

Lilly Figueroa

*He? She? Is It a Matter of Degree?*

The purpose of my project is to accurately determine if temperature, at conception, affects the gender of a calf. Scientific studies have been done on people and cold blooded animals proving that babies conceived at above average temperatures are more likely to be females. Those conceived at below average temperatures are more likely to be males. Knowing this information can change a rancher's timing on breeding. My procedure: Collect ten years of data from at least 35 cows on one ranch. Graph each cow's name, each calf's date of birth, approximate date of conception, actual and average temperature for the day of conception and each calf's gender. Collect the actual and average temperature from Weather Underground history. Count the number of heifers and bulls at above, below and at average temperatures to create the graphs. After 10 hours of analyzing data, I concluded my hypothesis was refuted. I made a simple linear regression graph to prove that my data was not correlated and the R squared value was not close to one. The R squared value for my heifers was .089 and my bulls resulted in .037. Additionally, the data showed that there were 8% more bulls born at above average temperatures than heifers. With a refuted hypothesis, I continue to think about what the factor affecting gender could be. My subsequent prognostication is the mother cow's age.