ABSTRACT

Raharjo, Sugeng. 2012. Isolation and Identification of Lactic Acid Bacteria(LAB) from Small Intestine of Mojosari Duck (*Anas plathyrinchos*). Thesis, Biology Department of State Islamic University of Maulana Malik Ibrahim Malang. Advicer : Dr. Ulfah Utami, M.Si and Anik Maunatin, M.P. Religious Advicer: Dr. Ahmad Barizi, M.A.

Key words: Lactid acid bacteria, Mojosari's duck, small intestine, identification, *Microbact 12B*

Lactid Acid Bacteria (LAB) is kind of bacteria which is keep the balance of microflora in the digestive canal of livestock such as Mojosari's duck (*anas plathyrinchos*). One of the digestive canals which are to be the place of lactid acid bacteria is small intestine. A lactid acid bacteria in the small intestine is very needed to make the growing of pathogen bacteria slowly which is in the small intestine of livestock. To get the habits of lactid acid bacteria, need to do isolation. The purpose of this research is to isolate and identified lactid acid bacteria which is come from the small intestine of mojosari's duck by using *de Man Rogosa Sharpe* (MRS) media.

This research uses the descriptive qualitative method. The steps which is done consist of taking sample of small intestine by taking out the digesta of small intestine. Than submerged the digesta into *de Man Rogosa Sharpe* (MRS) broth media and incubate for 24 hours to enrichment of BAL. Than doing the dilution from 10^{-1} up to 10^{-10}. Than the result of dilution 10^{-3} up to 10^{-10} move to the jelly MRS media by using *pour plate* method and incubate for 48 hours, after 48 hours observed the morphological colony depending on the shape, border, elevation, internal structure and color. Than the colony is purred by using *quadrant streak* method in jelly MRS media and incubated again for 48 hours by the normal room temperature. The pure colony which is gotten will be grow up by using jelly MRS media and used as isolate stock for the next experiment.

The experiment continuation covers of experiment of coloring the gram, catalation, coloring the endospora and identificate by *Microbact* 12B. The result of coloring the gram is 13 isolate bacteria which is stem and circle by the details of 8 positive grams isolate bacteria and 5 negative grams isolate bacteria. In the experiment of catalation and endospora, just positive gram bacteria which shape is stem which consist of isolate UI1 experiment, UI2 experiment, UI6 experiment and UI12 experiment. The result of catalase and endospora showing the negative. Than we can conclude that the fourth bacteria is lactate acid bacteria (BAL) lactobacillus variety. Than the fourth bacteria is identificated by *Microbact* 12B. the result of identification showing that UI1 and UI2 is identificate as *Lactobacillus plantarum*, UI6 is identificate *Lactobacillus brevis* and UI12 is identificate as *Lactobacillus buchneri*.