

Agrosta®100

Durofel Firmness Tester

The Agrosta® 100 is an advanced Durofel firmness tester, continuously refined through over 10 upgrades since its creation in 1987, in collaboration with CTIFL.

Designed for professional use, this iconic device provides highly accurate measurements of soft fruits such as tomatoes, blueberries, cherries, plums, and grapes, using the trusted Durofel scale.



Thanks !

Many thanks for having acquired an Agrosta instrument
Your package contains :

- Box with the instrument itself
- Charger for the console
- Certificate of conformity
- Manual
- Set of tip protections

We highly recommend reading the user manual, as it provides clear and concise instructions to help you maximize the use of the device.

Product Overview

The Agrosta 100 is provided with one sensor (10, 25 or 50) according to your requirements.
You can buy adaptors separately :

- A sensor of 10 for **peaches** (35% to 95%), **apricots** (45% to 95%), **grapes and kiwis** (35% to 95%) , **cranberries**– With the 10 mm tip, a reading of 85% corresponds to 4.5 Kg per 0.5 cm² with a penetrometer.
- 25 for **tomatoes** (values from 45 to 80), **cherries, plums, melon flesh, grapes** (values from 30 to 80), **blueberries** (values from 25 to 70 - destructive), **peppers**
- 50 for **strawberries**.



Origin and Manufacturing: The AGROSTA®100 is meticulously designed and assembled in France. The motherboard is sourced from Hong Kong, while the shield boards are manufactured in the USA.

Waterproof Disclaimer: The AGROSTA®100 features an ultra-resistant and waterproof touchscreen console, designed to withstand shocks, impacts, and challenging environments. The console is equipped with an 8000mAh battery, providing extended battery life.

Warranty Information: The AGROSTA®100 is backed by a two-year guarantee starting from the date of shipment. This guarantee covers any manufacturing defects or faults that may arise during the specified period

Accuracy Specifications:

- Minimum Percentage: 10% (Operation Threshold)
- Maximum Percentage: 100% (When Fully Depressed, Equivalent to 806 grams of Pressure)
- Resolution: +/- 1%
- Maximum Memory Capacity: Extensive - Limited Only by SD card storage
- Battery Life: 9 Hours of Continuous Work with 2 Hours of Charging

Additional specifications:

- **5.5-inch (14 cm) color touchscreen** for a user-friendly interface and intuitive navigation.
- **Live statistics display**, showing firmness averages, standard deviation, and sample count.
- **Supports single or multi-measurements** (2 to 4 per fruit) for enhanced accuracy.
- **MicroSD card** batch storage, offering extensive memory capacity.
- **Secure 2-meter reinforced USB cable** for a stable and reliable connection.
- **Fast USB-C charging**, with a power cable included for effortless power management.
- **Direct export of measurements in PDF or CSV** format, ensuring smooth data transfer and reporting.
- **Standalone & PC-Compatible:** The tester can be used independently with the console or connected directly to a computer via USB.
- **Integrated text-to-speech** functionality, announcing results in the selected language (optional mute function).
- **Create, rename, and manage multiple batches** for improved workflow organization.
- **Access previously recorded data** to add, review, or delete measurements with ease.
- **Batch export & consultation**, allowing users to review stored CSV and PDF reports directly from the console.

AGROSTA®100 – Step-by-Step Guide

Step 1: Powering On the Device

Press and hold the **power button** on the console to turn it on.

The **AGROSTA®100 home screen** will appear, displaying battery status, connection status, and measurement options.

If necessary, charge the console using the **included USB-C power cable** before use.

Step 2: Connecting the Firmness Tester to the Console

Use the **reinforced USB cable** to connect the **firmness tester** to the **console**.

The console will automatically **detect the tester**, and the **connection indicator will turn green**.

Step 3: Selecting or Creating a Measurement Batch

Upon connection, a **default batch** is created to store new measurements.

1. Tap the **"+" button** on the screen to create a new batch.
2. Enter a **batch name** (e.g., "Tomatoes Test").
3. Select the **measurement mode** (single or multiple readings per fruit).



Create a new batch

Select the measurement mode

Step 4: Performing a Measurement

1. **Select the correct probe tip** (e.g., Tip 25 for tomatoes and cherries).
2. Position the tester's probe **perpendicular to the fruit's surface**.
3. Press the probe **gently but firmly** into the fruit until fully depressed.
4. The **measurement will automatically be recorded** on the screen.

For multiple measurements per fruit:

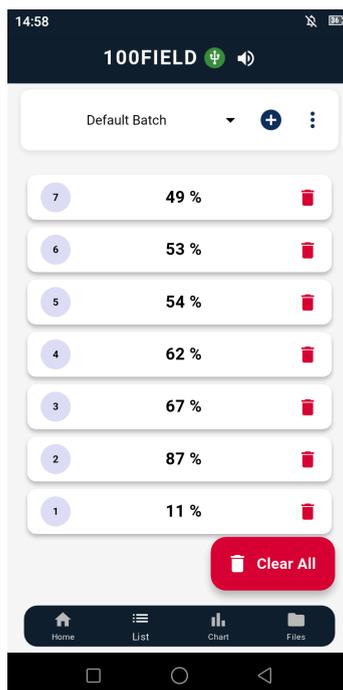
- If using **multi-point measurement mode (2 to 4 readings per fruit)**, an **orange indicator** will appear until all required readings are taken.
- Once all readings are complete, the **average firmness value** will be calculated automatically.

Step 5: Reviewing & Managing Measurements

- Consult **statistics in real-time**, including:
 - **Average firmness**
 - **Standard deviation**
 - **Total number of samples**
- View all recorded **measurements in the batch list**.
- Use the **graph view** to monitor firmness trends.

