The Effects of Pulsed Electro-Magnetic Fields on Bovine Semen Collection Rates

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This experiment was conducted to see the effects Pulsed Electro-Magnetic Fields would have on semen collection rates in cattle. There were three pulsing sessions completed over the course of three weeks. Between pulsing sessions and following pulsing sessions, semen was collected from four bulls and analyzed for ejaculate volume, ejaculate concentration, and ejaculate motility. Bull #1's ejaculate volume averaged a 0.68 increase, ejaculate concentration averaged a 508.8 increase, and the ejaculate motility averaged a 5 increase after the application of pulsing. Bull #2's ejaculate volume averaged a 1.475 increase, ejaculate concentration averaged a 304.86 increase, and the ejaculate motility averaged 3.75 increase after the application of pulsing. Bull #3's ejaculate volume averaged a 1.00 increase, ejaculate concentration averaged 119.25 increase, and the ejaculate motility averaged a 0 after the application of pulsing. Bull #4's ejaculate volume averaged 0.56 increase, ejaculate concentration averaged 212.43 increase, and the ejaculate motility averaged 13.6 increase after the application of pulsing. It was concluded that the application of pulsing effects on ejaculate volume, ejaculate concentration, and ejaculate motility in all four bulls saw improvements compared on an average; although not consistently.

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