

How Do Moon Phases Affect the Calving Rate in Dairy Cattle?

Gilliam, Gloria (School: Lafayette High School)

Dairy cattle are continuously being bred and birthed in order to produce milk. It is generally accepted that moon phases affect many things such as ocean tides and human behavior. Cattle are also known to be affected by the moon. The goal of this research was to determine how the moon affects calving rates in dairy cattle. The ability to predict the rate of births on any given day could benefit dairy farmers greatly. By being able to predict births based on moon phases, a dairy farmer could prepare for an increase or decrease in calving and allocate resources properly. After reaching out to a local farmer, the records from their day book were obtained and copied. Next, a moon phase calendar was used to determine phases for all dates between June 2022 and January 2023. After all information was gathered, the total number of calves born on each moon phase was divided by how many days the moon phase occurred within the time frame. After the average calves born were put into a bar graph it could be determined that the full moon phase had the most calves born when compared to other phases. It was found that there are more calves born on days of a full moon than any other phase. Dairy farmers, specifically operation managers, can predict and prepare for more births based on moon phases.