



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

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Project Title Flamingly Good: Fire Ecology

<p>Objectives/Goals</p> <p>An experiment was set up to test the effect of burned soil on seed germination. Soil samples were collected from five sites, each one varying in burn history. The most recent of three months prior to the least recent of over one hundred years. A variety of indigenous seeds were then planted in the soil and allowed to germinate. The hypothesis was that the soil with the most recent burn history would have the most germination and the one with the most remote burn history would have the least. The data supported the hypothesis.</p> <p>Abstract</p>														
<p>Methods/Materials</p> <p>The map is a little outdated, revised in the late 1990's, but all recent fires (which were not on the map) were accounted for when choosing the soil sample sites. From the information four sites were chosen ranging in burn activity: Cold Springs, Painted Cave, Ojai, and Cate School. Two soil samples were collected from slightly different areas in each site. The seeds were indigenous to chaparral of Southern California. The soil was then placed in potting containers. The same number of seeds were used for each type of plant, but varied from species to. The seeds were then water occasionally so that the soil stayed moist.</p> <p>Shovel Containers - eight Camera Seeds</p> <table><thead><tr><th>Type</th><th>Quantity</th></tr></thead><tbody><tr><td>California Poppy</td><td>200</td></tr><tr><td>Chaparral Yucca</td><td>80</td></tr><tr><td>Giant Coreopsis</td><td>80</td></tr><tr><td>Island Buckwheat</td><td>200</td></tr><tr><td>Meadow Rue</td><td>200</td></tr><tr><td>Succulent Lupine</td><td>80</td></tr></tbody></table> <p>Water Planting Container Notepad Pen Marking Sticks - eight</p> <p>Results</p>	Type	Quantity	California Poppy	200	Chaparral Yucca	80	Giant Coreopsis	80	Island Buckwheat	200	Meadow Rue	200	Succulent Lupine	80
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<p>Summary Statement</p> <p>This research presents data that supports the idea that fires establish conditions that enhance the ability of indigenous seeds to germinate in the chaparral biome. The only nutrient that is in excess in the chaparral soils (recently burn</p>

<p>Help Received</p> <p>Mrs. Powers helped to collect data.</p>
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