



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Hannah O. Cevalco	Project Number J1902
Project Title Cuckoo for Coconuts	
Objectives/Goals The purpose of this experiment is to see if coco coir, an eco-friendly, sustainable growing medium, can be used as a substitute for non-sustainable growing mediums. If coco coir is a successful alternative, it will reduce the amount of marshlands and trees that are harvested to produce non-sustainable growing mediums.	
Abstract Methods/Materials To conduct this experiment, 473 quarts of coco coir, "Earthgro" potting soil, and a custom blend of growing mediums labeled as "RCN" mix were evenly divided into 96 (43) ounce pots. Then, 402 quarts of peat moss and 71 quarts of perlite were mixed together and divided in to 32 pots for a total of 128 pots. 32 geraniums, euphorbia, and fuchsias were planted in 96 pots(1 per pot). The remaining pots were filled with 2 radish seeds each. All 128 of the plants were then placed in a greenhouse for the duration of the experiment. The height of each plant and the moisture content and ph of each growing medium category was measured on a weekly basis. Dry weight measurements and an advanced chemical analysis from a laboratory was done at the end of the experiment.	
Results The results showed that coco coir produced nearly the same data as the industry standard peat moss and perlite mix. Coco Coir was superior to the "RCN" mix and the "Earthgro" potting soil in all of the measurements. The moisture chart shows that coco coir has a high water capacity and the data in the ph chart was similar in all of the collections. In the dry weight measurements, coco coir and the peat moss and perlite mix produced plants with the most dry weight. Plants grown in "RCN" mix were heavier that plants grown in "Earthgro" potting soil. The chemical analysis shows that all of the soils are within the general guidelines for potted plants.	
Conclusions/Discussion The conclusion for this experiment is that coco coir can be used as a substitute for the non-sustainable growing mediums it was compared to. This conclusion is significant to our environment because coco coir is a natural and eco-friendly alternative to growing mediums that can harm our environment.	
Summary Statement Comparing an eco-friendly growing medium to non-sustainable mediums to save our environment.	
Help Received Mother reviewed written work . Mother and Uncle accompanied me to weekly data collection and helped me figure out when to water the plants and how to care for them best.	