

Survivability of Kedu Rooster Sperm at Different Storage Times and Diluent Supplemented with Vitamin E and Fertilizing Ability on Kampung Chicken

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Abstract	<p>In the present study, the effect and interaction of the addition of vitamin E in diluents during storage were investigated. Semen samples were collected from ten Kedu roosters. Analysis of spermatozoa quality used analysis of variance based on a randomized block factorial design. The first factor was lactate ringer (D-1) and skim milk + 50 mM glucose (D-2), the second factor was a dose of vitamin E (V0-3= 0, 1, 2, 3%) and the third factor was storage time at 4 C (T0-3= 0, 2, 4, 6 hours). The analysis of variance showed that there was an interaction between type of diluents and vitamin E (P<0.01) on sperm viability and abnormalities, with the best combination at D1V2. The type of diluent had a significant effect (P<0.05) on sperm motility. The vitamin E dose had a significant effect on membrane integrity. Storage time had a high effect on sperm motility. There were eight combinations among the type of diluent, vitamin E dose, and storage time, which had a significant effect (P<0.01) on fertility and the fertile periods of kampung hen eggs. The combination of D2V2T0 showed the best fertility and theD(2)V(2)T(0) showed the best fertile periods. In conclusion, the addition of vitamin E 2% in lactate ringer diluents was better for maintaining the quality of spermatozoa. Artificial insemination tests in kampung hens showed fresh semen in a combination diluent of skimmed milk + 50 mM glucose and vitamin E 2% resulting in the highest fertility and fertile period.</p>
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