



**Irrigation: solved**



**Every year \$100 billion worth of fruits and nuts  
is lost due to suboptimal irrigation.**

**We're putting an end to that.**



# Our water-stress sensors help vineyards



Save water

-20%



Average



Improve wine quality



FloraPulse

**+\$1,000,000\***

**WATER STRESS:**  
key to quality

\*+\$5/bottle for 100 acre vineyard

# Our water-stress sensors help orchards



**WATER STRESS:**  
key to yield



Save water

-20%



Increase yield

+15%



Average



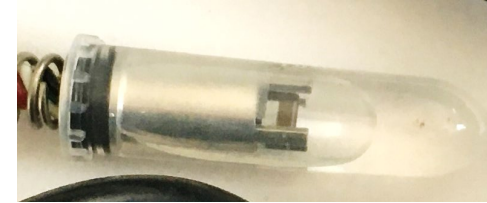
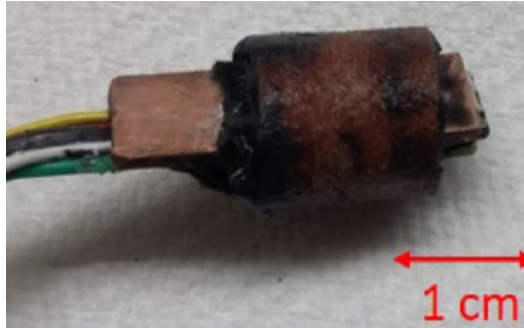
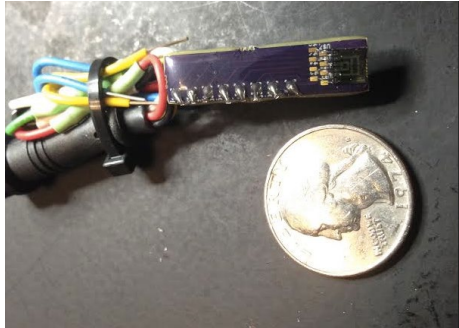
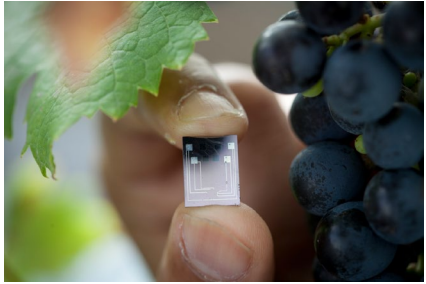
FloraPulse

