CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)

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Project Number

22851

Project Title

Incubation of Eggs: Homemade vs. Commercial

Abstract

Objectives/Goals

This experiment is a long term project with several objectives/goals. The first objective was to determine if a homemade incubating device could be as effective for incubating and hatching eggs as that of a more expensive commercial incubator. Our second objective was to use a nutritional yeast supplement to determine if a healthier, better laying chicken could be grown.

Methods/Materials

Commercial incubator:
-egg cartons to hold the eggs in an upright position
-3" by 5" sponge was placed in the bottom of the incubator to ensure a humidity level of 65%
-heating coil to establish and maintain a constant temperature of 99 degrees Farenheit
-23 fertile eggs
-metal wiring along the bottom of the incubator to ensure stability
-thermometer and barometer

Homemade incubator:
-Stryofoam Ice Chest used to maintain heat
-cooking rack to support fertile eggs
-egg cartons to hold eggs in an upright position
-heating pad to ensure and maintain temperature of 99 degrees Farenheit
-thermometer and barometer
-3" by 5" sponge for humidity
-30 fertilized eggs

fertile eggs
- donation of 6 dozen eggs from Hy-line Farms

Results

incubator type infertile eggs aborted eggs hatchable eggs re-incubated embryos late blooming eggs
homemade (30 eggs) 37% 10% 23% 20% 30%
commercial (23 eggs) 35% 4% 25% 92% 8%
new egg(2 dozen) 0% 8% 100% 92% 0%

Summary Statement

To determine whether homemade incubators are as effective as commercial incubators.

Help Received

Hyline Farms for the donation of 6 dozen chicken eggs

Preliminary