

Pengaruh Rasio Energi dan Protein Pada Pakan *Pre-starter* Terhadap Pertumbuhan Otot *Pectoralis thoracicus* Ayam Kampung Super [*Gallus gallus gallus* (Linnaeus, 1758)]

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INTISARI

Penelitian ini dilakukan untuk menguji pengaruh dari rasio energi dan protein dalam pakan *pre-starter* pada pertumbuhan otot *Pectoralis thoracicus* ayam Kampung Super. Empat puluh *Day Old Chick* (DOC) Kampung Super diberi pakan *pre-starter* selama periode eksperimental dan dibagi menjadi empat kelompok. Kelompok pertama adalah DOC yang diberi pakan *pre-starter* Tipe A dengan kadar protein 20,19% dan 3300 kkal / kg ME sejak hari pertama menetas sampai umur 7 hari. Kelompok kedua diberikan pakan *pre-starter* Tipe B dengan kadar protein 21,84% dan 3100 kkal / kg ME sejak hari pertama menetas sampai umur 7 hari. Kelompok ketiga diberi pakan *pre-starter* Tipe C dengan level protein 21,13% dan 2800 kkal / kg ME sejak awal menetas sampai umur 7 hari. Kelompok kontrol (puasa) tidak diberi makan selama 3 hari pertama pasca penetasan dan dilanjutkan dengan pakan *pre-starter* standar sampai umur 7 hari. Parameter yang diukur adalah berat badan, berat otot *Pectoralis thoracicus*, luas otot, luas area *myofiber* dan jumlah *Proliferating Cell Nuclear Antigen* (PCNA)-*positive cells*. Data dianalisis dengan menggunakan *One-way ANOVA*, dan diikuti oleh Tukey tes. Hasil penelitian menunjukkan bahwa kelompok 3 dan 4 memiliki berat tubuh, berat otot *Pectoralis thoracicus*, luas otot, luas area *myofiber* dan jumlah PCNA-*positive cells* lebih rendah dibandingkan dengan kelompok 1 dan 2 ($P \leq 0,05$). Hal ini membuktikan bahwa pemberian pakan pada awal pasca penetasan pada DOC Kampung Super sangatlah penting untuk meningkatkan pertumbuhan berat badan dan performa pertumbuhan otot *pectoralis*. Pakan dengan level protein 21,84% dan energi 3100 kkal / kg sangat menjanjikan terhadap perkembangan otot *Pectoralis thoracicus* DOC Kampung Super jika diberikan sejak awal menetas.

Kata kunci: Kampung Super, level energi dan protein, otot *Pectoralis thoracicus*

The Effect of Ratio Energy and Protein in Pre-Starter Feeds on Pectoralis Muscle Development of *Kampung Super* Chicks [*Gallus gallus gallus* (Linnaeus, 1758)]

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ABSTRACT

This study was performed to examine effect of varying level of energy and protein in pre-starter feed on *pectoralis* muscle development of *Kampung Super* chicks. Fourthy *Kampung Super* day old chicks (DOC) were fed pre-starter diet during the experimental period and were divided into four groups. The first group was chicks with pre-starter type A diet with 20.19% of protein and 3300 kcal/kg of ME for the first day posthatch to seven-days old. The second group was treated with pre-starter diet type B for the first day posthatch to seven-days old with protein level 21.84% and 3100 kcal/kg of ME. The third group was given pre-starter diet type C with with protein level 21.13 % and 2800 kcal/kg of ME for the first day posthatch to seven-days posthatch. The control group chicks were not fed for the first 3 day posthatch and continued with a standard pre-starter diet to seven-days old. The parameters measured were body weight, *Pectoralis thoracicus* weight and muscle area, cross-sectional area of myofibers and the number of Proliferating Cell Nuclear Antigen (PCNA)-positive nuclei. The data were analyzed using One-way ANOVA, followed by Tukey tests. The results showed that groups 3 and 4 had lower body weight, *Pectoralis thoracicus* weight, muscle area, cross-sectional of myofibers area and number of PCNA-positive nuclei compared to group 1 and 2 ($P \leq 0,05$) which proved that early posthatch feed in *Kampung Super* chicks was important to body weight and *pectoralis* muscle development. The diet with 21.84% of protein and 3100 kcal/kg of ME in early posthatch promised optimum *pectoralis* muscle development for *Kampung Super* chicks.

Keyword: *Kampung Super*, level energy and protein, *Pectoralis thoracicus* muscle