

GLOBE Soil Moisture Campaign

Field Guide - Sample Collection Protocol

Task

Collect duplicate soil moisture samples at depths of 0-5 and 10 cm

What You Need

- ❑ 4 soil sample containers weighed and labeled with their mass and a sample number
- ❑ Map or GPS receiver
- ❑ Trowel
- ❑ Ruler marked in millimeters
- ❑ *Soil Moisture Campaign Data Sheet*
- ❑ Pen or pencil

Where to collect the sample

Find a safe sampling location with as many of the following characteristics as possible:

- Regionally important or typical surface/soil cover
- Relatively uniform
- Flat
- Open (no canopy cover)
- Unirrigated (unless this represents a major surface cover type)

In the field

1. Fill in the top portion of the Soil Moisture Campaign Data Sheet.
2. Locate your sampling point and cut or pull away any grass or groundcover.
3. Dig a hole 10-15 cm in diameter down to 5 cm. Leave the soil loose in the hole.
4. Remove from the loose soil any rocks larger than a pea (about 5 mm), large roots, worms, grubs, and other animals.
5. Use your trowel to fill a soil container with 100-200 g of the loose soil.
6. Immediately seal the container to hold in the moisture.
7. Record the container mass and number on the Data Sheet next to Hole 1, 0-5 cm.
8. Remove all of the soil from the hole down to a depth of 8 cm.
9. In a clean container, collect a soil sample that contains the soil between 8 and 12 cm. Remember to remove rocks, large roots, and animals. Seal the container.
10. Record the container mass and number on the Data Sheet next to Hole 1, 10 cm.
11. Return remaining soil to the hole.
12. Repeat steps 3 - 11 once again in a new hole within 25 cm of the original sample point. Record the container mass and number next to Hole 2 for both depths.