

## Partial Dry Matter (60 °C)

### Materials:

Grieve oven (forced air) set at 60 °C  
Top loading balance (weighs to 0.1 g)  
Aluminum sheet pans (8" x 12") or plastic plates (8-10")

### Procedure:

1. Label and weigh aluminum sheet pan (8" x 12") to the nearest tenth of a gram.
2. Record weight.
3. Mix sample well and place sufficient amount (several hundred grams) in pan, record weight of pan and sample to nearest 0.1 g.
4. Place pan with sample in Grieve oven set at 60 °C and dry to a constant weight (1 to 3 days).
5. Fecal samples will need to be thawed (if frozen) first, then spread thin or broken up to complete the drying process.
6. Once samples are dry, remove, air equilibrate for 2-3 hours, and weigh to the nearest 0.1 g on the same top loading balance.

**Note:** Most forages will be dry within 1-2 days. Fecal samples will be dry within 2-3 days.

### Calculations:

Sample	A Empty Pan	B Wet Sample + Pan	C Dry Sample + Pan	D DM %
#50	13.3	199.7	125.7	60.3

$$D = \left[ \frac{C - A}{B - A} \right] \times 100$$

$$60.3 = \left[ \frac{125.7 - 13.3}{199.7 - 13.3} \right] \times 100$$

### **Reference**

Harris, L. E. 1970. Nutrition Research Techniques for Domestic and Wild Animals published by L. E. Harris, Utah State Univ., Logan.