THE CORRELATION BETWEEN BODY WEIGHT WITH BODY LENGTH, WITHER’S HEIGHT, HEART GIRTH, SCROTAL CIRCUMFERENCE, VOLUME, AND SEMEN QUALITY OF PERANAKAN ETAWA GOAT

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ABSTRACT
The aim of this research was to know the correlation between length of body weight, wither’s height, and heart girth with body weight. Semen volume with body weight and scrotal circumference. And volume of semen, percentage of live spermatozoa, sperm concentration, and scrotal circumference with sperm motility as superior standardization Peranakan Etawa (PE) goat. This research has 30 PE goats aged three to four years from UPTD Singosari. The data were processed by “Multiple Linear Regression”. The results of this research showed the correlation between length of body weight, wither’s height, and heart girth with body weight:

\[ Y = -130.735 + (-0.017 X_1) + (-0.037 X_2) + 2.147 X_3. \]

The correlation between semen volume with body weight and scrotal circumference:

\[ Y = 0.040 + 0.006 X_1 + 0.029 X_2. \]

And the correlation between volume of semen, percentage of live spermatozoa, sperm concentration, and scrotal circumference with sperm motility:

\[ Y = 12.204 + -5.575 X_1 + 0.820 X_2 + 1.177 \times 10^9 X_3 + 0.806 X_4. \]

The conclusion obtained in this research was significantly relationship between heart girth with body weight. And significantly relationship between percentage of live spermatozoa with sperm motility (P<0.05).

Key words: PE goat, body weight, scrotal circumference, semen.