

CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s)

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Project Number

S1409

Project Title

Yew Killed It

Abstract

Objectives/Goals

To develop and test two different environmentally friendly organic herbicides that will succeed in killing the invasive nonnative Himilayan blackberry plant.

Methods/Materials

Extracts were taken from the needles and leaves of the Pacific Yew tree and the California Bay tree. The extracts were diluted with water and applied to established blackberry plants in a controlled laboratory. Water only was used as a control. Materials Needed: Yew and Bay leaves, blender, filter and ringstand, funnel. Various beakers and graduated cylinders. Spray bottles. Established blackberry plants.

Results

There were three groups, the Yew group, the Bay Group and the control group. After three days the plants with the Yew treatment showed curling leaves and discoloration in the stems. After 7 days the Yew treated plants were completely dead. After 3 days the Bay trees showed no change. After 7 days the plants show slight discoloration and had some growth retardation in comparison with the control group, which flourished during the testing.

Conclusions/Discussion

We were successful in formulating one herbicide, the Yew treatment, that killed the blackberry plants. We would like to move our experiment next to the outside to a semicontrolled environment and test again to see how the extracts work. We think it is very important to have strong, safe, environmentally friendly herbicides that can be used.

Summary Statement

We formulated two organic herbicides from Yew extract and Bay extract and tested them on their ability to kill blackberry plants.

Help Received

My dad helped us with driving to collect leaves.