



GRAPEDSS

The DSS for vineyard management

Why choose

GRAPEDSS



Increase

the quality and quantity of grapes



Monitor

the vineyard, also remotely



Reduce

management costs of the vineyard



Defend

in advance from pests and diseases



Intervene

promptly against frosts



Optimize

the use of inputs (water, treatments, fertilizers)



FIELD MAPPING

Geolocate the field on the map and draw it: features will be immediately hooked. You can enable the cadastral map and enter sheet and parcel information.

Use one of the following methods to create your field.



Draw on map

Locate the plot on the map and draw it manually.

✓ Select



Automatic detection

Locate the plot on the map and enable automatic detection to map the field with just one click.

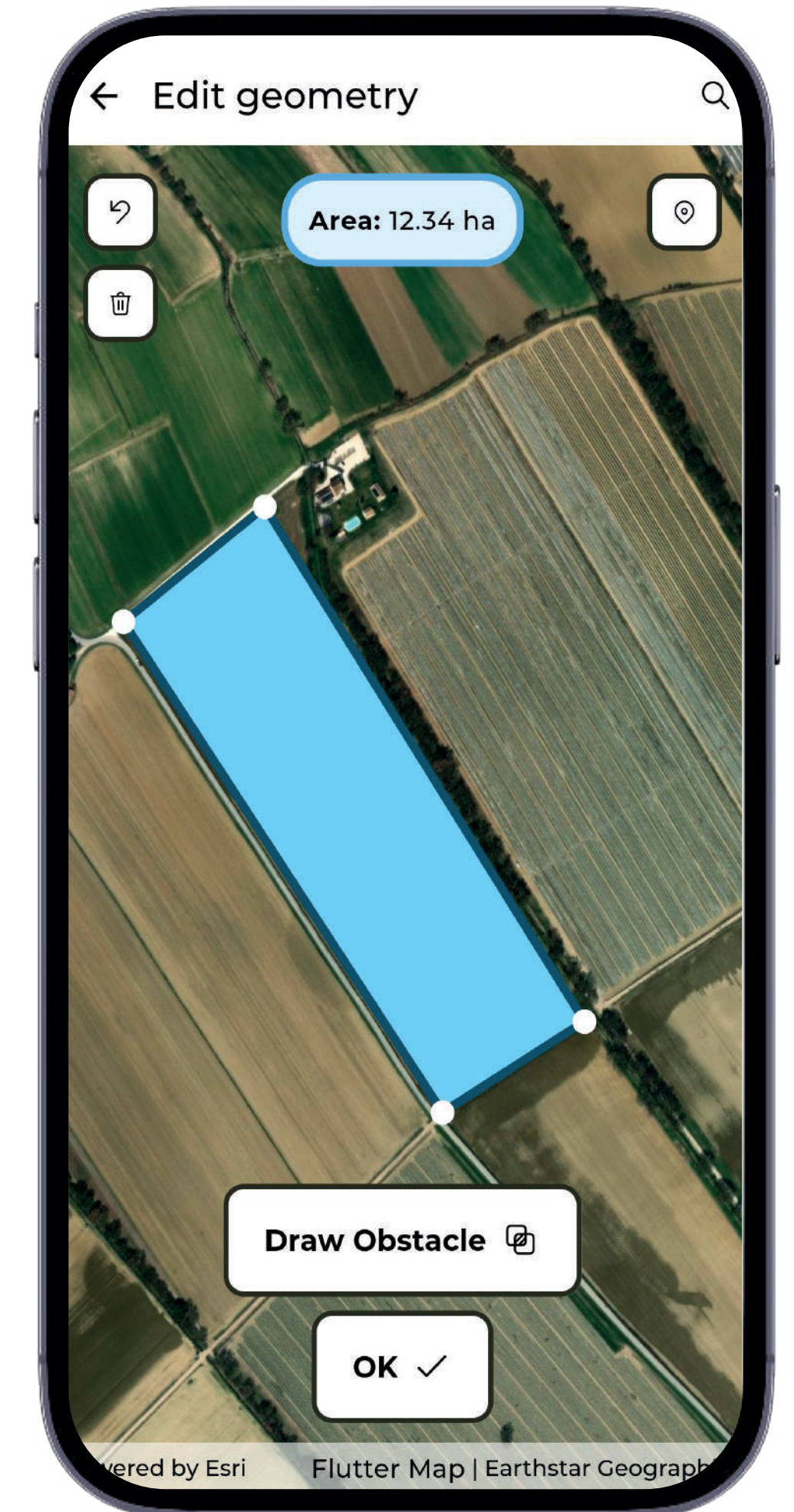
✓ Select

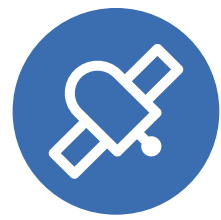


Upload files

Upload a .shp or .kmz file..

