

## EFFECTS OF TWO WASHING SOLUTIONS ON SPERM SURVIVAL OF BUCKS

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The effects of 2 washing solutions on sperm survival throughout the freeze processing of buck semen were investigated. Ejaculates (514) were collected with an artificial vagina from 39 mature bucks of 5 Anglo-Nubian, Canide, Brown Alpine, Moxoto and Saanen over 4 years (4 rainy and 4 dry seasons). Semen was washed if it had at least 60% of individual progressive motility (ipm) and 3.0 (in a scale 0 to 5) of vigour (v). Krieb's Ringer-phosphate solution, Krieb's Ringer-phosphate solution and Krieb's Ringer-phosphate solution + 4.92% solution of sodium citrate (MOD solution) were used as washing solutions. The sperms were washed by 2 successive centrifugation at 2,400 pmr, during 15 min. All ejaculates that showed sediment coagulation were not frozen. The semen was thawed at 38°C during 20 sec, and 5 min after thawing the individual progressive motility and vigour were evaluated. The sample that achieved 230.0% ipm and 22.0 v was considered useful. Efficiency of freezing (ERF) was calculated by dividing the number of useful samples by the total number of washed ejaculates. When MOD solution was employed no significant differences among breeds and due to season ( $P > 0.05$ ) were observed except in relation to ipm. ERF were 33.3 and 66.8% in Krieb's Ringer-phosphate solution and MOD respectively ( $P > 0.05$ ). MOD solution was more efficient than Krieb's Ringer-phosphate solution and it reduced the cost of buck semen freezing.

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**Key words :** Buck semen, Freezing, Washing solution