



The new lysimeter station Zurich-Reckenholz

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At the Zurich-Reckenholz location a new lysimeter station was build at the campus of the Agroscope Reckenholz-Tänikon Research Station ART. Altogether 72 lysimeters were monolithically excavated, each with 1 m² surface area and a depth of 150 cm. All lysimeters can operate from a walkable basement. Three different agricultural soils (loamy luvisol over gravel, sandy-loamy luvisol over ground moraine, loamy-silty gleyic cambisol over ground moraine) were installed. 12 of the lysimeters are weighable and were instrumented with tensiometers, temperature sensors, suction cups and TDR-probes in four depths (10, 30, 60, and 90 cm), each with two replicates. 60 lysimeters are non-weighable and the seepage water is measured by a tipping counter. All lysimeters are used for agronomic experiments. The main focus is the water flow and nitrate leaching by different cropping systems, cultivation, fertilization, and soil types. All experiments have three replicates. The construction of the lysimeter station was finished by the end of 2008. The first experiments will start in spring of 2009.

Keywords: nitrate leaching, water transport, seepage water, soil monolith, lysimeter technique