



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Sana Hadyeh	Project Number J1306
Project Title Transect Sampling: A Statistical Model Demonstration of Accuracy in Forestry Management	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This project considers a mathematical model that examines whether transect sampling of small forest areas statistically represents larger populations.</p> <p>Methods/Materials A model of 24 scale hectares with "tree" samples was created to represent a large population. Random transect lines were drawn and smaller hectare samples were derived and t-tested for reliability. Later stages of the project examined real data to examine whether the model duplicated actual field data.</p> <p>Results All of the smaller model samples failed the t-test at a 95% confidence level. An examination of comparative real field data also indicated similar results in that most samples failed t-test reliability.</p> <p>Conclusions/Discussion Transect sampling may not adequately represent a medium size larger mother population.</p>	
Summary Statement This project considers a mathematical model that examines whether transect sampling of small forest areas statistically represents larger populations.	
Help Received	