

ABSTRACT

Hidayati, Nur. 2011. The Effect of Combination Treatments of Mas Snail (*Pomaceae Canaliculata*) flour and Fermented Water Spike (*Azolla Pinnata*) Flour to Cholesterol Rate and Yolk Colour on Strain Isa Brown Hens of Layer's Period. Thesis of Biology Department, Science and Technology, Maulana Malik Ibrahim, State Islamic University. Advisor I: Dr. Retno Susilowati., M.Si. Advisor II: Amalia Fitri Andriani., M.Si.

Key words: Isa Brown Chicken, *Pomaceae canaliculata*, *Azolla pinnata*, Yolk

Egg is one of foods that has complete nutrient value and meet the standards to be consumed everyday. Recently, it is recognized that the Isa Brown which reared intensify, generally will spawn eggs with pale yolk colour. On the other hand, fowl eggs also containing saturated fat and high cholesterol. The cholesterol is a component inside of food comes from animal comestibles because will cause some diseases. So that, it needs to be manipulated by high protein rate, low fat and high carotenoid pigment rate until the cholesterol rate is lower and the yolk colour is sharpened. However this food has many contained in mas snail (*Pomaceae canaliculata*) and water spike (*Azolla pinnata*) that are cheap food materials and easy to find.

This research is an experiment that uses 20 hen of Isa Brown aged 19 months. The Analysis uses complete random experiment (RAL) with 5 treatments and 4 replicates. With a combination of *Pomacea canaliculata* flour and *Azolla pinnata* flour fermented in a row. **P0: (control)**, P1 (2,5 % + 10%), P2 (5 % + 7,5%), P3 (7,5 % + 5%), P4 10 % + 2,5%).

This research is intended to make the cholesterol rate lower and the yolk colour higher. **The result is analyzed by using** oneway ANOVA. The variables observed are the cholesterol rate and the yolk, they are observed in the end of the research. If the result of the calculation is different, it will used regression with BNT 0,05.

The result showed that there is an effect of combination treatment of mas snail (*Pomacea Canaliculata*) flour and fermented water spike (*Azolla Pinnata*) flour to the reduction of cholesterol rate and increase of yolk of Isa Brown. Treatment which has good potential to reduce of cholesterol rate and increase yolk colour is on P4 treatment with cholesterol rate 462.700 mg/100g and yolk colour by rate 11 (to based on yolk colour fan) the colour is orangish yellow.