



# TOMATO DSS

Defense and monitoring for tomato

Why choose

TOMATODSS



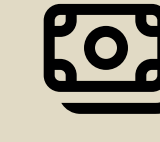
### **Increase**

the quality and quantity  
of tomato



### **Monitor**

the state of the fields,  
even remotely



### **Reduce**

management costs



### **Defend**

in advance from pests  
and diseases



### **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..

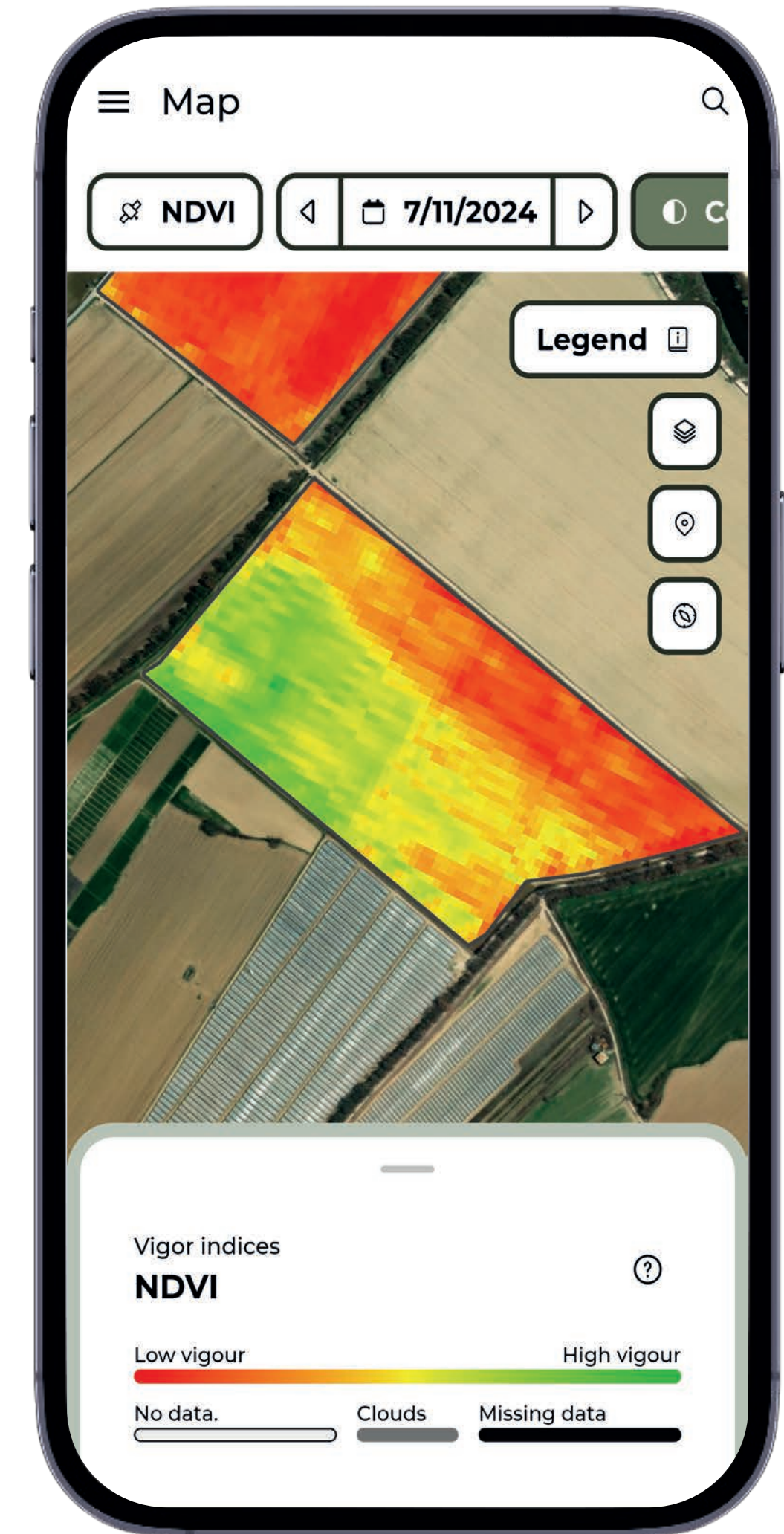
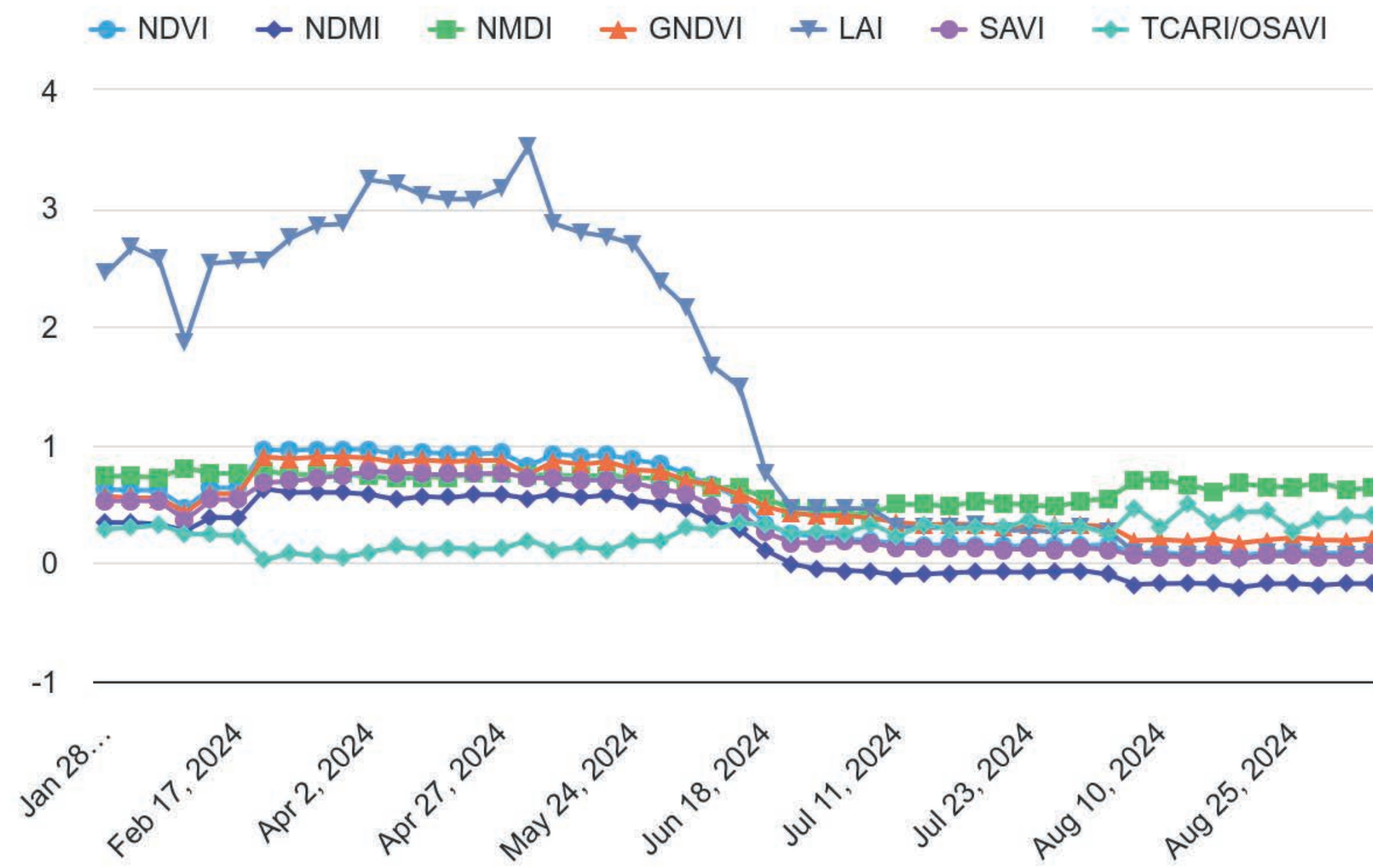
✓ Select





