

Sensegood Universal Grain Moisture Analyzer “SUGMA” Sensegood Instruments Private Limited – Product presence in 44 Countries



- ✓ Loaded with multi-commodity database (130+ commodities) – so you don't have to send back the instrument to factory for addition/ change of the commodity in your instrument. – Economic, time efficient, and continuous operation – eliminating the field downtime.
- ✓ Sensegood Digital Moisture Meters use high-frequency moisture sensing technology – waves penetrate inside the grain kernels and even accurately detect the bound (inner) moisture along with the surface moisture. (While most of the other make instruments just detect the surface moisture – which are inaccurate).
- ✓ Measurement of moisture in less than 10 seconds.
- ✓ Non-destructive testing.
- ✓ Can measure from very low to very high moisture ranges: 3% to 40% and beyond in some samples, with 0.1% resolution.
- ✓ Accuracy +/- 0.5% in the measured moisture content against standard air-oven method.

- ✓ Truly Portable, Small size, Light weight instrument (~17x10x8cm,~400 gm).
- ✓ Latest Bluetooth Low Energy (BLE) enabled: Moisture reading in percentage, directly comes to the app in the mobile phone/ tablet.
- ✓ Automatic temperature compensation for accurate moisture measurements in various weather conditions. Measured temperature is also displayed onto the app.
- ✓ Powered by long-lasting lithium-polymer rechargeable battery. SUGMA can be charged by any 5 volts DC supply; can be a mobile phone adaptor, power bank, or computer's USB!
- ✓ Has LED indications for charging and Bluetooth connection.
- ✓ App is compatible with both Android and iOS.
- ✓ Most reliable, field rugged instruments with niche electronics technology – no/ minimal field maintenance.
- ✓ The user can self-validate and also self-calibrate the SUGMA Moisture Analyzer using our App by additionally purchasing a calibration sample from us. The calibration certificate also gets generated through our App. Hence, user can ensure the accuracy of the instrument by its own and also perform the periodic calibrations whenever desired. This totally eliminates the field downtime. (The instrument comes calibrated from our factory. However, a user can perform self-calibration after a few months of usage).

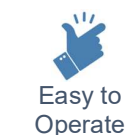
Easy Operation:

1. Power on the instrument and connect with the mobile app.
2. Press 'Tare' switch once after powering on the instrument.
3. Pour sample using the hopper. Press 'Test' switch to get sample's moisture & temperature in the App.

Calibrated as per the below mentioned international standards:

- ✓ ISO 712 : 1998: Cereal and cereal products: Determination of moisture content
- ✓ IS 4333 (part 2): 2002 (Reaffirmed in 2012): Method of analysis for food grains, Determination of moisture content: The sample is ground after pre conditioning. It is dried in a preheated oven at a temperature of 130°C+/- 3°C for 2-3 hrs till constant weight of the sample is achieved.
- ✓ ISO 6540: Determination of moisture content in milled grains and whole grains: Method: The sample is ground after pre conditioning. It is dried in a preheated oven at a temperature of 130°C+/- 3°C for 4 hrs till constant weight of the sample is achieved.
- ✓ ISO 665 : 2002 – Determination of moisture and volatile matter for oilseeds
- ✓ IS 3579-1966 (Reaffirmed in 2000): Method of test for oilseeds: The sample is ground after pre-conditioning. It is dried in a preheated oven at a temperature of 103°C+/- 2°C for 6-7 hrs till constant weight of the sample is achieved.
- ✓ ISO 939-2021: Spices - Determination of moisture content,
- ✓ And a few more derived standards.

Sensegood Universal Grain Moisture Analyzer – SUGMA – comes along with a sample hopper, charging cable, & a carry bag. The mobile shown in above photograph is just for the indication and not provided along with the moisture meter.



Use Sensegood Instruments and Stay Ahead of Your Competition!

- Dr. Sanket S. Patel Ph.D. Electronics (Director)

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www.sensegoodinstruments.com

Manufacturer of worldwide celebrated PATENTED and AFFORDABLE Color Spectrophotometers, Colorimeters, Color Consistency and Color Difference Analyzers, Whiteness Meters, Yellowness Testers, Coffee Roast Analyzers, Digital Moisture Meters, Water Activity Meters, Reflectance Meters, and more.