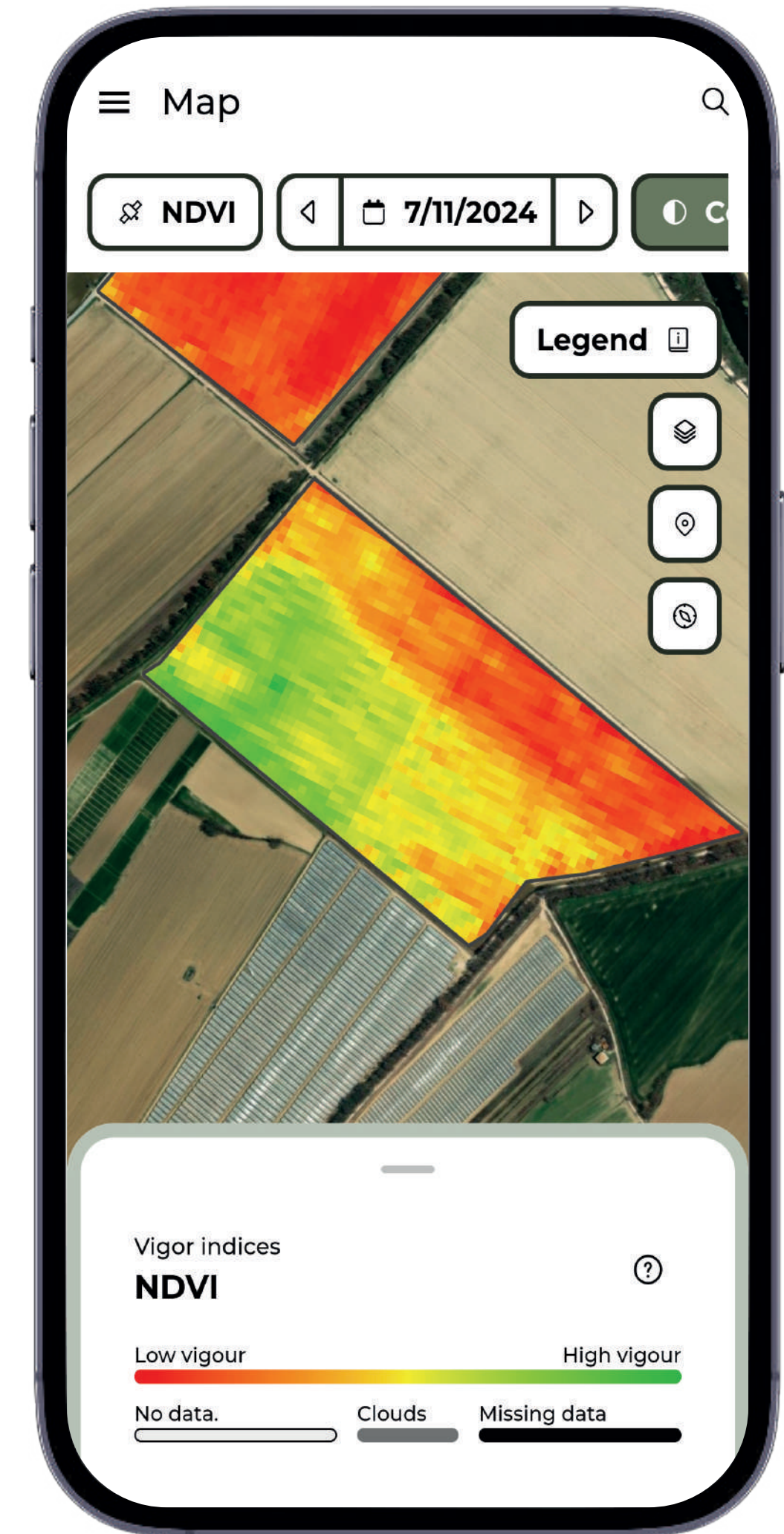
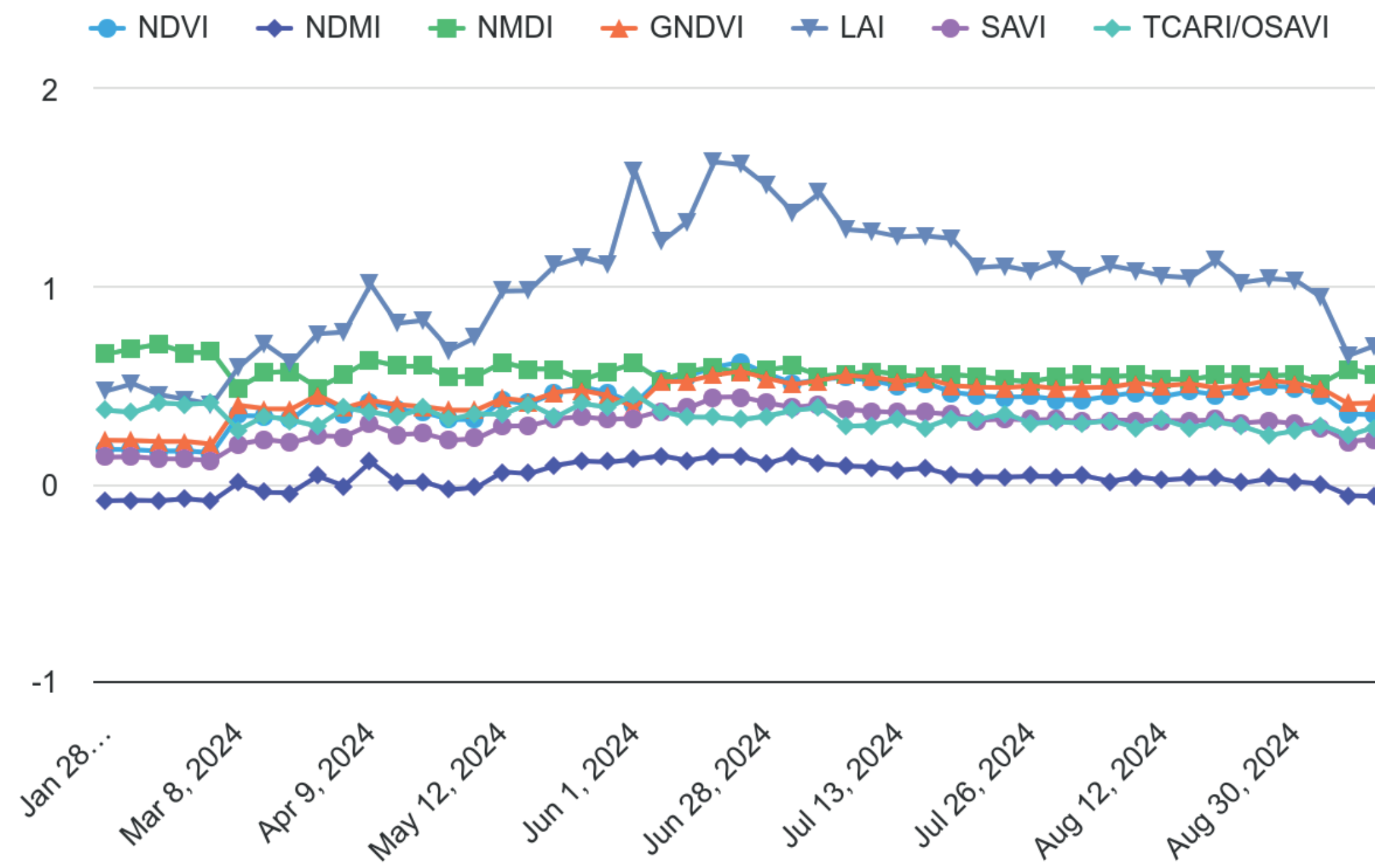
✓ Select

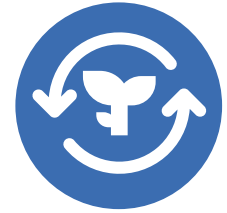




SATELLITE IMAGERY







Consult Sentinel-2 satellite images with vigor, water stress and chlorophyll indices to promptly identify critical areas in the vineyard.






SUSTAINABILITY

Monitor the **economic** (yield, production) and **environmental** (water consumption, input control and farm biodiversity) **sustainability indicators** of your farm. You can set the level to be reached for each indicator and monitor how the work is going.