## SATELLITE IMAGERY

Consult Sentinel-2 satellite images of the field with vigor, water stress and chlorophyll indices to assess crop health and plan monitoring activities.



# 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 'CROP OPERATIONS' section of the Agricolus application. It features a list of operations for 'Tomato' crops, including harvesting, sowing/transplanting, and treatments. Each operation entry includes details such as the field name, reported date, and specific parameters like sowing/transplanting mode, inter row, total seedling or seeds, and expected harvesting date. A legend at the bottom indicates the status of the operations, with color-coded bars representing different stages: Missing data (grey), Older (blue), from 3 to 4 weeks (orange), from 2 to 3 weeks (yellow), from 1 to 2 weeks (green), and Last week (light green).

| Operation                        | Reported On             | Field      | Details  |
|----------------------------------|-------------------------|------------|--|
| Harvesting                       | Jul 31, 2024, 16:07     | Pomodoro 1 | Total harvesting: 70 (Type), 8.74 (Yield quantity (t/ha))  |
| Sowing or transplanting multiple | May 6, 2024 12:00 AM    | Pomodoro 1 | 2 Fields   |
| Sowing or transplanting          | May 6, 2024, 00:00:00   | Pomodoro 1 | 1 m X 0,3 m Inter row, 267116.6657586285 plants, Total seedling or seeds, Aug 29, 2024 Expected harvesting   |
| Sowing or transplanting          | May 6, 2024, 00:00:00   | Pomodoro 2 | 1 m X 0,3 m Inter row, 446329.9984827429 plants, Total seedling or seeds, Aug 29, 2024 Expected harvesting   |
| Treatments multiple              | June 10, 2024 3:23 PM   | Pomodoro 1 | 2 Fields   |
| Treatments                       | June 10, 2024, 15:23:31 | Pomodoro 1 | Fungicide: RIDOMIL GOLD R LIQUIDO, Metalaxil-m 1.85% (24 g/l); Rame - solfato tribasico di rame 15.4% (200 g/l), 4 qty/ha, Tomato late blight Target |

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.



