It's A Girl: The Effects of Reverse-Sorted Semen on the Percent Accuracy of Fetal Sexing in Bovine

Rademacher, Emma

The principle of the flow cytometry method relies on the fact that X-bearing (female) sperm contains 3.8 percent more DNA than Y-bearing (male) sperm. Flow cytometry was the only method accepted to be commercially viable. To complete this project, data was accessed from the base of an embryo transfer company using a private website. The data was organized into the spreadsheet formation on an Excel document. Next, the data was compared for groups of 3 fetal sexes from 50 retests for reverse-sorted semen versus conventional semen. The information was run through statistical analysis student paired T-tests to determine accuracy of results. Reverse-sorted semen is a way to produce offspring of the desired gender. The average percent of females pronounced in fetal sexes for conventional semen was 54 percent. The average percent of females pronounced in fetal sexes for reverse-sorted semen was 88 percent. The hypothesis stated as type of sorting changes, then the percent accuracy will be affected. The statistics applied to the data collected supported the hypothesis.

Awards Won: