



The runoff and sediment yield effects of typical plant measures for soil and water conservation in China

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Ecological effects of soil and water conservation have been highly paid attention in recent years. Based on the standard runoff plots observation data in Baima small watershed of Northern China [U+FF0C] the runoff and sediment yield effects of typical plant measures for soil and water conservation were studied. The runoff and sediment yield on the slopes of typical plant measures under different rainfall and rainfall intensity were compared and the change of soil moisture content of each slope with bare land as control were analyzed. The results showed that: 1) The heavy rain and rainstorm were the main rainfall types of soil and water losses; Under the condition of moderate rainfall intensity and the high rainfall intensity, runoff and sediment yield of runoff plots on slopes accounted for up to 71.94%-73.60% respectively of the total runoff and 80.78%- 90.35% of the total sediment; 2 [U+FF09] Under the condition of various types of rainfall, the bare land has the highest runoff and sediment yield [U+FF0C] and then the natural slope. While the runoff and sediment yield of arbor was lower than shrub and artificial grass. The least of runoff and sediment yield in the shrub and arbor forest could effectively control soil and water losses in this area; 3) The soil moisture of different slope runoff plots were basically identical, and there was a good consistency between the soil moisture and rainfall distribution.