



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

Name(s) Beatriz Antonio; Edgar Rua	Project Number J1703
Project Title Clean Cow Cribs	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective for our project was to determine the most sanitary cow bedding that dairymen should use to reduce the chances of mastitis and contaminated milk. We believe that the almond shell will be the most sanitary bedding because it didn't create a flat surface and we thought the manure would seep through and not build up on the top of the surface.</p> <p>Methods/Materials A control and four of the commonly used products for cow bedding and manure were tested for bacteria over an eight day period. We tested sawdust, straw, gin trash and almond shell. There were three samples of each bedding and they were measured under a microscope and also with the naked eye and documented on an observation sheet. Every precaution was taken to ensure cleanliness from using alcohol swabs on tools to timing the Petri dish exposure time.</p> <p>Results The data that we gathered informed us that the sawdust had the least bacteria growth over the eight day period. There was very little bacteria on the sample. Straw is a good second choice as it appeared to have only slightly more bacteria under the microscope. The gin trash sample was full of bacteria and the almond shell was too.</p> <p>Conclusions/Discussion Keeping the cows teats clean is critical to the success of any dairy operation. If the bedding is sanitary and the cows do not get any diseases, then the milk will be accepted at the creamery and the dairymen will get paid for their milk. This helps them be more profitable. We also checked the pricing for all of the products that we tested. It turns out that the sawdust is the best priced product, and a dairyman could save money purchasing sawdust. Our recommendation for a clean cow crib is sawdust.</p>	
Summary Statement Our project is about which cow bedding is the most sanitary for cow health and dairyman's profitability.	
Help Received Our teacher drove us to two different dairies.	