



**CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY**

Name(s) Jake T. Danowsky	Project Number J2105
Project Title The Effectiveness of Commercial Netting in Preventing Erosion	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Soil erosion has always been an interesting topic for me. My goal in this project is to find the best way to stop erosion, or at least slow its progress with the use of netting. In my experiment I tested two types of commercial netting: Burlap netting, and Mesh netting. I also tested no erosion protection at all as my control. I decided to experiment with three different types of soil: garden soil, sand based soil, and Clay based soil.</p> <p>Methods/Materials In this experiment, I performed 27 tests. For my materials, I needed 54 pans to hold soil (2 different sizes, 27 pans of each size). I also used a knife to remove the front of the smaller pans so that the soil could "erode" when I placed them on a 35 degree angle. I needed three types of soil, water to simulate rain, a scale to weigh the eroded soil, and a stopwatch to time the amount of "rain".</p> <p>Results I performed the 27 tests in trials, each time testing garden soil, sand based soil, and clay based soil. The mesh netting had the best results with approximately 80.2g on average of soil eroded, the burlap netting on average had 130.8g eroded soil, and the control, with no erosion protection, had an average of 452.5g soil eroded.</p> <p>Conclusions/Discussion The mesh netting had 82% less eroded soil on average than the control soils with no protection netting. The burlap netting had 71% less eroded soil than the controls. Both commercial nettings prevented soil erosion effectively compared to the controls, which allowed more than three times as much soil to erode. I would recommend the burlap netting, since it is a natural fiber, will reduce erosion, and will not contribute plastics to the environment. Mesh netting is a plastic material, so it harms the environment.</p>	
Summary Statement I compared commercial netting materials for erosion prevention for different types of soil.	
Help Received In my project, my grandmother Diane Price helped hold the pans in place while I filtered them, so the water would not spill.	