



GRAINDSS

Agronomic monitoring of winter cereals

Why choose

GRAINDSS 



Increase

yield and quality of
barley and wheat



Monitor

crops health, even remotely



Reduce

management costs



Defend

in advance from plant
diseases



Optimize

the use of inputs
(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..

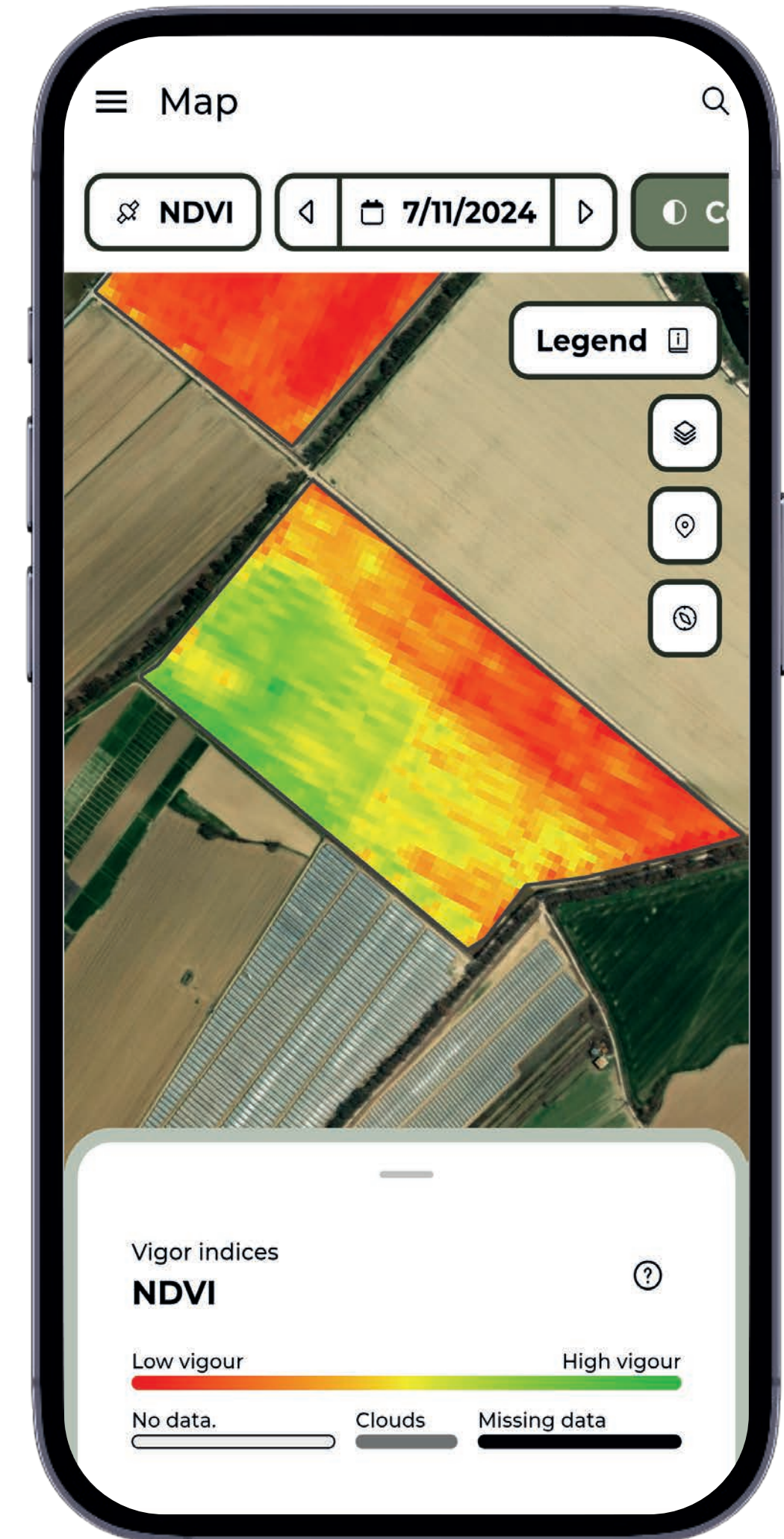
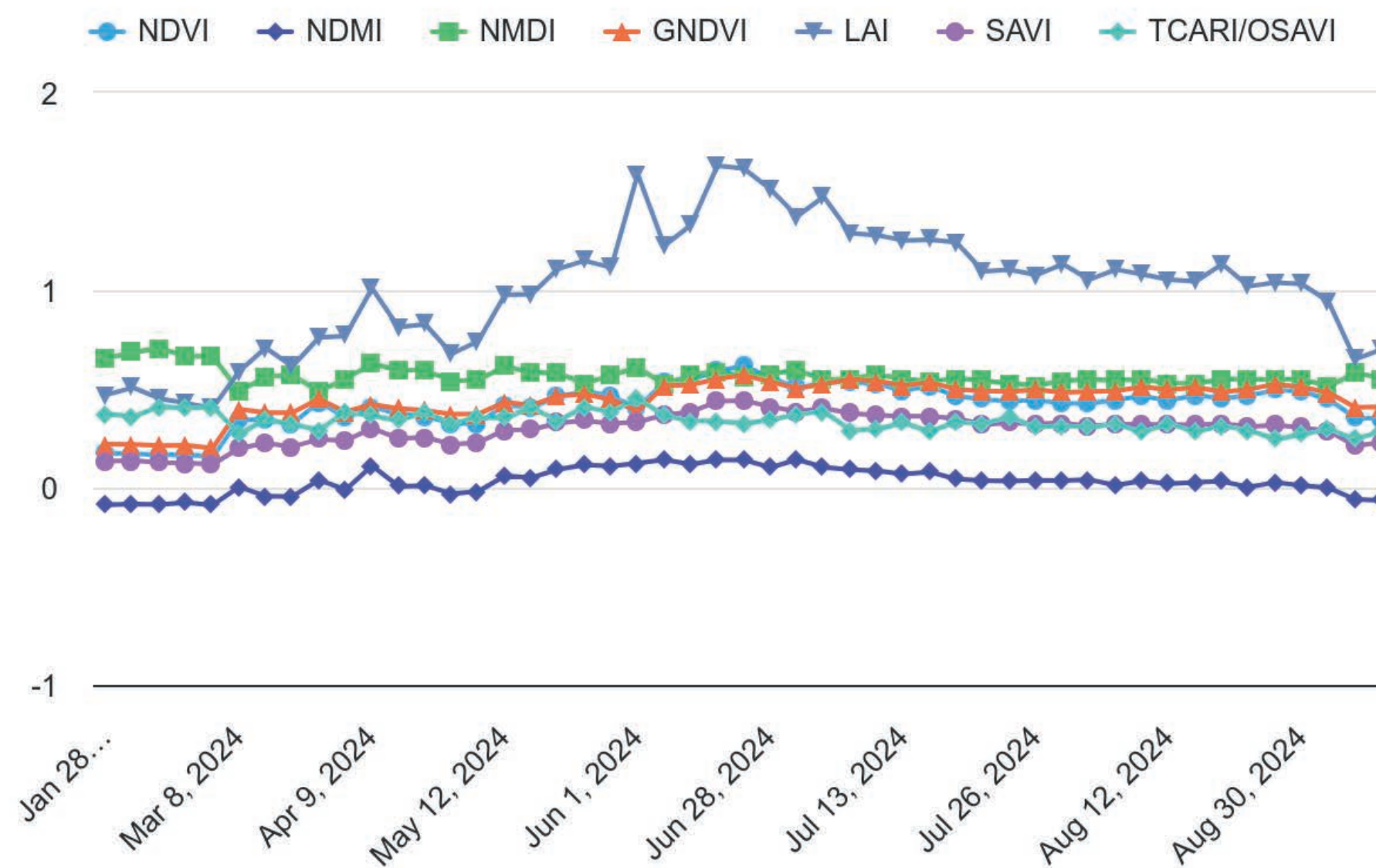
✓ Select





