



**CALIFORNIA STATE SCIENCE FAIR  
2010 PROJECT SUMMARY**

<b>Name(s)</b> <b>Douglas R. Dean</b>	<b>Project Number</b> <b>J1108</b>
<b>Project Title</b> <b>Are Natural Products As Effective in Cleaning Oil Spills As Commercial Products?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective is to determine if natural products are as effective in cleaning oil spills as commercial products. My goal is to reduce needless pollution at an oil spill by using eco-efficient products and reducing waste. <b>Methods/Materials</b> I used the same amount of measured samples of cotton, coconut husks, wood chips, and commercial absorbents (selectSorb and PY pads) and submerged them into an oil water mixture for a timed period. Oil and water levels were measured and documented. Each test was completed three times for accuracy. <b>Results</b> Cotton (control) absorbed an average of 55% of the oil. Commercial product, Sham-Wow, absorbed 52%, and PY Pads and wood chips absorbed 42% of the oil. <b>Conclusions/Discussion</b> The cotton (control) absorbed the highest amount of oil due to the manipulation of fibers in manufacturing for absorbency. Commercial products were more effective in cleaning up the oil than the other natural products tested. My goal and future project is to recycle the cotton used in the oil spill and reuse it due to its efficiency and absorbency. I would like to create a simple washing drum machine to spin off the oil collected on the cloth at an oil spill site and then reuse the cloth rags again for clean up.	
<b>Summary Statement</b> Testing the efficiency of oil absorbency on commercial and natural products.	
<b>Help Received</b> My mother drove me to pick up all my supplies, paid for them and helped with printing my report. My dad took photos of the experiments, assisted with safety and the disposal of the oil.	