



Post-fire soil and water losses changes under rainfall simulation experiments

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Fire can strongly affect the surface wash as soil properties and vegetation are disturbed by fire. Due to the high temporal and spatial variability on the natural rainfall intensities and depth, the large soil properties spatial variability and the post-fire changes in vegetation cover, the use of rainfall simulators was widespread on Mediterranean-Type Ecosystems. Since 1990, experiments with rainfall simulation in small (0.1 m²) to large (30 m²) were developed by the Soil Erosion and Degradation Research Group (SEDER) in Eastern Spain. The results show a fast recovery on the previous fire hydrological and erosional response due to the macchia recovery. More than 90 % of the sediment lost in one decade after fire took place during the post-fire Autumn due to the bare soil. Rainfall simulation experiments are and were a key tool to understand the post-fire changes on soil and water losses in the Mediterranean.