

AR991

Smart Sensor AR991 Digital Grain Moisture Meter User Manual

Model: AR991

1. INTRODUCTION

The Smart Sensor AR991 Digital Grain Moisture Meter is a precision instrument designed for rapidly and accurately measuring the moisture content and temperature of various types of grain. This device is essential for applications in grain purchase, storage, and processing, ensuring optimal quality control.

Key features include an LCD display with backlight for clear readings in low light, a built-in speaker for audible reporting of measurements, and an ergonomic design for comfortable handling. It is capable of measuring moisture in 14 different grain types, including wheat, corn, rice, peanuts, and soybeans.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the device to prevent injury or damage. Keep this manual for future reference.

- Do not expose the meter to extreme temperatures, high humidity, or direct sunlight.
- Avoid dropping the device or subjecting it to strong impacts.
- Keep the probes clean and dry. Do not use abrasive cleaners.
- Do not attempt to disassemble or modify the meter. Refer all servicing to qualified personnel.
- Keep out of reach of children. The probes are sharp.
- Ensure the probes are fully inserted into the grain sample for accurate readings.

3. PRODUCT OVERVIEW

Familiarize yourself with the components of your Smart Sensor AR991 Digital Grain Moisture Meter.



Figure 3.1: The Smart Sensor AR991 Digital Grain Moisture Meter in use, demonstrating its ergonomic design and clear LCD display.



✧ Suitable for measuring the moisture content of corn, wheat, rice, bean, etc.



Figure 3.2: Detailed view of the AR991 meter with key components labeled for easy identification.

- **Probes:** Two long, sharp metal probes for insertion into grain samples.
- **LCD Display:** Backlit screen showing moisture content, temperature, and selected grain type.
- **Control Buttons:** Including On/Off, Adjust, Limit, Varieties Selection, and Voice-over Selection.
- **Speaker:** Located on the back for audible reading reports.
- **Handle:** Ergonomically designed for a comfortable and secure grip.



Figure 3.3: Rear view of the meter highlighting the integrated speaker.

4. SETUP

The Smart Sensor AR991 is designed for ease of use. Before first use, ensure the device has sufficient power.

1. **Battery Installation (if applicable):** While the device is typically ready for use, if the display does not power on, check the battery compartment (usually located on the handle) and install or replace batteries as needed. Use the specified battery type (e.g., 4x AA batteries, not included).
2. **Initial Inspection:** Inspect the probes for any damage or debris. Ensure they are clean and straight.

5. OPERATING INSTRUCTIONS

Follow these steps to accurately measure grain moisture content.

1. **Power On:** Press the **On/Off** button to turn on the meter. The LCD display will illuminate.
2. **Select Grain Type:** Press the **Varieties Selection** button to cycle through the available grain types (e.g., Wheat, Corn, Rice, Peanut, Soybeans, etc.). Ensure the displayed grain type matches the sample you are testing.

TESTING VARIETY



RAPSEED 7.5-44



SESAME 7.5-44



SOYMEAL 7.5-44



SEED COTTON 7.5-44



SOYBEAN 10-50



PEANUT 10-50



BARLEY 11-50



RICE 11-50



SORGHUM 11-50



WATERMELON
SEED 11-50



PADDY 11-55



WHEAT 11-55



CORN 11.5-50



FEED 11.5-50

Figure 5.1: Reference chart for various grain types supported by the meter and their typical moisture ranges.