-  Economic 
-  Environmental 
-  Targets List 

 ENVIRONMENTAL INDICATORS ENVIRONMENTAL ?

Environmental indicators focus on the impact of agricultural practices on the surrounding environment

Water

Indicator	Value
Total water consumption	5980.21 m ³
Average water consumption	163.1 m ³ /ha

Fertilizer

Features

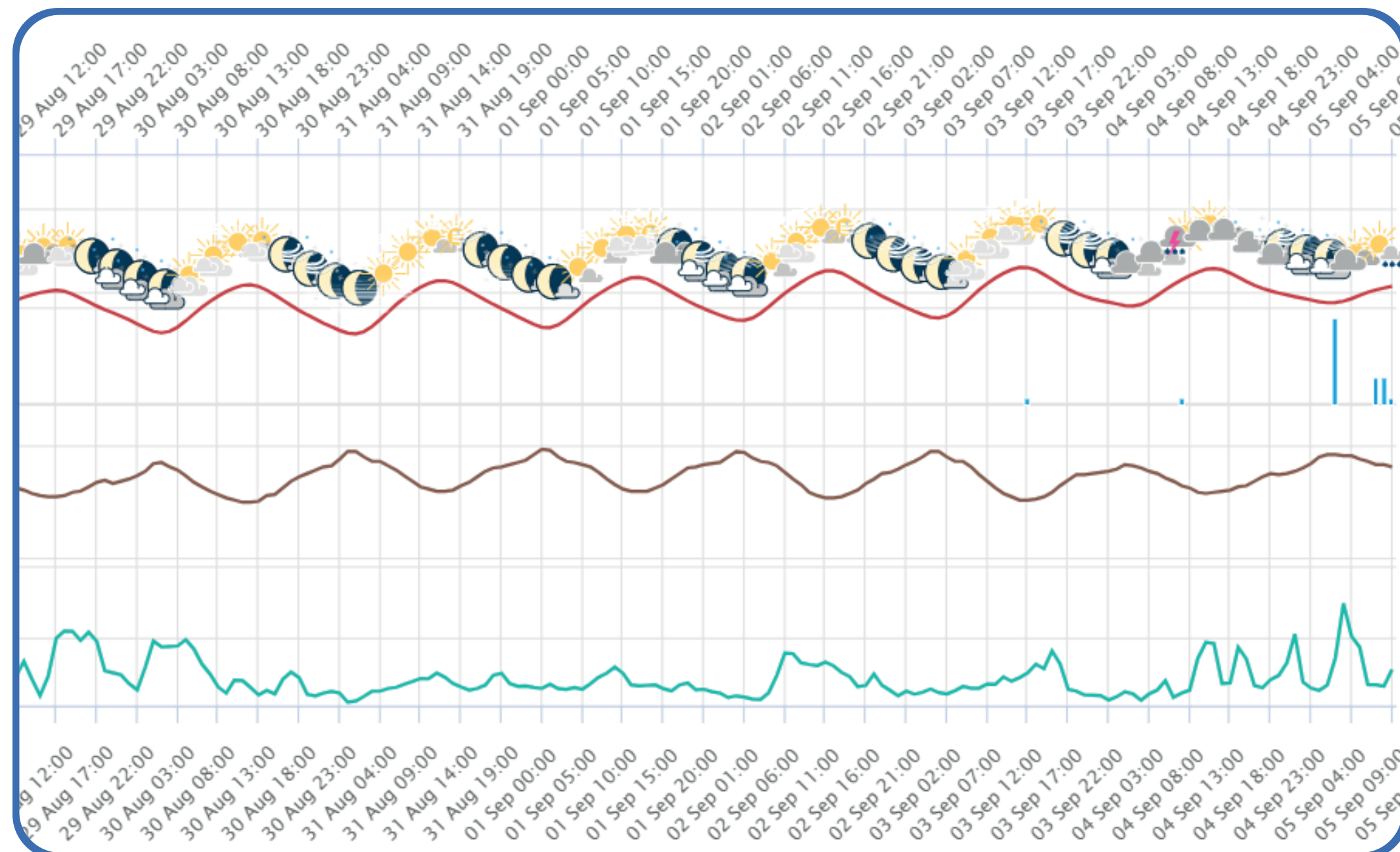


WEATHER



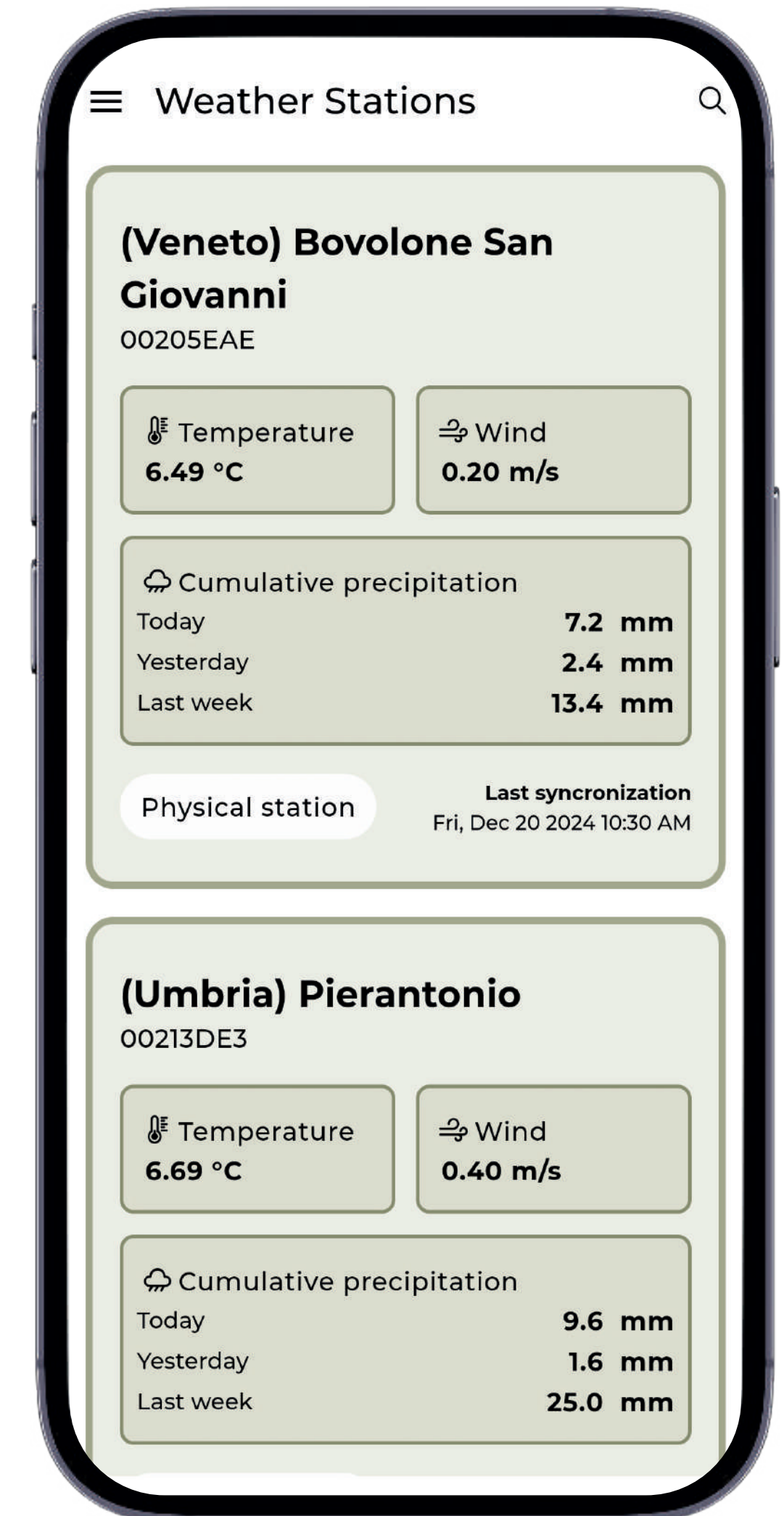
WEATHER FORECASTS

Consult professional weather forecasts up to 7 days updated every hour: **temperature, humidity, wind speed, rainfall.**



WEATHER STATIONS

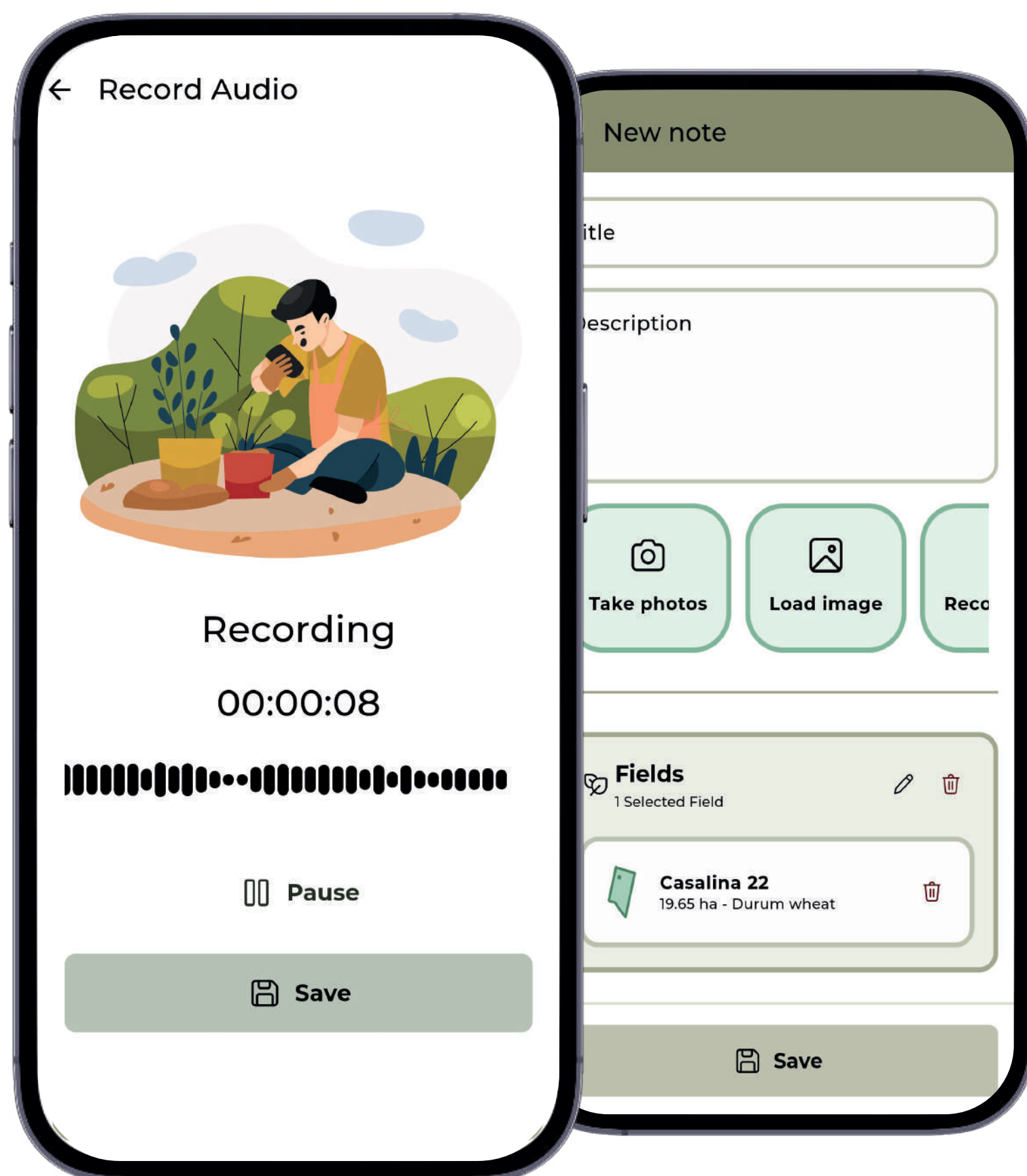
Virtual weather station included;
*physical weather stations and sensors can be purchased or integrated, if already present in the company.





CROP SCOUTING

Geolocate and register into the platform the field activities with **Agricolus's App**: phenology, pests and diseases, traps and captures, crop damage, soil analysis and issues.



- ⓘ ISSUES
- ⚠ CROP DAMAGES
- 🕒 TRAPS
- 📅 CATCHES
- 🌱 PHENOLOGY
- 🐛 PESTS AND DISEASES
- 🧪 SOIL ANALYSIS
- ★ QUALITY MONITORING
- ⚖ QUANTITY MONITORING



FORECAST MODELS



PHENOLOGY

Phenology forecasting to assess vineyard needs at each stage of development.