SATELLITE IMAGERY

Consult Sentinel-2 satellite images of the field with igor, water stress and chlorophyll indices to assess the health status of barley and wheat 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' interface for 'Azienda 1' and 'Common wheat'. It shows a list of operations with the following details:

Operation	Reported On	Fertiliser type	Quantity	N per ha	P ₂ O ₅ per ha	K ₂ O per ha
8-24-24 (Mineral)	Feb 17, 2023, 00:00:00	Mineral	4935.12 kg	32 kg/ha	96 kg/ha	96 kg/ha
nitrate ammonico (Mineral)	Apr 4, 2023, 00:00:00	Mineral	2220.8 kg	48.6 kg/ha	0 kg/ha	0 kg/ha
Urea (Mineral)	May 29, 2023, 00:00:00	Mineral	1603.91 kg	59.8 kg/ha	0 kg/ha	0 kg/ha
Fungicide	May 10, 2023, 00:00:00	AMISTAR	Azoxystrobin 23.2% (250 g/l)	1 qty/ha	Powdery mildew	Powdery mildew

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 

Fertilizer ENVIRONMENTAL ⓘ

Total fertilizer use

Indicator	Value	Target	Status
Use of total nitrogen (N)	2682.87 kg		∨
Use of total phosphorus (P)	0 kg		∨
Use of total potassium (K)	0 kg		∨

efficiency of use of fertilizers

Indicator	Value	Target	Status
nitrogen use efficiency (N)	0.34 kg/t		∨
phosphorus use efficiency (P)	0 kg/t		∨
potassium use efficiency (K)	0 kg/t		∨

Average fertilizer use

Indicator	Value	Target	Status
average use of nitrogen (N)	46.47 kg/ha		∨
Average use of phosphorus (P)	0 kg/ha		∨
Average use of potassium (K)	0 kg/ha		∨



FORECAST MODELS



PHENOLOGY

Previsión fenológica para evaluar las necesidades del campo en cada etapa de desarrollo.



