CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY

Name(s)
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Project Number
J1422

Project Title
Bacterial Contaminants in Self-serve Ice Dispensers at Fast Food Restaurants

Abstract

Objectives/Goals

The purpose of this experiment was to determine if there are any bacterial contaminants growing in self serve ice dispensers at fast food restaurants. The hypothesis was that there will be none or insignificant traces of harmful bacteria that are not enough to cause diseases. The Eosin Methylene Blue (EMB) medium was used to help determine specific gram negative bacteria that can cause harmful diseases. Samples from five fast food restaurants were collected over a two week period. A total of 60 samples were collected. There was evidence that showed bacterial growth in all of the restaurants tested. The findings from these restaurants were consistent with the hypothesis in which the small amount of bacterial growth was not significant enough to cause harmful diseases to the consumers. Even though the amount of bacteria was small, it could signify a serious problem if the restaurant does not take measures to prevent future bacterial outbreaks. These outbreaks could be prevented by the restaurant#s employees adhering to proper cleaning procedures of all equipments. Both the restaurant employees and the consumer should employ proper hand washing techniques to prevent diseases.

Summary Statement

The purpose of this experiment was to determine if there are any bacterial contaminants growing in self serve ice dispensers at fast food restaurants.

Help Received

Dr. Murphy, for helping me with the research topics and dispose of the bacteria. Mrs. Madsen, science teacher, for the use of the incubator. My father, for his expertise in the use of the digital camera. My mother, for driving me to the restaurants to collect specimens and helping me with the writing.