



*"Turning Science into Money"*

*Est. 1998*

## **Koster Tester Dry Matter Procedure**

1. Place scale on a flat, level surface to achieve an accurate reading.
2. Turn scale on and place empty sample container on center of scale platform. Record the Empty sample container weight, then zero the scale.
4. Measure 100g of sample material into drying container and spread evenly
5. Place drying container on evaporation unit.
6. Place mesh basket over top of the drying container to prevent the loss of any sample.
8. Plug in cord of evaporation unit into 110 volt A.C. current to turn on unit.
9. Dry sample for 30 minutes or established drying time. Then place the sample onto scale and record the new weight.
10. Return the sample and dry for an additional 10 minutes.  
Place the sample onto the scale and record the second reading measurement. Repeat this step until no change in measurement.
11. Once sample is completely dry, calculate the sample dry matter using the below equation:  
$$\frac{((\text{Pan Weight with Dry Sample} - \text{Empty Pan Weight}) / \text{Wet Sample Weight}) * 100}{100}$$
12. Add all the time intervals together to establish the typical drying time for the material being measured.

**The typical time for testing some of the most popular crops is as follows:**

**Typical Drying Typical Moisture Content Crop**

**Time (minutes) for Safe Storage\***

Corn 80 15% or less

Corn (ensilage) 30 60 to 65%

Wheat/Barley 30 15% or less

Hay (10 grams) 25 25% or less

Silage/Haylage 25 40 to 60%

Oats 20 15% or less

Rye 25 15% or less

Cotton (seed, 10g) 90 7.5% or less

Cotton (lint, 10g) 20 7.5% or less

Herbs 30-60+ as desired

Rice 80 14% or less

Peanuts (shelled) 60 10% or less