

ABSTRACT

Soimah, Iin Komarus. 2011. **The Effect of Broiler Chicken Feet Meal as Substitute of Fish Meal in Rations on eggshell thickness, and the Rates Protein of Albumin and Egg Yolk Arabian Chickens (*Gallus turcicus*)**. Thesis, Department of Biology Faculty of Science and Technology The State Islamic University of Maulana Malik Ibrahim Malang. Advisor I: Kiptiyah, M.Si. Advisor II: Amalia Fitri Andriani, M.Si.

Keywords: Arabian Chicken, Broiler Chicken Feet Meal, Calcium, Protein in Albumin and Egg Yolk.

Arabian chicken (*Gallus turcicus*) is including the type of free-range chicken (not race) a potent producer of eggs reaching 60-70% (\pm 225 grains / year / head). Arabian chicken (*Gallus turcicus*) requires appropriate feed to increase egg production and quality one of there is broiler chicken feet flour which contains nutrition are quite high, so flour can be used as an alternative to substitute of meal which is relatively expensive. The content of protein and calcium of broiler chickens feet which are high can be used for the Arabian chickens for increasing the white and yolk proteins as well as increasing the thickness of the eggshell.

This study is an experimental study using Completely Randomized Design (RAL) with 5 treatments and 4 repetition, if there are significant differences it will be followed by BNT 5%. The treatments used were broiler chicken feet flour with a concentration of 4%, 6%, 8% and 10%. The research was conducted in Arab chicken henery in the Kendal Sari Soekarno Hatta Malang. The analysis of eggshell thickness and the protein rates of the albumin and yolk conducted at the Laboratory of Biochemistry of University of Muhammadiyah Malang. The data of the study include eggshell thickness, the rates of protein in the albumin and yolk.

The results of the research showed that broiler chicken feet flour affects the eggshell thickness and the rates of protein in the albumin and yolk. The concentration of broiler chicken legs feet that is able to increase the thickness of the eggshell was found at concentrations of 10%, while the concentration of which increases levels of protein in the albumin and yolk are also present in concentrations of 10% this means that broiler chicken feet flour can be used as an alternative substitute of fish meal.