## 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 <sup>3</sup>   |
| Average water consumption | 163.1 m <sup>3</sup> /ha |

### Fertilizer

# Features

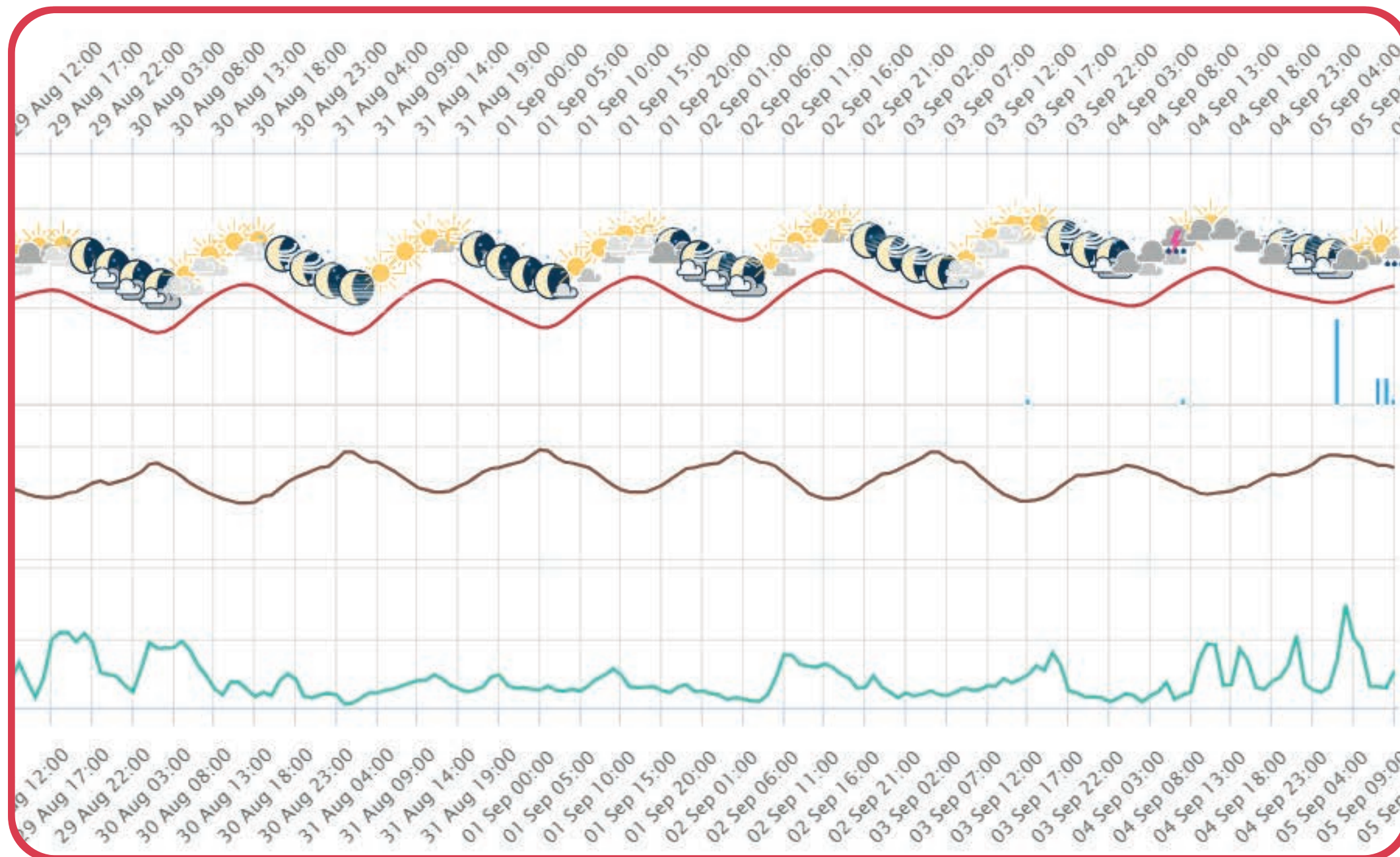


## WEATHER



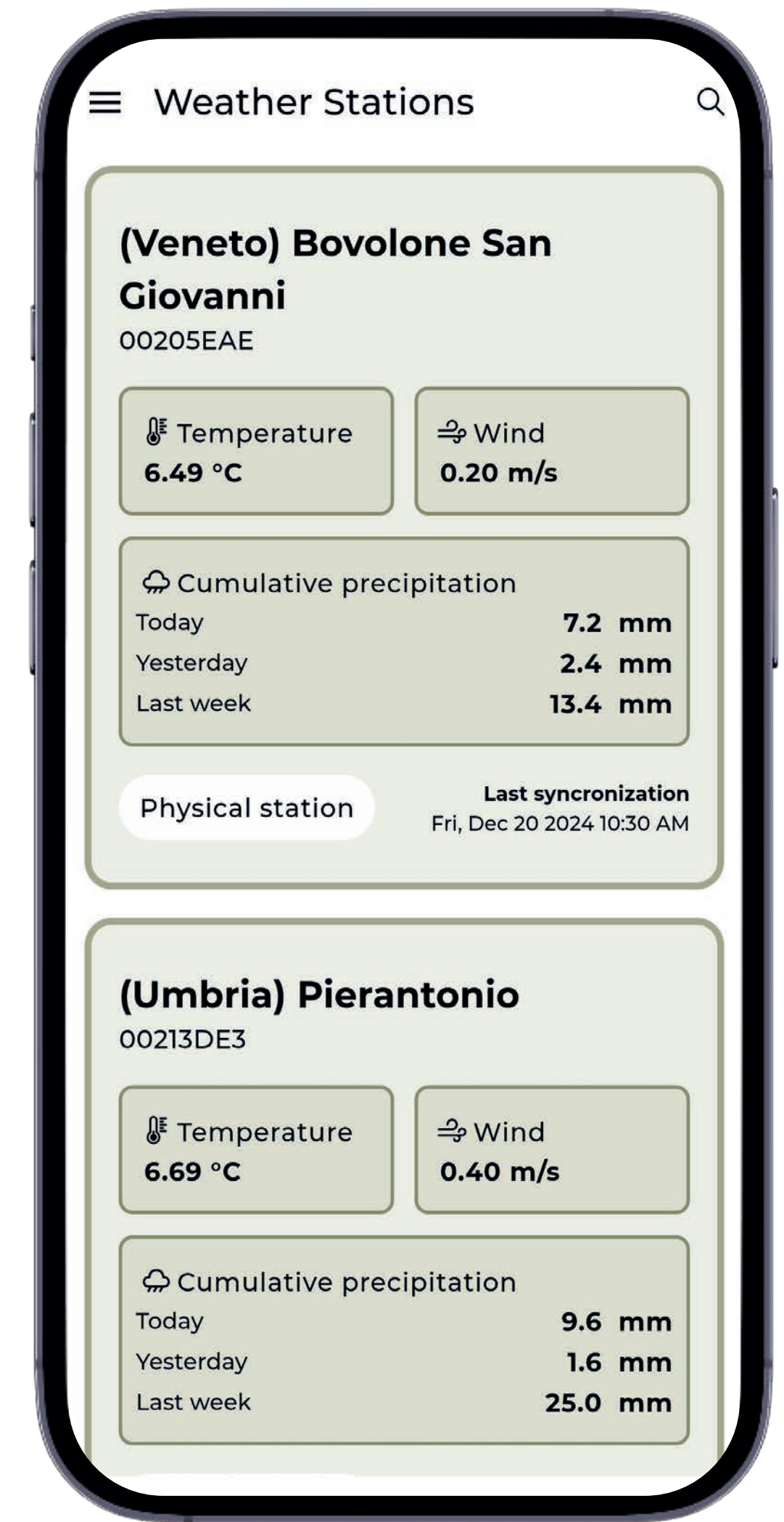
### WEATHER FORECASTS

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.







## FORECAST MODELS



## PHENOLOGY

Prediction of phenology to assess field needs in each development stage.



