

Star Pattern Soil Moisture Protocol

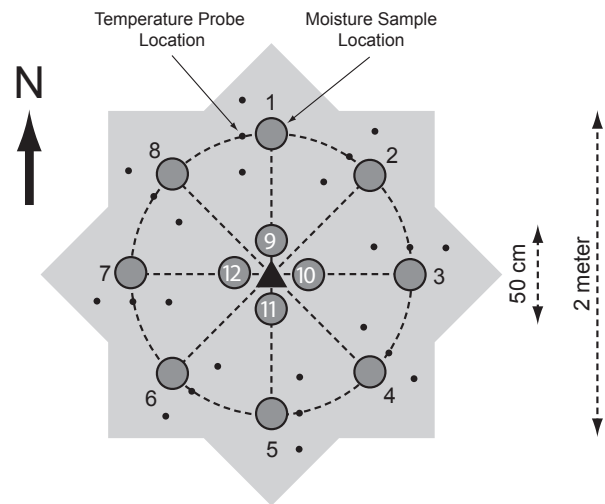
Field Guide

Task

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

What You Need

- [Soil Moisture Data Sheet – Star Pattern](#)
- Compass (to locate sampling point)
- Trowel
- 6 soil sample containers (sealable bags or cans) weighed and labeled with their mass and container number
- Meter stick
- Ruler marked in millimeters
- Science Log
- Pen or pencil



In the Field

1. Complete the top portion of the [Soil Moisture Data Sheet – Star Pattern](#).
2. Locate your sampling point on the star 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 a trowel to fill a soil container with at least 100 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 Sample 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 Sample 1, 10 cm.
11. Return remaining soil to the hole.
12. Repeat steps 3 – 11 twice in new holes within 25 cm of the original sample point filling the other four cans and recording the container numbers and masses for samples 2 and 3 at both depths. You should have six containers of soil taken from three holes.
13. Dry samples according to the [Gravimetric Soil Moisture Protocol Lab Guide](#).