

## GOYOJO GYJ-D

# GOYOJO Plant Nutrition Tester

## MODEL: GYJ-D USER MANUAL

### 1. Introduction

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The GOYOJO GYJ-D Plant Nutrition Tester is a high-precision, portable device designed for the rapid and non-invasive detection of key plant health indicators. It accurately measures chlorophyll content (SPAD), nitrogen content, leaf surface temperature, and foliar humidity. This manual provides detailed instructions for the proper use, maintenance, and troubleshooting of your device, ensuring optimal performance and longevity.



Figure 1.1: The GOYOJO GYJ-D Plant Nutrition Tester.

Lossless plants fast and accurate

# PLANT CHLOROPHYLL METER

Real time display of four plant  
ecological indicators



Figure 1.2: Real-time display of four plant ecological indicators.

## 2. Safety Information

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Please read all safety instructions carefully before operating the device. Failure to follow these instructions may result in injury or damage to the device.

- Do not disassemble or modify the device.
- Keep the device away from water and excessive moisture.
- Avoid exposing the device to extreme temperatures or direct sunlight for prolonged periods.
- Use only the provided charging cable and adapter.
- Store the device in its protective case when not in use to prevent damage.

## 3. Product Overview

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The GYJ-D Plant Nutrition Tester consists of the main unit with an LCD display, control buttons, and a non-invasive clamping measurement head. It comes with a USB charging cable, a mini CD with data analysis software, a lanyard, and a protective carrying case.

### 3.1 Components and Features

- **Measurement Head:** Non-invasive clamp for leaf measurement.
- **LCD Display:** Shows chlorophyll (SPAD), nitrogen (mg/g), humidity (RH%), and temperature (°C) readings.
- **Control Buttons:** For navigation, selection, and manual measurement.
- **USB Port:** For charging and data transfer to PC.
- **Internal Battery:** Rechargeable lithium battery for portable use.

# DIRECT READING OF RAPID DETECTION RESULTS

Data can be obtained by clamping the blade surface with the probe head

Rapid detection

Backlight display

Simultaneous determination

Chinese English menu



Figure 3.1: Direct reading of rapid detection results by clamping the blade surface.



Figure 3.2: Detailed view of the device's LCD display.



Figure 3.3: The device's control buttons for operation.

## 4. Setup

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### 4.1 Charging the Battery

The device is equipped with a built-in 4.2V rechargeable lithium battery. Before first use, fully charge the device. Connect the provided USB cable to the device's USB port and the other end to a suitable USB power source (e.g., computer USB port, wall adapter). The charging indicator will show the charging status.



Figure 4.1: The device features a built-in high-capacity lithium battery.

## 4.2 Powering On/Off

To power on the device, press and hold the power button (usually labeled 'OK' or a dedicated power button) until the display illuminates. To power off, press and hold the power button again until the display turns off.

## 4.3 Initial Calibration/Verification

After powering on, close the measurement head without any leaf inside. Wait for the device to beep and display "VERIFY SUCCESS" (or similar message). This indicates the device is calibrated and ready for use. If an error occurs, ensure the measurement head is clean and fully closed, then try again.

# 5. Operating Instructions

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## 5.1 Taking a Measurement

1. Ensure the device is powered on and calibrated.
2. Gently open the measurement head.
3. Carefully insert a leaf into the measurement head, ensuring the leaf surface is flat and covers the sensor area completely.
4. Close the measurement head firmly until it clicks. The device will automatically take a reading.
5. The chlorophyll (SPAD), nitrogen (mg/g), humidity (RH%), and temperature (°C) readings will be displayed on the LCD screen.

# IN VIVO DETECTION OF NON-INVASIVE PLANTS

A gentle clip will not damage the  
living plant and will not affect the growth of the plant



Figure 5.1: In vivo detection of non-invasive plants. A gentle clip will not damage the living plant.

## IT IS CONVENIENT TO DETECT WITH ONE HAND, THAT'S ALL.

A single hand can be detected.  
It's convenient.



Figure 5.2: Convenient one-hand operation for detection.



Figure 5.3: The device's sensor head clamping a leaf.

