



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> <b>Christine Haas</b>	<b>Project Number</b> <b>S1604</b>
<b>Project Title</b> <b>"How Does the Buckeye Grow?" -California State Senator Dean Florez, August 13, 2004</b>	
<b>Abstract</b> <b>Objectives/Goals</b> California Senator Dean Florez stated, "In your previous research Buckeye trees seem to have been effective in eliminating mosquitoes." He then asked me, "How easy would it be to grow these trees in large numbers?" Therefore, the purpose of this project was to determine if is possible to mass-produce the California Buckeye Tree. <b>Methods/Materials</b> For Experiment #1 & 2, I sought to germinate 24 buckeye seeds in six different chambers. For Experiment #3A, six already germinated buckeye seeds were placed at four locations. For Experiment #3B, the seedlings from Experiment #3A were placed outside to see which treatment had prepared them the best. <b>Results</b> Buckeye Germination Experiments #1 & 2 Two out of forty-eight seeds germinated, and they had signs of deformities.  Growth of Buckeye Seedlings (Experiment #3 # PART A) Seedlings outside grew to 1.875#, in Greenhouse #1 grew to 3.5#, in Greenhouse #4 grew to 7.667#, and in the 15°C Germination Chamber grew to 9.333#. The seedlings at 15°C had the strongest growth and the best root systems.  Growth of Buckeye Seedlings (Experiment #3 # PART B) Seedlings from the 15°C Germination Chamber had the most growth with 11.292#. Seedlings from Greenhouse #4 were 8.25#, from Greenhouse #1 were 4.667#, and from outside were 4.625#. <b>Conclusions/Discussion</b> The seeds germinated better in nature and then grew extremely well in the 15°C Germination Chamber. I believe it is possible to cultivate the California Buckeye tree on a medium-large scale by starting the seeds at 15°C and transplanting the seedlings to a natural setting.	
<b>Summary Statement</b> An attempt to mass-produce the California Buckeye Tree to test the feasibility of growing these trees in order to create the "Buckeye Toxin" for use on all stages of mosquito development.	
<b>Help Received</b> Conducted experiments at Clovis East High Agricultural Center. Mother helped with board.	