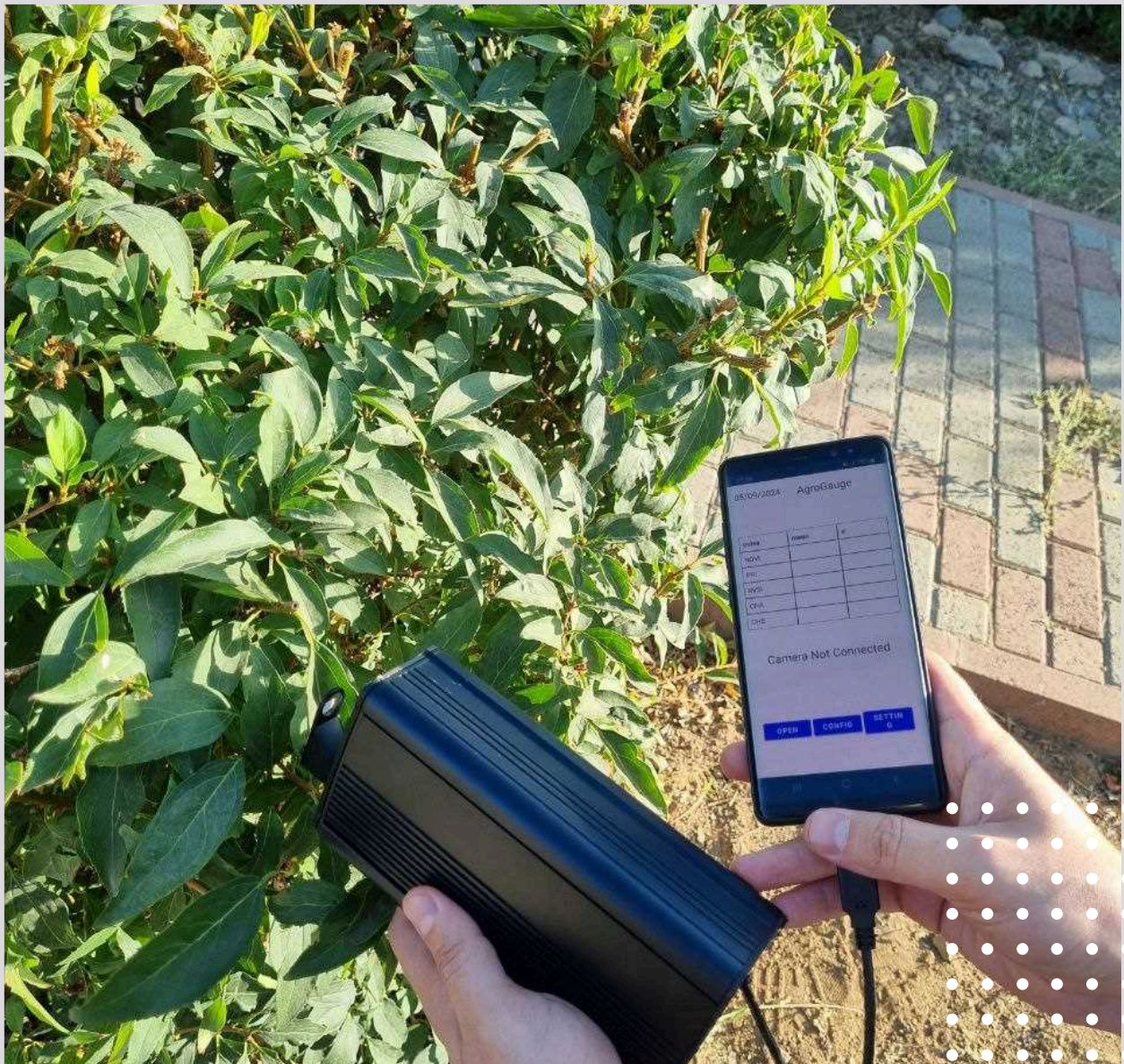


# Handheld Hyperspectral Imager

## AgroGauge

Agro Activity Sensor



# Introducing AgroGauge



Are you looking for an efficient way to measure the biological and physiological characteristics of plants? Look no further! Our cutting-edge device is designed to accurately measure plant properties based on their reflectance spectrum.

