

P load research on three different scales (Fokus)

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MINIPILOT SCALE (0.4 m²):

The experimental treatments are randomized on grass plots during growing season. The soil top layer from each plot is lifted by a turf grass cutter and frozen. The grass mats are placed individually on the sloping SIMU devices and covered with snow. Infrared heaters are used to melt the snow and the melt water is collected. In spring 2009 the accuracy of the device was tested with slurry experiment. In spring 2010 five different chemicals were tested for diminishing the P load from grassland. See attachment for results on SIMU experiments.



FIELD SCALE (400 m²):

Five field scale surface runoff collectors will be used to evaluate the most promising methods tested in SIMU miniplot scale experiments. So far the field has been used for pasture and phosphorus fertilization experiments.

CATCHMENT SCALE (3 km²):

Five automatic water sampling stations will be installed on lake Kirmanjärvi basin during summer 2010. At the stations, water flow will be recorded continuously and water nutrient concentrations will be automatically collected based on the amount of the water flow. Sampling will be challenging as the winter conditions on the area are harsh. At the first phase (3 years) we will measure the basic level of the nutrient load from the basin. At the second phase, we plan to apply the most suitable measures based on the results from the two smaller scales on the basin level.

