



**CALIFORNIA STATE SCIENCE FAIR  
2013 PROJECT SUMMARY**

<b>Name(s)</b> <b>Brian H.B. Hartman</b>	<b>Project Number</b> <b>J1007</b>
<b>Project Title</b> <b>The Power of Peat Moss</b>	
<b>Objectives/Goals</b> The purpose of my experiment was to find which mixture of Peat Moss would absorb the most oil pollutant in water.	
<b>Abstract</b>	
<b>Methods/Materials</b> 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.	
<b>Results</b> 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.	
<b>Conclusions/Discussion</b> 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.	
<b>Summary Statement</b> The purpose of my project was to determine which mixture of Peat Moss would absorb the most oil pollutant in water.	
<b>Help Received</b> My parents purchased the materials for my project, and my mother helped me take photographs for my project.	