

GrainMate: Grain Moisture Meter

Control the moisture content of grains and reduce post-harvest losses.

The Grain Moisture Meter helps African farmers prevent mold and post-harvest losses. Ministries of Agriculture, extension services, and food safety agencies use it to ensure quality control, improve storage, and enforce market standards. It supports fair trade, enhances food security, and boosts market value at both farmer and national levels.



Sesi Technologies Limited
Isaac Sesi

Commodities
Maize, Sorghum/Millet, Soybean, Wheat, Groundnut

Sustainable Development Goals

This technology is **pre-validated**. 8·7 Scaling readiness: idea maturity 8/9; level of use 7/9

Inclusion assessment 4

Climate impact 4

Problem

- **Grain Losses:** FAO reports 10–20% of grain is lost in Sub-Saharan Africa due to poor post-harvest handling.
- **Unreliable Methods:** Farmers use biting or tossing grains, which are inaccurate.
- **Lack of Moisture Meters:** Many farmers can't afford or find reliable grain moisture meters.
- **Mold Risk:** Grains above 13.5% moisture quickly develop mold.
- **Poultry Impact:** High-moisture grains reduce egg production and increase bird disease and deaths.

Solution

- **Eliminates Guesswork:** The meter replaces unreliable methods, enabling informed storage decisions.
- **Improves Accessibility:** Affordable and easy to use, priced at \$60, it's accessible to many farmers.
- **Reduces Grain Losses:** It helps farmers measure moisture accurately, preventing post-harvest losses and ensuring food security.
- **Supports National Planning:** Reliable data aids governments in monitoring grain quality, predicting risks, and shaping food security policies.

Categories
Postharvest, Equipment, Post-harvest handling

Tested/adopted in

Legend:
■ Tested & adopted
■ Adopted
■ Tested
■ Testing ongoing

Where it can be used

This technology can be used in the colored agro-ecological zones.

Target groups
Farmers, Processors, Warehouse Operators, Advisory and Extension Services

Key points to design your program

The GrainMate Moisture Meter addresses challenges in traditional grain moisture measurement. To integrate this technology into your project, you mainly need to:

- Assess the quantity of GrainMate Moisture Meters needed,
- Account for delivery costs to your project site,
- Provide training.

