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Cryopresevation of indegenious livestock gamets

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An improvement of semen and embryo cryopreservation is essential and has the potential to improve the cryo-gene banking efficiency. The fertility rate following artificial insemination or embryo transfer with frozen sperm or embryo is however low, than in fresh semen. The temperature of the freezing chamber is reduced in a stepwise manner during cryopreservation process. In addition, the discovery of a vitrification cryopreservation method resulted in a change in the principles of cryobiology. This method has many advantages over the slow freezing method, such as a lack of ice crystal formation due to an increase speed of temperature conduction which provides a significant increase in cooling rate. Glycerol has been routinely used as the major cryo-protectant for sperm cryopreservation in most animal species. Cryopreservation process reduces sperm motility and velocity rate regardless of cryopreervation method, cryoprotecatnt and thawing or warming temperatures. The *in vitro/in vivo* embryo production, superovulation technique is one of the assisted reproduction technologies (ART) that have the great potential for speeding up genetic improvement in livestock. Therefore, semen and embryos are important for conservation programs.

Biography

Mphaphathi M L has completed his Master's degree from Tswane University of Technology. He is the Researcher at the Agricultural Reserch Council. He has published more than six papers in reputed journals and has been an manuscript reviewers. He is the member of the International Embryo Transfer Society (IETS).

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