



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

<b>Name(s)</b> Allison M. Kaku	<b>Project Number</b>  22424
<b>Project Title</b> The Effect of Walnut Extract on Root Lesion Nematodes	
<b>Abstract</b> <b>Objectives/Goals</b> My project was to see if chemicals extracted from walnut branches will kill Root Lesion nematodes. I think that the toxic chemicals in the branches will kill Root Lesion nematodes. <b>Methods/Materials</b> I made walnut extract by chopping up walnut branches and putting them into a cheesecloth bag. I soaked the bag in a liter of water for 48 hours. I made concentrations of 200 grams of walnut branches/liter of water, 50 grams/liter, 10 grams/liter and an untreated water. I put the nematodes into the extracts, and counted the dead nematodes after 24 hours. I had three reps for each treatment. <b>Results</b> The 200 grams/liter had 98% mortality, 50 grams/liter had 83% mortality, 10 gram /liter had 65% mortality and the untreated water had 7% mortality. <b>Conclusions/Discussion</b> My conclusion is that walnut extracts are toxic to Root Lesion nematodes. It was interesting to me that Root Lesion nematodes can live inside the walnut roots, but they can be killed by the toxic chemicals that are inside the walnut plant cell.	
<b>Summary Statement</b> My project is to see if the toxic chemicals inside the walnut plant cells will kill Root Lesion nematodes.	
<b>Help Received</b> My mother helped me type my report. The Kearney Agricultural center for providing me with nematodes.	