### 5.2 Data Storage and Retrieval

The device can store up to 4000 records. Each measurement is automatically saved with a timestamp. To review past data, navigate through the menu using the control buttons. The history detection query function allows you to browse stored records.

# HISTORY DETECTION QUERY FUNCTION MULTIPLE DATA STORES

History detection query function,  
multiple data storage

NO: 001 15: 29: 30  
SPAD=56.3

NO: 002 09: 11: 23  
SPAD=21.5

NO: 003 21: 17: 48  
SPAD=46.9

A TOTAL OF 37 GROUPS OF DATA  
THE FIRST SET OF DATA

15:53:25

16 MARCH 2018

CHLOROPHYLL	8.9SPAD
NITROGEN CONTENT	5.4mg/g
LEAF SURFACE TEMPERATURE	0.0%RH
FOLIAR HUMIDITY	21.87°C



Figure 5.4: History detection query function with multiple data stores.

## 5.3 Data Analysis Software

The included software allows for seamless data transfer and analysis on a personal computer. Connect the device to your PC using the USB cable. Install the software from the provided mini CD. The software enables graphical representation of data, comprehensive report generation, and data export in Excel format for further analysis.

# MULTIFUNCTIONAL UPPER COMPUTER SOFTWARE

Reports and graphs are more intuitive

Connect the USB interface to the computer and install it without network. HM-YC and HM-YD only have this function to export excel tables and graphs in BMP picture format.

Record observation is more intuitive



Excel



Graph trend



Viewing by time period

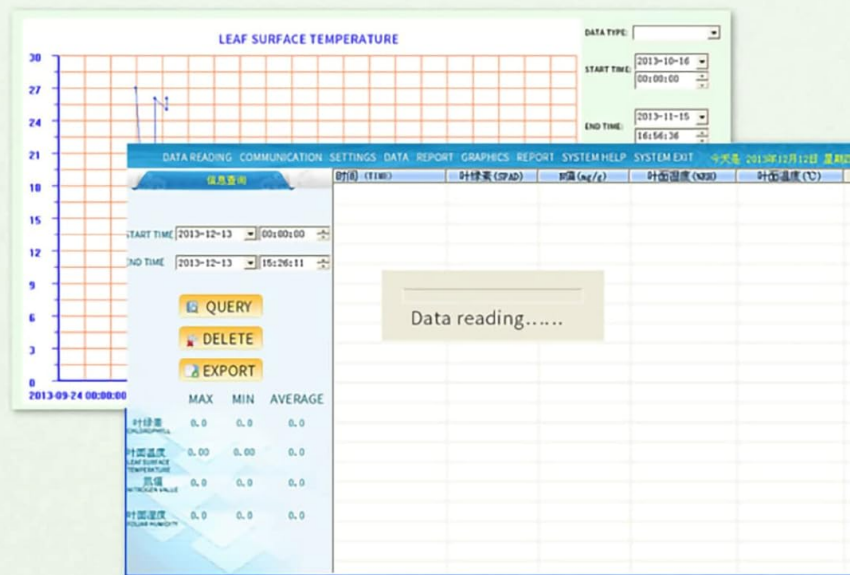


Figure 5.5: Multifunctional upper computer software for intuitive reports and graphs.

