



**CALIFORNIA STATE SCIENCE FAIR  
2017 PROJECT SUMMARY**

<b>Name(s)</b> <b>Heather Anne George</b>	<b>Project Number</b> <b>J2006</b>
<b>Project Title</b> <b>Is Your Dog Food Safe?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of this science experiment was to determine if there were harmful bacteria in popular brands of dry, canned, and wet dog food. If dry, canned, and wet dog food are tested for bacterial colony growth, then the dry dog food will show the greatest bacterial colony growth.</p> <p><b>Methods/Materials</b> Three trials of the following steps were completed. Two pre-prepared nutrient agar petri dishes were inoculated with each brand and type of dog food. The petri dishes were observed for bacterial colonies every other day for 11 days. At the end of 11 days, the average number of bacterial colonies in each petri dish in each group were calculated and compared. Materials included dry, canned, and wet dog foods; nutrient agar petri dishes with lids, gloves, and sterile swabs.</p> <p><b>Results</b> In the dry dog foods, Natural Balance had more colonies than the others in all three trials. Natural Balance had a range of 6.5 to 22 colonies in the three trials. In the canned dog foods, Royal Canin had the most colonies in Trials 2 and 3. Royal Canin had a range of 0.5 to 22.5 colonies. In the wet dog foods, Nature's Recipe and Royal Canin had the most colonies. Nature's Recipe had a range of 1.0 to 3.5 colonies and Royal Canin had a range of 0.0 to 12.5 colonies.</p> <p><b>Conclusions/Discussion</b> When the dry, canned, and wet dog foods were tested for numbers of colonies, one brand of food in each group had more colonies. Contaminated dog foods could be responsible for some dogs digestive tract diseases causing serious health threats. This study confirms some commercially prepared dog foods contain bacterial colonies. Additional studies need to be done including more brands of dog food and testing more samples from each brand.</p>	
<b>Summary Statement</b> Dry, canned, and wet dog foods were tested for bacterial colony growth.	
<b>Help Received</b> Mr. John Briner encouraged me to include more types of dog food as well as helped me bleach and dispose of contaminated agar plates.	