**+\$140,000\***

\*15% increase for typical 200 acre orchard



# 16 years in development at Cornell + FloraPulse



**ABRAHAM STROOCK**

Professor & Director of  
Digital Ag



**ALAN LAKSO**

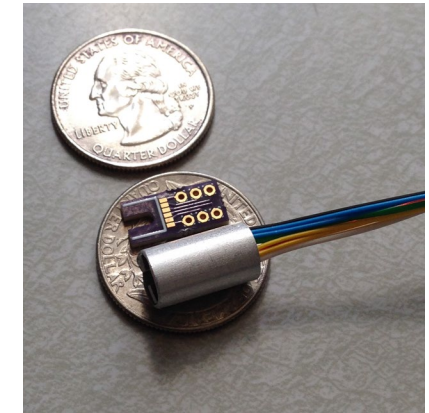
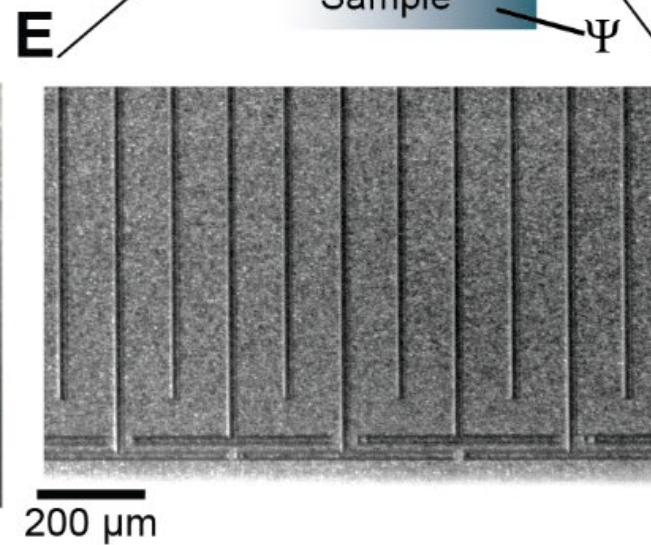
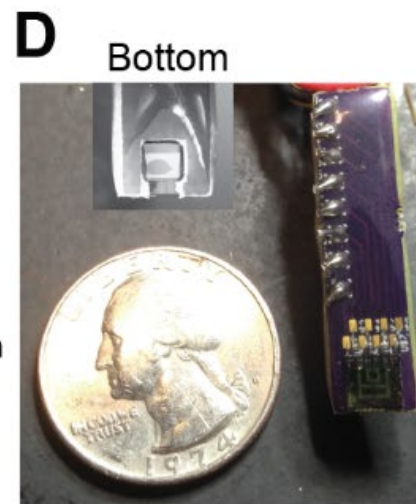
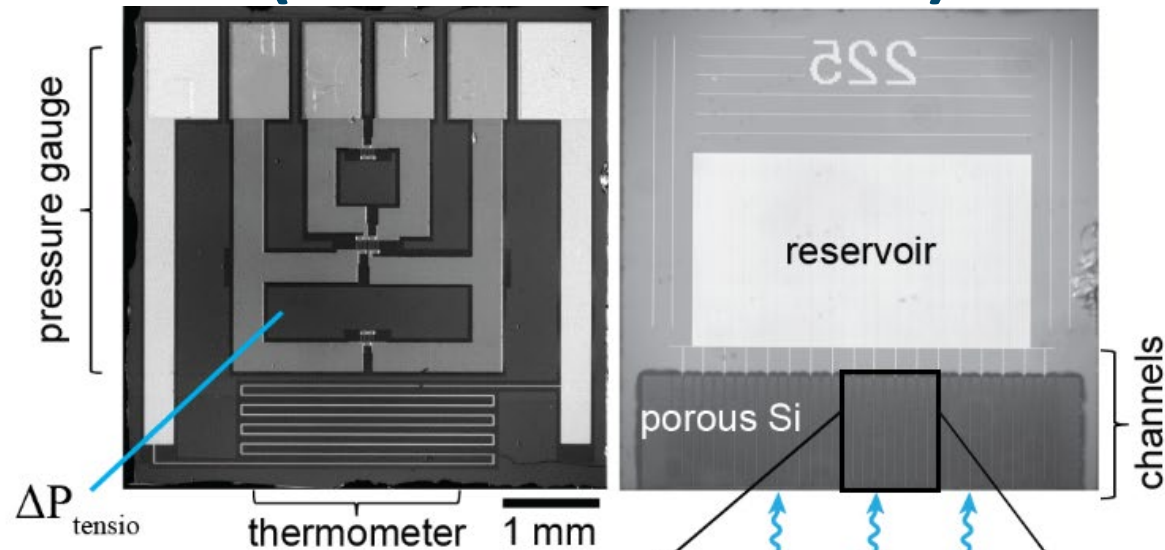
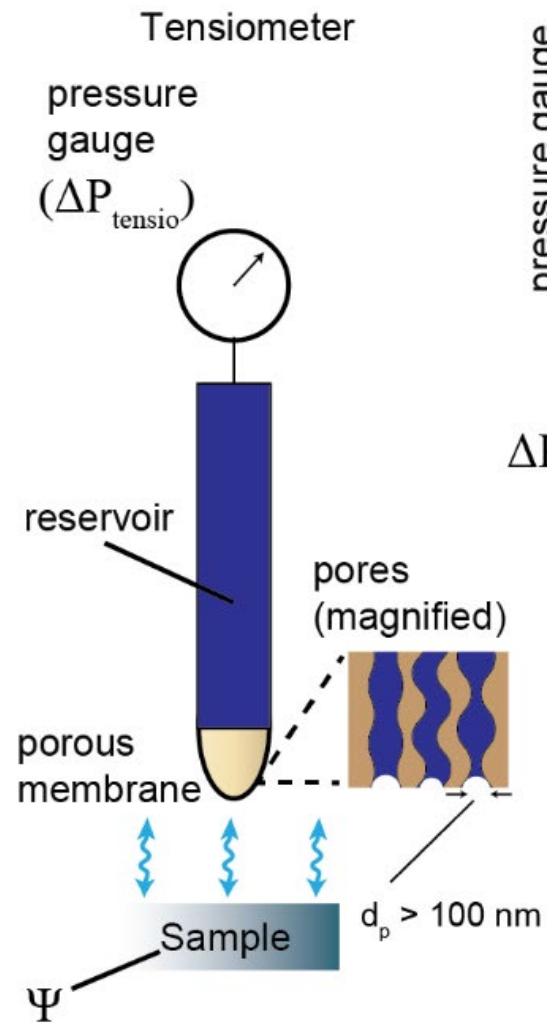
Plant Science Professor