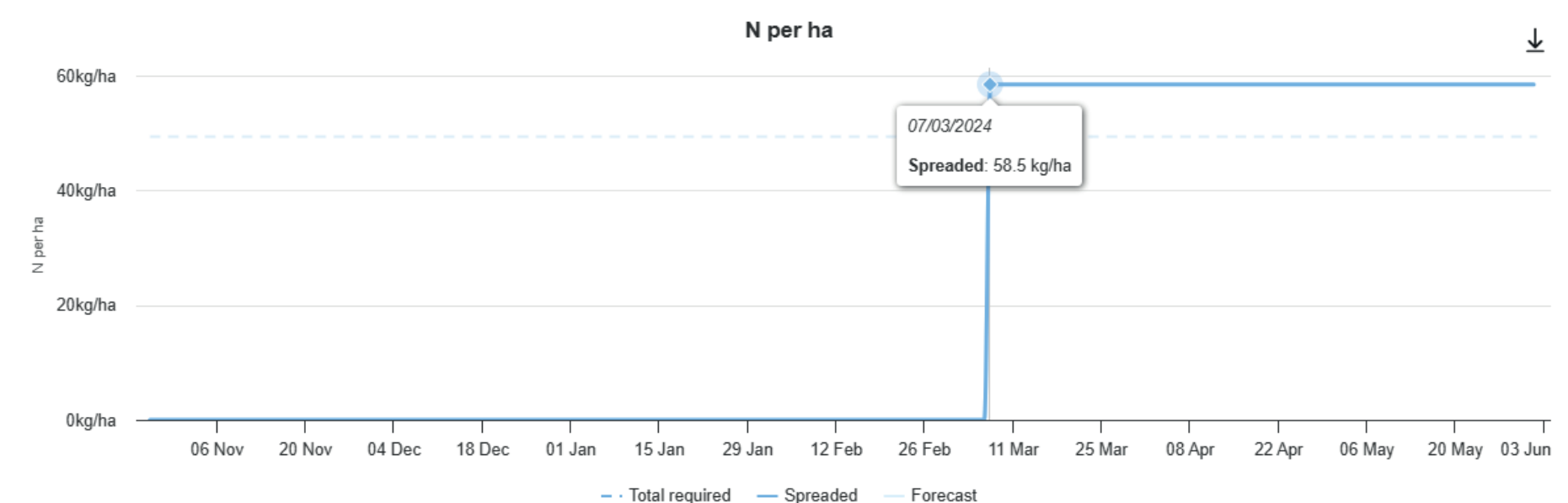
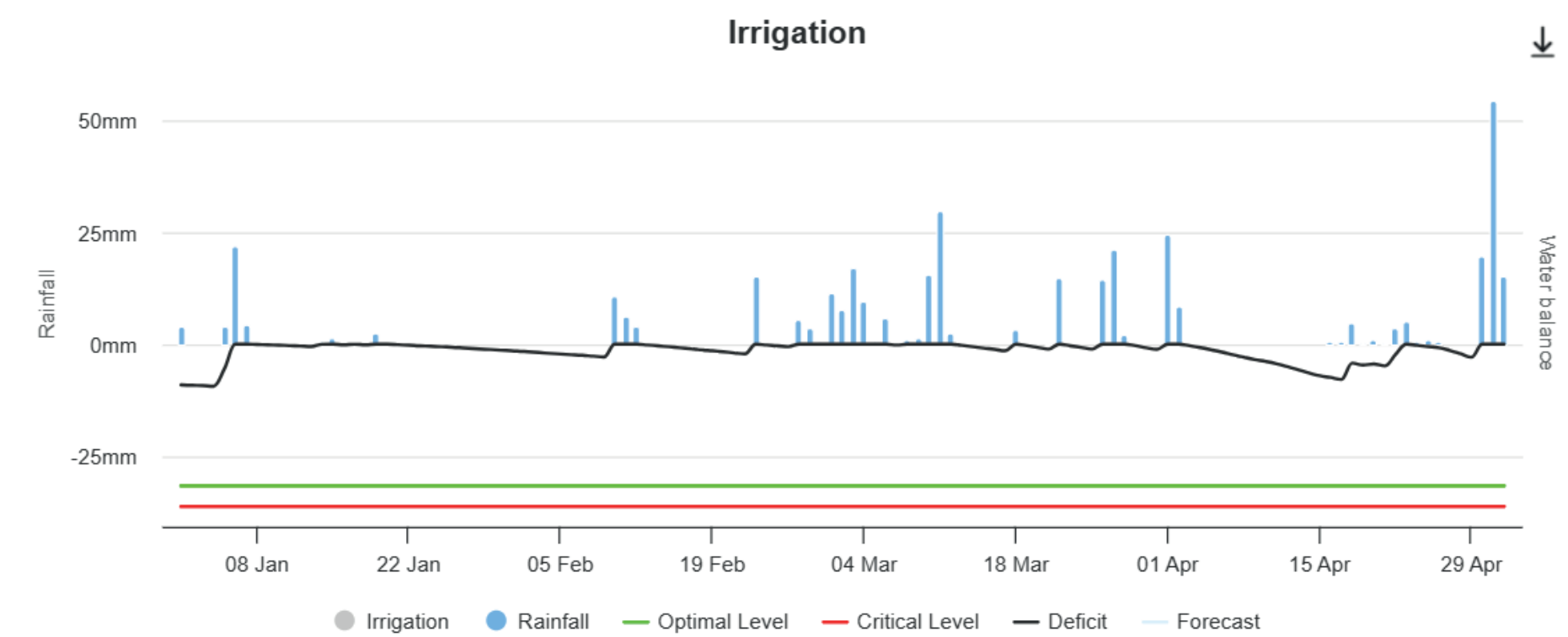
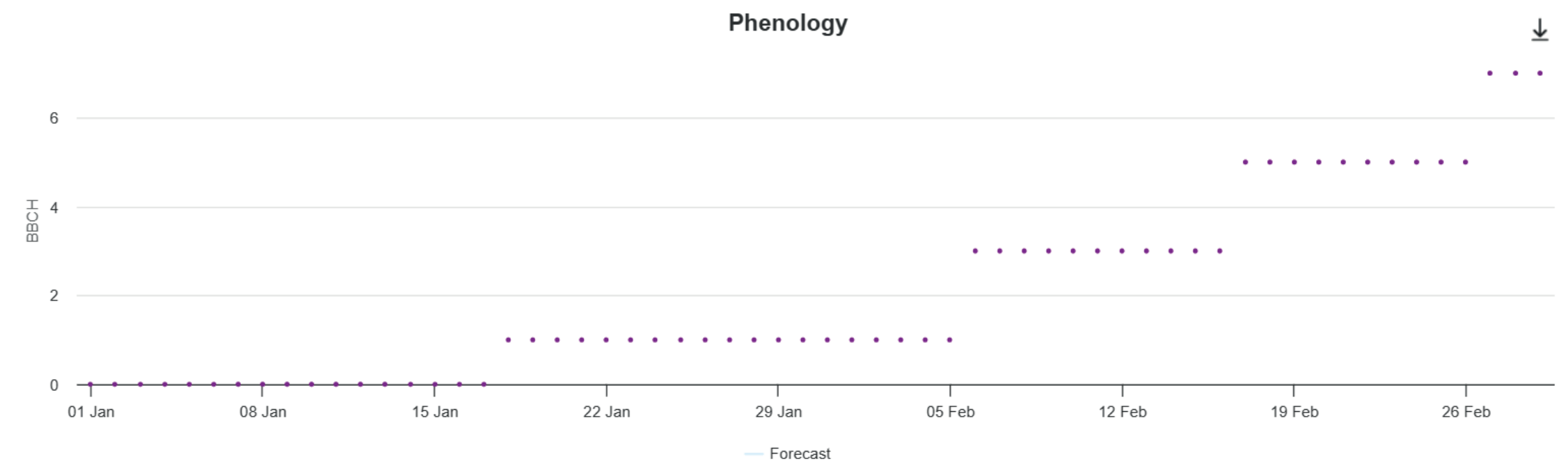
IRRIGATION

