

Kristine Johnson
Plant for Success

I did my project on the effect of various sized plant roots on erosion of a dirt slope under various conditions. I think this is a relevant test for me because I live in Colorado where there are random rain storms that sometimes cause flash floods and snow that melts every spring. Every time this happens, the water erodes away parts of mountains, hills, hiking trails, and even peoples' yards. If we know what plants to plant in these places we will be able to preserve roads, trails, and buildings that are on the path of the erosion. I tested four different sizes of root systems and a slope with no plant roots under rain fall, snowmelt and flash flooding. I predicted that the longest fibrous root system would prevent erosion the best, but my results prove my hypothesis incorrect. My data shows that the long taproots were the best, followed by the short taproots, then the long fibrous roots, and lastly, the short fibrous roots. As I predicted, though, the control without roots prevented an average of three kilograms less than the least prevention of any other root system. In conclusion, I think I met my objectives in conducting this experiment. I also think that my results contribute to the prevention of erosion in Colorado.