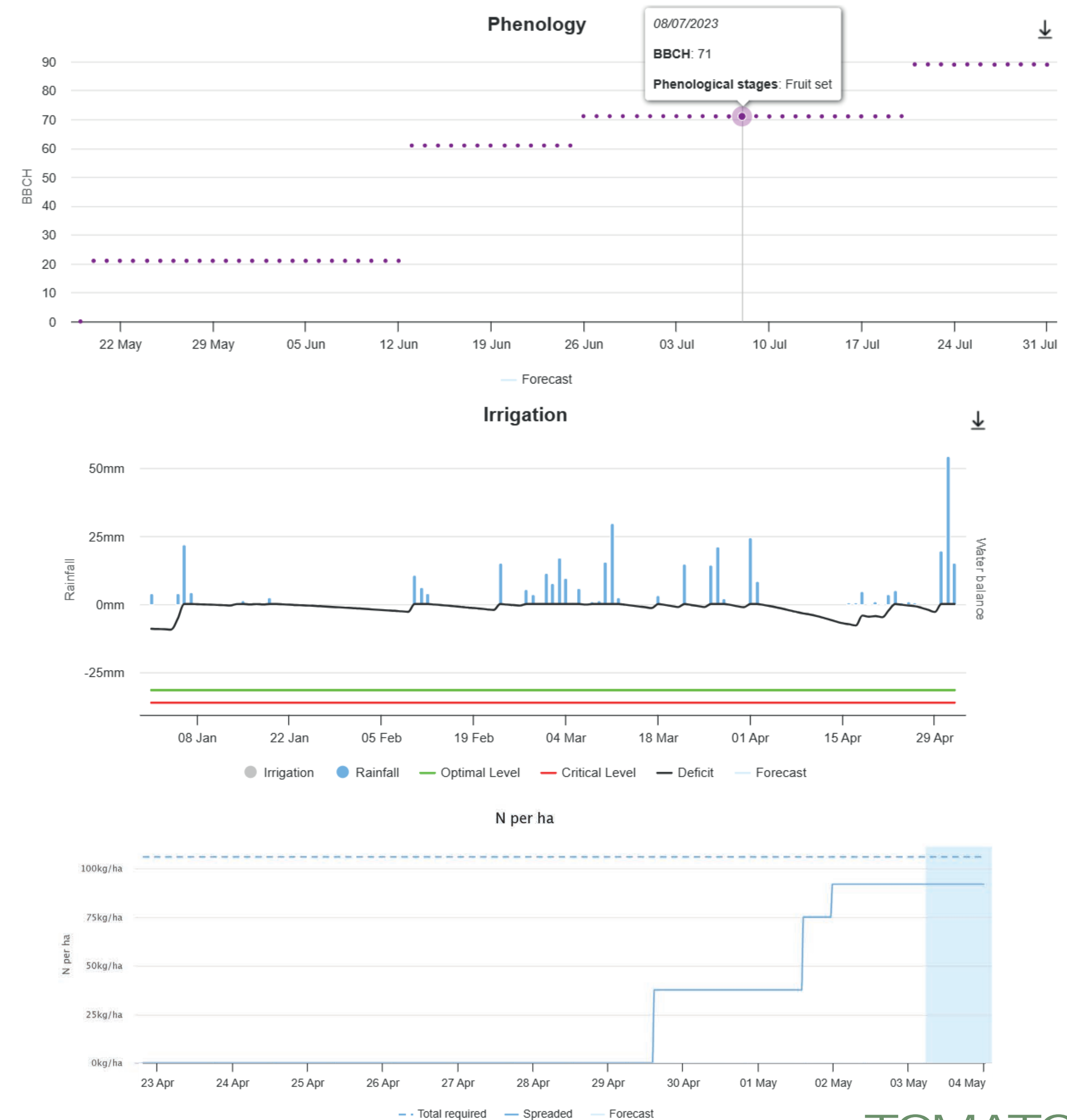
## IRRIGATION

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



## FERTILIZATION

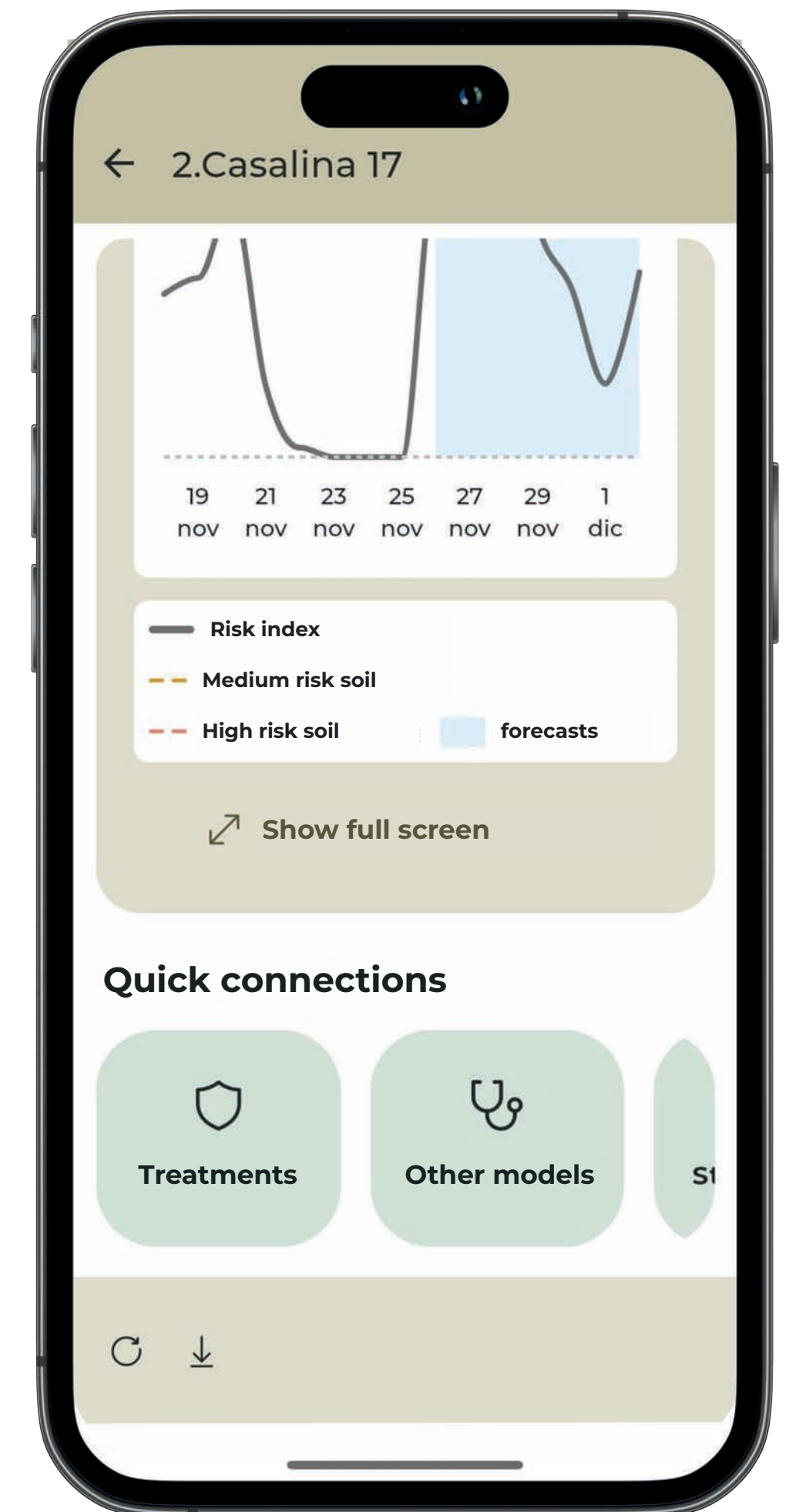
