

ABSTRACT

ARDIANA RUSTANA. H4A 004 002. Semen Quality of Peranakan Ettawah (PE) Goat Which Diluted with Skim Milk, Tris-Egg Yolk and Andromed Before and After Freezing. (Advisor : **YON SUPRI ONDHO** and **SOEDARSONO**)

A study of diluter of Peranakan Ettawah (PE) goat semen was conducted: 1). To know the effect of diluter on quality of PE goat semen included of percentage of motility, sperm liveability, plasma membrane integrity and acrosome integrity; 2). To know the correlation between motility with livability, plasma membrane an acrosome integrity. The study carried out laboratory of Ungaran Artificial Insemination Center of Central Java ; started from August 26th to October 27th 2005.

Experiment material are 3 bucks of PE with its semen, and semen diluter. This study used (3x3) latin square design with 3 multiplication. PE bucks (K1,K2,K3) on row and collectin's time (T1,T2,T3) on column. Data were analyzed by varian analisis. Duncan test is applied on significant effect of the treatment.

Result of this study showed that sperm motility with andromed (56,11%) is higher ($P<0,05$) compare to skim (46,67%). On post thawed evaluation, sperm motility of andromed (44,44%) higher ($P<0,05$) compare to either tris (35,89%) or skim (28,33%); and tris diluter significantly ($P<0,05$) higher than skim. Sperm liveability, plasma membrane and acrosome integrity before freezing were not significant, but on post thawed evaluation, andromed (55,05%) had higher liveability ($P<0,05$) than skim (35,33%). Andromed also higher ($P<0,05$) in plasma membrane integrity (59,48%) compare to tris (54,74%) or skim (47,18%), and in acrosome integrity ($P<0,05$) (46,92%) compare to skim (35,00%). Motility had positive correlation with plasma membrane ($P<0,05$) and acrosome integrity ($P<0,01$) in fresh semen. On before freezing and post thawed evaluation, motility had positive correlation with liveability ($P<0,01$) and acrosome integrity ($P<0,01$).

It is concluded that as a diluter of PE goat semen andromed had better protection compare either to tris or skim milk especially on post thawed evaluation. Motility had a positive correlation with acrosome integrity on fresh semen, before freezing and post thawed evaluation.

Keyword : semen diluter, spermatozoa, skim milk, tris, andromed.