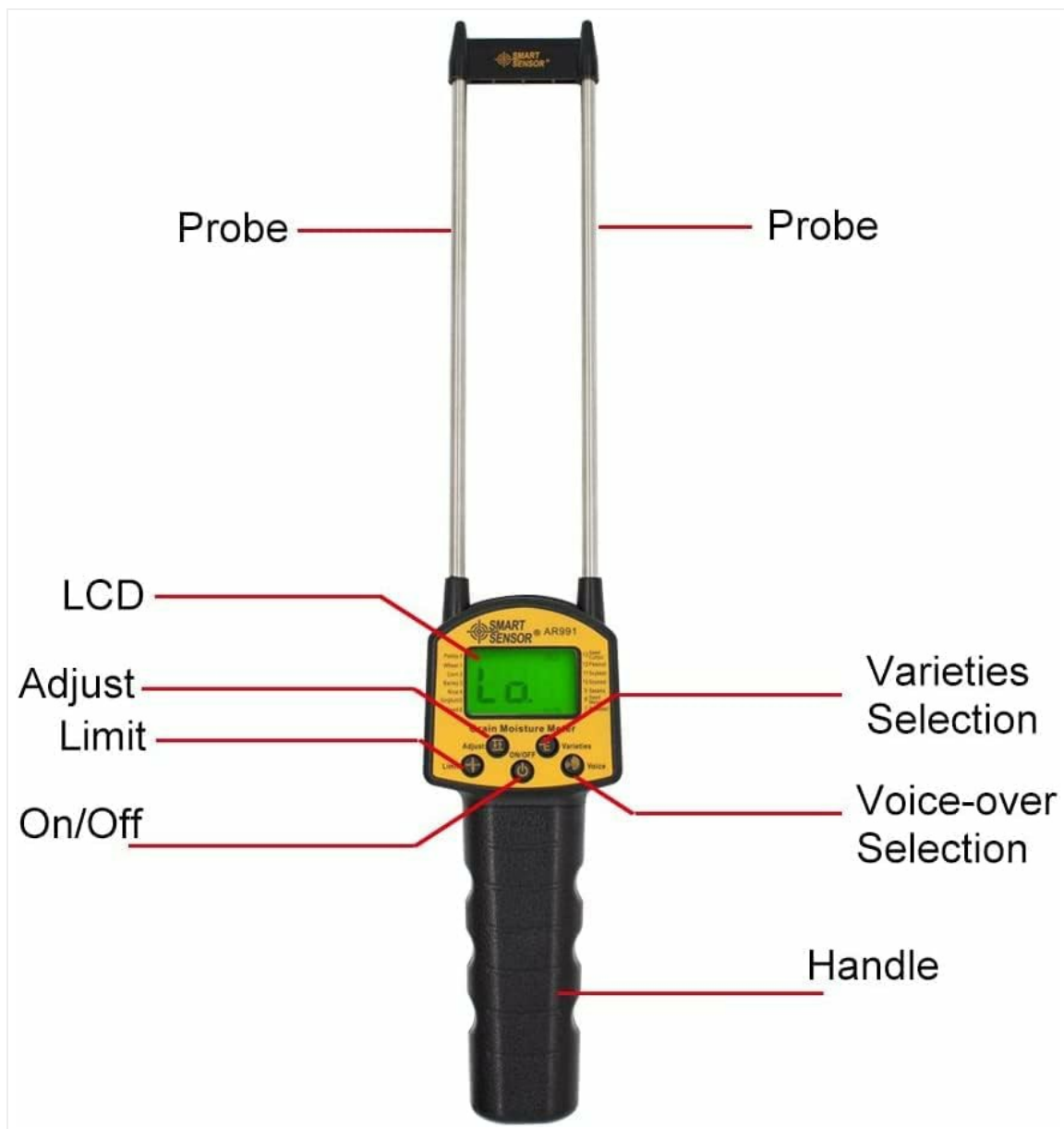


Figure 5.2: The meter's applicability across a wide range of grain types.

- 3. Insert Probes:** Carefully insert the two probes into the grain sample. Ensure the probes are fully submerged and stable within the grain for an accurate reading.



GRAIN MOISTURE METER

SMART SENSOR AR991 DIGITAL LCD
GRAIN MOISTURE METER FOR WHEAT
CORN RICE PEANUT SOYBEAN

Figure 5.3: Demonstrating proper probe insertion into a grain sample.

- 4. Read Measurement:** The moisture content percentage and temperature will be displayed on the LCD screen.
- 5. Voice-over Function:** If enabled, the meter's speaker will audibly report the measurement. Press the **Voice-over Selection** button to toggle this feature on or off.
- 6. Adjust/Limit Functions:** Use the **Adjust** button for calibration or fine-tuning if necessary (refer to specific calibration procedures if provided by manufacturer). The **Limit** button may be used to set thresholds for moisture content.
- 7. Power Off:** Press the **On/Off** button again to turn off the meter when finished.

6. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your moisture meter.

- **Cleaning:** After each use, wipe the probes and the body of the meter with a soft, dry cloth. Do not use water or chemical solvents. Ensure no grain residue remains on the probes.
- **Storage:** Store the meter in a cool, dry place, away from direct sunlight and extreme temperatures. Keep the protective cap on the probes if provided.
- **Battery Replacement:** If the display becomes dim or the meter does not power on, replace the batteries promptly. Remove batteries if the device will not be used for an extended period to prevent leakage.

7. TROUBLESHOOTING

Refer to this section for common issues and their solutions.

Problem	Possible Cause	Solution
Meter does not power on.	Low or dead batteries; incorrect battery installation.	Replace batteries; ensure batteries are inserted with correct polarity.
Inaccurate readings.	Probes not fully inserted; incorrect grain type selected; probes are dirty.	Ensure probes are fully inserted; select correct grain type; clean probes thoroughly.
No voice output.	Voice-over function is off.	Press the Voice-over Selection button to activate.
Display is dim.	Low battery power.	Replace batteries.

8. SPECIFICATIONS

Technical specifications for the Smart Sensor AR991 Digital Grain Moisture Meter.

Model: AR991

Brand: Generic (Smart Sensor)

Item Weight: 9.17 ounces

Country of Origin: India

Manufacturer: Spancare Pharmaceuticals

ASIN: B0CDLQM76G

Measurement Range: Varies by grain type (refer to operating instructions for specific ranges).

Display: LCD with backlight

Features: Voice-over function, energy-saving backlight control.



Figure 8.1: Physical dimensions of the AR991 meter.

9. WARRANTY AND SUPPORT

For warranty information or technical support, please contact the manufacturer directly.

Manufacturer: Spancare Pharmaceuticals, India

Customer Care Number: +918377935124

First Available Date: August 3, 2023

Please retain your purchase receipt as proof of purchase for any warranty claims.