



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

<b>Name(s)</b> Celeste M. Stoker	<b>Project Number</b> <b>J1214</b>
<b>Project Title</b> <b>Tort vs. Otter in the Holland Lop Rabbit: Breed for Color, Body Type, or Both?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> To breed a Holland Lop rabbit with black or blue otter color pattern that has proper, show quality body type. Also, I want to expand the color variations in show quality Holland Lop rabbits. <b>Methods/Materials</b> - two generations of Holland Lop show rabbits - 2 rabbit hutches - Rabbit food and waterers - camera - nesting box Breed the rabbits Henry and Haiku, and find the different color probability percentages using a punnett square. Take the best show quality offspring from the litter with the desired color pattern (otter) and show it at local ARBA rabbit shows against torts and other show Holland Lop rabbits. After it has won enough to validate that it has good lines, body type and color genes, use it as a herd doe or buck. <b>Results</b> I found that one rabbit in the litter from Henry and Haiku had the proper body type as well as the black otter pattern, with the recessive blue gene. When I showed her, she competed well and beat other colored rabbits as well as torts. Now I will breed her to get a blue otter. In this case I have to find a blue otter buck or a black otter buck with the recessive blue gene to breed to my rabbit to get a blue otter. <b>Conclusions/Discussion</b> I predicted that one rabbit from the litter would have proper body type as well as the desired color and patterns. That prediction was correct, but I thought this rabbit would have a slightly different body type than what was produced. I thought the rabbit would have features more like its parents, but it turns out, her body type is more similar to her grandfathers'. Her body is short and compact, meeting the ARBA "Standard of Perfection" for the Holland Lop Rabbit. Now I will breed her to produce a third generation that will have both the desired body type and color pattern that requires two recessive, dilute blue genes and the otter pattern gene.	
<b>Summary Statement</b> This project is about breeding show quality Holland Lop rabbits with color patterns that require two recessive color genes, and an otter pattern gene.	
<b>Help Received</b> Mother helped take photographs of rabbits	