



# CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

<b>Name(s)</b> Courtney J. McCullough	<b>Project Number</b> <b>J1299</b>
<b>Project Title</b> <b>The Effect of Breeding during Moon Phases on Rabbit Litter Gender</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective was to learn if the sex of rabbit kits would be affected by breeding during the full moon or new moon phase rather than random dates between the moon phases. My hypothesis was that more does(females) would be born if bred during the full moon and more bucks(males) would be born from a litter bred during the new moon. Some believe that breeding is related to the lunar cycle and this theory will be tested.</p> <p><b>Methods/Materials</b> Materials needed: 12 or more does, 4 bucks, 6 nest boxes, moon phase calendar for 2011 and 2012, wood shavings, and extra cages for raising the litters. 18 litters of rabbits were bred on various dates which coincided with the moon phases starting in September through January of 2012. A minimum of 6 litters were bred during each phase, new moon, full moon, and somewhere in between the two. Extra breeding was also done to take into account the possible non pregnant does and loss of litters from natural causes. 28 days after breeding, nest boxes were placed in the cages. Litters were recorded when born. After 4 weeks of age, each litter was sexed and recorded by gender. At the end of the final litter, all data was tallied and placed into graphs for comparison.</p> <p><b>Results</b> The results of the data showed a distinct trend toward a correct hypothesis. The total number of kits born was 108, with 57 bucks and 51 does born, a typical percentage one might expect; however, during the full moon, there were 7 bucks and 25 does born, and during the new moon, 29 bucks and 9 does were born. When breeding in the middle of the moon phases, there were 21 bucks and 17 does.</p> <p><b>Conclusions/Discussion</b> During the new moon, 22% of the babies were bucks and 78% were does, while 76% bucks were born during the full moon breedings with only 24% does. When breeding during any other time, the buck percentage was 55% and 45% does. This shows that my hypothesis proved to be correct. If these results can be reproduced, the possibility of controlling the gender in a positive way could allow farmers and breeders to save time and money by not having to cull unwanted animals. In the field of show rabbit, males can be shown much longer. When producing food, maximum number of does will produce more meat. The benefit of this investigation is important to anyone needing a particular gender of rabbit. This experiment was successful as completed and I feel it also has the potential for further investigation.</p>	
<b>Summary Statement</b> This project tests whether breeding during a new moon increases the number of bucks in a litter and breeding by a full moon increases the number of bucks in a litter.	
<b>Help Received</b> My teacher gave me some suggestions about improving my board.	