**Sensegood Universal Grain Moisture Analyzer “SUGMA”
– Available Commodity Database –**



The following commodity database can be freely accessed through the ‘SUGMA Moisture Meter’ mobile application. One can measure the moisture of any of the following commodity using SUGMA. If your commodity is not in the following list, we can even develop the calibration for you, do let us know.

CEREALS/GRAINS

MAIZE / CORN 125 GM	WHEAT	PADDY GENERAL
MAIZE / CORN FULL VOLUME	BARLEY	PADDY BIG
RAGI	BARLEY HULLED	PADDY SMALL
RICE RAW	RICE LONG BASMATI	RICE BOILED
RICE BROKEN	RICE POLISHED	JOWAR SORGHUM
BAJARA MILLET GENERAL	MILLET GREY	MILLET YELLOW
MILLET KODO	MILLET MIXED	QUINOA
NONI	RAJGARO AMARANTH	CHIA SEEDS

OIL SEEDS

GROUNDNUT SEEDS	MUSTARD SARSO RAI	SOYABEAN
COTTON SEED	KAPAS COTTON	RUI
CASTOR SEEDS	NEEM FRUIT WHOLE	TIL SESAME SEEDS
LINSEED / FLEX SEEDS	SUNFLOWER SEEDS FULL VOLUME	SUNFLOWER SEEDS 50GM
SAFFLOWER SEEDS	KARANJA	JETROPHA

PULSES/ BEANS

MOONG GREEN GRAM	TOOR PIGEON PEA	URAD BLACK GRAM
CHANA GRAM	KABULI CHANA CHICKPEA	URAD GOTA WHITE DE-HUSKED WHOLE
PEAS MATAR	MASOOR LENTILS	MOTH BEAN DEW BEAN
RAJAMA KIDNEY BEANS	CHOLA COWPEA LOBIA	VAL LIMA BROAD BEANS
TIVDA KHEMRI	BATRI	PUVAD CASSIA
GUWAR BEANS		

DALS (SPLIT BEANS)

MOONGDAL SPLIT GREEN GRAM	TOORDAL SPLIT PIGEON PEA	URADDAL SPLIT BLACK GRAM
MOONGDAL WITH CHHILKA	CHANADAL GRAM SPLIT	URADDAL CHHILKA BLACK GRAM
MOTHDAL SPLIT DEW BEANS	MASOORDAL LENTIL SPLIT	CHOLA DAL COWPEA SPLIT
PEAS SPLIT MATARDAL	TIVDA KHEMRI DAL	PUVAD DAL CASSIA SPLIT

SPICES

BLACK PEPPER	CARDAMOM WITH SHELL	CELERY AJWAIN
CLOVE	CUMIN JEERA	DHANIYA CORIANDER
FENNEL SAUMPH	GREEN PEPPER	METHI FENUGREEK

POWDERS

ATTA WHEAT FLOUR	BESAN CHANA GRAM FLOUR	BESAN KABULI CHANA CHICKPEA FLOUR
BESAN MATAR PEAS FLOUR	MAIDA FINE WHEAT FLOUR	MAIZE FIBER BHUSI
BHUSI BIG HUSK	BHUSI SMALL HUSK	MAIZE GLUTEN
RICE FLOUR	SUJI WHEAT COARSE FLOUR	ISABGOL PSYLLIUM
ISABGOL HUSK PSYLLIUM	RAWA RICE COARSE FLOUR	PARACETAMOL POWDER

**Sensegood Universal Grain Moisture Analyzer “SUGMA”
– Available Commodity Database –**



VEGETABLE SEEDS

ASH GOURD SEEDS	BHINDI OKRA SEEDS	BITTER GOURD SEEDS KARELA
BOTTLE GOURD SEEDS	BRINJAL SEEDS	CABBAGE SEEDS
CARROT SEEDS	CHILLI SEEDS	CUCUMBER SEEDS
MUSKMELON SEEDS	ONION SEEDS	POTATO SEEDS
RADISH SEEDS MULI	RIDGE GOURD TURIA SEEDS	SNAKE GOURD SEEDS
SPINACH PALAKH SEEDS	SPONGE GOURD SEEDS	TOMATO SEEDS
WATERMELON SEEDS	JUTE SEEDS	

CAKES/ DOCs

CASTOR DOC DE-OILED CAKE	COTTON SEED CAKE	DORB DEOILED RICE BRAN
GROUNDNUT DOC	LINSEED DOC	MUSTARD CAKE
MUSTARD DOC DE-OILED CAKE	NEEMFRUIT CAKE	POULTRY FEED
SOYA DOC	SUNFLOWER DOC	TIL DOC SESAME
CATTLE FEED		

