



Assessment relative soil erodibility index by rainfall simulation experiment

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Soil erosion in agricultural fields is identified as the main source of sediments to the Cuyaguaje River, located in the western part of Cuba. The soil is highly variable across the whole watershed and an accurate estimate of soil erodibility is difficult to assess. A rainfall simulation experiment was carried out in 16 different soils. Plots of 5 m long by 2 m wide with similar treatments and slope ranging from 5 to 15 % were selected. A constant rainfall intensity of 120 mm/h and 60 J/m² h of kinetic energy, for 25 minutes was applied. Runoff and sediment concentration were measured every 2 minutes. Different behavior through the rainfall event was observed denoting differences in the mechanism driving the erosion process. The total soil lost during this event is reported as a relative index of soil erodibility. There is practically no correlation between this relative index and others soil erodibility index commonly applied in literature.