**MICHAEL SANTIAGO**

Mechanical Engineering PhD

# Microchip tensiometer (microtensiometer)



Encapsulated  
Form factor



# FloraPulse product



Microchip implant goes inside plant trunk



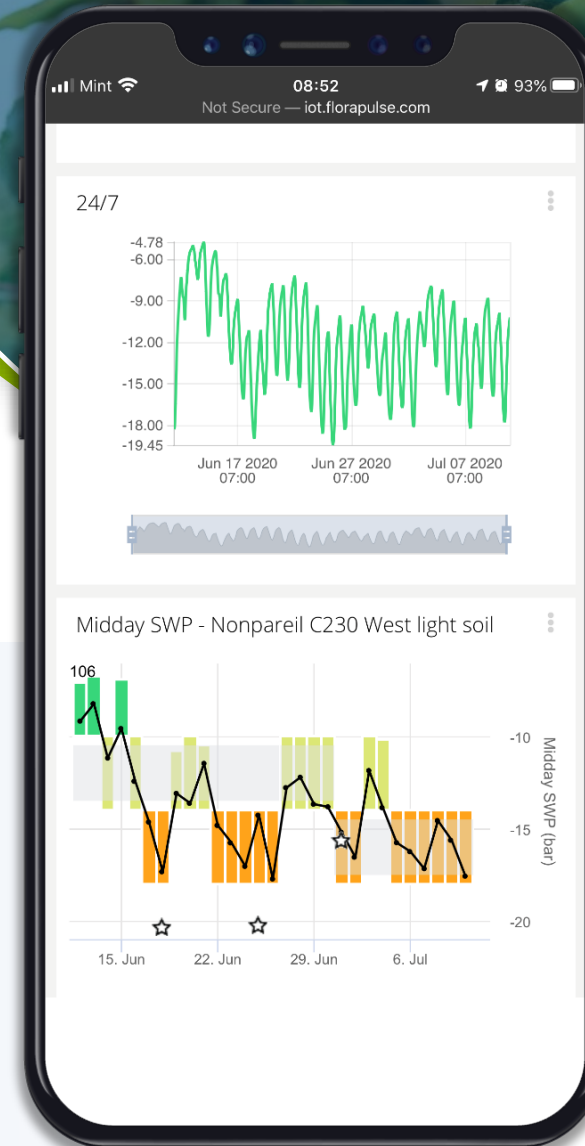
Most accurate water-stress data



Grower installed



Patented tech from Cornell University