## Vegetation Indices:

### A Comprehensive Approach

Traditionally, vegetation properties have been assessed using vegetation indices (VIs). AgroGauge is developed for measuring narrow-band vegetation indices. A wide spectral range from 400 nm up to 1000 nm with a spectral resolution of 2.5 nm, allowing it to measure most indices derived from the reflectance spectrum.



**AgroGauge** is a portable device designed for measuring plant health parameters using spectral reflectance.



## Features:

- ▲ Compact and portable design for easy use in the field
- ▲ Utilizes spectral reflectance to calculate various physiological and biochemical parameters of plants
- ▲ Connects to a mobile device for easy data display and storage via a mobile app
- ▲ No separate power source required, as it can be powered through the mobile device
- ▲ Provides real-time measurements for immediate analysis and decision making



- ▲ Can be used for a wide range of plant species and environments
- ▲ Durable construction for use in various weather conditions
- ▲ Easy-to-use interface for quick and efficient data collection
- ▲ Provides accurate and reliable results for improved plant health management
- ▲ Can be integrated with other plant health monitoring systems for comprehensive analysis and management

AgroGauge enables the measurement of vegetation properties across two main categories: biochemistry and plant physiology.



### **A) Biochemical Properties**

Biochemical properties, including water content, pigments (chlorophyll, carotenoids, anthocyanins), nitrogen-rich compounds (proteins), and plant structural materials (lignin and cellulose), can be assessed using our device. These measurements offer valuable information about plant metabolism and nutrient content.

### **B) Physiological and Stress Indices**

AgroGauge also allows for the measurement of physiological and stress-related indices. By analyzing stress-induced changes in xanthophyll cycle pigments, chlorophyll content, fluorescence, or leaf moisture, it provides valuable insights into plant stress levels and overall physiological health.



# Agro Activity Sensor



The Agro Activity Sensor is a compact and portable device designed for measuring plant health parameters using spectral reflectance. It utilizes advanced technology to calculate various physiological and biochemical parameters of plants. The device connects to a mobile device, allowing users to easily display and store data using a mobile app. The device is powered through the mobile device, eliminating the need for a separate power source. The light source is usually sunlight or halogen light in greenhouse conditions. With real-time measurements and accurate results, the Agro Activity Sensor is an essential tool for plant health management.





## Technical Specifications:

- Dimensions: 10cm x 5cm x 2cm
- Weight: 100g
- Accuracy:  $\pm 2\%$
- Battery Life: Up to 8 hours (Depends on mobile)
- Connectivity: USB Cable
- Compatible Operating Systems: Android
- Data Storage Capacity: More than 10,000 measurements (Depends on mobile storage)
- Measurement Parameters: More than 20 indices
- Light source: Sunlight or Halogen light

## Package Contents:

- Agro Activity Sensor
- USB Charging Cable
- User Manual
- Mobile App Download Instructions

## Warranty:

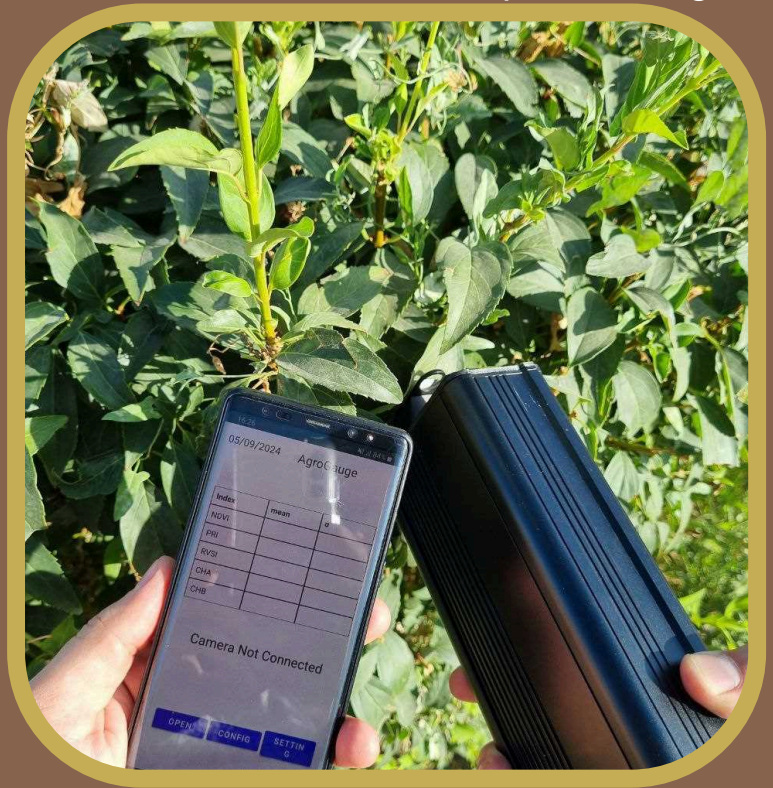
The Agro Activity Sensor comes with a one-year limited warranty.





