ABSTRACT

Jauzi, M. 2012. **Effect of temperature and thawing of the Older Cattle Spermatozoa Quality of Madura.** Thesis, Department of Biology Faculty of Science and Technology of the State Islamic University of Malang Maulana Malik Ibrahim.

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Temperature and duration of thawing have a major influence on the quality of spermatozoa. Combination of temperature and duration of thawing a good one that can prevent permanent damage to spermatozoa that have a high ability to fertilize an ovum. Therefore to get the quality of spermatozoa Madura cattle that meet the standards of IB is necessary combination of temperature and duration of thawing is good.

The purpose of this study is to determine the temperature and duration of thawing of frozen bovine semen madura optimal for use in the IB. The study was conducted in January to February 2012. The material used in this research that greeted Madura frozen semen from Artificial Insemination Center (BBIB) Singosari production by the year 2012. The method used in this study is the method by two factors: eksprimental thawing temperature of 340C, 370C and 400C and thawing time of 30 seconds, 35 seconds and 40 seconds, with 3 replications. Dependent variable in this study, namely motility, viability, and membrane integrity of spermatozoa abnormalities. Viability and abnormalities observed in spermatozoa-eosin staining menggukan negrosin, while the sperm membrane integrity was observed by using the method of Hypo-osmotic Swelling Test (HOS Test). Observations in the data analysis by using factorial ANOVA patterns and then tested further by BNJ.

The results showed that the temperature and duration of thawing effect on the quality of Madura cattle spermatozoa. From the results obtained ekprimen thawing temperature of 370C treatment gives optimal results and significantly different thawing temperatures 400C, but no real difference with a temperature of 340C and treatment thawing time, thawing time of 30 seconds to have an optimal quality of spermatozoa and thawing significantly different from 40 seconds long, but not significantly different thawing 35 seconds long, so long thawing 35 seconds was not significantly different with the thawing time of 40 seconds. It is found on examination of membrane integrity, viability and motility of spermatozoa. While the examination abnormalities thawing temperatures 340C, 370C and 400C with the thawing time of 30 seconds, 35 seconds and 40 seconds did not show any effects of temperature and duration of thawing of the abnormality.