Performances of Merawang Chicken with Manipulation of Feed Containing Omega-3 *Fatty* Acid Supplement and Different Frequency of Feeding

M. Usman, Iman Rahayu H. S., D. M. Suci
Study Program of Animal Production Technology, Department of Animal Production, Faculty of Animal Science, Bogor Agricultural University

Merawang chicken is one kind of local birds that has been domesticated at Merawang village, Bangka Island. It has good potential in egg production, therefore it could be developed as layer. The aim of the research was to investigate the performances of Merawang chicken with manipulation of feed containing supplement of omega-3 fatty acid and different frequency of feeding.

The research used 64 Merawang hens, 26-28 weeks old. They were arranged in four treatments with four replicates which each replicate had four hens. Housing of them had size 0.7 x 1 x 1 m. Feed place was hanging feed place with diametre 28 cm and height 5 cm. Randomized Completely Factorial Design 2x2 was used in this research, Factor A was kind of feed (feed without or with addition of 5% omega-3 supplement) and factor B was frequency of feeding management (once and twice per day). The feed was isocaloric (2,510 kcal/kg) and isoprotein (15.51%). Parameters observed were feed and water consumption, egg production, egg weight, feed conversion ratio and mortality. The data collected were analyzed by GLM of SAS computer program. The body weight of Merawang chicken in first week (6-7 months old) was 1377.58 g/bird and the body weight in last week (9-9.5 months old) was 1455.85 g/bird.

The results showed that no interaction between treatments to feed and water consumption, egg production, egg weight ang feed conversion. Addition of omega-3 supplement produced egg weight significantly ($P<0,05$) lower than feed control (40.30 vs. 43.98 g/egg). Feeding twice per day produced feed consumption very significantly ($P<0,01$) higher than consumption on feeding once, per day (96.53 vs. 92.57 g/bird/day), however it produced higher egg production (39.24 vs. 26.93% *hen day*) and lower feed conversion ratio (7.33 vs. 10.37).

Key words: performances, Merawang chicken, omega-3 fatty acid supplement, feeding frequency management