



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Emily N. Thielen	Project Number J1729
Project Title One of These Is Not Like the Others: Discovering the Impact of Non-Native Grasses on the High Desert Ecosystem	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of my project was to determine if plants native to the High Desert will consume less water than non-native plants.</p> <p>Methods/Materials In the experiment two types of plants were purchased, one native and the other non-native, and then planted in the same soil and location. Both sets of plants weighed 7 pounds at the time of purchase. Also, at the test site, I placed small tubs to catch any excess water not consumed by the plants. Over the period of many weeks I carefully watered both plants with 7000 ml of water at each application. When the watering was completed, I took the excess water found in the tubs and measured the amount of water not consumed by the plants. I recorded this information in my logbook. This same procedure would be repeated many times in order to gain the average water consumption level for each plant.</p> <p>Results After completing my science project, I discovered that native plants consumed considerably less water than non-native plants. In fact, proof from my data shows that over the course of the project, the native plants consumed nearly 20% less water than the non-native plants.</p> <p>Conclusions/Discussion Wildfires have become quite common here in California and their devastating effect is undeniable. Though there are many reasons behind our increasing amount of wildfires, one key issue which is often overlooked is the impact of non-native plants. Many wildfires grow in size and intensity due to the fact that the open spaces that used to exist between the native grasses are being filled by non-native grasses. So instead of fires dying out as they travel over ground with just a small amount of native grass, the non-native grass provides the fuel to keep the fires burning. Another interesting impact of non-native grasses is that they may require more water to maintain and thus deplete water supplies especially vital to the desert communities. The data from my project suggests that greater oversight might be needed to monitor the amount of non-native plants which are added to the High Desert landscape.</p>	
Summary Statement Do plants native to the High Desert consume less water than non-native plants?	
Help Received My dad helped make two drip lines in our backyard to water the plants.	