

## ESTIMASI BERAT BADAN BERDASARKAN UKURAN TUBUH INDUK KAMBING BLIGON DI DESA BANYUSOCA, PLAYEN, GUNUNG KIDUL

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### INTISARI

Kambing Bligon merupakan hasil persilangan antara kambing Peranakan Ettawa dengan kambing Kacang. Tampilan morfologi masih umum digunakan secara praktis untuk mengkarakterisasi dan menyeleksi ternak. Penelitian ini dilaksanakan di Desa Banyusoca, Kecamatan Playen, Gunung Kidul yang dilakukan dengan tujuan untuk mengetahui hubungan antara ukuran-ukuran tubuh (panjang badan, lingkaran dada dan tinggi gumba) dengan berat badan kambing Bligon. Hasil penelitian dianalisis regresi linear sederhana dan berganda dengan menggunakan *software Statistical Product and Service Solutions*. Persamaan regresi kambing Bligon poel 2 yaitu  $Y = -11,955 + (-0,258)X_1 + 0,764 X_2$  dengan nilai determinasi 93,8% dan  $P < 0,05$ , kambing Bligon poel 3 yaitu  $Y = 12,535 + 1,163 X_1 + (-0,790) X_3$  dengan nilai determinasi 62,2% dan  $P < 0,05$ , dan kambing Bligon poel 4 yaitu  $Y = -34,311 + 0,482 X_1 + 0,572 X_2$  dengan nilai determinasi 43,5% dan  $P < 0,05$ . Kesimpulan dari penelitian ini adalah panjang badan dan lingkaran dada berpengaruh kuat terhadap pendugaan berat badan.

**Kata kunci:** Estimasi, Kambing Bligon, Berat Badan, Panjang Badan, Lingkaran Dada, Tinggi gumba, Regresi Linear.

## ESTIMATION OF BODY WEIGHT BASED ON BODY MEASUREMENTS OF FEMALE BLIGON GOAT IN BANYUSOCA VILLAGE, PLAYEN, GUNUNG KIDUL

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### ABSTRACT

Bligon goat is the result of a crossbred between Ettawa crossbred goat and Kacang goat. The morphological appearance is still commonly used for practically to characterize and select the animals. This research was conducted in Banyusoca Village, Playen Subdistrict, Gunung Kidul. The aimed of study was to determine the relationship between body measurements (body length, chest circumference and gumba height) with the body weight of Bligon goats. The results of the study analyzed by simple and multiple linear regression using Statistical Product and Service Solutions software. The equation of regression in Bligon goat eaged  $I_2$  was  $Y = -11,955 + (-0.258) X_1 + 0.764 X_2$  with a determination value of 93.8% and  $P < 0,05$ , Bligon goat eaged  $I_3$  was  $Y = 12,535 + 1,163 X_1 + (-0,790) X_3$  with a determination value of 62.2% and  $P < 0,05$ , and Bligon goat eaged  $I_4$  was  $Y = -34,311 + 0,482 X_1 + 0,572 X_2$  with a determination value of 43,5% and  $P < 0,05$ . In conclusion, body length and chest circumference have a strong influence on body weight estimation.

**Keywords:** Estimation, Bligon Goat, Body Weight, Body Length, Chest Circumference, Shoulder Height, Linear Regression.