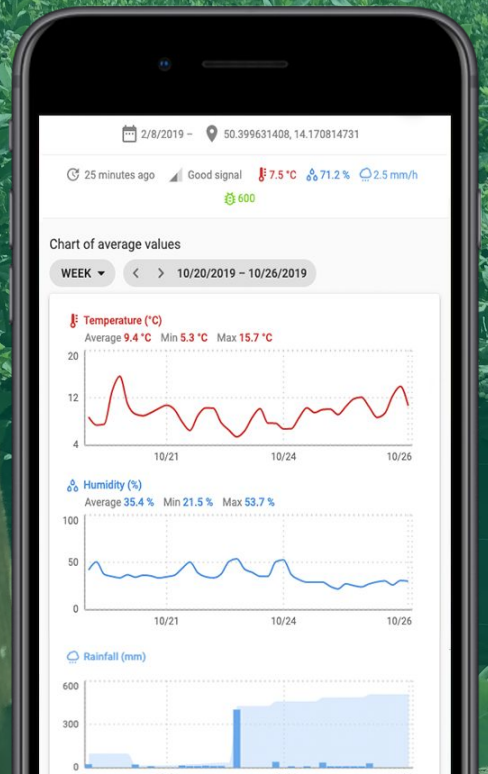


CLEVER° FARM'

DATA DRIVEN irrigation management platform

Vision of CleverFarm

is to make irrigation ...

Economically effective

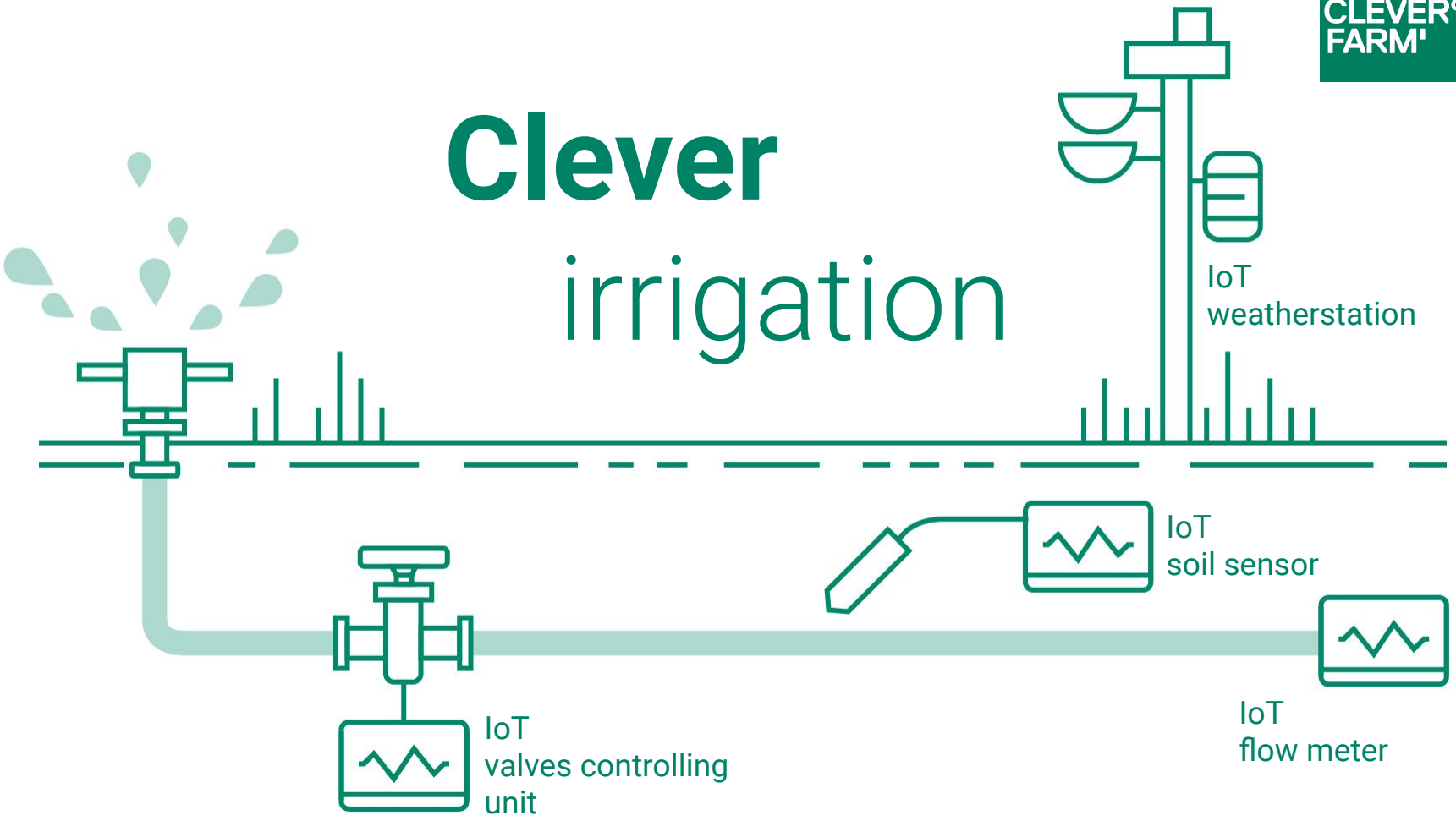
Sustainable

Automated

CLEVER°
FARM'

