

Nathan Witt  
*To Nail or Not to Nail*

This experiment looked at the practice of soil nailing. Soil nailing uses twenty to thirty feet long steel nail rods punched into erosion prone ground and covered with a thin layer of concrete to stop erosion and save roadways and buildings. Soil nailing is a practice used all around the world. The purpose of this experiment was to prove that with soil nails and a covering of concrete that soil erosion could be stopped. It was hypothesized that the combination of soil nails and concrete would perform better than just nail or nothing at all in stopping erosion. The testing was done on a steep hill of dirt with six inch long nails. Three test plots were tested. One plot with no nails, the second with just nails, and the third with nails and a thin sheet of concrete. One gallon of water was poured down each plot. At the end the water and soil collected at the bottom proved which plot did the best. The very clear winner was the plot with both nails and concrete. Almost all of the water was collected on the third plot. Both the first and second had large amounts of soil nailing. The use of both nails and concrete was very successful in stopping erosion. In conclusion soil nailing was a great way to control soil erosion. The hypothesis made was proven and the experiment with soil nailing was enjoyable and interesting.