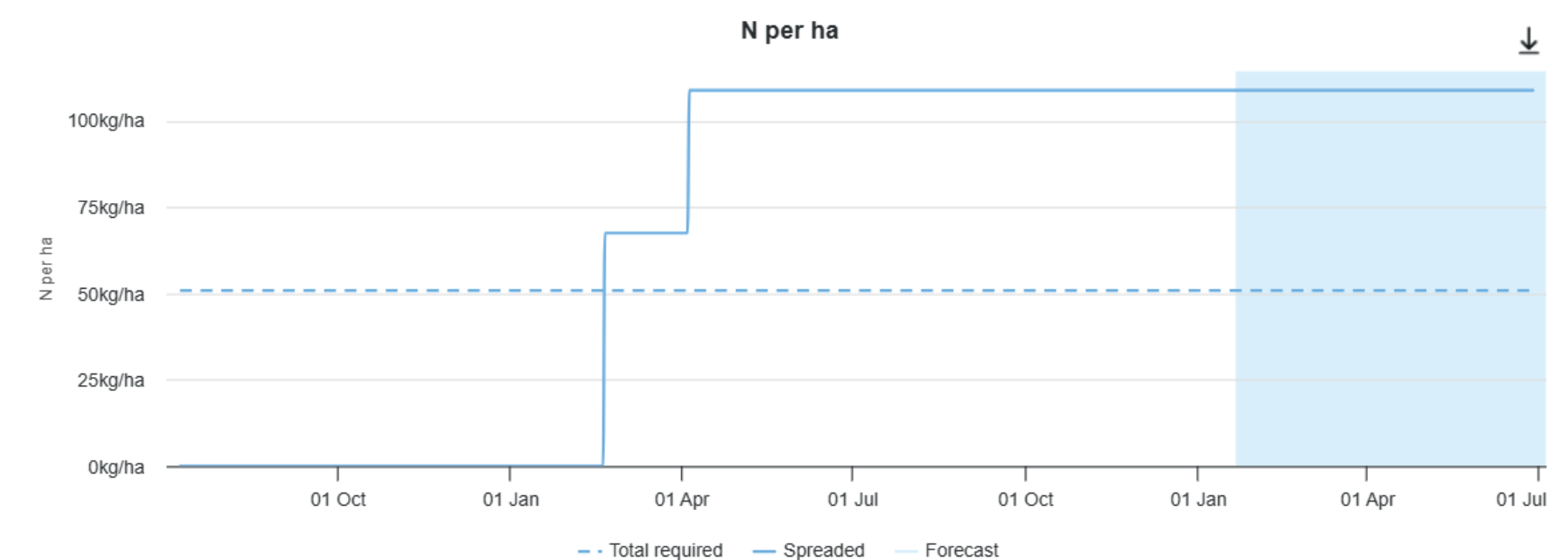
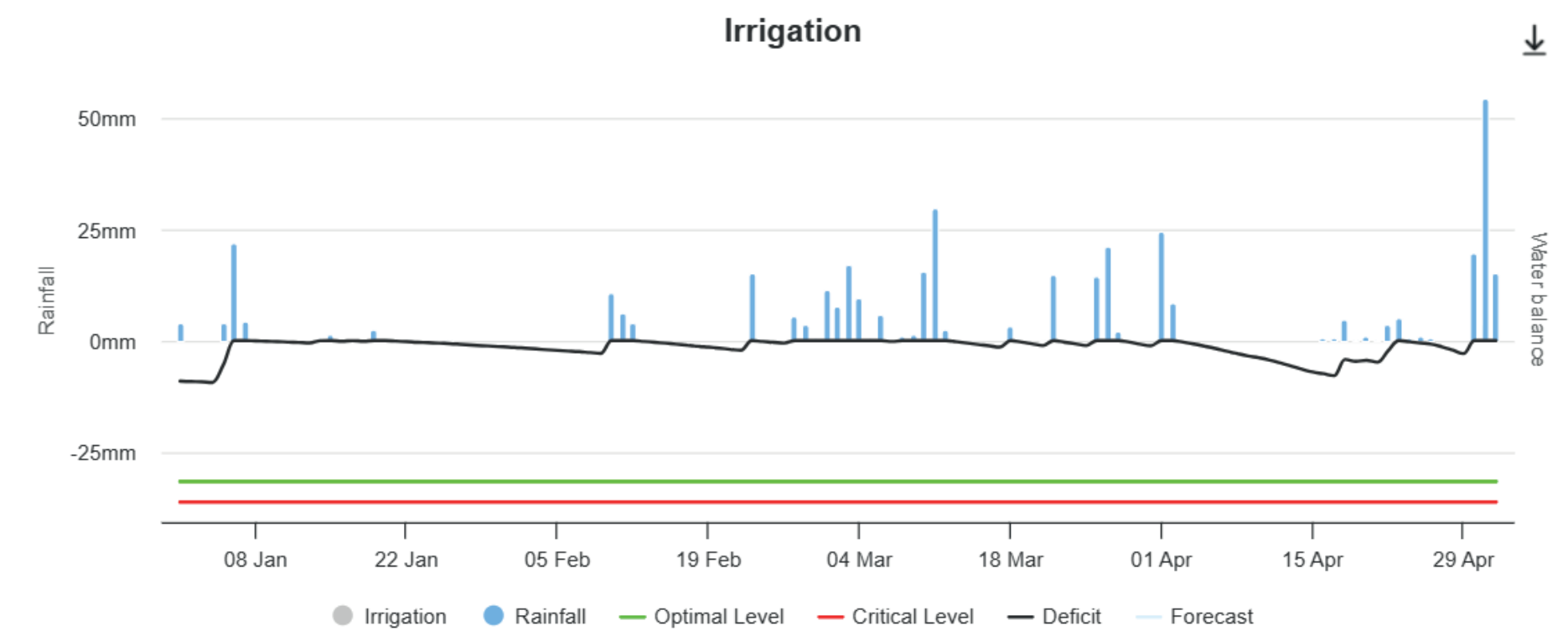
