



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

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| Name(s) Omar E. Njie | Project Number J0920 |
| Project Title What Type of Reclaimed Water Helps Marathon Light Grass Grow the Best? | |
| Objectives/Goals The goal of my experiment is to discover the effect of different types of reclaimed water on the growth of grass. My hypothesis is I think that the reclaimed water from LMU which has not been treated is most likely to help the grass grow the tallest | |
| Abstract Methods/Materials I bought 1 gallon pots , I purchased 4 bags of Washed Play Sand, I filled each pot 3/4 with the sand. I assigned each pot to their own specific plant number (1,2,3,4,5) as well as specific test group, which are as follows: BD (water with biodegradable soap), NBD (water with non biodegradable soap), WM (water from washing machine), LMUC (water from Loyola Marymount University that has been chlorinated), LMUNC (water from Loyola Marymount University that has not been chlorinated, TAP (tap water) Part 2: Planting the Grass. I bought marathon light, grass sod .The grass was 4 cm tall. I planted the grass in the pots. Part 3: Watering the Grass/ Measuring Growth. I watered the grass every other day with 240 mL of water. I measured the height of the grass every 2 days as well. Part 4: Testing the Water. I performed water tests. I tested the PH, hardness, and chlorine of my water, using a LaMotte water testing kit. I filled up the test bag with the amount of water needed, put in the tablets, and recording my data according to the amount of the tested substance in the water. My materials were tap water, recycled water from LMU that has been chlorinated, recycled water from LMU that has not been chlorinated, Washed Sand, 30 1 gallon pots, Shade Cloth, 1 LaMotte water testing kit | |
| Results Tap water helped Marathon Light grass grow the best over an 18 day time period. Non biodegradable soap water helped Marathon Light grass grow the least over 18 days. | |
| Conclusions/Discussion The reason that TAP group grew the tallest out of my 6 groups was because when I collected the PH, Hardness and chlorine samples, the grass growing in group TAP fell within the expectable measurement range for those three categories, where as group NBD did not. This project showed that using non-biodegradable substances is harmful to the environment. Recycling water around the house while using biodegradable substances is cost effective, environmentally safe, and a good way of conserving water. Before a drought were to occur people should be more aware of the way they use water, and in addition I would hope that they would continue to look for ways to recycle water themselves. | |
| Summary Statement I tested what type of reclaimed water helps Marathon Light Grass grow the best. | |
| Help Received I obtained the 2 types of reclaimed water from LMU from Dr. Pippa Drennan.. | |