

CALIFORNIA STATE SCIENCE FAIR 2011 PROJECT SUMMARY

Name(s)	Project Number
Jorie A. Moore	
	31158
Project Title	
Investigating the Effectiveness of Indigenous Plant Solutions in	
Inhibiting Leaf Gall Insect Development	
Objectives/Goals Abstract	
The goal of this project is to determine the effectiveness of indigenous plant ex	tracts in the development
of petiole gall aphids without harming the environment.	
Methods/Materials	
200 petiole galls from the poplar cottonwood tree were collected. Three different tested; jimson weed, stinging nettle, and tobacco plant. There was a control with the control	ndigenous plants were
consisting of extract from the cottonwood tree. After seven days of being sun-	read the pesticides and
controls were sprayed on split open petiole galls within containers. The opinion	s were observed for one
day. Afterwards a field test with the same variables was conducted to test the	effectiveness in the natural
environment. The trees were sectioned off where the different variables were	to be sprayed without
opening or disturbing the petiole galls. The results were observed over one da Results	y.
After one day of testing the controls in the lab and field test were 100% of the	aphids alive. The field
After one day of testing the controls in the lab and field test were 100% of the results are: stinging nettle- 42% alive, jimson weed 74% alive, to acco- 56%	alive. The lab results are:
stinging nettle- 86% alive, jimson weed- 50% alive, tobacco 90% alive.	
Conclusions/Discussion All of the perticides were effective in both the Congression and field tests but all of the	nesticides were more
effective in the field test. Jimson weed was the most effective pesticide in the l	ab test and stinging nettle
All of the pesticides were effective in both the late and field tests but all of the effective in the field test. Jimson weed was the most effective pesticide in the laws the most effective in the field test. To bacco was the least effective in the laws the last effective in the laws while having a 56% survival rate in the field test. Grarell the posticides we	ab test with 90% survival
Tate write having a 30% survival rate in the field test. Overall the pesticides w	reference, more so when
tested in the petiole gall aphids natural environment than in the lab test with o	lirect contact.
Summary Statement	
In my project Nound that certain indigenous plant solutions are effective meth	and of controlling pests in
the environment without compromising the health of the ecosystem.	
Help Received	