

CALIFORNIA STATE SCIENCE FAIR 2013 PROJECT SUMMARY

Name(s)

Louis C. Wooliever

Project Number

Project Title Pampas Grass Grows Wild!

Abstract

My objective was to determine the main growing conditions of Pampas Grass.

Methods/Materials

Objectives/Goals

I conducted three different field study experiments. In my first experiment I walked out to a hilly area behind El Granada, a small town on the coast of San Mateo County, and observed the Pampas Grass growing locations and soil and terrain conditions. I used a camera and a journal to record my observations. For my second experiment I determined if Pampas Grass grows near human disturbances by counting how many individual Pampas Grass bushes were growing five, ten, and fifteen meters from a human made pathway. I used a measuring tape and a journal. For my third experiment I observed a hillside where there was landslide evidence. I observed the same area on Google Earth historical images and found the exact year and month that the landslide occurred. I could see how long it took for Pampas Grass to begin to grow on the exposed earth.

Results

I conducted three experiments because of the difficulty in controlling all variables. The data supported my hypothesis that Pampas Grass grows mainly on disturbed earth.

Conclusions/Discussion

In the three experiments I conducted, I concluded that Pampas Grass grew on disturbed or exposed earth. In my field studies, historical image review and interviews with long-time residents of the coast, I learned that Pampas Grass growth has increased in the past 30 years and that the growth is isolated to areas of erosion, grazing and human disturbances. By controlling erosion and human impact, Pampas Grass invasion can be prevented.

Summary Statement

This project studies the growing conditions of Pampas Grass through field study and observation.

Help Received

My parents drove me to the field study locations. They assisted with measuring the 5 meter plots in Experiment 2 and my mother proofread my display board.