DRY FRUITS

ALMOND KERNEL	CASHEW KERNAL	BETEL NUT SUPARI
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ISABGOL / PSYLLIUM PRODUCTS:

ISABGOL PSYLLIUM	ISABGOL PSYLLIUM WHITE HUSK	PSYLLIUM HUSK POWDER
PSYLLIUM SEED DEHUSK ‘GOLA’	PSYLLIUM RED HUSK ‘LALI’	

MISCELLANEOUS:

COCOABEANS 100GM	COCOABEANS FULL	COFFEE BEANS
GUWAR BEANS	GUWAR CHURI	GUWAR GUM
FAVASEED	CHIA SEEDS	JUTE SEED
HERBAL SEED GLORIASA SUPERBA	NIGER	NONI
QUINOA	PUVAD CASSIA	PUVAD DAL CASSIA SPLIT
RAJGARO AMARANTH	LOTUS SEED	KTCHD
KTSNF	BETEL NUT SUPARI	PARACETAMOL POWDER
NEEM FRUIT	NEEMFRUIT CAKE	JETROPHA

Sensegood Universal Grain Moisture Analyzer “SUGMA” – Easy Operation –



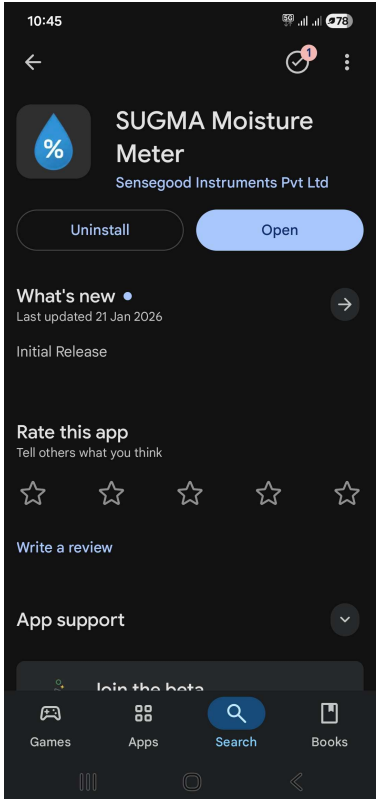
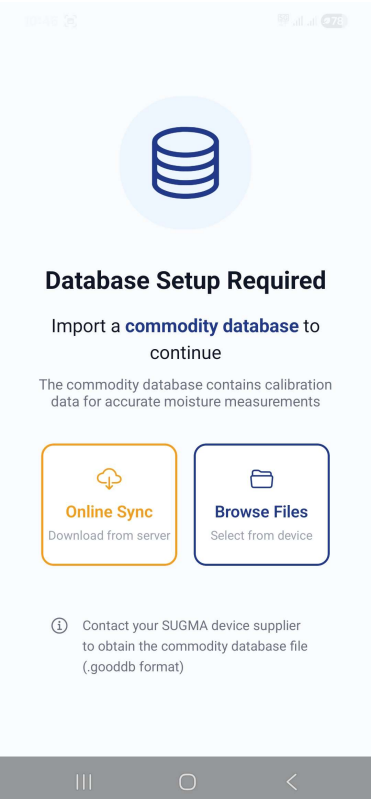
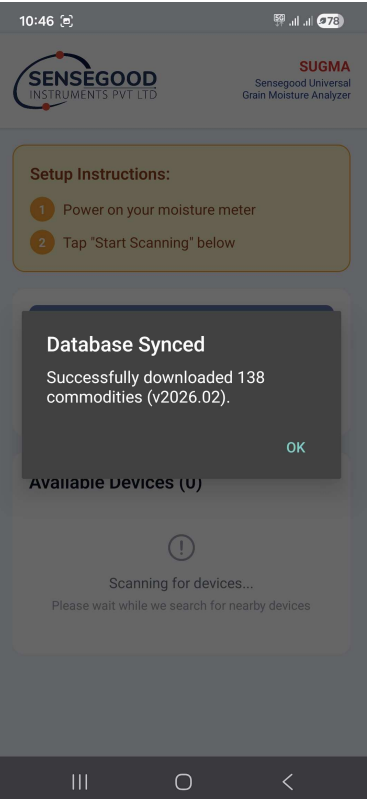
Procedure:

1. Power on the instrument and connect it with the mobile App.
2. Keep SUGMA empty and press ‘Tare’ switch once after powering on the instrument. Wait till “Tare Done” message is displayed on the App.
3. Select the desired commodity from the dropdown list in the mobile App.
4. Take indicated amount of the sample. Pour sample using the hopper. Remove the hopper and press ‘Test’ switch to get the measurement in the App.
5. Take out the sample and the instrument is ready to measure the next sample. No need to press ‘Tare’ if the instrument is still ON. Repeat steps 3 and 4 for the next measurements.

