

## CALIFORNIA STATE SCIENCE FAIR 2003 PROJECT SUMMARY

Name(s) Project Number

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J1404

## **Project Title**

# Growth and Taste of Lettuce Plants When Given Coconut Milk, Soymilk, or Water

#### Abstract

## Objectives/Goals

Hypothesis: I hypothesized that the lettuce plant given coconut milk will taste and grow better because of its high sugar content.

#### Methods/Materials

Materials: Coconut milk, soymilk, water, three syringes, flexible measuring tape, and three Romaine lettuce plants.

Procedures: First I purchased three Romaine lettuce plants. Each day I would measure the height of the plant from its base to the tip of its tallest leaf with the flexible ruler. I then recorded its height depending on how many millimeters it grew. With the syringes I pipette 1/2 oz from each of the fluids and placed it into each lettuce plant. The plants were put near a window receiving indirect sunlight.

#### Results

Although water is needed for nearly almost every living organism to survive this experiment has proven that the soymilk stimulated the growth of the lettuce plants by few inches more than the coconut milk, or water. The reason may have been because the coconut milk was too concentrated and the plant could not absorb the fluid properly. It needed more water to loosen the coconut milk. The controlled plant was given water, which didn't have a steady growth as the plant given soymilk. Water might not have had the wide abundance of nutrients as the soymilk and is the reason why it didn't grow as much.

The lettuce plant given soymilk enriched the lettuce taste and tasted the best but did not taste like soymilk. The lettuce leaves of the plants given coconut milk and water tasted plain. But those given water tasted crispier.

#### Conclusions/Discussion

My experiment has proved my hypothesis to be incorrect. The plant given soymilk grew and tasted best. The lettuce plant tested with soymilk grew at a more steady rate and better height than plants given coconut milk or water. If I had done this experiment differently, I would have diluted the coconut milk with water as to make it easier for the plants to uptake the liquid.

#### **Summary Statement**

The testing of whether coconut milk, soymilk, or water supports the growth of lettuce plants better.

### Help Received