Basic irrigation

Clever irrigation



Irrigation based on the needs of the plants

Satellite images

Soil sensors

Analysis and recommendations

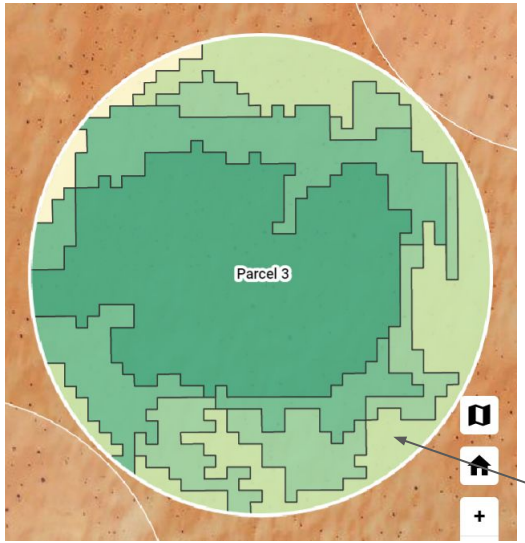
Irrigation management

CleverFarm: Satellite images

Why do the plants not grow well?

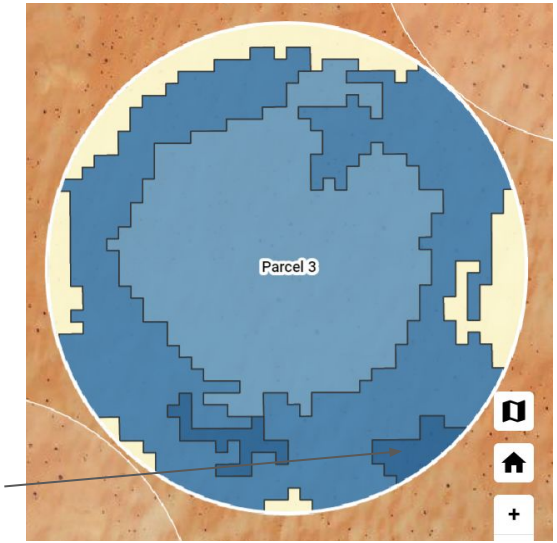
A low biomass volume (in this case on the border of the pivot)

Is not always an outcome of water scarcity but also overirrigation



biomass volume

A zone with low biomass volume and high water content in the leaves

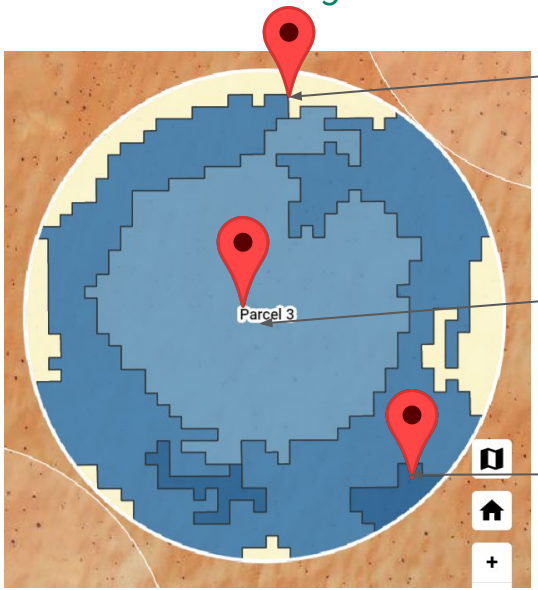


water content in the leaves

CleverFarm: Satellite images

Where to place the sensors?

zones with a high, low and average water content in the leaves in a long run



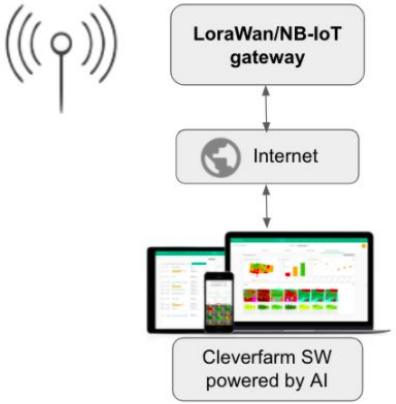
Sensor 1 representing zones suffering a water shortage