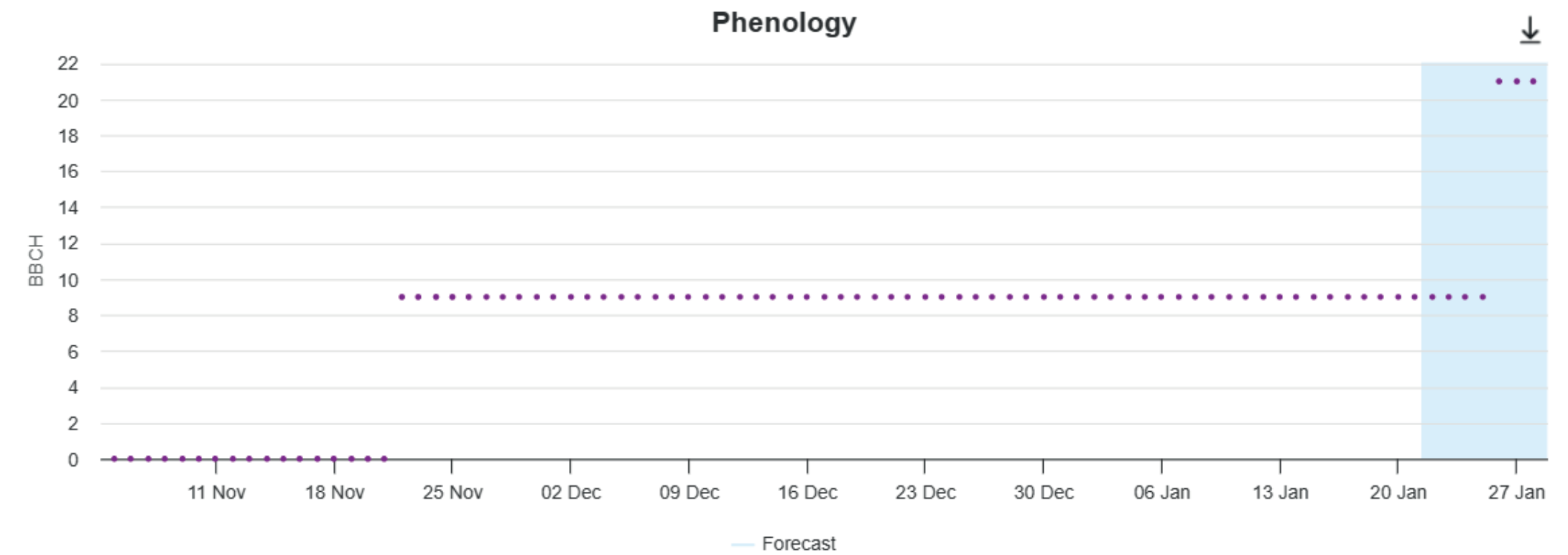
IRRIGATION