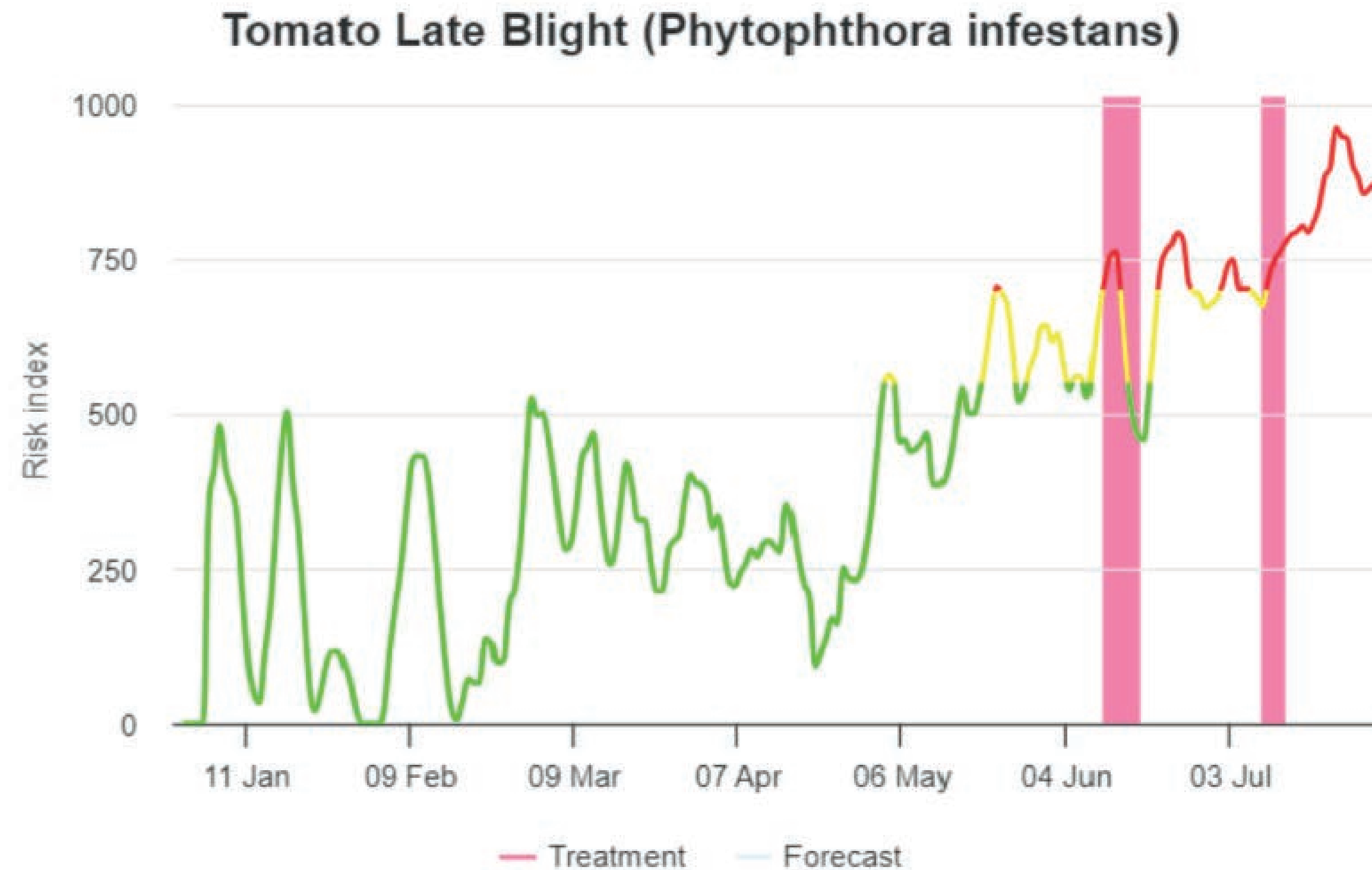
Calculation of the total requirement of nitrogen, phosphorus and potassium (Kg/ha) required throughout the production cycle.





