



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

<b>Name(s)</b> Spencer D. Christensen	<b>Project Number</b>  22431
<b>Project Title</b> The Use of Phytoremediation to Lower Selenium Levels in Soil	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> My objective was to learn how much selenium was abstracted from the ground by different plants. Another objective was to see what effect the selenium had on the different plants, and if these plants would take up more selenium if they were planted in more.</p> <p><b>Methods/Materials</b> First I tested how much selenium would saturate the entire one gallon pot full of soil. I then planted the seeds in stater pots and waited until they grew and transplanted them into the selenium contaminated soil. I took growth and water charts until they were ready to be tested. I cleaned the plants of with water and put them in a freezer room where later they were tested for selenium uptake.</p> <p><b>Results</b> the results were canola took up more selenium than broccoli in all the reps. Also when the selenium amount increased so did the uptake by both plants, and the plants with more selenium were bigger.</p> <p><b>Conclusions/Discussion</b> Over all most of my hypothese were correct. My first hypothesis was correct both plants took up selenium so was my second (Canola took up more selenium than broceoli), but my third was off. The more selenium contaminated in the soil did change the amount taken up by both plants.</p>	
<b>Summary Statement</b> My project is about the use of phytoremedeation to clean soil.	
<b>Help Received</b> Dr. Banuelevs help type and test report, mother helped type.	