Abstract

Project Title: Sweet or Starchy?
Project ID: 165

Abstract

A brief explanation of your project. Enables judges to receive a base understanding of your project and work.

As the world is now leaning towards eating fresh, farm-grown produce, problems such as food waste are quickly rising in both magnitude and scope. The principal vector through which food waste occurs is via biodegradation, or in the case of this experiment, mold growing on bananas. In this project, bananas were chosen as it is quite easy to pinpoint the degree of biodegradation by brix level and appearance. This project will observe 3 different variables that contribute to mold growth: temperature/moisture, sugar/starch composition, and the ripeness level. Therefore, there are three hypotheses to be tested: mold prefers to grow on unripe bananas in high temperature with added moisture, mold growth prefers high starch content, and mold will tend to grow on an unripe banana. In order to test each of these hypotheses, three series of experiments were designed to test the effects the variables have on mold growth. In conclusion, the data recommends high temperature with no moisture as the condition to slow mold growth. Thus, the first hypothesis is supported. Furthermore, results showed that mold grows faster on unripe bananas or bananas with high starch content so hypotheses 2&3 are supported.

Items to Include:
Introduction: Why did you do this project and why is it important? How will this effect people and why is it needed. Inspire the reader to continue learning more about your research and read your report.

Problem Statement and Engineering Goal / Hypothesis: What is the problem you were solving and what was your engineering goal or hypothesis.

Procedures: How did you solve the problem and or test your hypothesis. Don't go into details, provide a broad, conceptual view of what you did. For engineering, what was your design criteria.

Results: What was the outcome? Use your data and numbers to describe your result.

Conclusion: Was your hypothesis supported or the engineering goal met?