# The only automated + accurate measure of water-stress



Hand operated



Pressure chamber



Automated, accurate



FloraPulse



Inaccurate

precision  
agriculture

tule

TerrAvion

Phytech

HORTAU

cropx

AquaSpy

ARABLE





## Scientifically validated

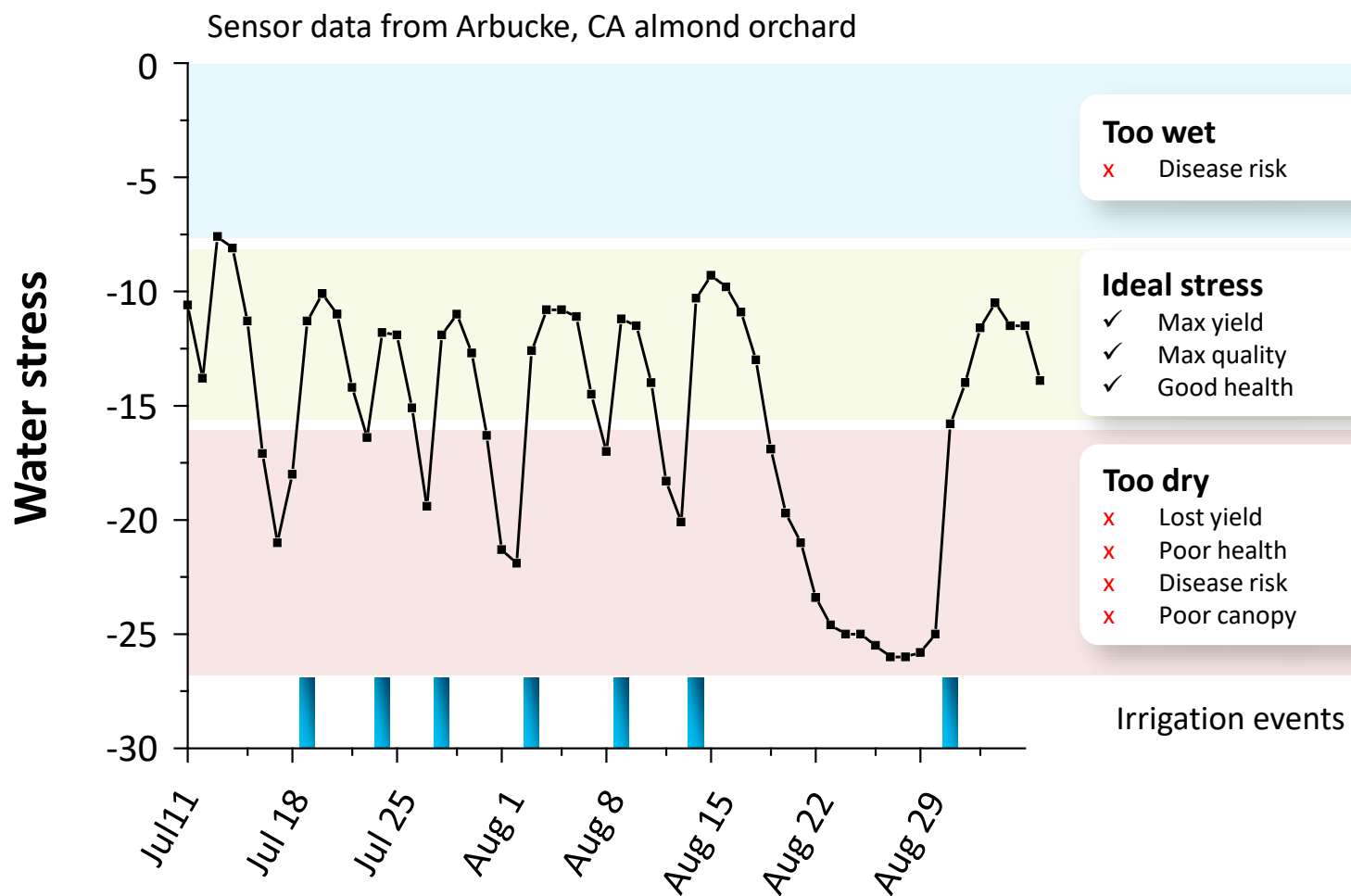
“

FloraPulse technology is the most accurate way to measure tree water status

”

