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(54) Title: SEX-SPECIFIC INSEMINATION OF MAMMALS WITH LOW NUMBER OF SPERM CELLS

(57) Abstract

Artificial Insemination is achieved for sexed mammalian offspring in a commercially practical manner and with dosages of insemination sperm which were not previously thought to be practical for commercial implementation. Improved insemination systems particularly adapted to use for sex-selected sperm sorting include systems which achieve superovulation and then multiple embryo production with sexed embryos. These systems combine with other techniques, including techniques for enhanced sheath fluid (3) and other strategies which minimize stress on the sperm cells (18), and potentially, a 2.9 percent sodium citrate sheath solution for bovine species and a hepes bovine gamete media for equine species. Improved collection systems (14) and techniques for the process are describeb so that commercial application of sperm samples as well as the resulting animals may now be achieved in the field.