

Mini-disk Tension Infiltrometer Materials and Instructions

Materials

- Tension Infiltrometer
- Sorptimeter (metal or PVC cylinder)
- Hammer
- Water
- Stopwatch
- Wooden board
- Core
- 2 zip lock bags
- Trowel
- Marker (for labeling)
- Pencil
- Datasheet
- Clipboard

Procedure

- 1) Collect a core outside of the area where you are testing infiltration rate to calculate bulk density and volumetric soil moisture (see directions for measuring these). Both may impact your study.
- 2) Fill the upper chamber with water. To keep water from escaping, keep the upper tube pushed down as far as it can go.
- 3) Fill the lower chamber by pulling off the disk and fill it up with water. Then replace the disk.
- 4) The top of the lower tube should be equal to the water level in the upper chamber. If it is not, you must fill it up.
- 5) Pull the upper tube up until the last line is equal to the water surface (1 centimeter of tension).
- 6) Clear the soil surface around the area you are testing. Remove any material that will interfere with the test. The infiltrometer needs good contact with the surface.
- 7) Record the initial water level in the tension infiltrometer in the data sheet
- 8) Put the infiltrometer firmly up against the surface and hold it there. Simultaneously, start the stop-watch. Make sure there is good contact between the infiltrometer and the surface.
- 9) Every minute take a measurement. Record in the datasheet.
- 10) When you have the same change per minute (column D) for 5 minutes and the number appears steady, stop the test.
- 11) Check the area beneath the disk. Make sure the whole area looks saturated and not only part of it. If it is only partly saturated, then discard the test.
- 12) Scoop a small amount of soil from directly underneath the disk at the surface. Put this in a plastic bag to calculate gravimetric soil moisture (see instructions).

