



The comparison between theoretical annual loss of sediments and real sediment loss during the extreme rainfall runoff events

Jana Moravcova (1), Tomas Pavlicek (1), Monika Koupilova (1), Pavel Ondr (1), Tomas Kvitek (2), and Jan Vachal (1)

(1) South Bohemian University, Faculty of Agriculture, Landscape management, Ceske Budejovice, Czech Republic (moravcova.janca@seznam.cz), (2) Research Institute for Soil and Water Conservation, Prague

The study is aimed at the comparison of calculated and measured loss of sediments during the one year period. The experiment was carried out in Jenínský stream catchment – the small catchment located in the southern part of the Czech Republic, covered by permanent grassland used as pasture. The theoretical loss was computed by Universal Soil Loss Equation and the real loss was calculated from water samples analyses. These samples were taken during the extreme rainfall-runoff events through the whole year. The main results show the entire underestimating of annual loss by calculating the results using Universal Soil Loss Equation. In the case of the year 2009 the total real loss was more than doubled compared to the theoretically calculated. This article is based on results of grant of Ministry of Agriculture QH92298 System of nature near soil and flood protective measurements and its optimalization in process of land consolidation.