

# The effect of different equilibration times on buck semen cryopreservation using soybean lecithin supplemented extender

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## Abstract

The aim of this study was to determine the effects of different pre-freezing equilibration times (2, 4 and 6 hour) on post-thawed buck semen quality parameters using soybean lecithin supplemented extender. Semen samples were collected from four Mahabadi bucks, primarily evaluated and pooled together. Afterward, pooled semen samples were divided into three equal parts and diluted in semen extender containing soybean lecithin. After spending different equilibration times, diluted semen samples were frozen. After thawing, sperm motility characteristics, plasma membrane integrity and functionality, abnormality and lipid peroxidation were evaluated. Base on the obtained results, six hour equilibration time resulted in higher progressive motility ( $25.6 \pm 1.39$  %) compared to other groups ( $P < 0.05$ ). The other sperm quality parameters did not alter by different equilibration times. In conclusion, spending six hour equilibration time improved only sperm progressive motility.

**Key words:** Goat semen, Equilibration time, Cryopreservation, Soybean lecithin

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