

### CALIFORNIA STATE SCIENCE FAIR 2005 PROJECT SUMMARY

Name(s)

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**Project Number** 

# **J1301**

#### **Project Title**

## **Does the Elapsed Time of Crushed Garlic Have an Effect on Bacterial Inhibition?**

Abstract

#### **Objectives/Goals**

The purpose of my experiment is to determine if elapsed time between crushing garlic and its usage will have an effect on bacterial inhibition. My hypothesis is that as time intervals increase, zones of inhibition will decrease.

#### **Methods/Materials**

Inoculum of Bacillus Atrophaeus TSB culture was prepared for incubation. Bacteria were spread on six blood agar petri dishes to ensure a confluent lawn of growth. 0.2 grams of crushed garlic was applied to petri dish specimens at 15 min. time intervals, (0 - 60 min. and 24 hrs.) Four petri dishes became control groups. All were incubated overnight. Zones of inhibition were measured and recorded.

#### Results

During the 1st experiment, no zones of inhibition were observed. The next two experiments indicated an increase in zones of inhibition. The 4th trial showed an increase in zones of inhibition during the 1st 30 minutes, followed by a gradual decrease.

#### **Conclusions/Discussion**

My hypothesis was correct; however, more time intervals and experimental trials should be performed in order to establish more accurate results.

#### **Summary Statement**

My experiment is to determine if the elapsed time between crushing garlic and its usage will have an effect upon bacterial inhibition.

#### **Help Received**

Ms. Anahid Kazarians and my parents, Berj and Linda Alexanian.