## Features of the mobile app for AgroGauge:

1. **Dashboard:** The app displays a dashboard that provides an overview of the measured parameters and indices, including graphs and charts that show trends and changes over time.
2. **Data Storage:** The app securely stores all measured data in a database, allowing users to access and analyze the data in other softwares.
3. **Real-time Monitoring:** The app provides real-time monitoring capabilities, allowing users to view the measurements as they are being taken.



4. **Historical Data Analysis:** The app allows users to access and analyze previously recorded measurements, enabling them to identify trends and make informed decisions based on historical data.
5. **Customizable Parameters:** The app allows users to customize the parameters and indices that are being measured and displayed, catering to different plant species or specific research requirements.



6. Notifications and Alerts: The app sends notifications or alerts to users based on predefined thresholds or conditions, keeping them informed about any significant changes or abnormalities in the plant health parameters.

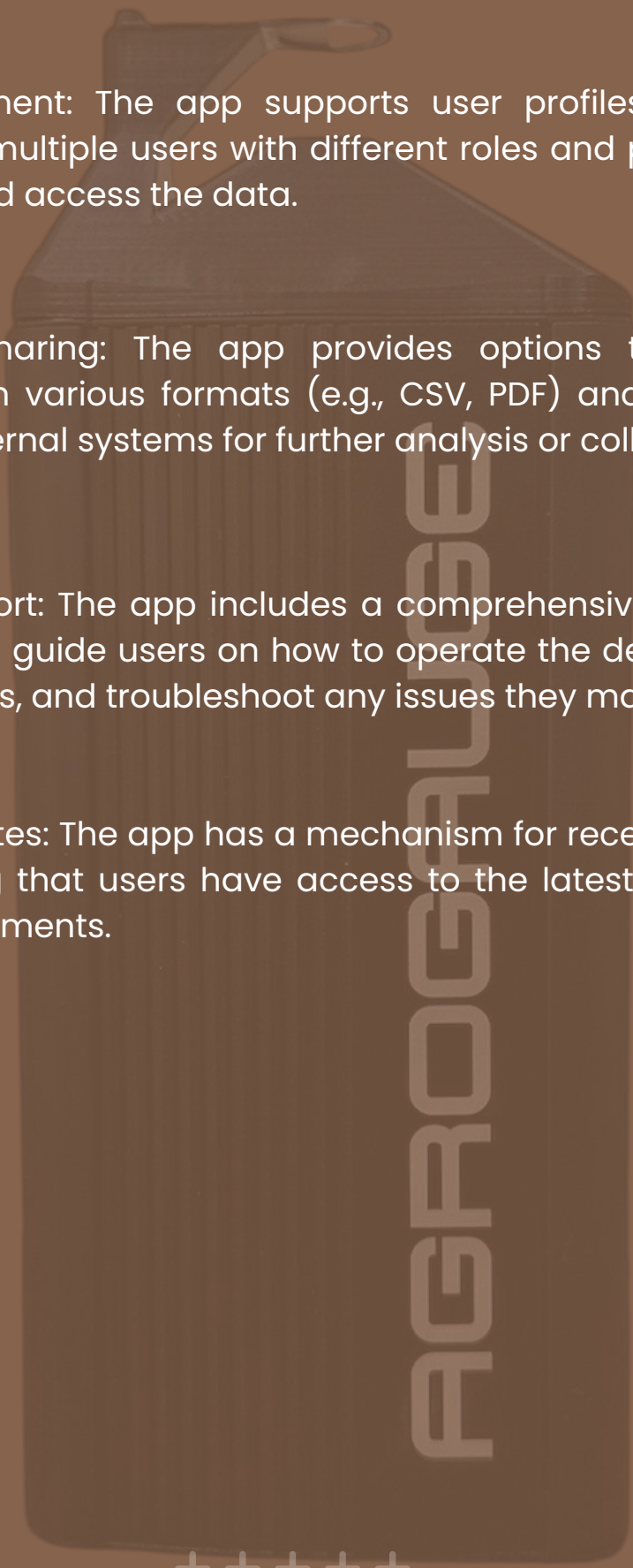


7. User Management: The app supports user profiles and access control, allowing multiple users with different roles and permissions to use the device and access the data.

