

## AGRINSIGHT revolutionizes the management of the orchard



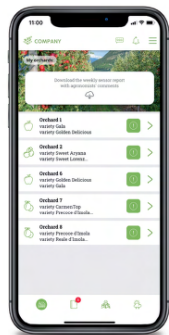
The **main screen** displays the icons for alerts, chat, types of crops, the orchard map, the orchard journal, and the weather.

The AGRINSIGHT software allows you to remotely control the real-time data collected by the sensors installed in your orchard via smartphone, tablet or computer.

With AGRINSIGHT it is possible to simultaneously monitor all the sensors located in the orchard and have a complete overview of all the information coming from the field, organized through graphics that make it immediate to view and investigate, with comparative data reading.

AGRINSIGHT automatically compares the collected data with the optimal values and sends "alerts" in case of anomalies, **indicating when and how to intervene**. The integrated chat with the staff and agronomists at Advice&Consulting ensures total support during each activity.

Furthermore, AGRINSIGHT provides a general weekly report on the orchard displaying the data collected by sensor and the indications provided by Advice&Consulting agronomists.



By choosing the **crop**, all the **project management phases** are displayed: the planning of activities, the analyses carried out throughout the year, the operations to be carried out in the orchard, the pre-harvest phase, the conservation phase, and the sensor positioned in the orchard.



In the **orchard journal section**, it is possible to plan the main agronomic activities displayed in the timeline in simple steps. Each crop and variety correspond to the relative orchard journal with details of the activities and those already carried out.



The **map section** contains geographical information on the orchard, the number and type of sensors installed, and their location.



The **weather section** contains current data generated by the weather station and forecasts from OpenWeatherMap.



**LEAF WETNESS.** Based on the leaf sensors, AGRINSIGHT provides information on possible ongoing infections, Mills table reference values, the temperature and humidity of the air. When anomalies are found, alerts are activated and the interventions to be carried out with defense products are displayed.



**SOIL PROBE SENSOR.** On the basis of the data collected by the soil probes, AGRINSIGHT provides information on the temperature, tension, and humidity of the soil. When anomalies are found, alerts are activated and the interventions to be carried out with fertilizations are displayed.

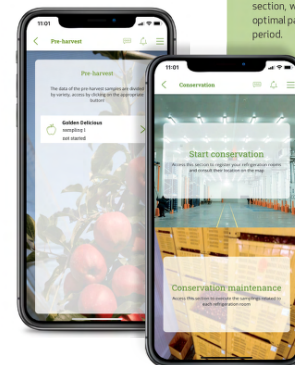


**WEATHER STATION.** According to the weather station, AGRINSIGHT provides information on air temperature, wind speed and direction, and the amount of rain. When anomalies are found, alerts are activated (for example, risk of freezing) and the interventions to be performed by applying treatments are displayed.



**INSECT TRAP.** On the basis of the data collected by insect traps, AGRINSIGHT provides information on the detected insects, defining the species of the dangerous ones. When the numerical limit of dangerous insects is exceeded, alerts are activated and the interventions to be performed to prevent infections by applying defense products are displayed.

With AGRINSIGHT, you determine the right time to **harvest** and **ensure** the correct fruit conservation



To offer the consumer perfectly ripe fruit, ready to eat and full of flavour, the product must reach the maximum qualitative balance. To this aim, it is necessary to establish the exact harvest window. The data collected by the user through sampling using the tools of the AGRINSIGHT KIT must be recorded in the pre-harvesting section, where it is possible to compare them with the optimal parameters to determine the optimal harvesting period.

With the support of Advice&Consulting cold storage experts, the characteristics of the fruit are checked and the conservation parameters set correctly according to their varieties. During the conservation phase, monitoring activities through sampling is carried out inside the cold storage rooms to make sure that the fruit is stored correctly and that all organoleptic characteristics are kept intact. Thanks to AGRINSIGHT it is possible to have total control of the entire fruit supply chain and, through the support of technicians, to optimize the management of fruit activities and obtain the highest quality fruit.



**AGRINSIGHT** represents a solid alliance between Technology and Agriculture

AGRINSIGHT is an innovative application created by Advice&Consulting. It implements the latest sensor technologies for the remote analysis and monitoring of all factors affecting orchard development as well as providing an integrated chat function with specialized agronomist technicians who can tell you how and when to step in.

**date communication with the Advice&Consulting agronomic technical department** so the fruit grower is supported at every step and offered solutions for the optimal management of their orchard and high-quality produce.

With AGRINSIGHT, it is possible to intervene in a targeted manner, with **lower consumption of water, pesticides, fuels, and a more efficient organization of the workforce**

The application is available in Russian, Italian and English.



