

# CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

Name(s)

Julia M. Riedelsheimer

**Project Number** 

**S1729** 

# **Project Title**

# **Investigating Various Herbs in Stimulating or Suppressing Appetite Level**

# **Objectives/Goals**

# **Abstract**

The purpose of my project is to determine if organic herbs can help diets of individuals. The reason I am doing this investigation is to determine if organic herbs will stimulate and suppress diets. I will use twenty laboratory mice as an objective organism to see if certain organic herbs affect the diet of mice.

#### Methods/Materials

I purchased 5 containers with 5 food and water dishes. I purchased 2 stimulate organic herbs; parsley and ginger. I then purchased 2 suppressant organic herbs; green tea and fennel. I purchased 20 mice and put 4 mice in each container and let them get used to their environment for 2 weeks. In each container I marked each individual mouse's with a different color sharpie. I labeled each container; Ginger, Parsley, Fennel, Green Tea and control. I then boiled water for 10 minutes and prepared organic herbs by placing each herb (individually) in pot and let sit for 10 minutes. I then placed regular control mouse pellets in a pan and for each herb I poured the herb over mouse pellets and let herb soak into pellets. In each container I feed the mice laced herbs three times a day. I continued this procedure for three weeks. I did an initial weight on all mice before beginning this experiment and mice were weighed each week.

#### Results

I found that my hypothesis of the herb ginger was a stimulate was correct. The average weekly gain with the herb Ginger was 5.32% compared to the control. At the end of three experimental periods the average percentage gained when the mice are consuming mice pellets with Ginger supplement is 10.23% of body weight compared to the control mice that were eating mice pellets with no herb supplement. The herb green tea was the best appetite suppressant with an overall loss percentage of 10.43% of body weight compared to the control.

#### Conclusions/Discussion

It seems weekly average weight changes had unreliable fluctuation. What is important in my investigation was the starting and ending weights of the test mice. Further test need to be taken in order to verify my results. I found that using herbs can be a healthy and natural way to aide in gaining or losing weight. Using organic herbs may not be as quick to see results but overall could help reach a goal of desired weight. In conclusion organic herbs could be effective in determining an organism appetite level, however, further test trials would be necessary.

### **Summary Statement**

My project is to determine if organic herbs will stimulate or suppress diets of laboratory mice as an objective organism.

## Help Received

Mom, teacher(Audry Bonomi), district science advisor (Carl Gong)