

CALIFORNIA STATE SCIENCE FAIR 2009 PROJECT SUMMARY

Name(s)

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Project Number

S1703

Project Title

Algae Oxygen Production in the Salton Sea

Abstract

Objectives/Goals

This experiment's objective was to test the different levels of phosphorus on the oxygen production of algae in order to determine if it is a major contributor to the lack of oxygen in the Salton Sea.

Methods/Materials

Materials:

Four, 5 Gallon buckets to hold the water and algae. One Triple beam balance to weigh the algae prior to placement in the buckets. Twenty-Five grams of each Miracle grow 24% phosphorus Fertilizer, Miracle Grow 18% phosphorus Fertilizer, and Vigora 4.0% phosphorus Fertilizer to put in different buckets with the water and algae.

Results

The Vigora 4.0% phosphorus Fertilizer had the least effect on the oxygen production of algae.

Conclusions/Discussion

We concluded that the 4.0% phosphate solution has the least effect on the oxygen levels as was predicted by this experiment's hypothesis, while the higher concentrations had a much larger effect, causing an expedited loss of oxygen.

Summary Statement

To determine if the phosphorus in the agricultural run off has an effect on the oxygen production in the Salton Sea

Help Received

Jeff Jones drove us to the Salton Sea. The Salton Sea authority gave us an initial tour.