

Haleigh Prosser

*Preventing Infections: Does Side Dominance Lower Infection Rate in Cattle?*

Cattle growers and raisers lose thousands of dollars each year because of unmarketable meat, usually caused by infection. To prevent infections, you can determine the common dominant side of each gender, and inject antibiotics and vaccines on the opposite side, making the infection rate lower.

The first year I did this experiment, I observed heavy-weight steers and discovered that they had a dominant right side. The next year, I observed light-weight steers and discovered that they had a dominant right side, as well, making it seem that all steers have a dominant right side. This year, I observed older cows. To determine the dominant side of cattle, you observe which side thirty individuals are laying on daily for fifteen days and the most common side the cattle lay on is the dominant side.

I found that 76.24 percent of the cows were left side dominant this year, while an average of 22.5 percent of male cattle were laying on their left side in my last two experimental years. This year, 21.78 percent of the cows were laying on their right side, and 72 percent of the males I had tested were on their right side.

Although my short-term hypothesis was not supported, I realized that my long-term hypothesis was supported. In the future I will inject vaccines on the non-dominant side and try to determine if it lowers infection rate.