Evaluation of water requirements to carry out irrigation when necessary with the right amount of water.



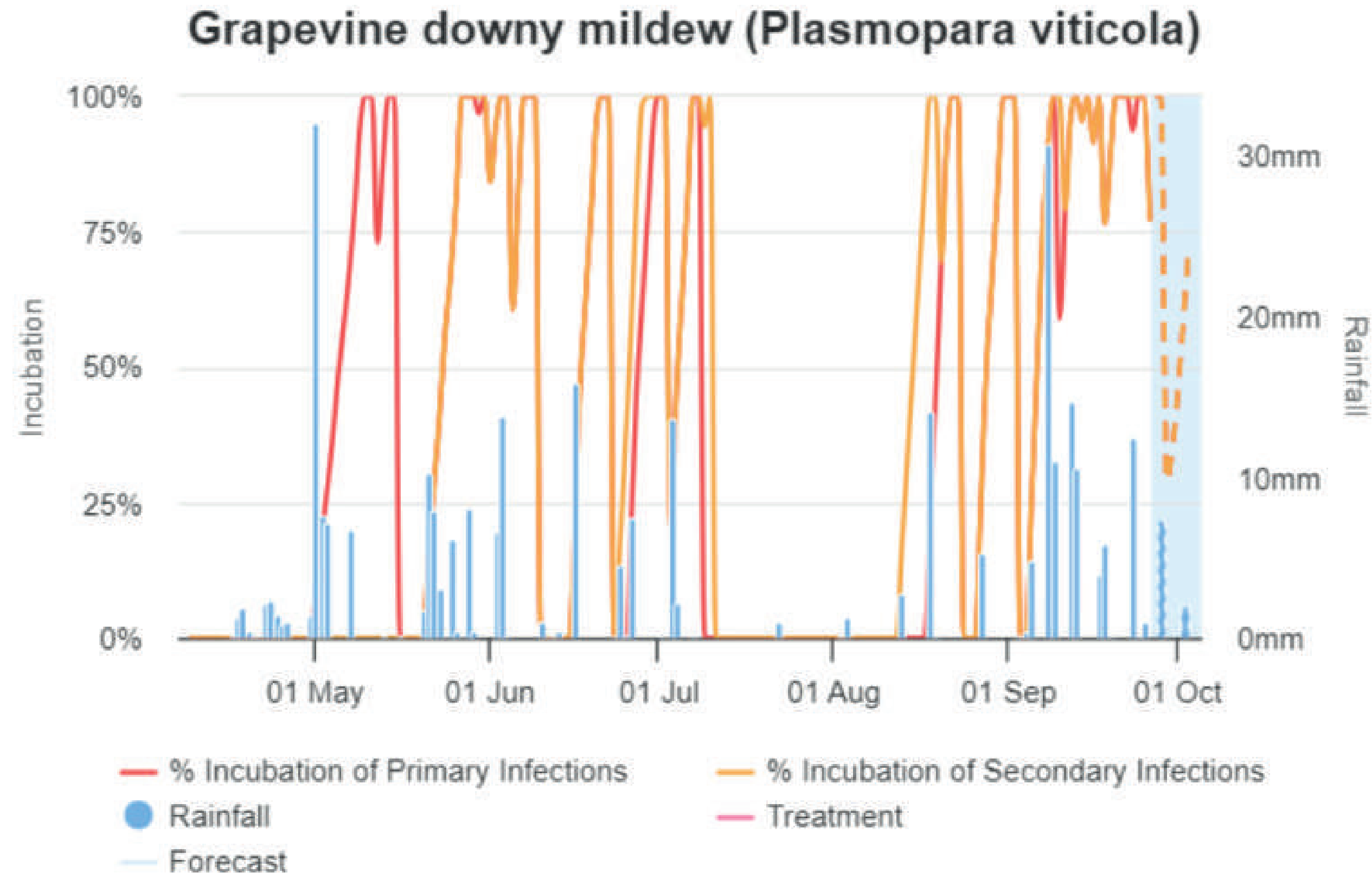
FERTILIZATION

Calculation of the total requirement of nitrogen, phosphorus and potassium (Kg/ha) required throughout the production cycle.

