

## INTISARI

### **PENGARUH SUPLEMENTASI RANSUM SUMBER ENERGI DAN PROTEIN TERHADAP *BODY CONDITION SCORE* DAN SITOLOGI VAGINA KAMBING PERANAKAN ETTAWA MUDA PADA FASE ESTRUS**

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Penelitian ini bertujuan untuk mengetahui pengaruh pakan suplementasi sumber energi dan protein terhadap *body condition score* (BCS) dan sitologi vagina fase estrus kambing Peranakan Ettawa (PE) muda. Perlakuan yang diberikan antara lain, kelompok I (P1) sebagai kontrol yakni pakan hanya berupa hijauan, kelompok II (P2) pakan hijauan dan konsentrat sumber energi (PK 13,64 SK 12,81) dan kelompok III (P3) pakan hijauan dan konsentrat sumber protein (PK 22,73 SK 11,09). Hasil penelitian tahap I diperoleh, rata-rata skor BCS  $2,4 \pm 0,67$ . Kemudian *post partum estrus* (PPE)  $6,69 \pm 0,31$  bulan, *post partum mating* (PPM)  $6,82 \pm 0,31$  bulan, *litter size*  $2,30 \pm 0,11$  ekor, *kidding interval*  $11,73 \pm 0,50$  bulan dan waktu sapih  $3,17 \pm 0,10$  bulan. Hasil penelitian tahap II diperoleh skor BCS masih dibawah 3, sedangkan kinerja reproduksi seperti PPE, PPM dan *kidding interval* masih belum sesuai dengan keadaan normal. Penelitian tahap II diperoleh hasil, konsumsi nutrisi BK ialah P1  $815,60 \pm 94,67$ ; P2  $1235,76 \pm 124,28$  dan P3  $1349,40 \pm 38,89$  (gram/ekor/hari). Nutrien tercerna BK ialah P1  $536,22 \pm 117,06$ , P2  $1044,51 \pm 112,20$  dan P3  $1159,57 \pm 62,744$  (gram/ekor/hari). Koefisien cerna BK ialah P1  $65,18 \pm 6,43$ , P2  $84,53 \pm 3,67$  dan P3  $85,92 \pm 3,60$  (%). Pertambahan bobot badan harian (PBBH) P1  $-6,33 \pm 49,07$ , P2  $46,55 \pm 29,70$  dan P3  $73,13 \pm 36,44$  (gram/ekor/hari). BCS P1  $2,5 \pm 0,38$ , P2  $2,9 \pm 0,22$  dan P3  $2,7 \pm 0,27$ . Jumlah sel superfisial P1  $77,25 \pm 26,65$ , P2  $48,25 \pm 16,45$  dan P3  $67,75 \pm 39,71$ . Berdasarkan hasil tersebut dapat disimpulkan bahwa pemberian suplementasi sumber energi dan protein belum menunjukkan hasil yang berbeda nyata untuk antar perlakuan, namun pemberian pakan suplementasi cenderung berpengaruh dibandingkan kelompok kontrol yakni yang hanya diberikan pakan hijauan.

Kata kunci: Kambing PE, Energi-Protein, BCS, Reproduksi

## **ABSTRACT**

### **THE EFFECT OF ENERGY AND PROTEIN SUPPLEMENTATION ON BODY CONDITION SCORE AND CYTOLOGY VAGINA OF YOUNG ETTAWA CROSSBRED GOAT IN ESTRUS PHASE**

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This study aimed to determine the effect of dietary supplementation with energy sources and protein on body condition score (BCS) and cytology of the vaginal in estrus phase of young Ettawa crossbred goats. The treatments given included group I (P1) as a control only forage feed, group II (P2) forage feed and concentrates of energy sources (PK 13.64 SK 12.81) and group III (P3) forage feed and protein concentrate concentrates (PK 22.73 SK 11.09). The result of first stage of observation are, the average BCS obtained a score of  $2.4 \pm 0.67$ , post partum estrus (PPE)  $6.69 \pm 0.31$  months, post partum mating (PPM)  $6.82 \pm 0.31$  months, litter size  $2.30 \pm 0.11$  heads, kidding interval  $11.73 \pm 0.50$  months and weaning time  $3.17 \pm 0.10$  months. Body condition score was still below 3, while the reproductive performance such as PPE, PPM and kidding interval was still not in accordance with normal conditions. In the second phase of the study, the variables observed were nutrient consumption, digested nutrients, digestibility coefficient, daily body weight gain, evaluation of BCS and detection of estrus used vaginal smear method. The results obtained from the consumption of DM were P1  $815.60 \pm 94.67$ ; P2  $1235.76 \pm 124.28$  and P3  $1349.40 \pm 38.89$  (grams/head/day). The digested DM were P1  $536.22 \pm 117.06$ , P2  $1044.51 \pm 112.20$  and P3  $1159.57 \pm 62.744$  (grams/head/day). DM digestibility coefficients were P1  $65.18 \pm 6.43$ , P2  $84.53 \pm 3.67$  and P3  $85.92 \pm 3.60$  (%). Daily gain P1  $-6.33 \pm 49.07$ , P2  $46.55 \pm 29.70$  and P3  $73.13 \pm 36.44$  (grams/head/day). BCS P1  $2.5 \pm 0.38$ , P2  $2.9 \pm 0.22$  and P3  $2.7 \pm 0.27$ . The number of superficial cells was P1  $77.25 \pm 26.65$ , P2  $48.25 \pm 16.45$  and P3  $67.75 \pm 39.71$ . Based on these results, it can be concluded that supplementation of energy and protein sources has not shown significantly different results between treatments, but supplementation of feed tends to have an effect compared to the control group, which is only given forage feed.

Keywords: PE Goat, Protein-Energy, BCS, Reproduction