To delete a measurement:

- Tap the **trash icon** or swipe left on the entry.



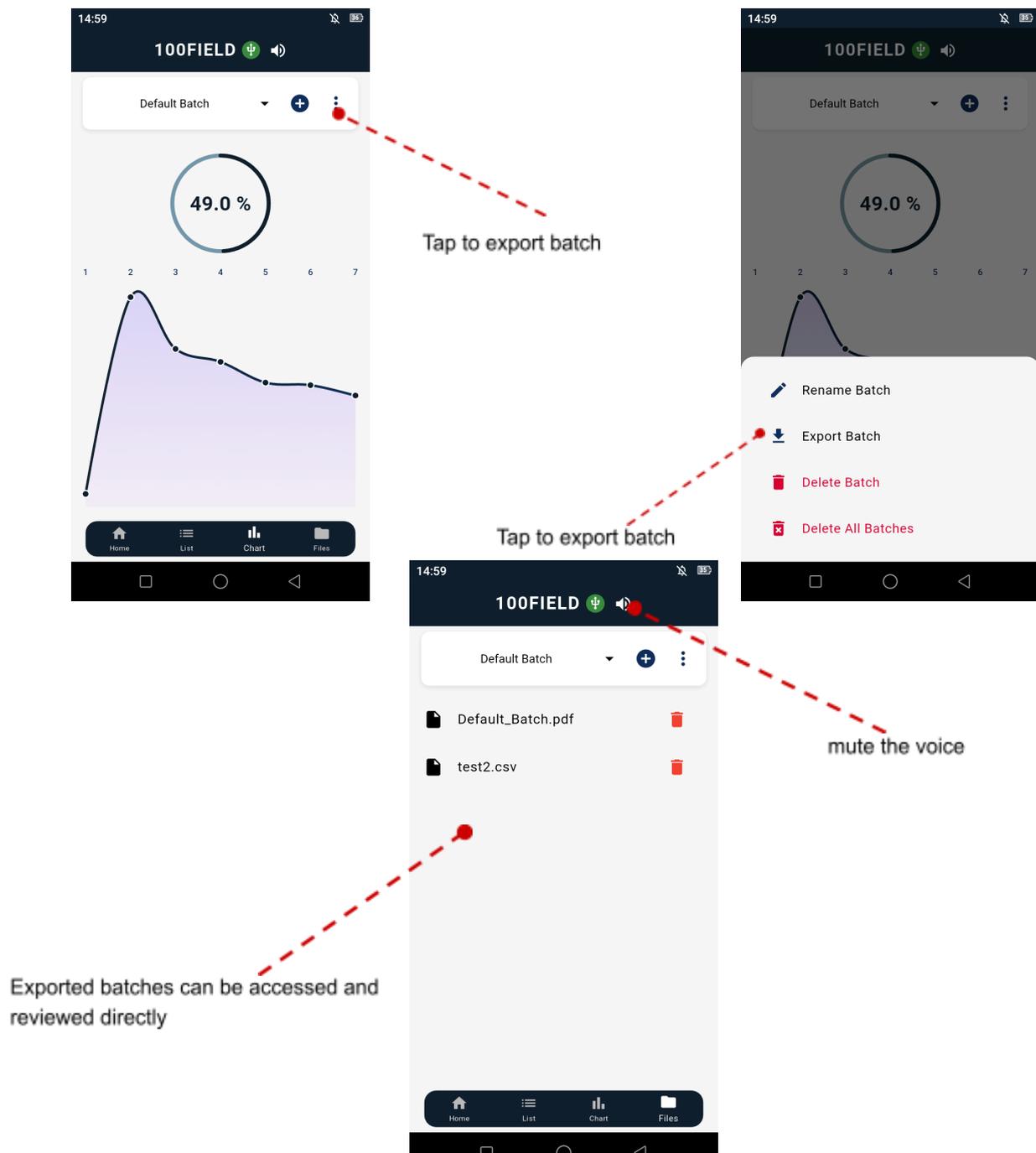
Step 6: Reviewing & Managing Measurements

Measurements can be exported as **PDF** or **CSV** files.

- Tap **“Export”** and choose **PDF** or **CSV** format.
- The file will be saved automatically to the **microSD** card.

Exported batches can be accessed and reviewed directly in the **“Files”** tab on the console. Additionally, data can be retrieved by:

- **Connecting the console to a computer via USB** and go on the **Agrosta** folder on the **sd card**.
- **Removing the microSD card** and accessing the files manually.



Step 7: Using the Tester with a PC (Without the Console)

The firmness tester can be **connected directly to a PC via USB**, without requiring the console.

Open the **Agrosta software** on the computer.

The tester will be automatically detected, allowing measurements to be recorded **directly into the software's spreadsheet system**.

Step 8: Powering Off the Device

Once measurements are complete, **turn off the console** by pressing and holding the power button.

Disconnect the **firmness tester from the console** if needed.

Step 9: Maintenance & Storage

- Clean the probe **after each use** using a **soft cloth**.
- Store the device in a **dry and safe place** when not in use.
- Ensure the **battery is charged** before long-term storage.

For a complete walkthrough of the **AGROSTA®100**, watch the **detailed usage video** demonstrating how to operate the device step by step.

 **Watch the tutorial here:** [Durofel Fruit Firmness Tester AGROSTA 100](#)

Congratulations! You are now ready to fully utilize the AGROSTA® 100. Feel free to refer to the user manual if needed and explore all the features offered by this device.

Happy measuring!