



**CALIFORNIA STATE SCIENCE FAIR  
2006 PROJECT SUMMARY**

<b>Name(s)</b> <b>Rachelle M. Yellin</b>	<b>Project Number</b> <b>J1033</b>
<b>Project Title</b> <b>Sand Content in Equine Feces within Santa Cruz County</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> I wanted to do a project about horses since they're my favorite animal. I talked with a few horse owners and they said I could do a project about Sand Colic. Sand Colic is when sand is stuck in the horses' large intestines. This can seriously hurt or possibly kill the horse. With my project I can help horse owners to see what type of treatment is best to prevent Sand Colic.</p> <p><b>Methods/Materials</b> Method: 30, 1 quart canning jars with lids; 1 cup stool; water; hose; gloves; poop picker upper; labels; stirrer; measuring cup.</p> <p>Procedure: 1. Place 1 cup stool in a 4 quart canning jar; 2. Add 3 cups of water in jar; 3. Stir for 50 seconds. Mixture should break apart; 4. Wait 5 minutes; 5. Turn hose on medium and place in jar. Allow contents to drain out. Turn off hose and slowly pour out extra water. Sand should have settled to the bottom. Let contents dry, then measure.</p> <p><b>Results</b> I sent letters out to 15 barns however only 5 responded. Of those barns I collected 25 samples from the Watsonville, Soquel, Aptos, and Scotts Valley area. I collected the stool samples and processed them in a two-week period of time. I evaluated the residual sand contents by using the measure of centerawl tendency. The data was arranged in three categories by the type of treatment they received: Nothing, Psyllium and Other.</p> <p><b>Conclusions/Discussion</b> There was a low response from the barns. I wonder if they feared the results of their horses and/or how the information was to be used. Before I started testing it rained. The grounds became wet and the sand became heavier. It was more difficult to collect the sand off the ground. If I were to do this project again I would do it at a different time of the year to see if the ground changes the final result. I would also like more barns in the Santa Cruz County to be involved to see if the location affects the outcome of the results.</p>	
<b>Summary Statement</b> Ingestion of sand as a cause of equine colic within the Santa Cruz County.	
<b>Help Received</b> Anne Phipps for giving me the idea; mom and dad for taking me to the barns, helping with word processing, and collecting the samples while I ask the owners the history of each horse.	