



**CALIFORNIA STATE SCIENCE FAIR  
2013 PROJECT SUMMARY**

<b>Name(s)</b> Alisa Khodos	<b>Project Number</b> <b>J1912</b>
<b>Project Title</b> <b>Plants: Who's the Waterholic?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> My objective was to prove that different types of plants have different evapotranspiration rates, which affect the amount of water they use. I predict that cactuses would evapotranspire the least, succulents- a little more, and flowers- the most water.</p> <p><b>Methods/Materials</b> 5 succulents, 5 cactuses, and 5 flowers were planted in same-size pots with same-type soil. Throughout 6 days, the plants were daily weighed on a gramm scale and watered with the amount of water they evapotranspired during the 24 hours. The obtained data of evapotranspired water was recorded and used to calculate the total and the average daily evapotranspiration rate for each type of plant to compare their water use.</p> <p><b>Results</b> The average daily evapotranspiration rate in flowers was approximately 4 times higher than in cactuses or succulents. But cactuses and succulents required almost equal amounts of water.</p> <p><b>Conclusions/Discussion</b> My hypothesis was correct: cactuses and succulents do require less water that flowers. This knowledge can be used in landscaping in California and other dry-climate areas to conserve water by planting drought-tolerant plants.</p>	
<b>Summary Statement</b> I studied evapotranspiration rate to prove that different types of plants require different amount of water.	
<b>Help Received</b> My mother bought the equipment and helped me with Excel, and my father made a board stable.	