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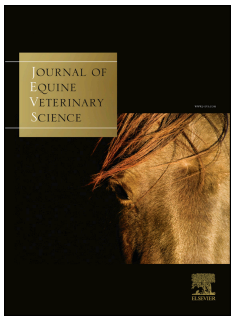

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The effects of egg yolk concentration and particle size on donkey semen preservation

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Abstract

This study aimed to evaluate the effect of concentrations of egg yolk on cooling preservation and particle sizes on cryopreservation for donkey semen. Two experiments were carried out: (1) Determination of a suitable concentration of egg yolk during donkey semen cooled storage; and (2) Evaluation of effects of egg yolk particles sizes on sperm quality after freezing-thawing. For experiment 1, the different concentrations (0%, 0.5%, 1.0%, 1.5%, 2.0%, 2.5%) of egg yolk were added into the cooling extender and the semen samples were preserved at 4 ℃ for evaluation every 24 h. The results demonstrated that the group of 1.0 % egg yolk displayed higher total motility after 96 h of preservation ($P < 0.05$). For experiment 2, the fresh egg yolk was treated with different powers of ultrasound (400 W, 600 W, and 800