SENSOTERRA

Grow more, waste less...

CASE STUDY

Optimizing irrigation for tree health

How smart data integration enables remote monitoring on a California almond orchard.

Fredriks Farms, a 195 acre fruit and nut orchard located in the Ripon and Madera region of the Central Valley in California, introduced Sensoterra sensors to monitor soil health and capillary behavior of their trees. Matt Murray of Process Tech Ag, integrates the soil moisture data from Sensoterra sensors, with local weather, temperature, and irrigation systems for precision agriculture techniques. By introducing smart IoT devices to orchard trees, growers at Frederiks Farms can monitor tree health remotely, and make smart decisions for increased yield, and optimized irrigation schedules. Currently, Process Tech Ag services orchards, vineyards and row crops across the Central Valley region.

"As an industry, we need to improve the efficiency of the data collected in the field and to make better irrigation decisions"

CUSTOMER

Matt Murray, Process Tech Ag

BUSINESS

Fruit & nut orchard
Data integration & consultancy

PRODUCT

100+ Sensoterra sensors

DATA CONNECTIVITY

MachineQ

HIGHLIGHTS

- Fredriks Farms covers 195 acres of orchards
- Fully integrated sensor data for custom dashboards
- Sensors provide clear insights of rainfall & irrigation events
- Root-zone behavior can be seen directly in the data

THE SOLUTION

Water scarcity is a real concern for growers, who have suffered through droughts and wildfires across California in recent years.

"There is a huge need to learn how to better irrigate and control the consumption of water," says Matt Murray, of Process AgTech.

According to Murray, water shortage scenarios will be more prevalent than ever before. In order to mitigate this, clever solutions are needed to obtain tools and knowledge about how and when to irrigate.

"As an industry, we need to improve the efficiency of the data collected in the field and to make better irrigation decisions."

The Sensoterra sensors monitor moisture at the root of the plant. Measuring across multiple depths allows for insights into how soil and crops are behaving toward irrigation, giving growers insights into when and how much to irrigate a tree, helping to define irrigation run-times.

"I chose Sensoterra probes due to the simplicity of the system."

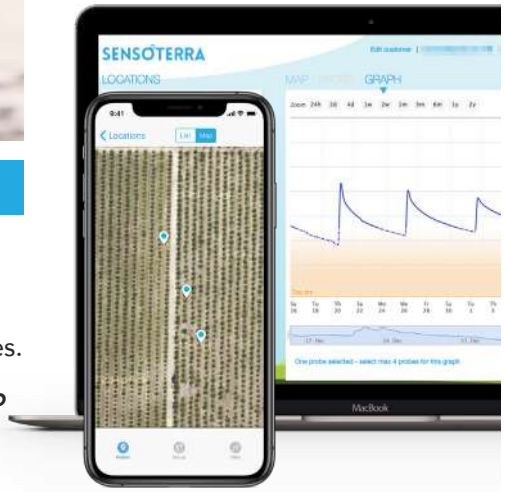
The Sensoterra probes are wireless, IoT technology, which allows for flexible placement across all fields. Installation is done within minutes: just scan the QR code, adjust probe settings, and hammer or push into the soil.

"It's simple. You can hammer them straight down into the ground."

Having installed the sensors in January, Murray is already seeing concrete results for the 2019 season. Correlating irrigation events with soil moisture levels allows him to understand the soil absorption and capillary behavior of blossoming trees. With this, Murray can set irrigation schedules based data.

"There is a huge need to learn how to better irrigate and control the consumption of water"

MATT MURRAY, PROCESS TECH AG



PROCESS TECH AG

ABOUT PROCESS TECH AG

Process Tech Ag strives to help agricultural businesses use technology to make better operational decisions that help better utilize resources, reduce costs, and increase yields.
www.processtechag.com

Sensoterra, world leader in wireless soil moisture sensor solutions, provides data-driven solutions for optimizing land and freshwater resources for agriculture, horticulture, landscaping and nature restoration. Empowering better decision making for land management through smart soil moisture measurements. Sensoterra was founded in 2014 and is based in Amsterdam, the Netherlands. Today there are over 5,000 Sensoterra sensors in the ground, globally.

Sensoterra | Science Park 106 | Matrix VII | 1098 XG | Amsterdam | The Netherlands