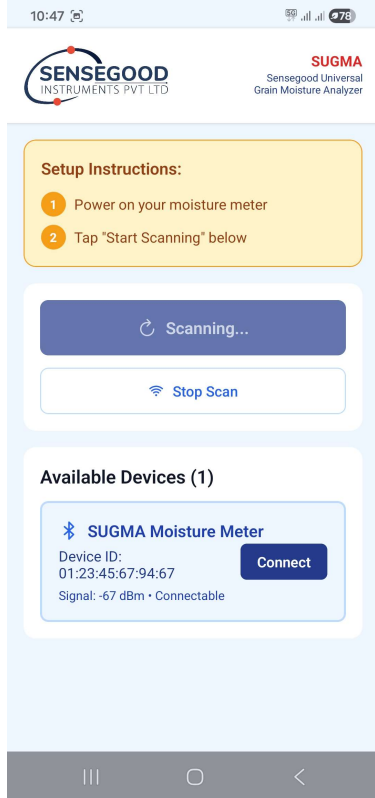
Recommended practice for accurate results:

- ✓ Do not operate the instrument while charging cable is connected.
- ✓ Do not touch or move the instrument after pressing ‘Tare’ or the ‘Test’ switch until it finishes the measurements.

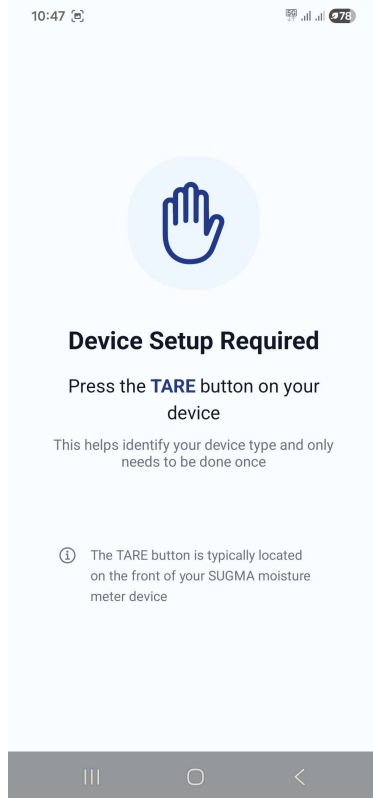
App functions:

<p>Download and install the application ‘SUGMA Moisture Meter’ from the Google Play Store or Apple Store. The application can be installed on the phones or on the tablets. Provide the necessary permissions.</p> 	<p>Click on ‘Online Sync’ to fetch the commodity database from the server. The phone/ tablet should be connected to the internet, only for this time – later the internet connection is not needed.</p> 	<p>Select the latest commodity database version, when asked. You will see the number of downloaded commodities in a while. This process doesn’t take long.</p> 
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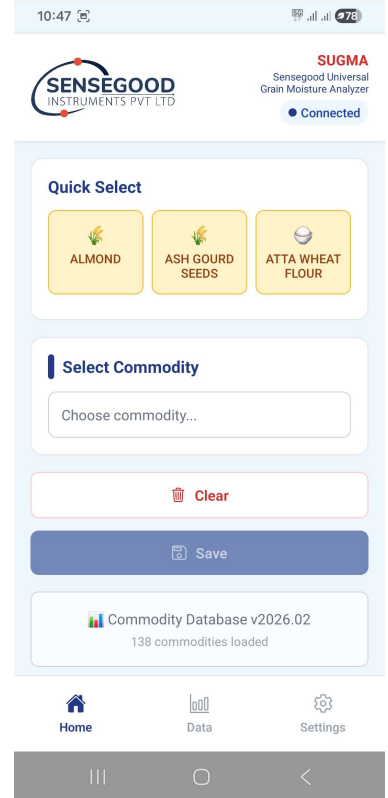
Turn on the instrument and its low power Bluetooth (BLE) will turn on automatically. Enable the Bluetooth of the mobile phone / tablet. You can scan and connect with 'SUGMA Moisture Meter'.



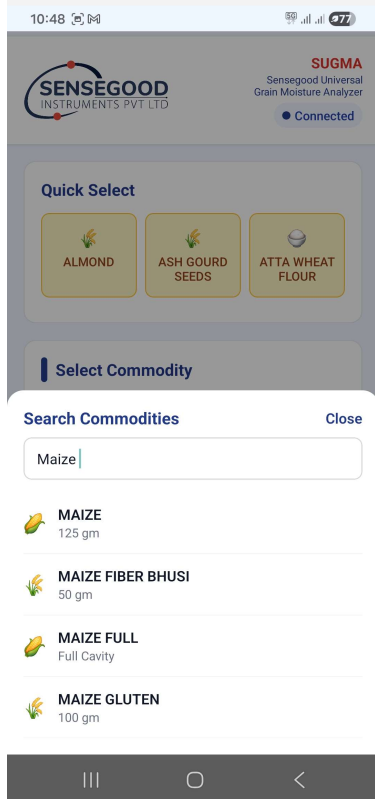
After connection, just press TARE once on the SUGMA and it will get registered with the phone. This is just a onetime process.



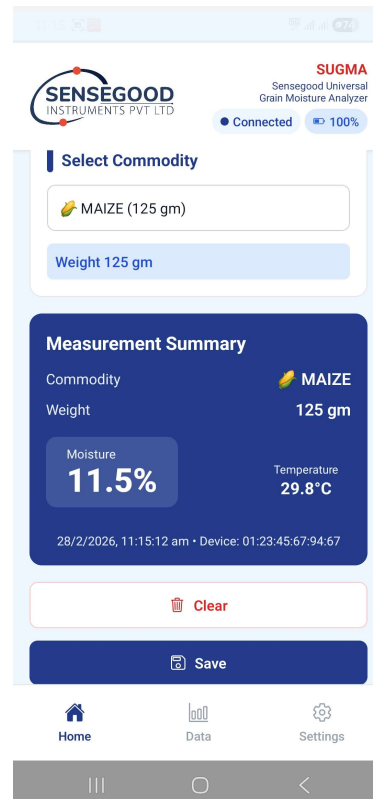
Now, you should be able to see a home screen similar to below. After SUGMA is powered on and after connecting it with the app, you should press a TARE switch once. (to perform the empty cavity calibration)