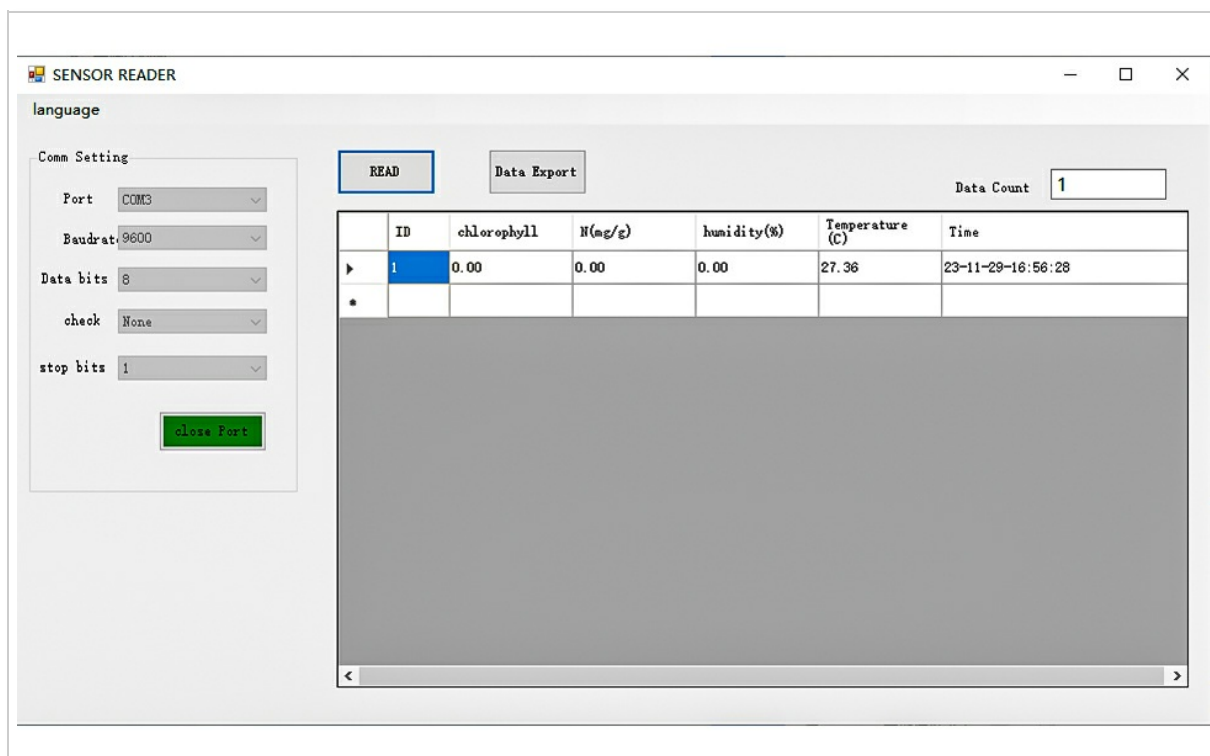


Figure 5.6: PC data reading software interface for data management.

## 6. Maintenance

### 6.1 Cleaning the Device

Regularly clean the measurement head and the device body with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure no dust or debris accumulates in the clamping area, as this can affect measurement accuracy.

### 6.2 Battery Care

To prolong battery life, avoid fully discharging the battery frequently. Charge the device regularly, especially if it will not be used for an extended period. Store the device with a partial charge (around 50%) if storing for long durations.

### 6.3 Storage

Store the device in its original protective carrying case in a cool, dry place, away from direct sunlight and extreme temperatures. This will protect it from physical damage and environmental factors.

## 7. Troubleshooting

Problem	Possible Cause	Solution
Device does not power on.	Low battery; Power button not pressed correctly.	Charge the device fully; Press and hold the power button firmly.
Inaccurate readings.	Measurement head not clean; Leaf not properly inserted; Device not calibrated.	Clean the measurement head; Ensure leaf covers sensor completely; Perform initial calibration.
Data transfer issues to PC.	Incorrect USB connection; Software not installed or running; Driver issues.	Ensure secure USB connection; Install/reinstall software and drivers; Try a different USB port.
Display shows error message.	Sensor obstruction; Internal error.	Clear any obstructions from the sensor; Restart the device. If problem persists, contact support.

## 8. Specifications

Feature	Specification
Chlorophyll Measurement Range	0.0-99.9 SPAD
Nitrogen Content Measurement Range	0.0-99.9 mg/g
Chlorophyll Accuracy	+/- 1.0 SPAD
Nitrogen Content Accuracy	+/- 5%
Leaf Temperature Range	-10-99.9°C
Humidity Range	0.0-99.9 RH%

Feature	Specification
Measurement Time	Less than 3 seconds
Data Storage Capacity	Up to 4000 records
Battery Type	1 Lithium Ion battery (included)
Dimensions	10.28 x 9.69 x 4.17 inches (Package)
Weight	2.69 Pounds (Package)
Model Number	GYJ-D
Manufacturer	GOYOJO

## 9. Warranty and Support

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For warranty information and technical support, please refer to the documentation provided with your purchase or contact GOYOJO customer service directly. Keep your proof of purchase for any warranty claims.