Effectiveness Of Various Ground Covers On Soil Erosion On A 32.5% Grade

Research has shown that the best way to prevent soil erosion at construction sites and along roadways is by laying ground cover materials over the slope. This study investigated the effect of different erosion blockers on the speed of slope erosion. Three different erosion prevention techniques were used: straw mulch, gravel, and rip wrap. Four apparatus were set up with equal amounts of soil at a 32.5% grade to test the amount of sediment that would erode with four cups of water being poured on each apparatus everyday for a week. The eroded sediment was collected in filters, which were weighed upon drying. The type of erosion blocker directly affects the amount of eroded sediment. Straw mulch was the most effective allowing only a daily average of 0.3g of eroded sediment, gravel followed with 2.6g, rip wrap produced 3.1g, while the control generated a daily average of 7.8g. Even though straw mulch rots with time and needs replacement, it is the best erosion control method tested.