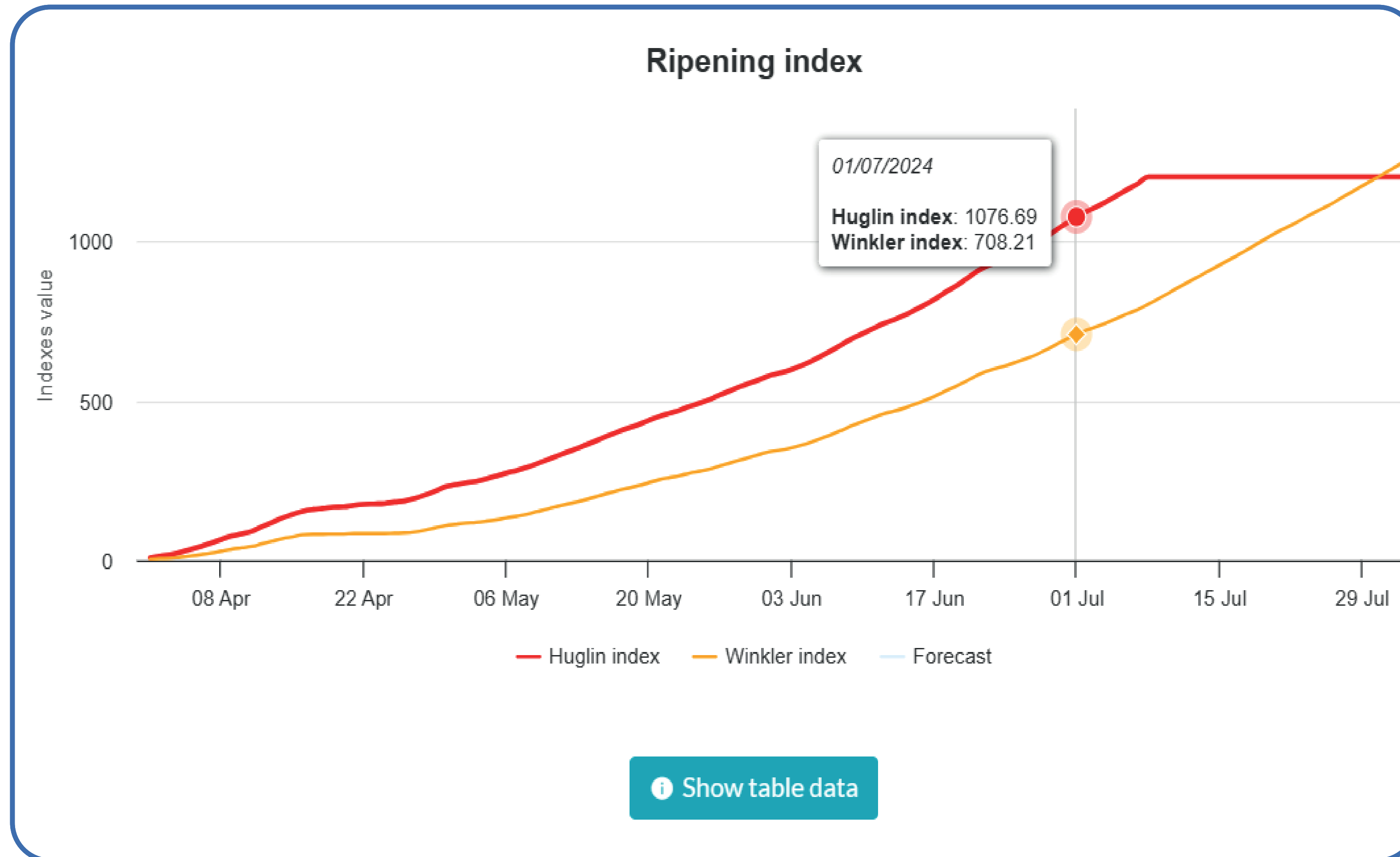




PESTS AND DISEASE MODELS



Prediction of infestation and diseases to assess the risk of pest (**Lobesia botrana**) and diseases (**Peronospora, Powdery mildew, Botrytis cinerea**) and act promptly.

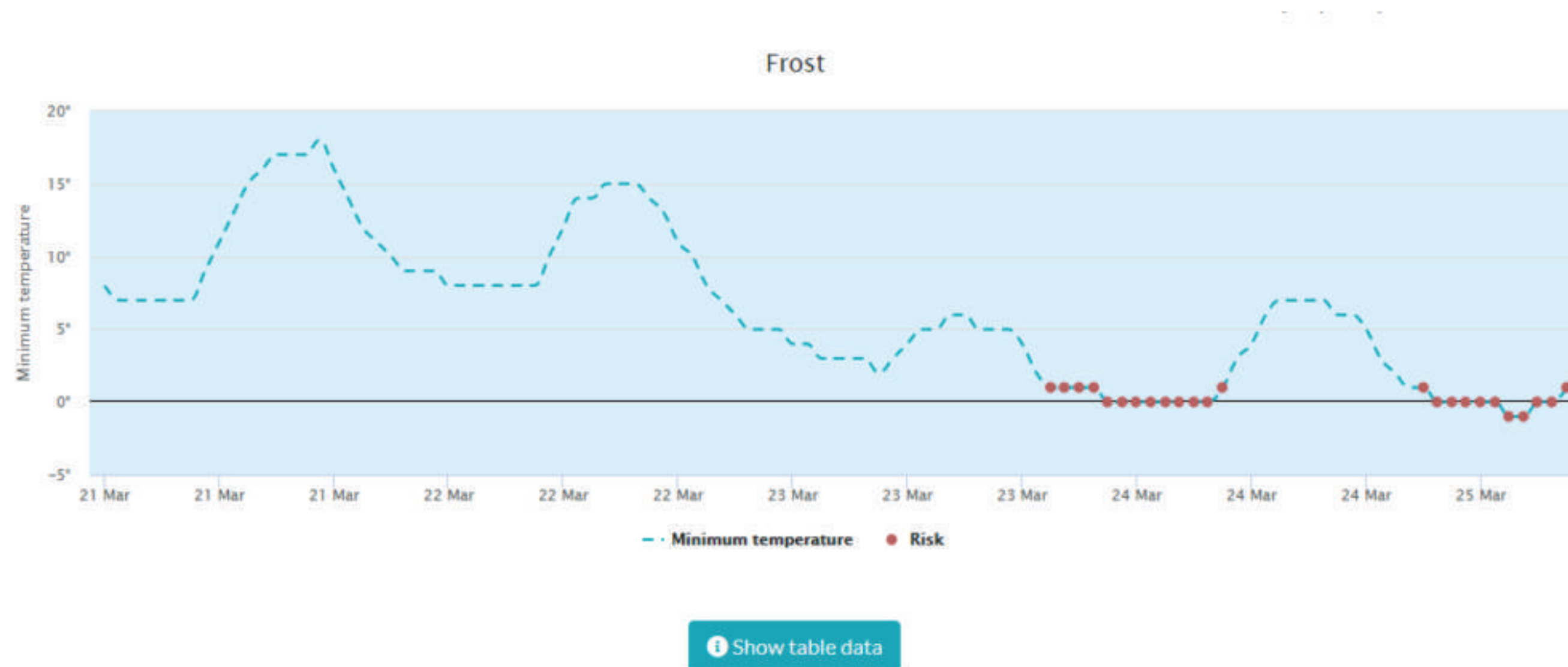


RIPENING FORECAST MODEL

Prediction of ripening to identify the best time for harvest and produce excellent wine.



FROST MODEL



Frost forecast to know in advance (**up to 7 days before**) the harmful climatic event and the type of risk.



YIELD AND QUALITY MONITORING

Bunches count, thinning estimate, potential alcohol calculation and ripening index.