Sensor 2 representing zones with an average amount of water

Sensor 3 representing zones with an abundance / excess of water

CleverFarm: Sensors

Wireless, extensive coverage



Types of sensors

- Volumetric
- Absorb
- Salinity
- Weather station

Data loggers

- IP68
- Works underground

Benefits of IoT networks

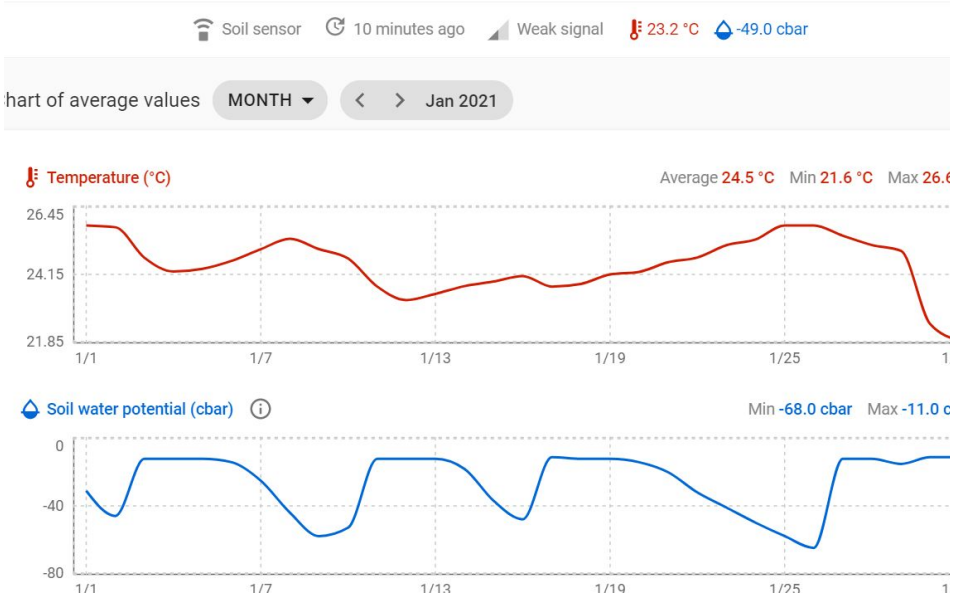
- Wireless solution
- Without a radio base
- Fast and easy installation
- Battery lifetime > 2 years
- Autonomous, low maintenance
- IoT standards: NBIoT, LoRa, Sigfox

CleverFarm: Recomendations

Plant and phenophase specific

CleverFarm Application

- Data interpretation
- Comparison with plant specific benchmarks
- Parametrization of the models reflecting
  - Type of plant
  - Specific phenophase
  - Climate zone
- Alerts and notifications send out
- Recommendations on irrigation



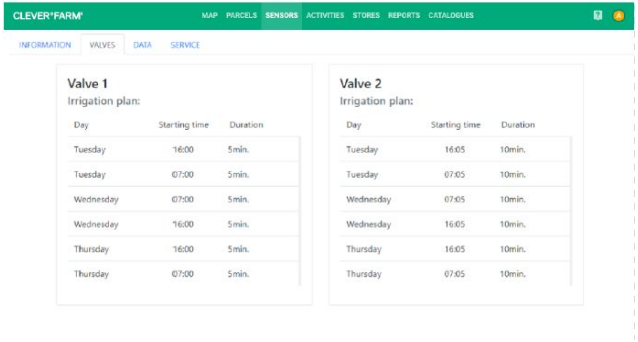
A cherry farmer used to irrigate every 7 day. Following recommendations of CleverFarm he can now extend the irrigation cycle to 12 days.

CleverFarm: Irrigation management

Remote, wireless management

Valves controlling unit

- Following the recommendations on irrigation, the user can adjust the irrigation plans directly from the application
- Direct transmission to the valves controlling unit via IoT network
- A wireless controlling unit powered by a 3.6 V battery is installed directly on the field
- Can manage up to 8 solenoid valves and can be aggregated to any existing or new irrigation system



Benefits

CLEVER° FARM'

Up to 30% savings

Optimize water and energy use. CleverIrrigation generates significant costs savings.

Increase the yield

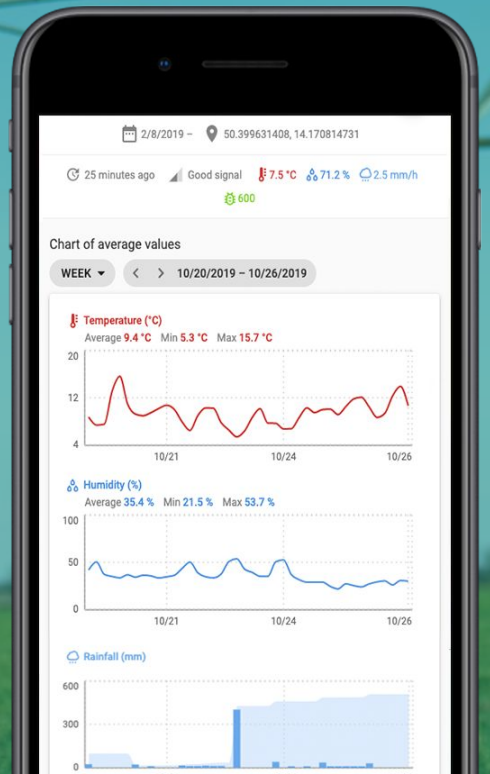
An accurate water management results in higher quality and quantity of the yield.

Personal costs optimization

Remote valves management saves human resources on site

Plug&Play

Easy to install
Easy to use



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