

# Agri-Tech Product Update 2021

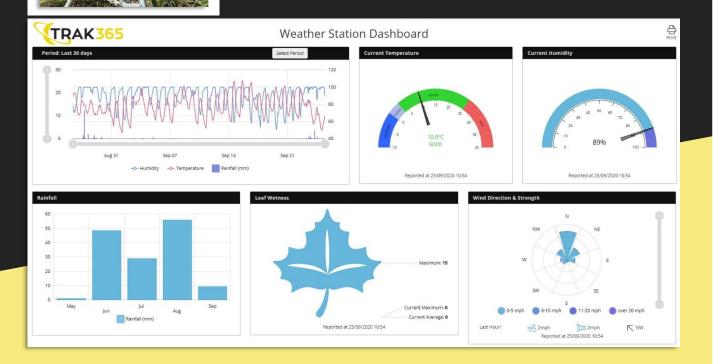


A Weather Station combined with multiple 'Microclimate' temperature/ humidity wireless endpoints enables a rich collection of environmental data. Most weather stations are proprietary, and the data collected is only available from 3<sup>rd</sup> party cloud portals and makes the availability of the data difficult as well as expensive to readily access. (various subscription levels)

Trak365 have the flagship of weather stations provided as OEM sensors and enclosures with our built-in electronics and wireless endpoint which provides a solution powered by a single battery and collects all pertinent data, wirelessly transmitting this information to our gateway and on to our Cloud Platform.

Because Trak365 collect the raw data from all the sensors in the weather station and our 'microclimate' wireless data collection endpoints, we are able to blend and combine the various data sources to provide a wealth of 'analytics', growth and yield prediction metrics. Working with agricultural subject matter experts we can embed a lot of precision data metrics to assist with possible disease control alerts and enhanced fruit production with less impact on the planet.

Read more or get in touch to book a site survey through our website, or just give us a call



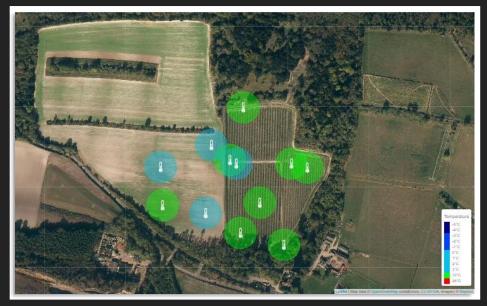
# <u>Microclimate sensor w. built in ambient</u> <u>temperature + humidity</u>

**Optional additions:** 

- Soil moisture
- Soil Temperature
- Leaf wetness





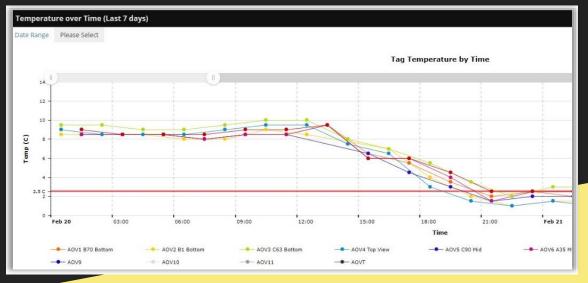


# <u>Temperature/Humidity</u> <u>heat map - Weather Watch</u>

Frost prevention system.

When temperature threshold settings are breached (i.e. below 3 degrees C) an SMS alert is sent to the responsible operatives (optional email), when this occurs the colour coded map is updated every 5 minutes. Only the affected areas need treatment saving resources and money.

Precision treatment of events be they frost, or disease warnings are made possible through this collection of operational data.



# Temperature/ Humidity graph

Collected data shown here as a graph.

All collected data is processed and available either through download of CSV microclimate endpoint data or can be provided as a live JSON string using our API.

## Collaboration/ Joined up thinking/ Knowledge/ One source of the truth/ Holistic

Collaboration with viticulture service providers (outsourced vineyard management) meteorological and environmental data collection, online data management and bespoke repository applications, which include embedded subject matter expertise.

### Trak365 Data Collection Components:

- Precipitation
- Wind direction (prevailing) and speed
- Hi/Lo temperature in each 24-hour period
- Historical and current season data
- Soil moisture
- Soil Temperature
- Leaf wetness
- Ambient temperature and humidity (microclimate)

#### What Trak365 does with your data:

- Collects and retains data safely and securely.
- Provides ability to extract granular data per endpoint into CSV files for download.
- Designs and builds real time data visualisation dashboards, tailored to operational insights required.
- Provide (optional) real time data per JSON feed API for further 3<sup>rd</sup> party data analysis and management.
- API in development to enable trusted 3<sup>rd</sup> parties to cherry pick the specific data metrics needed for further blending and analysis to create data assets.

The combination of data from sensors and precision farming endpoints blended with subject matter expertise, will assist in:

- More effective operational management insights/ decisions
- Bud burst prediction within 'X' days based on soil temp/ambient temp/GDD
- Crop yield blend of precipitation and GDD
- Disease models/warnings for powdery and downy mildew
- Harvest date prediction
- Frost/storm management (real-time heatmaps)
- Preparation for spraying and disease control
- GDD (display of growing degree days) overlayed with phenology
- Phenological predictions

## 'Exploring the collective power of innovation...'



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