

CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s)

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Project Number

J1616

Project Title

Violets in Vitro

Abstract

Objectives/Goals

The objective is to determine if it is possible to grow all of the different parts of the African Violet in the tissue culture environment successfully.

Methods/Materials

To test my question I used the method of Tissue Culture to culture 6 portions of the leaves (the control group), blossoms, petioles, roots, crown, and seeds of the African Violet.

Results

After 6 weeks all of the leaves had plantlets on the edges of the leaves. Five blossoms had plantlets and one was contaminated. The petioles had no response at all to the tissue culture environment. All of the root portions became contaminated. Two of the crown portions gave no response to the tissue culture environment and the other four were contaminated. None of the seeds gave any response to the method of tissue culture.

Conclusions/Discussion

These results led me to conclude that it is possible to propagate the leaves (as proven before) and blossoms. All of the petioles and seeds had no response to the tissue culture environment. The crown had two results, 4 cultures were contaminated and 2 had no response. All of the roots were contaminated. The results of the petioles, seeds, crown and roots make it unclear as to whether it is possible to propagate them.

Other experiments might include trying different types of media or even different sterilization methods.

Summary Statement

To determine, it is possible to grow all the parts of the African Violet in tissue culture, successfully.

Help Received

Mother typed up Bibliography, and supervised internet research. Father looked up 3 terms in Glossary I could not find and corrected grammar mistakes. Dr. Carol M. Stiff answered questions about the Kitchen Culture Kit and procedure.