



Infiltration rate in runoff plots for various surface covers and slopes in Hebei and Sichuan Province, China.

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In order to understand the variability of the infiltration rate for various surface covers and slopes, rainfall and discharge of runoff plots were measured for different surface cover and slopes during the rainy season from July to October 2012. This study was conducted at two sites in China: Yi Xian, Baoding city, Hebei Province and Yan Ting Xian, Mianyang city, Sichuan Province.

Four land use types (fallow, forest and grassland with different surface coverage) were investigated in Yi Xian in 5m×20m plots. In addition, we monitored four plots of 1.5m ×5m with various slopes (15, 20, 25, 30 degrees) and three plots of 1.5m ×20m with maize and bare soil in Yan Ting Xian.

The infiltration rate on fallow ground is only slightly higher compared to other land use types, while variation is between forest and grassland is very little. Measurements on slope variation indicates that infiltration rate is almost independent of slope. These field data support recent, new generation models of hillslope hydrology.