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## A new alliance between Technology and Agriculture



**AGRINSIGHT,** your orchard data and agronomic know-how, always with you





## AGRINSIGHT, your orchard just a click away

With AGRINSIGHT, it is possible to manage information relating to multiple crops, choosing from two different modes depending on the user.

The application's integrated chat function allows you to take advantage of the know-how of Advice&Consulting agronomists and cold storage experts, communicating with them by text at any time as well as sharing photos and videos. The user is constantly supported and has total control over activities carried out in the orchard, the soil and climatic conditions and the phenological phases of the plants, which can even be monitored remotely.



### OPERATIONAL MODE + interactive.

AGRINSIGHT offers all the necessary support to the user who has to manage the orchard, with the possibility to interact with experts via the integrated chat and enter data from samples.



### SUPERVISOR MODE + information.

AGRINSIGHT offers all kinds of useful information to the users wishing to view the status of the orchard and the progress of activities, as well as the chat function.

## THE AGRINSIGHT KIT for the pre and post harvest sampling



The **AGRINSIGHT KIT** - supplied together with the sensors - includes the measurement tools through which the user, supported by Advice&Consulting experts, is able to carry out the sampling and verify the fruit ripening status in order to determine the correct harvest window and set the correct conservation parameters.

Subsequently, during the cold storage phase, monitoring is carried out in the cold storage rooms using the AGRINSIGHT KIT to make sure that the fruit is stored correctly and organoleptic characteristics are kept intact.

The kit includes the following measuring tools:

- Fruit size control gauge with 13 rings, from 30 to 90mm
- Accurate pocket scales
- Penetrometer to check pulp hardness (for apples, pears, peaches)
- Refractometer from 0 to 18% Brix, to check sugar content
- Digital thermometer with graduated probe for measuring the internal temperature of the fruits
- Acidimeter for measuring fruit acidity
- Microanalyzer: optical instrument with zoom up to 30 for precise focusing



AGRINSIGHT makes it extremely simple to manage your orchard and remotely control all the factors that determine its efficient productivity. The use of sensors in the field allows you to continuously monitor values such as temperature, humidity, rainfall, leaf wetness, among

others, with precise, constant, and real-time measurements. Any critical conditions for the development of pathologies or other problems can be identified and targeted and timely interventions planned, based on the real needs of the crop.

## THE AGRINSIGHT SENSORS

### WEATHER STATION WITH GPRS CONNECTIVITY



The station works with solar power and Ion battery and is equipped with:

- Multifunctional portal in die-cast aluminum box
- Aerocore rain gauge to detect accumulated rain and intensity
- Probe for air temperature and humidity, atmospheric pressure, with sun screens
- Leaf wetness and a dripping sensor for measuring wetness outside the canopy
- GPS and GPRS antenna
- GPS satellite position and time
- 5W solar panel
- Basic communication module
- Anemometer for wind direction and speed. Snapshot of speed, average and peak. The measurement of wind speed is essential for planning irrigation activities with plant protection products, in order to ensure uniform coverage and reduce the drift effect
- Solar radiation and brightness sensor characterized by high sensitivity and response speed
- Steel tripod for fixing to the ground, complete with small parts

### LEAF WETNESS AND DRIPPING SENSOR FOR THE INTERNAL CANOPY



Capacitive type, for internal foliage, resistant to phytosanitary treatments. It measures the wetting (percentage of surface covered by water), the leaf temperature and, thanks to an innovative system with patent pending, detects dripping events, i.e. the drainage of water due to accumulation on the leaf.

Leaf wetness is a very important factor that leads to the development of fungal diseases, so dripping can become a means of transmitting infections already in place. This detection also makes it possible to better modulate the wash-out of any plant protection products.

### PHEROMONE INSECT TRAP WITH CAMERA



This innovative insect trap is equipped with a high resolution camera (8 mega pixels) that allows remote monitoring of insect catches. Includes:

- GPS satellite locator
  - 5W solar panel with water resistant connector
  - 4 panels with entomological glue containing selective pheromones
  - Camera with automatic and daily image processing service, with archiving equipped with TRAP-VISION software for the automatic recognition of harmful insect species (e.g. codling moth), which calculates the number of daily and accumulated catches.
- The catches are displayed in graphs indicating the start of flights and peak phases and basic information for planning insecticide treatments. A sensor indicates when it is necessary to change the adhesive board.

### ADVANCED VOLUMETRIC SOIL PROBE SENSOR FOR TEMPERATURE DETECTION



Suitable for all types of soil, it measures the dielectric characteristics to obtain humidity and conductivity. The system, one of the most accurate on the market, was tested in collaboration with the University of Pisa. The sensor includes:

- Multifunctional portal with plastic packaging
- GPS satellite locator
- 5W solar panel with water resistant connector
- Basic communication module
- Sensor of leaf wetness and dripping of professional volumetric type of soil moisture