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



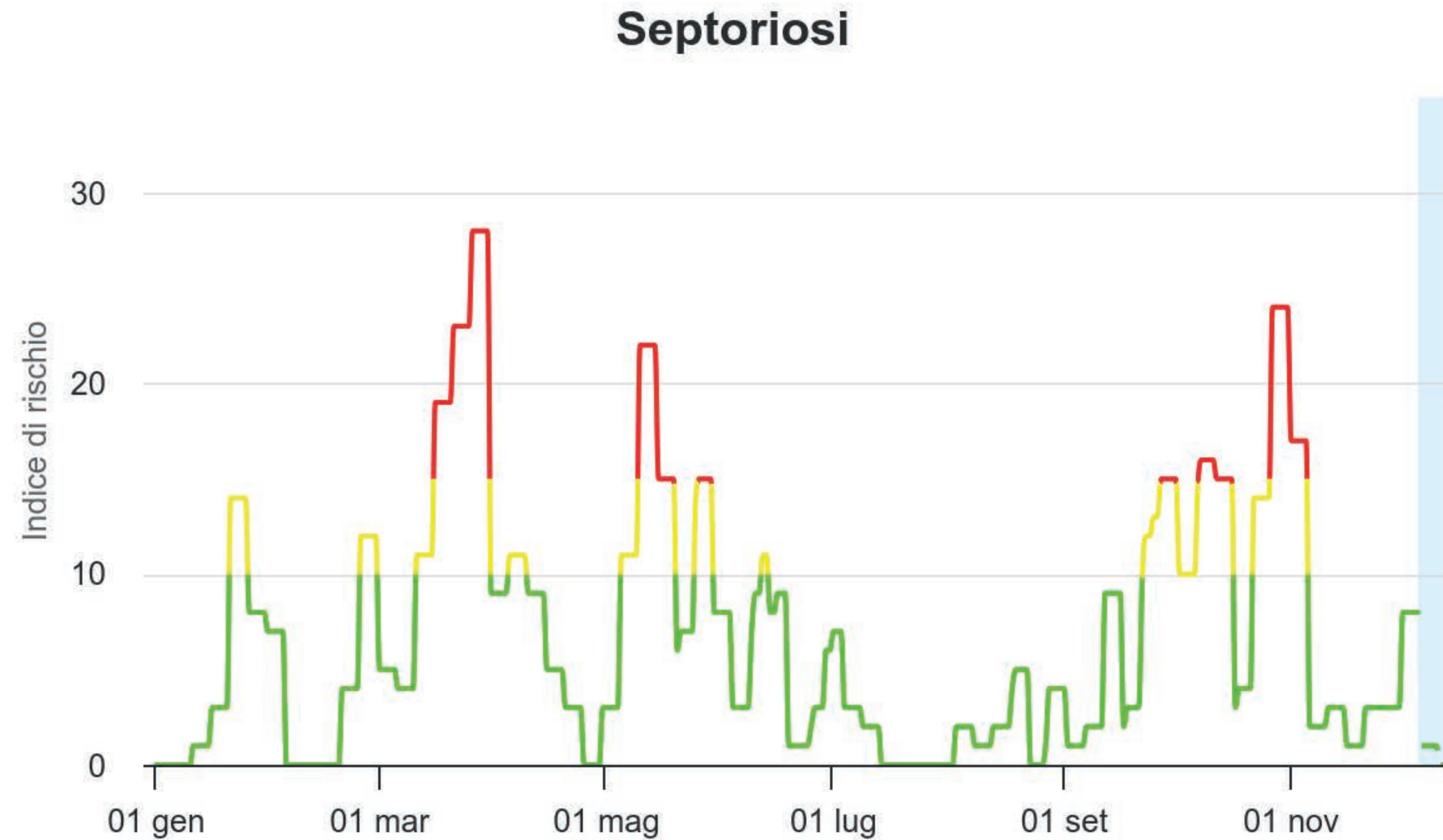
FERTILIZATION

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





DISEASES MODELS



Prediction of **Fusarium**, **Septoria Sacc.**, **Puccinia Striformis** development to estimate the probability of daily spread of the fungus and take timely action.

