CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY

Name(s)
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Project Number
J1923

Project Title
The Effects of Different Water Sources on the Growth Rate of Wheat

Abstract

Objectives/Goals
My project objective was to grow wheat with distilled, tap, Colorado, and New River water and compare the growth rate.

Methods/Materials
Silica sand was poured into 4 aluminum pans about 4 cm deep. Next, 250 milliliters of wheat seeds were poured over the silica sand and spread evenly. A small amount of silica sand was sprinkled over the seeds. After the seeds were prepared to grow, each pan was watered with 1000 milliliters each day with the designated water source. Finally, wheat growth was measured and data was recorded for 15 days.

Results
Colorado River water wheat growth was the greatest at 14 cm, a growth rate of .93 cm a day. Wheat growth from the tap water was the second greatest at 9 cm, a growth rate of .60 cm a day; distilled water wheat growth was third reaching 7 cm at a rate of .47 cm per day; and New River water had the least growth reaching only 4 cm, a rate of .27 cm per day

Conclusions/Discussion
Wheat growth was the greatest using Colorado River water most likely due to higher levels of nutrients and minerals. Mineral and nutrients in tap water may also explain why the wheat that received tap water had the second highest growth rate. On the contrary, the New River water is highly polluted with waste and agriculture run off and this pollution may have limited the growth of wheat.

Summary Statement
I grew wheat and measured the differences in wheat growth using difference sources of water.

Help Received
I prepared the seed beds, obtained the water sources, and measured the growth myself. A farmer provided the seed.