



## Courses for “Soil Practitioner” and other measures for raising soil awareness

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Today, unfortunately, little use is made of the findings of rhizosphere research in practice. Therefore the author, together with the organic farmers' associations Distelverein and Bio Austria, developed the education programme “Soil Practitioner” for organic farmers. The 9-days' course focuses on the topics nutrient dynamics in soil, plant-root interactions, soil management, humus management and practical evaluation of soil functions.

A second series of courses developed by Bio Forschung Austria aims at improving organic matter management on farm level. In order to enable the farmers to estimate if the humus content of their fields is increasing or decreasing, they are familiarized with the humus balancing method. In a second step, humus balances of farmers' fields are calculated and the results are discussed together.

Another activity to raise soil awareness is the “Mobile Soil Laboratory”, which is presented at various events. The soil functions are demonstrated to the public using special exhibits, which illustrate for example infiltration rate in soils with and without earthworms, or water holding capacity of soils with and without earthworms or erosion intensity on soil blocks from adjacent plots which had been cultivated with different crop rotations.

The habitat function of soil is illustrated with portable rhizotrons, which show the ability of plants to root surprisingly deep and to penetrate compacted soil layers. Another exhibit shows a habitat preference test between differently fertilized soils with earthworms as indicator organisms.

In the “Mobile Soil Laboratory”, visitors are also invited to watch live soil animals through the binocular microscope. They are supplied with information on the soil animals' habitat and behaviour and on how agriculture benefits from biologically active soil.

And last but not least, the “Root Demonstration Arena” at our institute features a 3-m-deep excavation lined with large viewing windows into the soil profile, where visitors can observe the root growth of different plants.