Features



DECISION SUPPORT

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



0% Presence
42.3% Intensity of damage
Fusarium

No risk
Septoria

No risk
No action required
Yellow Rust



forecast for the next 12 hours

12 HOUR WEATHER FORECAST

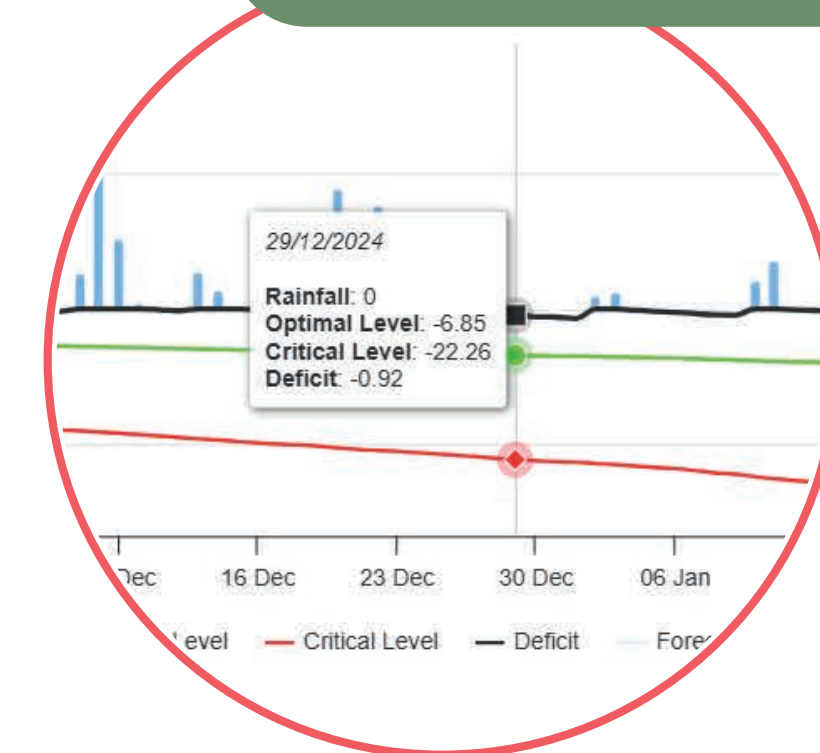
0.00 mm
water requirement

ESTIMATION OF IRRIGATION NEEDS FROM THE FORECAST MODEL

Maturation (BBHC 83)

