



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Serena B. Suggs	Project Number J1921
Project Title Aquaponics vs. Soil	
Abstract Objectives/Goals My goal was to see which method of gardening was better: aquaponics or soil gardening. Aquaponics is the combination of hydroponics and aquaculture, which means growing plants without soil and using the liquid waste from fish as nutrients for the plants. Methods/Materials The plant bed and fish tank were made out of two plastic bins. The plants I used were kale and cabbage, which were grown in clay pebbles. The fish tank, of course, was filled with regular water and goldfish. The plant bed rested on top of the fish tank and the two were connected with pipes, which delivered dirty water to the plants. The plants soaked up the liquid waste and the clean water went back into the fish tank. To compare the growth between soil gardening and aquaponics, I had a pot of soil with kale and cabbage grown in it as well. Results In the end my hypothesis was right. My hypothesis was that the plants grown in aquaponics would be taller/ wider than plants grown in soil. The plants grown in aquaponics were about one and a half inches taller/ wider than the plants grown in soil.	
Summary Statement Testing which method of gardening is more efficient/ better: aquaponics or soil.	
Help Received My dad helped with building the aquaponics system.	