AST-YLE Plant nutrient analyzer

Features

1. Rapid, non-destructive live plant detection. Simply insert leaves during measurement—no harvesting required. Does not impact crop growth, enabling continuous leaf monitoring throughout the growing cycle for more scientific analysis.

2. High measurement accuracy (Accuracy: ±1.0 SPAD, Repeatability: ±0.3 SPAD). Built-in anti-glare interference system.

3. Simultaneous measurement of all parameters in one operation. Displays chlorophyll, nitrogen content, leaf temperature, and leaf humidity on the same screen, with simultaneous storage capability.

4. 16GB large storage capacity. Data can be grouped, viewed, and exported.

5. Multi-functional USB port enables data export and charging. Directly connects to computers for data export without host software; alternatively, export data directly via memory card for simple, convenient operation.

6. Data Browsing: Historical data can be viewed, transferred, or cleared directly on the device.

7. GPS Positioning: Displays real-time satellite-based latitude and longitude coordinates to pinpoint the current measurement location.

8. Built-in 4G wireless transmission module enables real-time data uploads in field environments. Measurement results are transmitted directly to a dedicated Cloud Agriculture Data Center. Enterprises receive a unique account for this center to access uploaded data.

9. The cloud agricultural data center allows retrieval of historical data for any time period. View measurement timestamps, chlorophyll content, nitrogen content, leaf temperature, leaf humidity, GPS positioning information, and more. Displays trend curves for each parameter, maximum/minimum values, zoom in/out functionality, and supports online download, Excel export, analysis, and printing.

10. High-contrast LCD display ensures clear visibility even in bright sunlight.

11. Low-power mode design incorporates a built-in high-capacity

rechargeable lithium-ion battery with overcharge protection, offering energy efficiency, environmental friendliness, and convenient outdoor operation.

12. Built-in bilingual (Chinese/English) display with one-touch switching for seamless language transition.

Technical parameters:

1.Measurement Items: Chlorophyll content, nitrogen content, leaf temperature, leaf moisture

2. Measurement Range

Chlorophyll: 0.0–99.99 SPAD

Nitrogen content: 0.0–99.99 mg/g

Leaf surface humidity: 0.0-99.9% RH Leaf surface temperature: -10-99.9℃

3. Measurement area: 2mm ×3mm

4. Measurement accuracy:

Chlorophyll: Within ±1.0 SPAD units (at room temperature, SPAD values between 0-50)

Nitrogen content: ±5% Leaf surface humidity: ±5% Leaf surface temperature: ±0.5℃

5. Repeatability Chlorophyll: ±0.3 SPAD units (SPAD values between 0-50)

Nitrogen content: ±0.5 mg/g Leaf surface humidity: ±0.5 RH% Leaf surface temperature: ±0.2℃

6. Measurement interval: Less than 0.8 seconds

7. Data storage: 16GB, group storage available per user requirements

8. Power supply: 4.2V rechargeable lithium battery

9. Battery capacity: 3000mAh

10. Weight: 230g

11. Operating and storage environment: -10° C to 50° C, ≤85% relative humidity