## PESTS AND DISEASES MODEL

Prediction of the risk of phytopathies (**Tomato Downy mildew**) and pests (**Tuta absoluta** and **Helicoverpa armigera**) in order to carry out an effective defense.



# Features



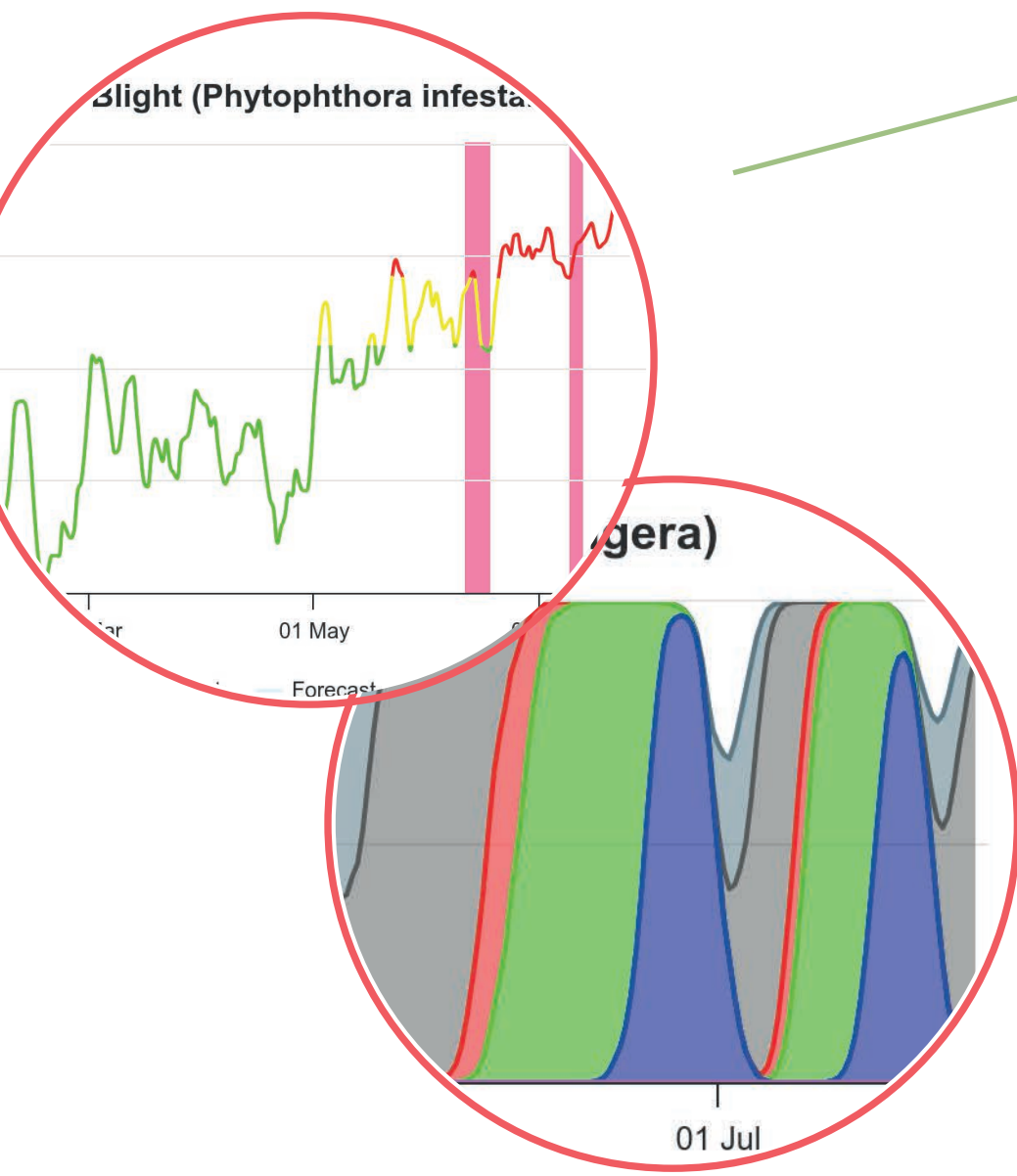
## DECISION SUPPORT

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



ALERTS FOR DEFENSE MODELS OF TOMATO

FORECAST OF PESTS, DISEASES AND INSECTS



100% Presence  
18.00% Intensity of damage  
Insect

0% Presence  
55.00% Intensity of damage  
Fungus

100% Presence  
57.00% Intensity of damage  
Bacterium

No risk  
Check for the presence of adults  
*Helicoverpa armigera*



forecast for the next 12 hours

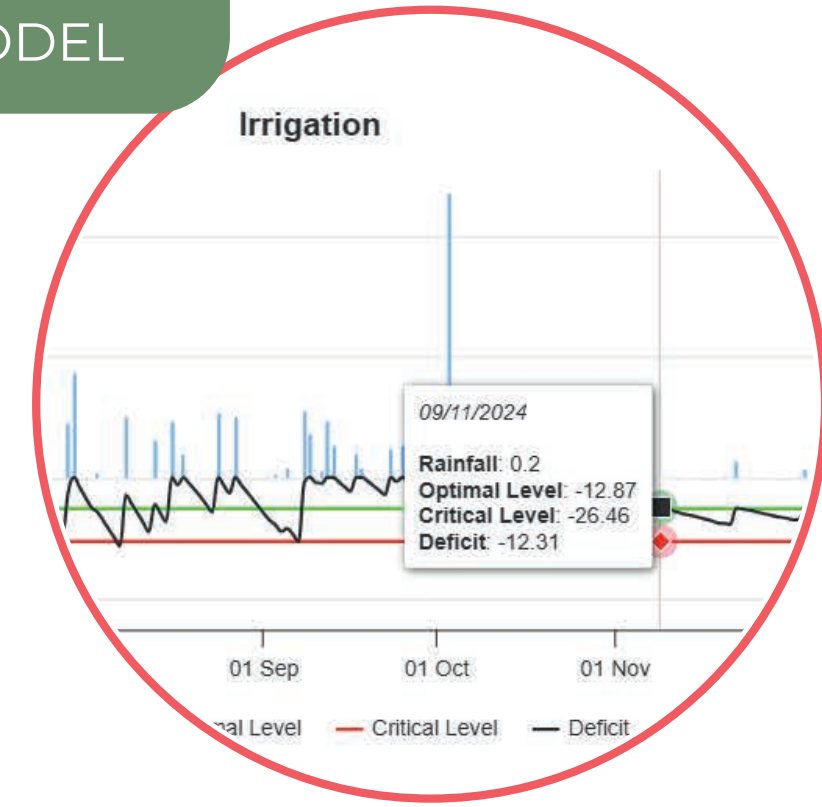


12 HOUR WEATHER FORECAST



ESTIMATION OF IRRIGATION NEEDS FROM THE FORECAST MODEL

28.01 mm  
water requirement



RISK LEVEL LEGEND



Fruit set (BBCH 71)