Fields
1.piana chardonnay

Sample identifier
247-334-1

Select a point in the map

pH: 5,5

Total acidity: 7 g/l

Bαθμοι Brix: 22,82 °Brix

Babo degree: 19,4 °Kmw

Baume degree: 12,62 °Bé

Potential alcohol: 13,11 %

Ripening index: 3,26

Find address or place

1.piana chardonnay

Crop: Grape
Area: 2.26 ha
Last operation: Dec 17, 2024
Operation: Treatments
Product: cobre nordox 50 - Quantity: 2263.9 unit

Edit

QUANTITY ESTIMATION

Sample identifier: G#176-329-1 Sample date: Jun 24, 2024

Number of	766.67 ^g	0%	14t/ha	Yes	4
Bunch weight		Weight	Expected yield	Suggested	Bunches to

Field: 2.sangiovese collina Grape

Find address or place

Maxar, Microsoft | Esri Community Maps Contributors, Esri, TomTom, Garmin, Foursquare

Lot code: J12756



Landing page

<https://web.agricolus.com>



[Visit page](#)



The QR code on the mask will allow easy access to the web page dedicated to the product traceability. In this way, all detailed product information can be consulted with great convenience



PRODUCTION LOTS

Create and assign to each crop its own production lot to improve **traceability** of operations. A **QR code** is also generated that allows you to access and share the dedicated web page where you can consult all the information on the product.

Features



WORK



TASK MANAGEMENT

Create and assign to your collaborators the activities to be carried out in the farm **in real time**.



MACHINERY

Register your agricultural machinery, any problems and maintenance carried out. You can also connect them to Agricolus by using **Agrirouter**.



CROP OPERATIONS

Register where, how and when crop operations such as irrigation, treatments and fertilization have been carried out.

The screenshot displays the Agricolus interface for crop operations. It features a list of treatments on the left and a map view on the right. The list includes details for three treatments:

Fungicide	Product type	Active Ingredient	Quantity of	Target
ANDROMEDA	Commercial	Eugenolo 3.2% (33 g/l); Geraniolo 6.4% (66 g/l); Timolo 6.4% (66 g/l)	70 qty/ha	Powdery mildew Gray mold
BORDOFLOW	Commercial	Rame - solfato di rame neutralizzato 10% (124 g/l)	100 qty/ha	Downy mildew
ACTILEAF	Commercial	Cerevisane 94.1% (0 g/l)	100 qty/ha	Downy mildew Powdery mildew

The map view shows a satellite image of a vineyard with a legend at the bottom. The legend includes categories: Missing data, Older, from 3 to 4 weeks ago, from 2 to 3 weeks ago, from 1 to 2 weeks ago, and Last.

Features

Field: 2.sangiovese collina | Layer: GNDVI

2024 | Nov 3, 2024 | Nov 8, 2024 | Nov 10, 2024 | Nov 15, 2024 | Nov 18, 2024 | No

Fertilizer name: xxx | Nutrient %: 46 %

Number of Zones (max: 5): 3 | Calculation mode: Average - inverse

Avg nutrient: 100 kg/ha | Variation from avg: 20 %

Zones	Area	Avg nutrient
Zone -2	0.83 ha	80,18 kg/ha
Zone 0	2.01 ha	100,22 kg/ha
Zone 1	1.56 ha	110,24 kg/ha
Total fertilizer	439.84	kg
Total area	4.4	ha
Avg nutrient	100	kg/ha

Use with machinery

Choose machinery



PRESCRIPTION MAPS

Choose the most suitable vegetation index to develop the prescription map and carry out variable rate fertilization.

Features



DECISION SUPPORT

Provides information on the interventions to be carried out on the basis of the data collected.



ALERTS ON VINEYARD PROTECTION MODELS

FORECAST OF PESTS AND DISEASES OF PLANTS AND INSECTS

5 Adults

European grapevine moth European grapevine moth

No risk

100% Presence
46% Intensity of damage



next 12 hours forecasting



12 HOUR WEATHER FORECAST



ESTIMATION OF FRUIT RIPENING

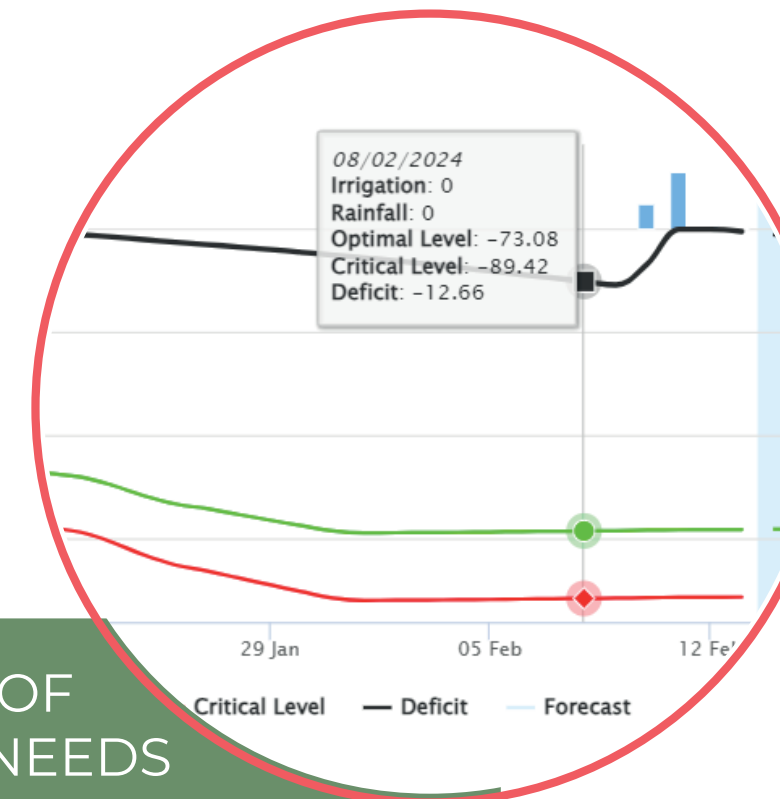
0 Huglin

0 Winkler

ripening

0mm

idro requirements



ESTIMATION OF IRRIGATION NEEDS FROM THE FORECASTING MODEL

High risk
The development conditions are very favorable, evaluate whether to carry out a field treatment
Grape Powdery mildew

High risk
Use psychotropic and systemic
Grapevine downy mildew

First leaf unfolded and spread away from shoot (BBCH 11)



FIELD REPORTS ENTERED BY THE USER AND INTEGRATED INTO THE PHENOLOGICAL FORECAST MODEL

RISK LEVEL LEGEND

High risk
Alert level



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