

## CALIFORNIA STATE SCIENCE FAIR

## 2001 PROJECT SUMMARY

**Your Name** (List all student names if multiple authors.)**Billy C. Fernandes**

Science Fair Use Only

**J1807****Project Title** (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)**Egg-Strapolation: How Old Are Those Store Bought Eggs?**

Division

 Junior (6-8)  Senior (9-12)**Preferred Category** (See page 5 for descriptions.)**18 - Zoology****Abstract** (Include Objective, Methods, Results, Conclusion. See samples on page 14.)

Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.

**Objective** The objective is to determine how old store bought eggs are and to scientifically show that my hens eggs are fresher and of a better quality than store bought eggs.**Materials and Methods** Six eggs were collected daily from my hens for a period of 30 days. They were labeled and three were stored at room temperature and three refrigerated. After the 30 day period the height of the yolk and white were recorded and graphed. Yolk and white height are an indicator of quality. As age of egg increases, height of yolk and white decrease and quality goes down. A random sample of eggs were purchased from four different retail store sources and their age extrapolated from the known age of eggs using the same measuring standards.**Results** Store bought eggs are older than 30 days post-collection if refrigerated properly. If the eggs were never refrigerated they are anywhere from 5 to 11 days old.**Discussion** I learned that if eggs are refrigerated properly they loose quality very slowly but if stored at room temperature, they loose quality very quickly. Since there is a law stating that retail eggs must be refrigerated I conclude that store bought eggs are greater than 30 days old and accept my hypothesis of Store Bought Eggs Were Laid At Least Two Weeks Before They Were Purchased.**Summary Statement** (In one sentence, state what your project is about.)

Extrapolation of unknown age of store bought eggs from known ages of control group eggs.

**Help Received in Doing Project** (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4.

Mr. Don Brown, poultry producer, helped me with information on eggs and hens. My mom helped me with graphs and some typing. My dad helped with proper care of poultry.