



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

Name(s) Gavin C. Joyce	Project Number 36745
Project Title Surviving Drought II: How Much More Food?	
Objectives/Goals The goal of this experiment was to determine if recycled water grew squash fruit in higher quantities and in higher quality than tap water. Abstract Methods/Materials Materials 1. 18 pots 2. 18 square feet of black fabric 3. 9 small bags of rocks 4. 4 1/2 trash cans of soil 5. 18 squash seeds 6. 2- 2 gallon watering cans 7. Recycled water source 8. Tap water source 9. Biomass scale 10. Thermometer 11. Clock Method: 1. Place pots in two rows of 9 each 2. Fill the pots 1/3 of the way up with rocks 3. Cut and place one square foot of fabric in each pot, covering the rocks 4. Fill pots another 1/3 of the way with soil 5. Plant 2 squash seeds in each pot 6. Water daily and adjust amount used to the temperature and season 7. Record data on amount of fruit produced and stand-out qualitative traits Results The recycled water grew roughly double the amount of squash fruit that the tap water grew. The recycled water squash was also more developed and healthier than the tap water squash. Conclusions/Discussion The results of my project show that recycled water is great for producing food especially when it contains high amounts of phosphorus. This is important because it may not be the quantity of water that will help us through this drought but quality of water that will help us in the end.	
Summary Statement After last year determining that vegetables can be grown with recycled water, this year I wanted to investigate if recycled water grew more squash fruit than first use tap water and by what margin.	
Help Received My grandfather provided access to gardening space as well as materials.	