

CALIFORNIA STATE SCIENCE FAIR 2011 PROJECT SUMMARY

Name(s)

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Project Number

J1510

Project Title

Algae Growing Pipes

Abstract

Objectives/Goals

My project was to determine which type of pipe material (copper, pex, or PVC) was prone to algae growth. I believe algae would not establish on copper piping to the same degree as either pex or PVC pipe materials.

Methods/Materials

One of each pipe material, copper, pex, and PVC, was contained in a basket and submerged in a constant flow of water from an artesian well for a period of five weeks. Each week I observed and cataloged the algae growth of each pipe material.

Results

Algae rapidly established within the first week on and inside the pex. The PVC pipe had minimal growth on the exterior and none had established on the copper pipe. After five weeks, Considerable growth was evident on the inside of both pex and PVC, while the copper pipe had no growth on the exterior or interior surfaces.

Conclusions/Discussion

Copper piping is a superior material for water submerged applications, where algae growth can be a problem.

Summary Statement

Determine algae growth on three common pipe materials.

Help Received

My mother printed the pictures and my dad helped me layout the display board.