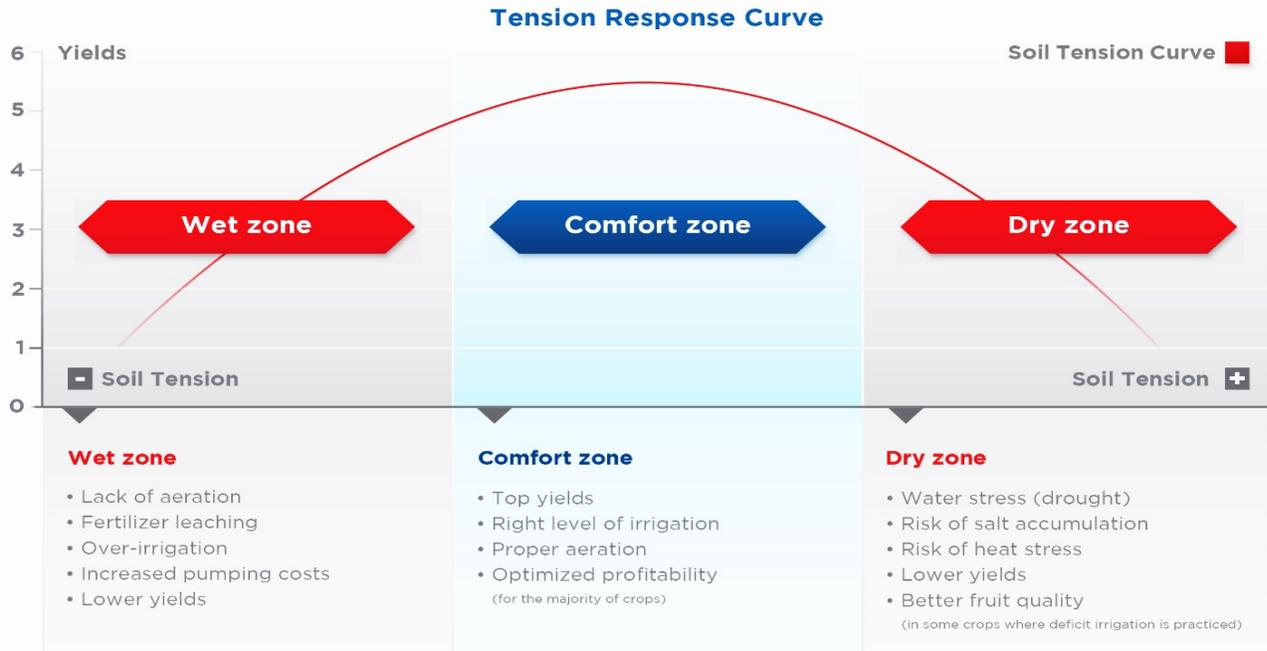
Why Use Hortau?

Hortau’s system is the most accurate irrigation management system on the market, based on soil tension (rather than other, less precise measurements such as water content), proprietary technology and more than a decade of scientifically-proven results:



Hortau’s software helps monitor and manage plant stress simply and efficiently via mobile devices and computers.

The image below shows an optimal soil tension zone that provides the best growing conditions and helps optimize water and energy use. This comfort zone has been identified within the software for growers of every major crop, from Almonds to Zucchini:



Ease of Use

Hortau takes the guesswork out of irrigation management, and maximizing water/energy use is simple when using soil tension data in real-time. Soil tension, being an exact measurement, doesn't need to be calibrated based on soil type and is not affected by salinity. This gives growers peace of mind knowing the data represents accurate field conditions.

When soil tension reaches 0 Centibars (measurement of soil tension), this indicates leaching. Leaching occurs when too much water is applied. To avoid this, sensors are placed at varying depths to ensure water and fertilizer are applied directly to the active root zone. No more, no less.

How Real-Time Data is Used

The graphic below is a screenshot from Hortau's Irrolis software, displaying the blue band or "comfort zone" discussed previously. This band is the key to the system's simplicity and allows any user (computer literate or not) to make an irrigation decision. The "blue zone" represents the optimum growing environment for the crop.

The lower the number on the left, the wetter or easier it is for the plant to obtain water. The higher the number, the drier or more difficult it becomes for the plant to extract water from the soil (increased plant stress). In this case, when the shallow sensor reads above the blue zone (higher tension), the irrigation is turned on. A grower can tell when the irrigation was turned on and off with an in-line pressure sensor.

As the water moves through the soil profile to the deeper sensor, the grower knows to turn it off when the sensor reads below the "blue zone." The real-time data allows growers to determine how long to run the irrigation set based on the time it takes water to move from one sensor to the next.

Another feature of the Hortau system is the use of emails and text messages that alert ranch managers when conditions in the field are too dry or too wet (outside the "blue zone"). This helps when managing many acres and multiple locations.



Grower Support

Hortau provides proactive field support to ensure that monitoring equipment functions properly 24/7.

In addition, grower training is provided to make sure ranch managers and other staff members understand the tool and software for optimal results year after year.

A Solution for Every Crop and Irrigation System

With over a decade of crop-specific data from in-field use by customers and independent research from universities and other third-party organizations, Hortau's solution has been proven to:

- Reduce water and energy usage by 20 to 35%
- Increase yield by 10 to 50%
- Virtually eliminate fertilizer losses through leaching
- Reduced environmental impact of crop production
- Keep crops healthy, minimizing the impact of pests and diseases
- Reduce pesticide usage

When compared with the classic crop evapotranspiration approach, Hortau's soil tension platform produced yield increases, and water and energy savings, in nearly every case.

The results obtained for different crops are listed below, recorded during scientific experiments conducted by third parties with state-of-the-art research protocols:

- **Lettuce**
 - 18% yield increase
 - 10 to 40% less tip burn
- **Strawberry**
 - 17% yield increase
 - 35% less water
 - Near-zero fertilizer leaching
- **Celery**
 - 18% yield increase
- **Almonds**
 - 15% yield increase
 - 30% less water



Learn more about the Hortau irrigation management system at: hortau.com

