

Naturally Occurring Multiple Births in Cattle

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Every so often our office receives a call from a producer wanting to find out what was the probability of the event that their cow had either twin or triplet calves. A limited amount of research has been dedicated to examine the incidence of multiple births in cattle. Dr. J. J. Rutledge at the University of Wisconsin published a paper in the Journal of Animal Science in 1975 on the frequency of twins in both beef and dairy cattle.

Rutledge found that there was a difference in twinning rates between dairy cattle and beef cattle breeds with dairy cattle experiencing a higher frequency. Dairy cattle ranged from a 1.3% incidence in Jerseys, 3.4% in Holsteins and an 8.9% incidence in Brown Swiss. Small differences were reported in beef breeds with Hereford cattle having the lowest incidence (0.4% or one out of every 250 births) of twinning while Angus had 1.1% incidence. The Bos Indicus breeds experienced 0.2% and 0.4% twinning rates in Brahman and Santa Gertrudis, respectively.

Dr. Glenn Selk of Oklahoma State University found a paper published in 1920 in the Journal of Dairy Science by Jones and Rouse that reported the incidence of triplets in beef cattle to average one in 105,000 births and it being more likely to occur in Brown Swiss (one in 3500 births). Quadruplets were extremely rare, occurring naturally at the rate of one in 665,000 births with again Brown Swiss having the highest incidence.

Twins are classified as either fraternal or identical twins based on their origin. Fraternal twins originate from two separate fertilized ova (eggs) due to multiple ovulations by the cow while identical twins are a result of the single fertilized egg (embryo) splitting during early development. Therefore identical twins, like cloned animals, are genetically identical. Fraternal twins are more common than identical twins. It has been reported that only about 10% of the naturally occurring twins in the cattle populations are identical. One phenomenon of fraternal twins is that when they are of different sexes, the female is very likely to not be fertile. It is estimated that 95% of the heifers born twin to a bull are not fertile and are called "freemartins". These heifers should not be saved as replacement females for the herd.