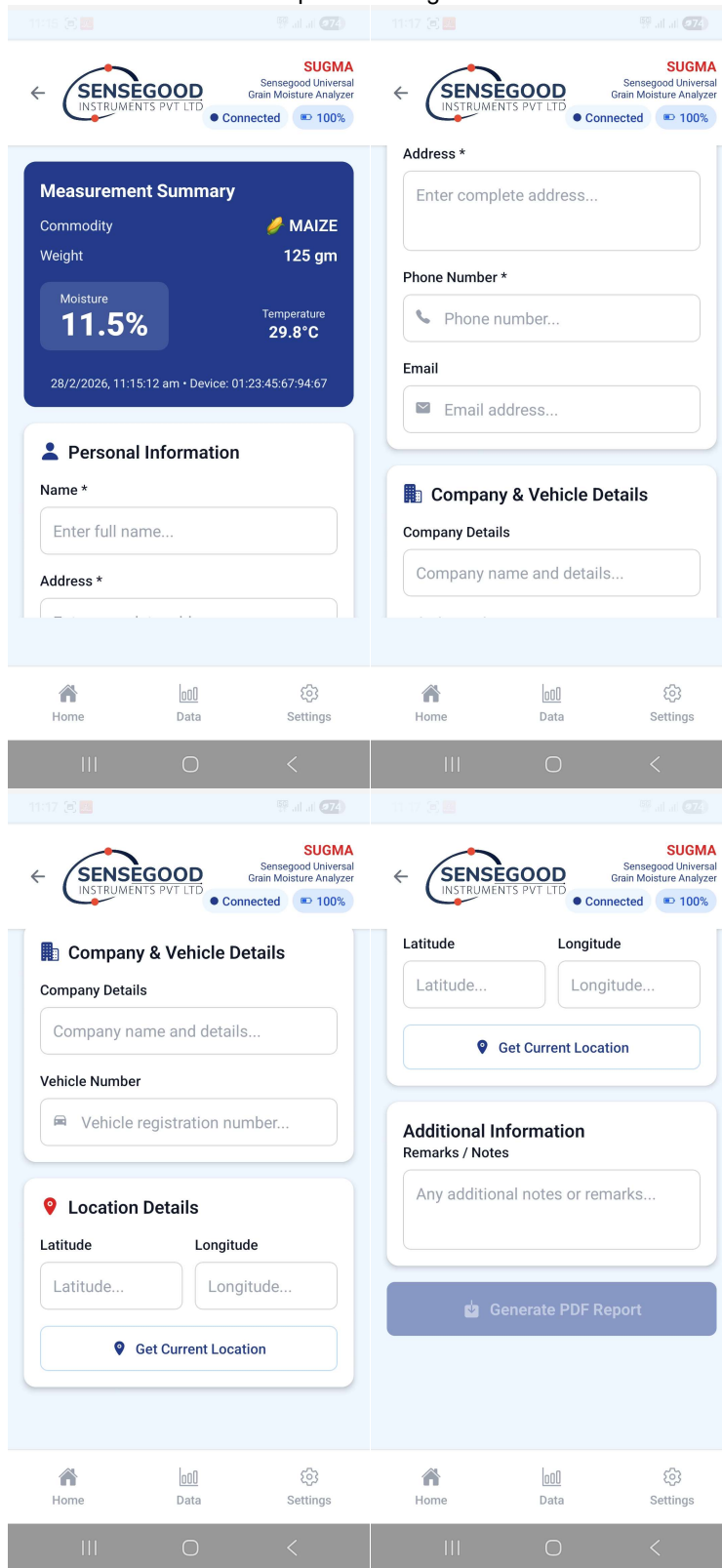
Now, using the drop down list, you can select the desired commodity that you want to test for its moisture. Take the indicated weight or volume of the sample.