8. Export and Sharing: The app provides options to export the measured data in various formats (e.g., CSV, PDF) and share it with other users or external systems for further analysis or collaboration.

9. Help and Support: The app includes a comprehensive help section or user manual to guide users on how to operate the device, interpret the measurements, and troubleshoot any issues they may encounter.

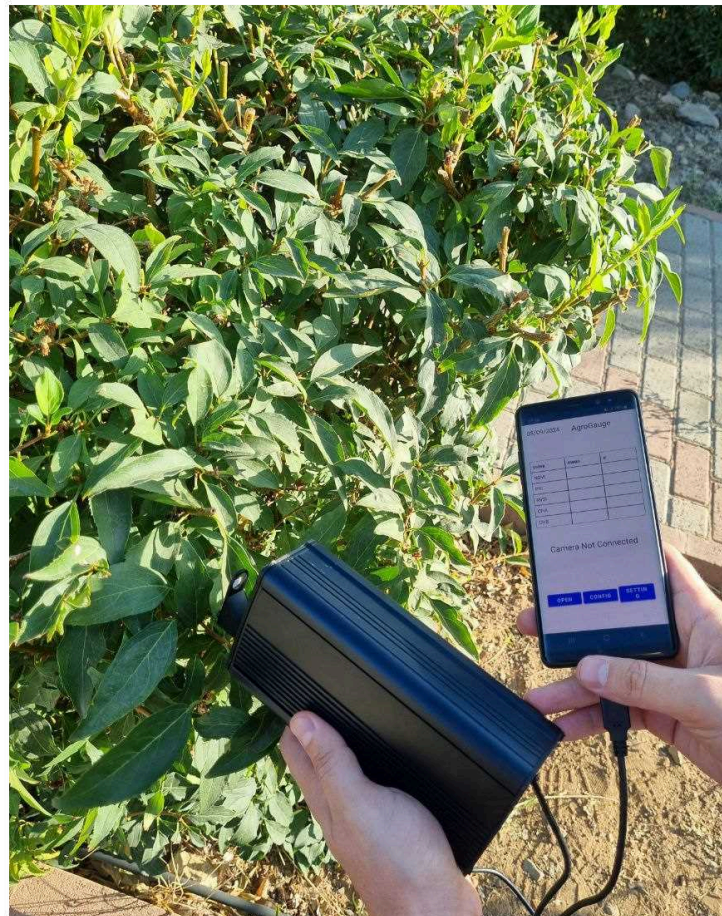
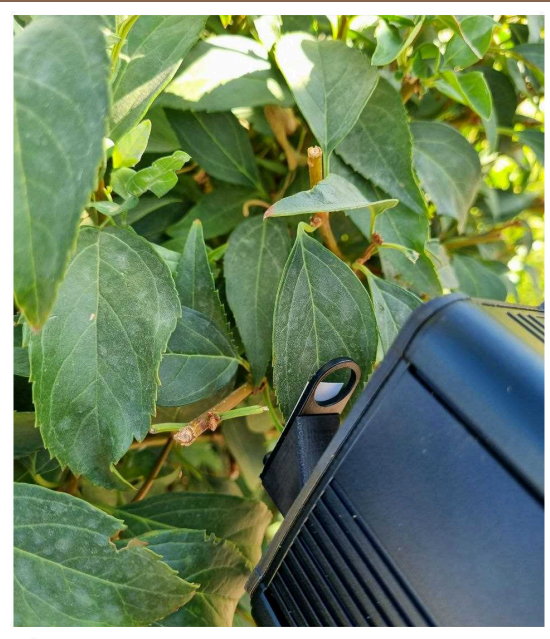
10. Software Updates: The app has a mechanism for receiving software updates, ensuring that users have access to the latest features, bug fixes, and improvements.





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[www.HYSPIM.com](http://www.HYSPIM.com)

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