

ABSTRACT

Ikromah. 2011. **The Effect of Broiler Chicken Feet Meal as Fish Flour Substitution Inside Rations Toward Egg Production and Egg Yolk Color of Arabian Chicken (*Gallus turcicus*)** Thesis, Department of Biology, Faculty of Science and Technology The State Islamic University (UIN) Maulana Malik Ibrahim Malang. Advisor I: Kiptiyah, M.Si Advisor II: Amalia Fitri Andriani, M.Si.

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Arabian chicken (*Gallus turcicus*) is including the type of egg producing chickens which are quite high. Arabian chicken egg production is reached 225 grains/year/hen while the free-range chicken 130 grains/year/hen. Arabian chicken (*Gallus turcicus*) require an appropriate feed to increase the egg production and quality. Egg production is influenced by the protein content of the ration, one of which is the broiler chicken feet. Broiler chicken feet flour can be used as an alternative substitute of fish meal which is relatively expensive and still largely imported. Fish meal is a source of protein similar to broiler chicken feet, given the essential amino acid content is very supportive. The content of vitamin A and beta-carotene are high on the rations will affect the egg yolk color so yellow orange red colored eggs that will be preferred by consumers and beneficial to human health. The content of protein and vitamin A which is high in starch broiler chicken feet meal will be expected to affect the production and egg yolk color.

This research is an experimental research which uses 20 Arabian chicken 1 year old weighing 1 ± 1.5 kg. This study using a Completely Randomized Design (RAL) with 5 treatments and 4 replications that is by the addition of broiler feet meal 0%, 4%, 6%, 8% and 10%. Production of eggs and egg yolk color has been calculated and analyzed by using a one-way ANOVA. If the calculation results significant difference, then further tests with BNT 0,05 is conducted.

The research results showed of broiler feet have a tendency to increase production and egg yolk color but did not provide tangible because due to a deficiency of protein in the rations which resulted of FSH thereby inhibiting follicular maturation that affect the increase of egg production. In the egg yolk blockage of beta-carotene biosynthesis.