

CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

Austin T. Garcia

Project Number

J2004

Project Title

The Lighted Chicken Coop

Abstract

Objectives/Goals

My objective was to determine if laying hen chickens would lay more eggs if artificial light was added each day as compared to laying hen chickens that only had natural light.

Methods/Materials

Ten laying hen chickens were divided into two groups of five and put into separate pens. One pen had natural light only and the other pen had an electric light on a timer. The experiment lasted 50 days. For the first 25 days, the electric light group received a total of 16 hours of combined artificial and natural light. For the next 25 days, the electric light group received a total of 12 hours of combined artificial and natural light. During the 50 days, the chickens in the natural light pen received natural sunlight. The eggs from both pens were collected, counted and the data was recorded each day.

Results

Chickens with 16 hours of light per day produced an average of 4.08 eggs per day. Chickens with 12 hours of light per day produced an average of 3.84 eggs per day. Chickens with only natural light produced an average of 2.82 eggs per day.

Conclusions/Discussion

Chickens that received more light per day laid more eggs, and a reduction in the amount of light per day reduced the number of eggs laid.

Summary Statement

My project is to determine if the amount of light affects egg production for laying hen chickens.

Help Received

My parents helped me set up the chicken coops and helped feed the chickens. They helped me type the report and work on the board layout.