



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Riley K. Harn	Project Number J2009
Project Title Commercial vs. Non-commercial Weed Killers: Which Works the Fastest?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective is to compare commercial, non-environmentally friendly weed killers with non-commercial, environmentally friendly substances to see which will kill weeds the fastest.</p> <p>Methods/Materials Five groups of 9 trials each of Forget-me-not weeds (each in its own seed tray compartment) were set up. On Day 1, one group of 9 was sprayed with Roundup; one group of 9 was sprayed with Weed B Gon; one group of 9 was sprayed with cider vinegar; one group of 9 had boiling water poured over it, and one group of 9 was left alone as a control. The plants were monitored for 4 days and their status was recorded with a camera and by using a 0 to 4 scale each day, where 0 = Alive, 1 = Starting to die, 2 = 1/2 dead, 1/2 alive, 3 = Barely alive, 4 = Completely dead.</p> <p>Results The cider vinegar worked the fastest, and then the boiling water. Roundup did third best and Weed B Gon got fourth place. The control plants that had nothing done did not die at all.</p> <p>Conclusions/Discussion My hypothesis was incorrect; boiling water was the second best substance I tested. The fastest way to kill weeds is by using cider vinegar. I had to revise the experiment several times to eliminate as many variables as possible, but I did obtain more accurate results. These results are great because the two environmentally friendly variables, cider vinegar and boiling water, worked better than the other two, Roundup and Weed B Gon, which were commercial brands that weren't environmentally friendly. This also proves that you cannot expect your weeds to die on their own. If you want an environmentally friendly way to kill your weeds fast, use cider vinegar!</p>	
Summary Statement My project is about comparing commercial, non-environmentally friendly weed killers (Roundup and Weed B Gon) with non-commercial, environmentally friendly weed killers (cider vinegar and boiling water) to see which kills weeds the fastest.	
Help Received Mother helped with taking photos, charts, pouring boiling water.	