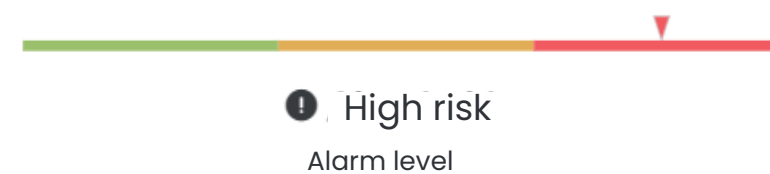


FIELD SURVEYS ENTERED BY THE USER AND INTEGRATED INTO THE PHENOLOGY FORECASTING MODEL



ALERTS FROM MODELS OF DEFENSE OF WINTER CEREALS
DISEASE FORECAST MODEL

RISK LEVEL LEGEND

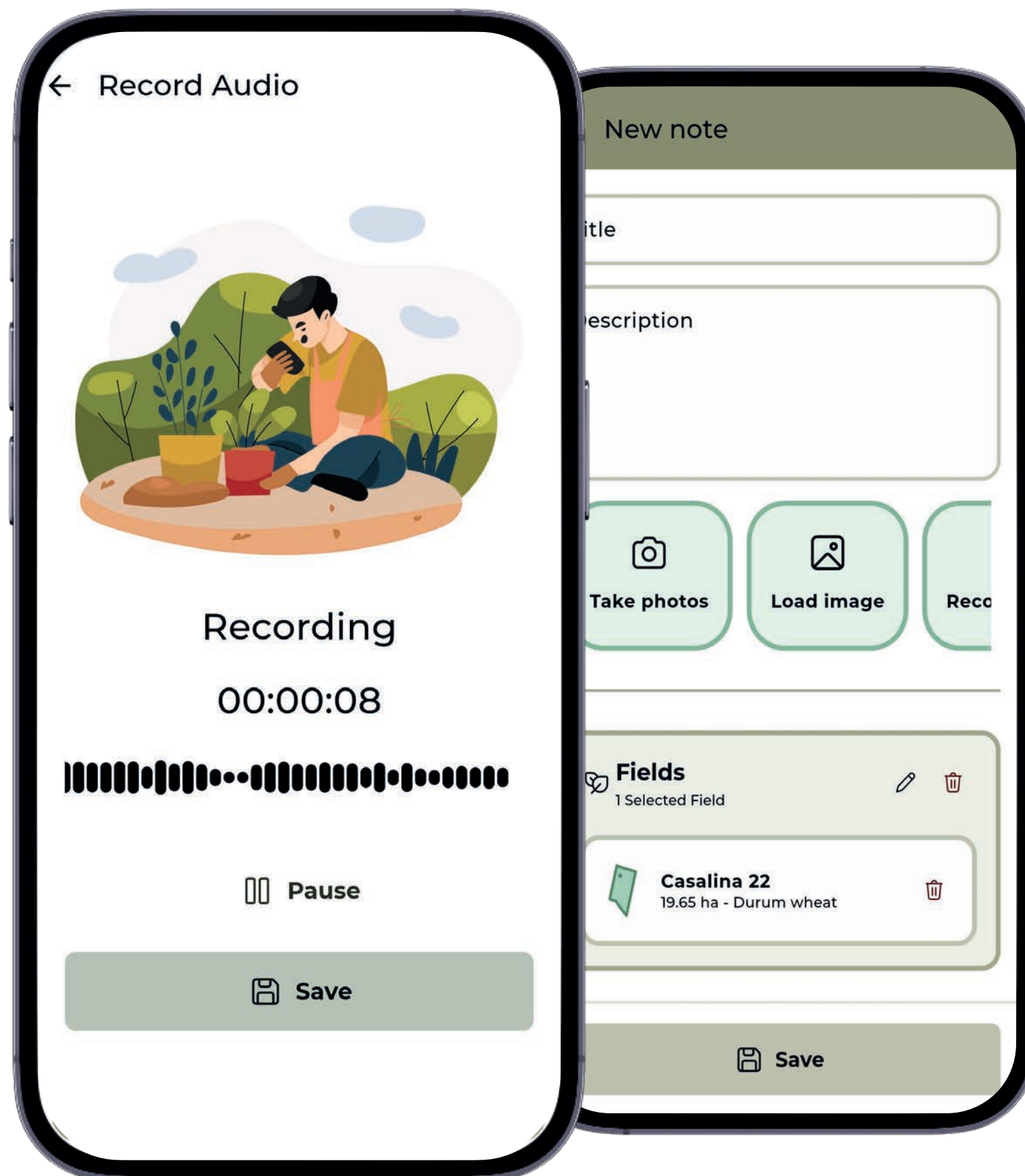


High risk
Alarm level



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

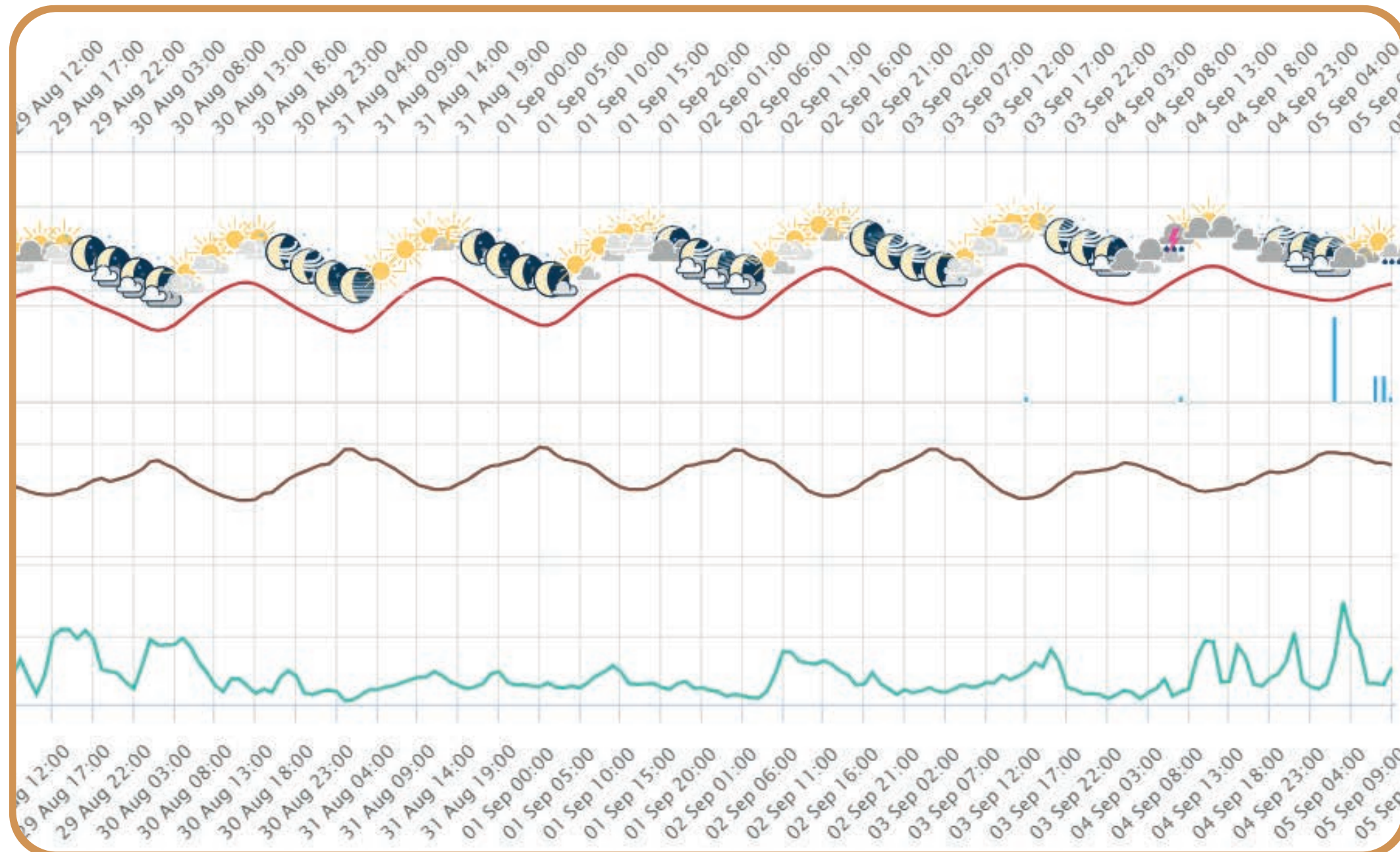


WEATHER



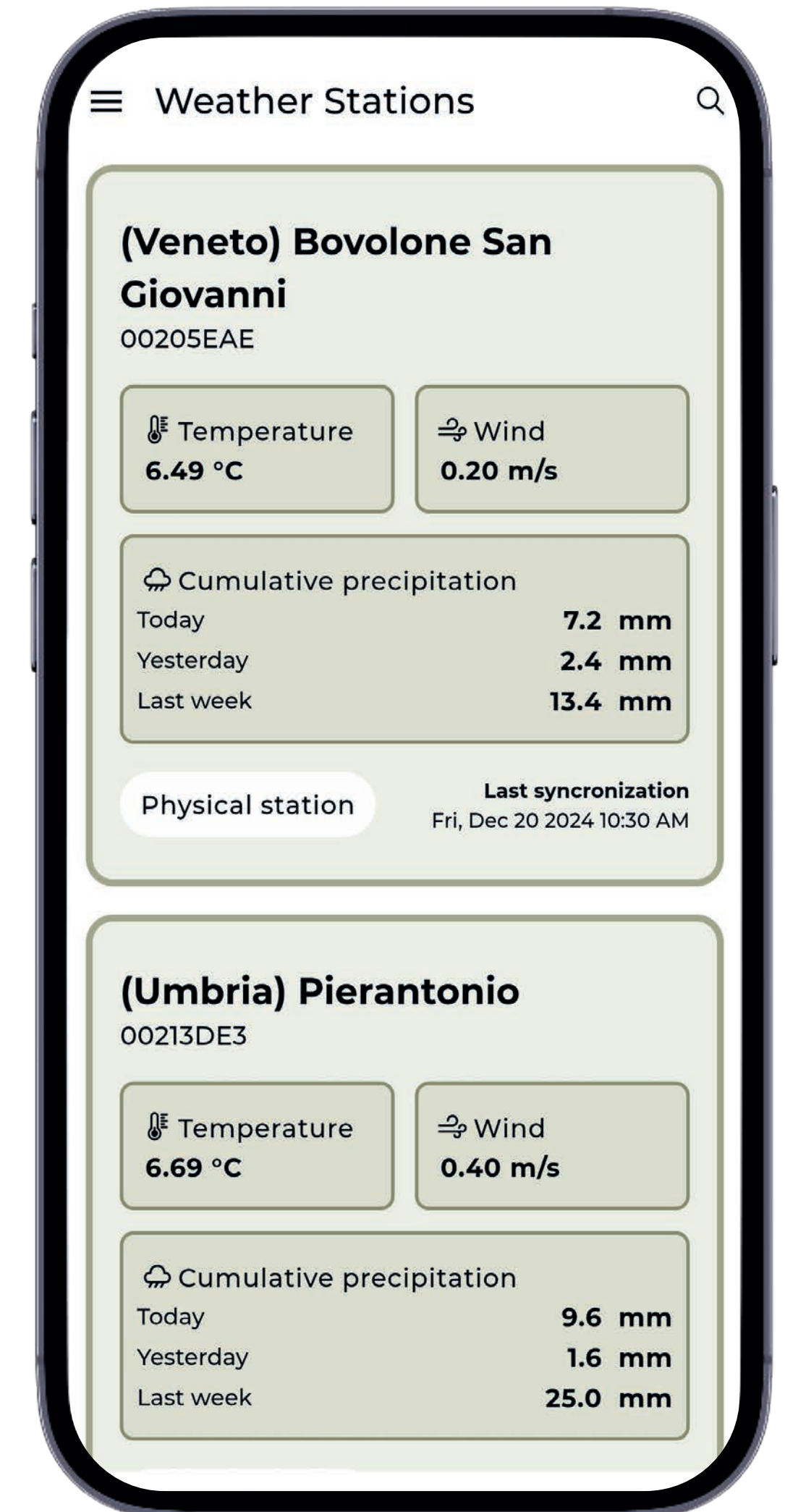
WEATHER FORECASTS

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.



Features

Number of Zones (max: 9) Calculation mode

Min nutrient kg/ha Max nutrient kg/ha

Zones	Area	Avg nutrient
Zone -1	7.23 ha	50 kg/ha
Zone 0	7.4 ha	100 kg/ha
Zone 1	5.09 ha	150 kg/ha
Total fertilizer	1864.46	kg
Total area	19.71	ha
Avg nutrient	94.57	kg/ha



PRESCRIPTION MAPS

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



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