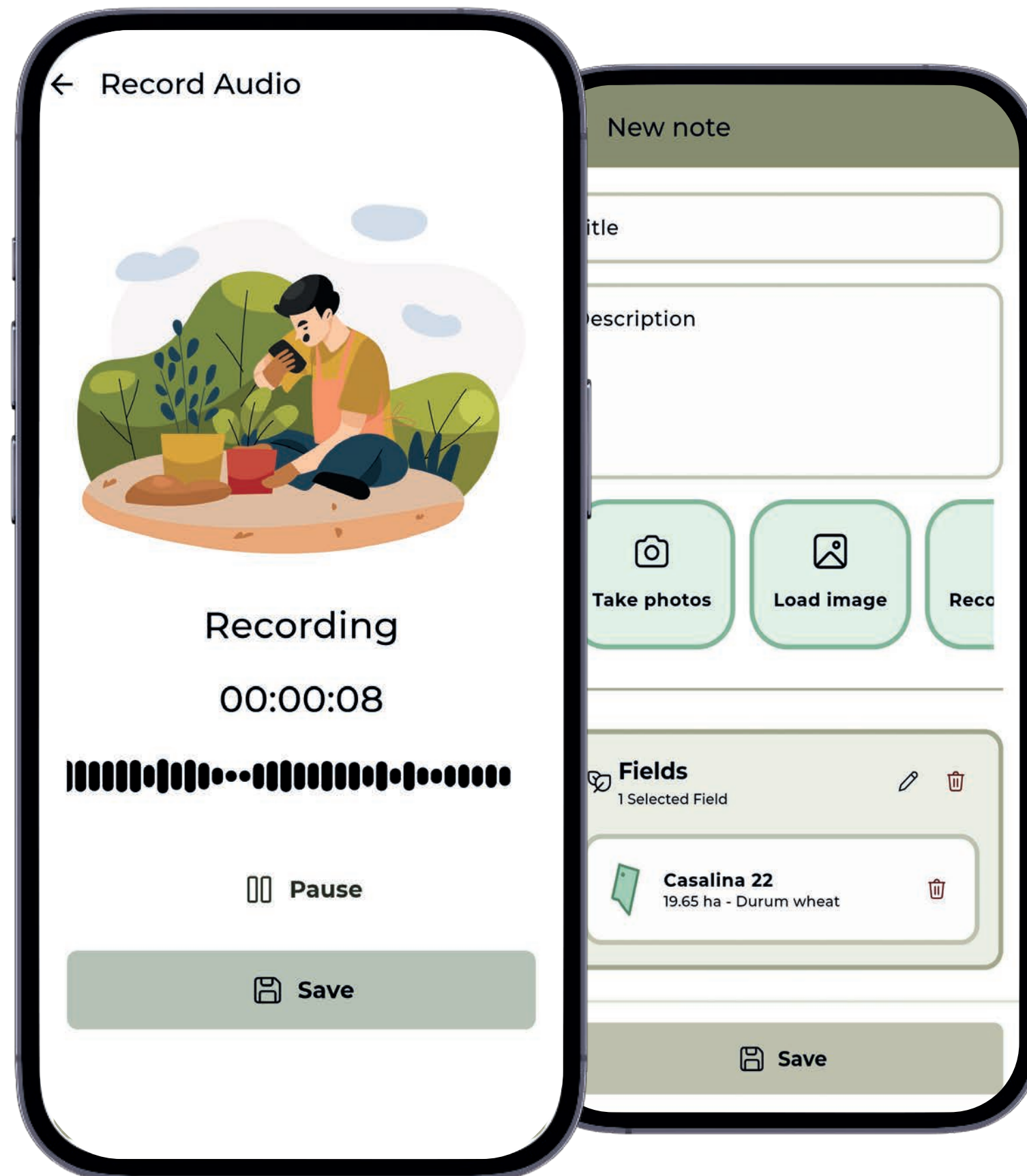


FIELD SURVEYS ENTERED BY THE USER AND INTEGRATED INTO THE PHENOLOGY FORECASTING MODEL



## 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

# Features

The screenshot displays the TOMATO DSS interface. On the left is a control panel with various input fields and a summary table. On the right is a map showing a field with a prescription map overlaid, color-coded by nutrient levels. A date navigation bar at the top shows dates from Aug 31, 2022 to Sep 15, 2022.

**Control Panel:**

- Fertilizer name: NOVA SOP 0-0-52
- Nutrient %: 52 %
- Number of Zones (max: 11): 4
- Calculation mode: Min - Max
- Min nutrient: 80 kg/ha
- Max nutrient: 150 kg/ha

| Zones                   | Area           | Avg nutrient |
|-------------------------|----------------|--------------|
| Zone -1                 | 2.65 ha        | 80 kg/ha     |
| Zone 0                  | 9.27 ha        | 103 kg/ha    |
| Zone 1                  | 0.76 ha        | 127 kg/ha    |
| Zone 2                  | 0.71 ha        | 150 kg/ha    |
| <b>Total fertilizer</b> | <b>2633.85</b> | <b>kg</b>    |
| <b>Total area</b>       | <b>13.39</b>   | <b>ha</b>    |
| <b>Avg nutrient</b>     | <b>102.29</b>  | <b>kg/ha</b> |

**Map:** An aerial view of a field with a prescription map overlaid. The map is color-coded from purple (low nutrient) to yellow (high nutrient). A red box highlights a specific area on the map, labeled 'NDVI'.



## PRESCRIPTION MAPS

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



TOMATO  DSS

Agricolus s.r.l.

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