

CALIFORNIA STATE SCIENCE FAIR 2005 PROJECT SUMMARY

Name(s)

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Project Number

J0921

Project Title

Does the Type of Water Have an Effect on Grass Growth?

Abstract

Objectives/Goals

Our objective was to see which type of water; tap, distilled, or recycled, would make grass grow the fastest and greenest.

Methods/Materials

We grew 2 strips of fescue grass for each type of water, for a total of 6 strips of grass. Each strip was planted in a 14" x 5 1/2" planter box with soil and a wire screen for drainage. We got the recycled water from the recycling plant, we used our house water for the tap, and we bought distilled water at the grocery store. Then we watered every 2 strips with tap water, 2 strips with distilled water, and 2 other strips with recycled water. We watered every other day with each strip getting 1 cup of the specific water. We measured the height of the grass once a week for all 6 samples. We also compared the appearance of the grasses. We conducted this experiment for 6 weeks.

Results

Recycled water made the grass grow the tallest and the greenest out of the other types of water. The grass watered with recycled water was the darkest green. The grass watered with tap water was a lighter green. The grass watered with distilled water was yellow and slightly green. In our first trial, the recycled watered grass grew 1/2" more than the tap watered grass and 3/4" more than the distilled watered grass. In our second trial, the recycled watered grass grew 1 1/4" more than the grass watered with tap water and it grew 3 1/4" more than the distilled watered grass.

Conclusions/Discussion

The data supports our hypothesis. The grass watered with recycled water grew faster and greener. We think the recycled water made the grass grow the best because of the particles in the waste water that act as a fertilizer. By knowing this, farmers or just regular homeowners can use recycled water and still get the same luscious agriculture or having the green lawn they have always wanted. Recycled water is a great alternative for irrigation on agriculture, golf courses, or even parks.

Summary Statement

Our project tests what type of water; tap, distilled, or recycled, will grow grass the fastest and greenest.

Help Received

My parents helped us gather materials and drive us to the recycling plants. Mark Banuelos from the City of Fresno's Recycling Plant taught us about recycled water and donated recycled water for our tests. Kings River Turf in Fresno taught us about grass and they donated the grass for our experiment.