



## **Graintec Scientific**

### ***HE-50 Moisture Meter – “Frequently Asked Questions”***

#### **How accurate is the instrument?**

Unlike many other moisture meters, the HE-50 grinds the presented sample so that the moisture is measured through the grain – not just the outside coating of the grain. This provides for a much more accurate reading. Many moisture meters on the market do not grind the sample.

In the September 2002 issue of *“Farming Ahead”* (Kondinin Group), several moisture meters (paddock use) were analysed and compared in determining which instruments proved to be the most accurate when comparing to lab results. The HE-50 proved to be the most accurate of all instruments to be within 0.1%.

In 2012, Kondinin referred to the HE-50 as “Simple to Use, Easy to Clean” and “Results are Accurate and Repeatable”

Les Caddick at the CSIRO Stored Grain Research Laboratory said... *“The Graintec HE-50 produced the most consistent results between the paddock and laboratory, showing a carefully calibrated device used in a consistent manner is likely to produce accurate results under paddock conditions.”*

Correct sampling methods are very important in achieving accuracy. The representative sample must be clean and sound. All foreign material, seeds, chaff etc must be removed.

We can provide sampling guidelines – contact us for further detail.

#### **What products will it measure?**

The HE-50 is calibrated with 14 products as follows;

Soft Wheat  
Sorghum  
Barley  
Oats  
Canola  
Corn

Beans  
Hard Wheat  
Sunflower  
Peas  
Safflower  
Triticale  
Wet Wheat  
Soya Beans

If you require other products, please contact us so we can adjust the calibration for you. There are literally hundreds of calibrations available.

### **Can it measure products other than grain?**

Yes. Grass seeds, Flower seeds, Vegetable Seeds, nuts.

### **Does the meter require annual service and calibration?**

Yes. To ensure the accuracy and correct operation of the meter, we strongly recommend that the unit is serviced on an annual basis.

We can service the unit for you in Toowoomba and recommend this is done prior to harvest.

### **What is the difference between the HE-50 and the HE-LITE moisture meters?**

- Price:* The HE-50 is a little more expensive than the HE-LITE
- Size:* The HE-LITE is smaller in size and is easy to carry around
- Products:* The HE-50 can measure cereal grains, corn, oilseeds, grass seeds, vegetable seeds, flower seeds.  
The HE-LITE can measure cereal grains, corn and oil seeds only.  
The HE-50 has been proven to be more efficient at measuring beans, corn, peas etc – this is due to the larger measuring cell.
- Calibrations:* The HE-50 has 14 pre-set calibrations. The HE-LITE has 8 pre-set calibrations.

### **Can temperature of the grain affect the reading?**

The temperature correction is executed automatically. Reliable results are obtained at ambient temperatures between 10 deg c and 30 deg c. For best results the instrument and the sample to be tested have nearly the same temperature.

Warm cereal grains taken from bunker/silo storage (particularly in a hot climate) etc should be measured after cooling down. Cold grain should be allowed to warm up to ambient temperature.

### **Is the meter easy to handle – can I take it out on the farm?**

Yes. The meter can be easily transported around on-farm. The supplied carry case makes this easy to do.

The weight of the product including all accessories is approx 3.0 – 3.5kg.

### **How does it work?**

Place a 9 ml sample in the bottom section of the measurement cell.

Screw the top section of the measurement cell into place.

Place the measurement cell on to the unit and select the product using the rotary switch.

Press the measurement button – you will see the selected product name appear on the display.

The HE-50 completes the measurement in seconds, automatically corrects the temperature and displays the measurement result.

### **How long does it take to measure?**

Less than 10 seconds after when the measurement button is pressed.

### **How much sample do I need?**

The HE-50 comes with a small sample cup (9ml). Fill the sample cup to the top and then pour the sample into the measurement cell.

**How clean does the sample need to be?**

Each product calibration has been established using clean, sound sample material. Foreign elements such as stones, straw, husks, weed seeds, green kernels or in the case of corn, stalks should be removed from the sample. Failure to remove such foreign materials may cause an error rate up to 2% moisture.

**What power does the HE-50 use?**

The HE-50 is powered by a 9V battery. The battery life is well over 500 measurements.

**Is the unit easy to clean?**

Yes. After each measurement, simply discard the sample and brush out any remaining sample particles/residue in the measurement cell.