
MEASURING THE MOISTURE CONTENT OF FORAGE USING A MICROWAVE OVEN

1. Chop fresh forage into short lengths (< 1 inch) for ease of handling and uniform drying.
2. Weigh out at least 100 grams (3.5 ounces) of chopped forage.
3. Spread forage thinly on a microwave-safe dish and place into microwave. (A cup of water placed in the microwave beside the sample will help prevent the sample from igniting once dry.)
4. Heat for 1-2 minutes and reweigh.
 - If forage is not completely dry, shake and redistribute the sample, and repeat the heating cycle until the sample reaches a stable weight. (Microwaves vary considerably in drying capacity. It is better to dry for short intervals and reweigh until the last two weights are constant, than to overdry and run the risk of burning and damage to oven.) If charring occurs, use the previous weight.
5. Calculate moisture content using the following equation:

$$\% \text{ Moisture Content} = \frac{W1 - W2}{W1}$$

Where: W1 = weight of forage before heating

W2 = weights of forage after heating

Dry matter (DM) is the percentage of forage that is not water. DM equals 100% minus the % Moisture Content.

Adapted from: Southern Forages 4th Edition, Page 303