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Preservability of Buffalo semen using tris-extender enriched with different concentrations of Strawberry [*Fragaria spp.*]Juice

Reda I. El-Sheshtawy*, Walid S. El-Nattat and Gamal A. Ali

Animal Reproduction and Artificial Insemination Dept., National Research Centre, Egypt

Abstract:As fruit, strawberry (SB) has been proved to contain natural antioxidants which are more acceptable than synthetic ones. This study aimed to find out the effect of strawberry juice in different concentrations, when added to basic tris extender (TCYF), on preserved buffalo semen. Semen was collected from 5 mature buffalo bulls; once weekly/ 5 weeks. Semen samples were diluted in TCYF as control (0% SB) and in the different concentrations from the 10% stock SB juice (1 to 6%). Diluted semen was processed and stored in liquid nitrogen (LN₂). Sperm motility of the chilled buffalo semen was evaluated 2 hours after cooling and chilling up to 10 days. Frozen straws were thawed at 37°C/ 60s. The motility, alive, abnormality and membrane integrity (HOST) percentages were assessed. Moreover, conception rate data was attained from 145 artificially inseminated buffalo cows. The results revealed the maintenance of sperm motility, at SB enrichment concentrations 2 and 3%, up to the third day of chilling. Frozen semen explored improvement in sperm motility post-thawing and higher conception rate at concentrations 1 and 2%. In conclusion, addition of strawberry juice (1-3%) to basic tris extender has its beneficial effect as a natural diluent for improving semen characteristics and conception rate in buffalo.

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