**KEN SHACKEL**, UC Davis professor and irrigation expert

# Value: keep ideal water status – avoid yield loss



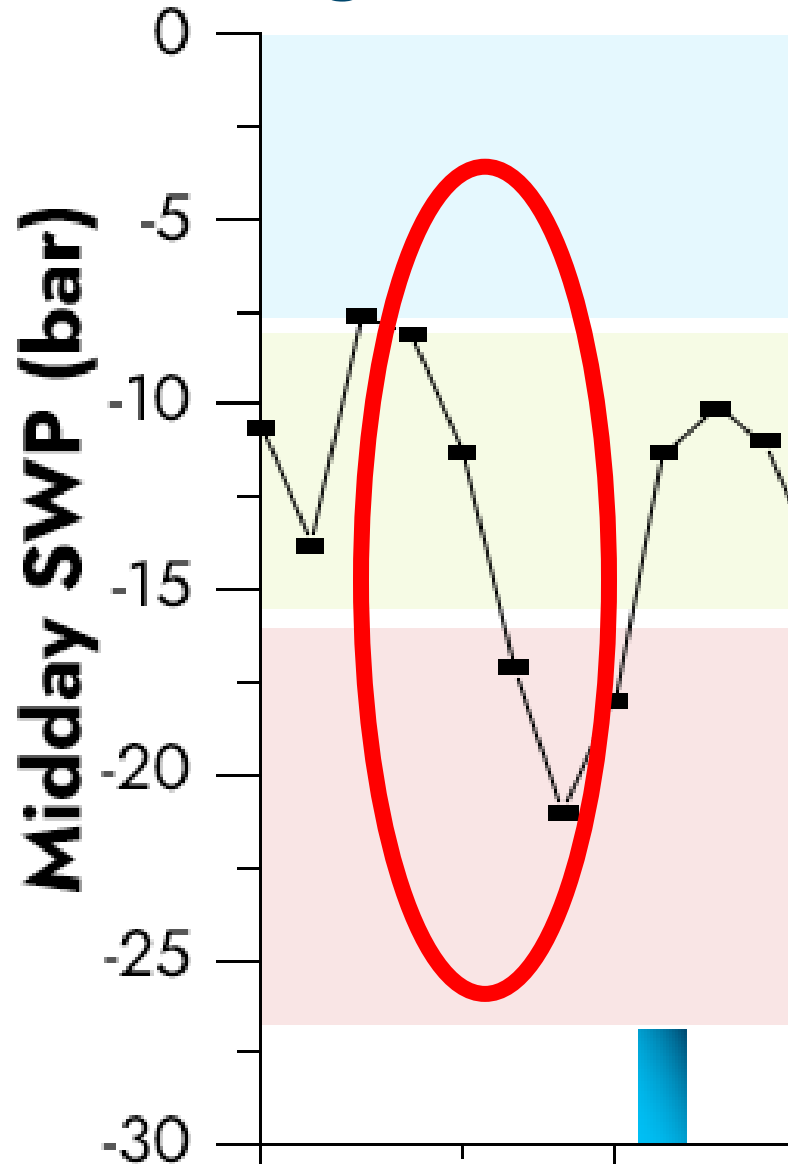
Tree was **over-stressed**

**41%** of days.

Lost yield & health for many years



## Initial finding: trees can 'crash' from wet to dry

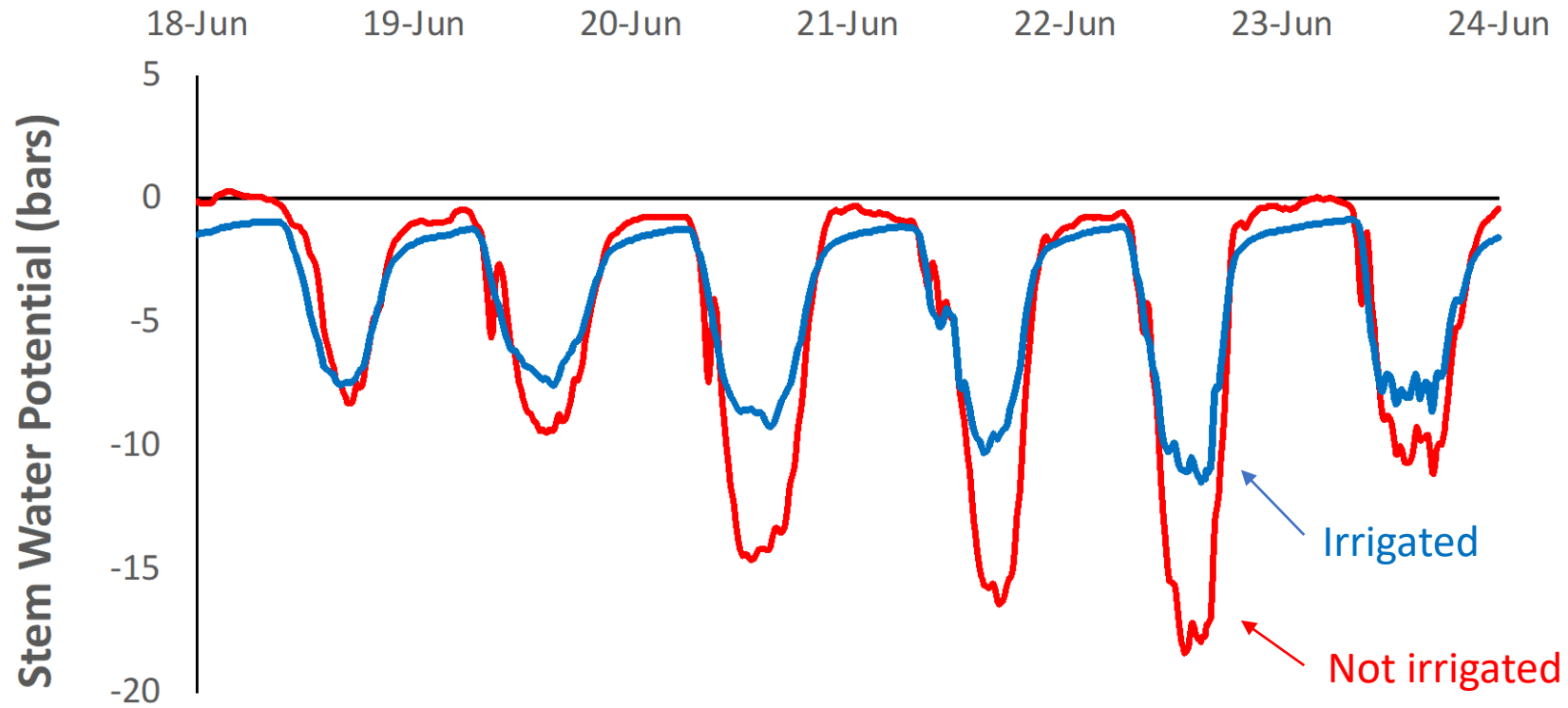


Almond went from **fully wet** to **very stressed** in 3 days!

Missed with weekly pressure chamber.

**-7.5 bar** to **-22 bar**

# Trials in NY, apples

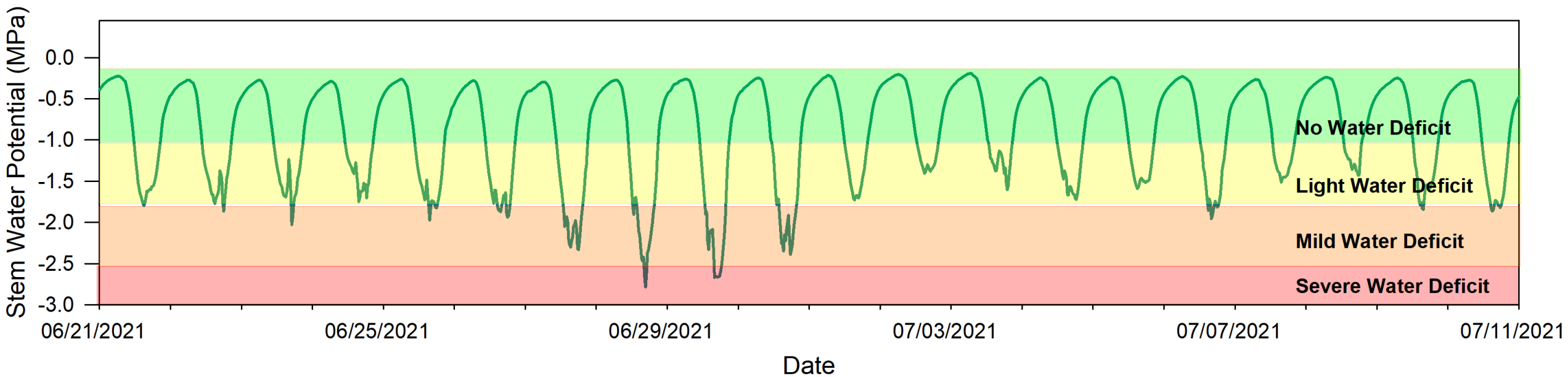


Courtesy:  
Professor Terrence Robinson, Cornell University





# More apple results



Courtesy:  
Professor Lee Kalcsits, Washington State University

## Customer testimonial



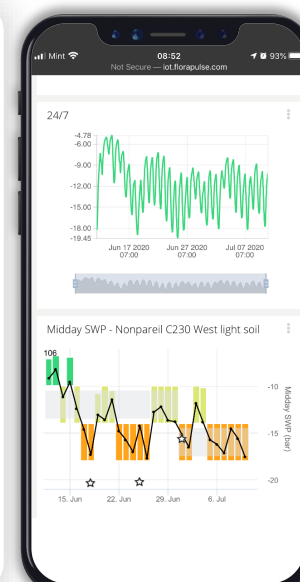
- Saved 45% water.
- Decreased pumping and drying costs.
- Increased yields by 15%.

*Andres Olivos, Prune grower  
OLIVOS riego  
Rengo, Chile*



Interested? Let's talk!

[www.florapulse.com](http://www.florapulse.com)  
[info@florapulse.com](mailto:info@florapulse.com)  
(530) 220 – 7668



 **FloraPulse:** the most accurate irrigation guidance for orchards and vineyards