

Semen Characteristics of Ram Semen Frozen in Straw and Pellet in Three Type of Cold Plates

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Abstract : Preservation of semen had a major impact on sheep genetic breeding. The aim of this study was to evaluate the viability of ram spermatozoa after freezing pellet using cold surfaces made from cattle fat and paraffin wax. A pool of three to four ejaculates were pooled from six rams within a period of ten weeks. Semen was diluted in egg yolk-Tris diluent and processed in 0.25 ml straw and 0.1 ml pellets. Motility was evaluated after dilution, before freezing and post-thawing at 0, 1, 2 and 3 hour incubation. Viability index, acrosome integrity and leakage of intracellular enzymes (aspartat aminotransferase and alkline phosphatase) were also evaluated. Spermatozoa exhibited highly significant percentages of motility at 0, 1, 2 and 3 hours incubation after thawing and viability index in 0.25 ml straw and 0.1 ml pellets on cattle fat plate as compared to ram spermatozoa frozen on paraffin wax. In conclusion, cattle fat plate could be used as the cold surface of choice for freezing ram semen in form of pellets. Such form of frozen semen could be used as efficiently as semen frozen in straws. This simple method is economical with little expensive equipment or supplies, and may provide an efficient technique to cryopreserve ram spermatozoa in developing countries.

Keywords : ram semen, freezing, straw, pellet

Conference Title : ICVBS 2014 : International Conference on Veterinary and Biomedical Sciences

Conference Location : Istanbul, Türkiye

Conference Dates : June 19-20, 2014