



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Kai Harper; Chris Vita	Project Number S0707
Project Title Sods: The Real Killer	
Abstract Objectives/Goals Our experiment is about measuring test sites for the amount of Sudden Oak Death Syndrome-caused fuel loads and how this disease affects fire danger in certain areas. Sudden Oak Death Syndrome (SODS) is a contagious pathogen that spreads to Tan Oak and other oaks which, in turn, causes death to them. To collect the data for our experiment we had to hike into the woods using map and compass navigation skills. There we performed basic natural and earth sciences by counting and measuring trees; dead and live fuel loads; litter, duff, and soil profiles. They are also responsible for determining the fire danger in forested areas. At the sites we had to apply our knowledge of plants to determine the type of species in each area. Once all our data was collected, my partner and I had to use basic geometric and mathematical skills to find the volume of each tree.	
Methods/Materials Obtain materials; Obtain permission to test in chosen site; Measure out n area 33# by 33#; Chose a corner and use the compass to place the stakes at a straight; Stake it out using the PVC or the stakes and the string; Measure the height of trees out of one#s reach by using the International Log Scale Stick in the area; Measure diameter of those trees using the same Scale Stick if it is over 3# in diameter; Measure trees over 3# that are accessible with the tape measure (somewhere around 25 ft tape measure; Measure the diameter for those trees; Measure the amount of duff and litter on the ground with the tape measure and the garden shovel; Estimate the slope of the area; Collect materials; Hike back and input data into a secure position. Large backpack; International log scale stick; Tape measure (25 ft and 300 ft); Compass; String; PVC pipe or stakes; Yellow flagging tape; Shovel; Clipboard; Charts; Writing utensil; Walkie talkies (optional); Hiking shoes; Permission to enter certain sites.	
Results Sudden Oak Death Syndrome does have an effect on fire danger in Tan Oak areas.	
Conclusions/Discussion Our hypothesis was proven correct and there was more of a fuel load in areas that were affected by the SODS fungus. This is because the SODS fungus kills off trees such as Tan Oaks, which then, creates more of a fuel load. Something that might be interesting to do in the future is to revisit the sites and measure the fuel loads again to determine how much decay and death has occurred over the years.	
Summary Statement Our experiment is about measuring test sites for the amount of Sudden Oak Death Syndrome-caused fuel loads and how this disease affects fire danger in certain Tan Oak areas.	
Help Received Steve Harper gave us help with driving to the sites along wiht providing us with some materials. The Forest service also gave us alot of useful information on SODS	