CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY

Name(s)
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Project Number
J1301

Project Title
Do Different Amounts of Aloe Vera Have an Effect on Bacterial Inhibition?

Abstract

Objectives/Goals
The purpose of this project is to determine if different amounts of Aloe Vera have an effect on bacterial inhibition. My hypothesis is that as the amount of Aloe Vera increases, zones of inhibition will increase.

Methods/Materials
Inoculum of Bacillus Atrophaeus Tryptic Soy Broth culture was prepared for incubation. Bacteria was spread on five Tryptic Soy Agar petri dishes to ensure a confluent lawn of growth. .02, .12, and .22 grams of Aloe Vera were applied to petri dishes B, C, and D respectively. Five other petri dishes became control groups. After incubation, zones of inhibition were recorded.

Results
No distinct zones of inhibition were observed throughout all experimental trials. Bacterial growth appeared on Aloe Vera control and Aloe Vera with distilled water groups. Data did not support hypothesis.

Conclusions/Discussion
Repeating experiment by using a different bacterium, another method of aseptically extracting Aloe Vera gel, and utilizing the viable bacterial cell count method can establish more results.

Summary Statement
The objective of this project is to determine if different amounts of Aloe Vera have an effect on bacterial inhibition.

Help Received
Ms. Anahid Kazarians, my advisor provided me with the Bacillus Atrophaeus bacteria, inoculating loops, TSB broth, and centrifuge tubes. Mother drove me to different libraries for research. My Dad helped me with my tables and graphs.