

EFFECTS OF CAFFEINE, EQUILIBRATION TIME AND THAWING TEMPERATURES ON THE QUALITY OF BOAR INSEMINATION DOSES

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Abstract

The effect of cryopreservation on boar sperm is more detrimental than on sperm of other farm animals. The purpose of our study was to improve the steps of storage and subsequent thawing so that cryopreservation might find wider applications in swine reproduction. We focused on three factors which can influence the quality of insemination doses. The first factor was the length of the equilibration phase where we compared the difference between 7 and 26 hours. The longer time of equilibration appears more convenient for maintaining the motion characteristics of sperm. Another factor was the thawing temperatures and times of thawing of the insemination doses where we compared 38°C for 30 seconds with 70°C for 8 seconds. The rapid method with the higher temperature showed to be preferable because the sperm retained better movement characteristics. The last factor was the effect of caffeine, added to the thawing medium, which resulted in a significant improvement in the quality of sperm movement. However, on the other hand, a considerable impairment of sperm viability occurred.

Key Words: Boar, spermatozoa, cryopreservation, caffeine, thaw medium