



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Rowlynda J. Moretti	Project Number J1024
Project Title Color through the Eyes of a Goat: Do Goats See and Prefer Color?	
Objectives/Goals I run my own herd of goats on my families ranch in the small mountain community of Santa Ysabel, in the San Diego County. I basically use my goats for blackberry control in our creeks, and I also sell my goats to many 4H and FFA Clubs in San Diego County for show and fair animals. I was intrested in investigating the sight of goats. This science fair project is basically an experiment to find out if goats see and prefer color and what colors do they prefer? I really wanted to understand more about my goats. As goats breed quite, often, i wondered if their changing hormones would effect their preference due to pregnancy.	
Abstract I bought red, blue green and black buckets. I used goat grain, which is somewhat of a treat for them, to test them. I let one goat out at a time about 50 feet away from the buckets. I then put a check by the color that it went to. You must be careful to keep each goat in it's category, pregnant or nonpregnant. Their must be the same amount of feed in each bucket each time. I used a corral with a catch pen inside of it so that you could release only one goat at a time. I used four different goats. The variable is the order of the buckets because you switch them every time.	
Methods/Materials I bought red, blue green and black buckets. I used goat grain, which is somewhat of a treat for them, to test them. I let one goat out at a time about 50 feet away from the buckets. I then put a check by the color that it went to. You must be careful to keep each goat in it's category, pregnant or nonpregnant. Their must be the same amount of feed in each bucket each time. I used a corral with a catch pen inside of it so that you could release only one goat at a time. I used four different goats. The variable is the order of the buckets because you switch them every time.	
Results During the experiment, I found that nonpregnant goats went to blue and green the most. The nonpregnant goats went to both blue and green eight times (31%). The second colors they went to are red and black. The nonpregnant goats went to both red and black five times (19%). I found that pregnant goats went to green the most. They went to green ten times (38%). The next color can see is red. They went to red eight times (31%). Then they went to black six times (23%). The last color is blue, and they went to it two times (8%).	
Conclusions/Discussion In conclusion, the goat cas see color, they aren't color blind. My hypotheses for nonpregnant goats was partly correct. Instead of preferring black and green as my hypotheses states, they preferred green and blue, the same exact amount, 31%. Their second choice was black and red at the same exact amount 19%. My hypotheses was not correct for pregnant goats. Instead of preferring red and blue as my hypotheses stated, they preferred green the most at 38%. Their second choice was red at 31%. Their third choice was black at 23%. Their fourth choice was blue at 8%. Goats do see color and they do prefer color! I now understand my goat herd better.	
Summary Statement This science fair project is basically on the goats eye and the questions , are goats color blind, do they prefer color and if so what colors do they prefer?	
Help Received Dad & Grandpa helped move goats, Mom helped with writing procedures & pictures, Kathy Cauzza helped with advice, All my different teachers helped me with a lot of guidance, and thanks to my four goats.	