Spatial Distribution of Soil Erosion and Phosphorus Transport Within an Agricultural Used Watershed. (S01-klik071012-Poster)

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Abstract:

In a 40 ha agricultural used watershed in Austria, surface runoff, soil erosion and nutrient losses are measured spatially distributed with 12 small erosion plots. Crops during growing season 2002 are canola, corn, sunflower, winter wheat, winter barley, rye, sugar beets, and pasture. Canopy height and canopy cover are observed in 14-day intervals. Four times per year soil water content, shear stress and random roughness of the surface are measured in a 25 x 25 m grid (140 points). The same raster is sampled for soil texture analyses and content of different phosphorus fractions in the 0.10 cm soil depth. Spatially distributed data are used for geostatistical analysis. Along three transects hydrologic conditions of the hillslope position (top, middle, foot) are investigated by measuring soil water content and soil matrix potential. After erosive events erosion features (rills, deposition, ...) are mapped using GPS. All measured data are used as input parameters for the Limburg Soil Erosion Model (LISEM).

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