

CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Project Number

J1410

Name(s)

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Project Title

How to Keep Your Jack-O from Turning Wacko

Abstract

Objectives/Goals The objective is to determine which technique preserves jack-o-lanterns the best.

Methods/Materials

We obtained 30 pumpkins, 10 large and 20 small sized pumpkins. We then carved all of the pumpkins. The jack-o-lanterns were seperated into ten groups each with one large pumpkin and two small ones. Next, we applied a different preservation technique to each of the groups. Our preservation techniques were composed of rubbing the jack-o-lantern with salt, covering a jack-o-lantern with plastic wrap, rubbing a jack-o-lantern with vinegar, brushing on vegetable oil to a jack-o-lantern, submerging a jack-o-lantern in bleach solution, spraying hairspray on a jack-o-lantern and spraying a jack-o-lantern with Raid pesticide spray, placing garlic in the inside of the jack-o-lantern, covering the jack-o-lanterns with petroleum jelly, and finally leaving one as a control. For the next two weeks we measured the decomposition of our jack-o-lanterns by leaving them outside and recording how well they were rotting according to our relative scale.

Results

Our results show that when preserving a jack-o-lantern, soaking it in a bleach solution is the best technique. Using this technique the jack-o-lantern ends up looking visually better, smelling the best, and does not promote mold growth.

Conclusions/Discussion

Our conclusion shows that using different techniques to preserve pumpkins has a strong affect on how it will weather for two weeks. While some techniques slow down the decomposition process, others increase mold growth and decomposition.

Summary Statement

We investigated which technique and substance preserved a jack-o-lantern the best.

Help Received

Dad covered and uncovered the jack-o-lanterns every morning, parents helped us retreive materials.