



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Brian H.B. Hartman	Project Number J1007
Project Title The Power of Peat Moss	
Objectives/Goals The purpose of my experiment was to find which mixture of Peat Moss would absorb the most oil pollutant in water.	
Abstract	
Methods/Materials The materials I used were: Greensmix Peat Moss, Uni-Gro Organic Peat Moss, Miracle Gro Peat Moss, Marvel Mystery Oil, water, and Polymer Powder. To perform the experiment I filled a beaker with 700ml of cold water, poured 100ml of oil into the water, then poured 3/4 cup of Peat Moss onto the water and waited for the oil to be absorbed. Next, I scooped the Peat Moss/oil mixture off the water and placed it in a strainer to let any excess oil drain. I used a dropper to extract the excess oil that drained from the Peat Moss. I then poured Polymer Powder onto the oil causing it to solidify and I weighed it the triple beam balance.	
Results In the first trial, Greensmix did not absorb 27 g of oil with polymer, Uni-Gro Organic did not absorb 11.5 g of oil with polymer, and Miracle Gro did not absorb 60 g of oil with polymer. In the second trial, Greensmix did not absorb 27.5 g of oil with polymer, Uni-Gro Organic did not absorb 10 g of oil with polymer, and Miracle Gro did not absorb 70 g of oil with polymer. In the third trial, Greensmix did not absorb 26.8 g of oil with polymer, Uni-Gro Organic did not absorb 14.7 g of oil with polymer, and Miracle Gro did not absorb 67 g of oil with polymer. The results revealed that Uni-Gro Organic Peat Moss was able to absorb and retain the most oil pollutant in water.	
Conclusions/Discussion My hypothesis that Greensmix Peat Moss would absorb the most oil pollutant in water was not supported by the results of my experiment. What I think happened was that Uni-Gro Organic Peat Moss is a species of decayed Sphagnum moss that has more empty cells capable of absorption than Greensmix Peat Moss. If I were to expand my project, I would test many different brands of Organic Peat Moss because of the variations of their capacities to absorb and retain different amounts of oil.	
Summary Statement The purpose of my project was to determine which mixture of Peat Moss would absorb the most oil pollutant in water.	
Help Received My parents purchased the materials for my project, and my mother helped me take photographs for my project.	