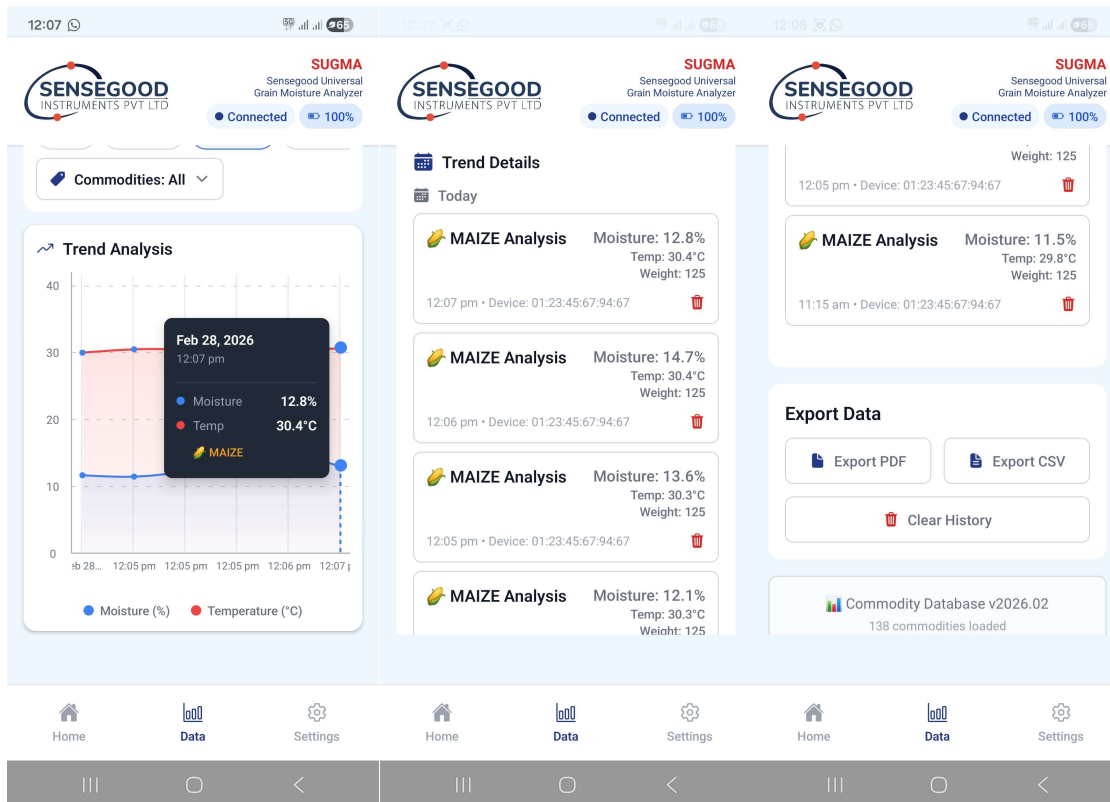
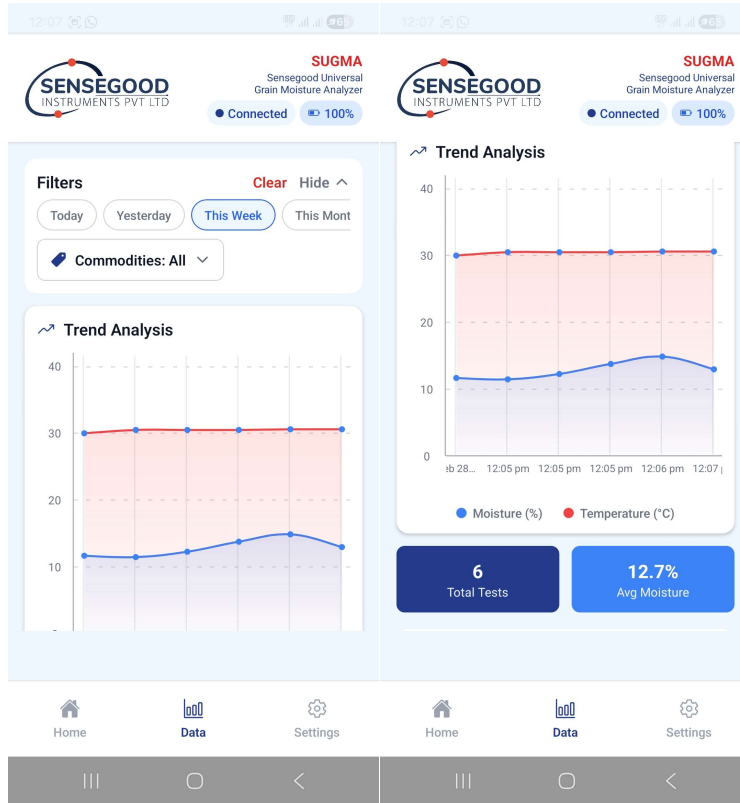
Pour sample using the hopper. Remove the hopper and press 'Test' switch to get the measurement in the App.



The measurement can be saved along with the location and other important details as shown below.
A PDF report can be generated.



A real-time trend can be recorded and analysed. The trend report with all the measurements (and graph) within the selected time period can be exported to PDF and CSV.



Settings Tab:

Device Name: You can modify the device name from default 'SUGMA Moisture Meter' to your desired name. This helps if you have multiple SUGMA devices.

Update Commodity List: You can use this menu to update the commodity database anytime. You can use the online sync option. You can also use the browse option if you have the database file with you and you want to configure the SUGMA in offline mode. Thanks to this from Sensegood Instruments, now, you don't have to send the moisture meters back to the factory for changing / upgrading the commodities.

Set Quick Commodities: This changes the commodities that you see in the 'Quick Select' at the home screen. You can set up to a six commodities in the quick select using this menu. This helps you to set the short cut buttons on the home screen to quickly access your frequently used commodities. So you don't have to every time search for the commodities in the drop down list.

Adjust Moisture: This menu gives you the more flexibility to provide commodity specific moisture adjustments by providing slope and offset.

More Settings: You can set the temperature units (C/F), perform notification settings, and more using this menu.

Operating Guide: Read the operating instructions here in this menu. From here, you can also navigate to the relevant videos.

Perform Calibration: You can self-validate the calibration, self-calibrate the SUGMA, and generate and view the calibration certificate – do all of these at your place using this menu. You don't have to send the instrument back to the factory. You can just additionally purchase the calibration sample from us and you will be able to perform all of it at your place. This saves a lot of time and cost. (The instrument comes calibrated from our factory. However, a user can perform self-calibration after a few months of usage).

Calibration Certificate: Here in this menu, you can view the calibration certificate, and also the date when the SUGMA was calibrated the last time.

