



You will return to the contents of P1 SOIL by clicking the pictogram

P1.60

IN SITU HYDRAULIC CONDUCTIVITY TESTS

09.06 Rainfall simulator

The extent to which the soil is sensitive to erosion is determined largely by the composition of the soil. Knowledge of the sensitivity to erosion is important for the development of a certain plot.

The sensitivity to erosion is hard to measure. Absolute values can not be obtained. It is, however, possible to obtain a reasonable indication by means of a relative measurement. For such a measurement a rainfall simulator can be applied.

The simulator allows erosion to take place on a small section of the plot. With the apparatus rainfall is simulated on a slanting surface. Through small capillaries in the plate under the water filled cylinder, the drops fall down on the slanting surface.

Once fallen to the surface of the soil, the droplet loosens soil particles. These particles jump up and fall down again, slightly lower, on the slope. At the

bottom of the slope, water and soil particles are collected in a reservoir.

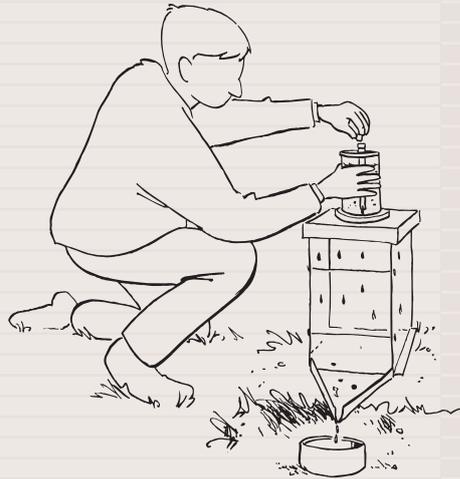
Through research in the laboratory of the soil particles collected, an indication can be derived concerning the composition and the sensitivity to erosion of the soil under research.

By comparing the measuring results to other measuring results, the researcher may set up a scale for sensitivity to erosion of the researched soil.

To be able to obtain reliable results it is important to keep the factors influencing the process (such as for instance the temperature of the water) as constant as possible.

It is also recommended to gather information concerning the history of the use of the soil. This may then be taken into account when translating the measuring results.

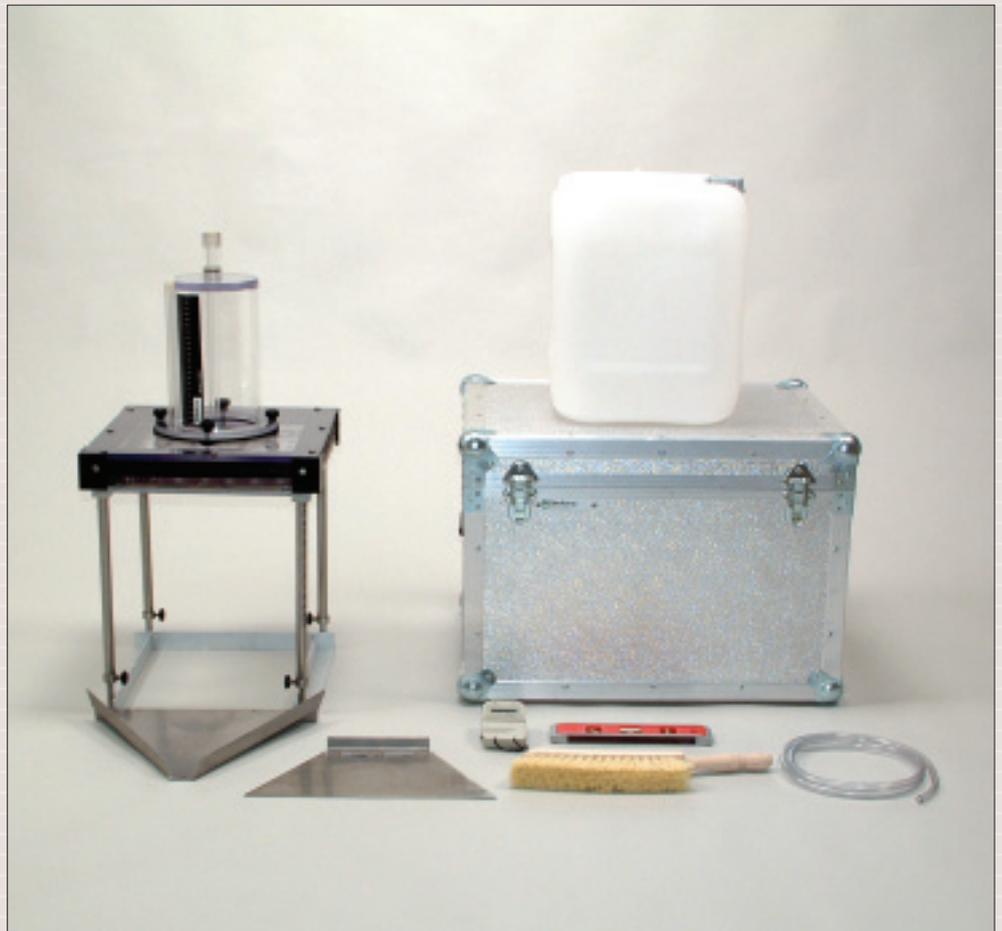
By pulling the plug, the measurement is started. At the bottom of the slope, water and soil particles are collected in a reservoir.



BENEFITS

09.06 Rainfall simulator

- Supplies rain storm for comparative research
- Small weight; no trucks needed
- Calibrated glass nozzles will last forever



Rainfall simulator