



Goal: Reduce water consumption and improve operations at Monarch Valley Farm.

Fybr partnered with this 1,250-acre farm in California to test and demonstrate how innovative technology could help the world's largest producer of plums improve operations, reduce costs, and improve crop yield.

With Fybr's help, the farm was able to use real-time data from soil moisture sensors to reduce water consumption by up to 50%.

Challenges

Monarch Valley Farm wanted a wireless solution that would automatically deliver water to their crops, control irrigation, test soil moisture at multiple depths, protect against water leaks, and develop a continuous feedback loop telling them how much water was being delivered to the roots.

Solutions

Fybr designed, manufactured, installed, and maintains the farm's agricultural IoT solution (powered by AWS)—including a low-powered wireless network and multiple types of sensors to collect data in real-time and provide control of irrigation systems. The sensors and software intelligently analyze the data via algorithms that interpret how much water is being absorbed and signal actuators in irrigation valves to open or close based on the current conditions.

Outcomes

- Highly accurate soil moisture data showed that a lot of water was going beyond the root system and being wasted.
- With the ability to more efficiently monitor water usage, consumption was reduced by up to 50%.
- The farm's irrigation system was able to be easily managed via an iPad utilizing Fybr's user interface.
- Yield increased due to the ability make faster and better informed decisions based on real-time data.
- The project showcases how IoT can be applied to farming and agriculture.