



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Christina Apple	Project Number S1402
Project Title The Quantity of Microbacterial Colonies Found in Water Stored in Automatic Hog Waterers over a Four Day Period	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The purpose of this study was to determine the quality (the absence of bacteria) of water stored in automatic hog waterers for a period of up to 4 days. The hypothesis is that there is a direct correlation between the number of bacterium colonies and the number of days water is left in the automatic waterers.</p> <p>Methods/Materials Washed cow nutrient agar prepared plates were used. The testing of water was organized into for different samples run every 24h for a six week period of time. Sterile inoculating loops were used to attain a sample of each of the waterers tested. The plate was placed in an incubator for 24h and colonies of bacteria were counted. At the end of a 4-day testing period the containers of water were emptied and left to air dry for a 2d period. One hundred separate trials were conducted.</p> <p>Results There was no significant difference between water autoclaved and water standing in automatic hog waterers over a four day period.</p> <p>Conclusions/Discussion Mammals exist because of certain bacteria (Howard, 2004). Some medical practitioners say that we don't live in a sterile environment, that there are bacteria all around us, and that we shouldn't expect our water to be sterile either (Dooley, 2001). Although the data did not support the hypothesis, which was that the number of bacterial colonies in samples A, B, C and D would increase over time it is of little concern that water sits for four days or less in automatic hog waterers.</p>	
Summary Statement The Quantity of Micro Bacterial Colonies Found in Water Stored in Automatic Hog Waterers Over a 4-Day Period.	
Help Received Agriculture instructor provided the agar and lab facilities.	