# CALIFORNIA STATE SCIENCE FAIR
## 2015 PROJECT SUMMARY

**Name(s)**
Dante P. Cavaz

**Project Number**
**J2007**

**Project Title**
## Shooting Sharp: An Experiment Testing What Pellet Shape Is the Most Accurate

**Abstract**

**Objectives/Goals**
The objective is to determine what pellet shape is the most accurate.

**Methods/Materials**
Informed consent was obtained by 5 subjects to shoot three pellets from the air rifle (Gamo Silent Cat 1250 fps) at 3 distances for the four types of gamo ammo twice for the two trials.

**Results**
When shooting the four types of pellets (pointed, round, pointed with skirt, and flat), the flat pellets proved to be the most accurate. The average accuracy of the flat shaped pellets were 51.56% as opposed to the very close second place round shaped pellets with 51.34% and the last place pointed with skirt pellets averaging 42.45%.

**Conclusions/Discussion**
After completing my project I concluded that both flat and round pellets have similar accuracy. I believe that experimental error (the variation in shooting between the subjects) is the reason for the change in the results between the round and flat pellets. Therefore, either type of ammo could be used to achieve the greatest accuracy in target shooting. In addition, my project applies to the real world because it provides information on pellet characteristics and performance for target shooting. Pellet gun shooting has always been a popular activity among both children and adults. My project helps by providing useful information on selecting the best-shaped pellet for target shooting.

**Summary Statement**
My project tests what pellet shape is the most accurate.

**Help Received**
Brother was a subject; Mom helped edit report; Dad was a subject and helped with the board.