Soil Sample Processing

Materials

- Soil samples
- Butcher or Kraft paper or newspaper
- Permanent marker
- Screen with 2-4 mm openings
- Rolling pins
- Oven
- Pen
- Plastic bags
- Spray bottle with 70% ethanol

Methods

1. Place the soil from the bag onto a piece of weighed butcher paper and spread out about ½ to ¾ inch thick. Manually break up large clods and mix thoroughly.
2. Take a subsample (~10 grams) for measuring soil moisture and calculating bulk density.
3. Dry the subsample in an oven at 250°F for 4-12 hours depending on how wet the soil is initially. After it's dry, weigh the oven-dried soil and record the value. The difference between the field-moist soil before placing it in the oven and the oven dried soil is the amount of water in the soil.
4. For the soil remaining on the paper, manually break up large clods daily as the soil air dries over 5-7 days.
5. Once the soil is air-dried, weigh and record the dry weight.
6. Pass the majority of the soil through a screen with openings about 2-4 mm using a rolling pin to gently break up the soil clods if needed.
7. Collect the soil that passes through the screen and use for further analyses.