

Morphometric of Etawa Crossbred Goat in Development Area at Banjarnegara District, Central Java

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Abstract

Morphometri studies of a livestock breed are generally required to provide an overview of their characteristics, and be useful to recognise their phenotype. Etawa grade (PE) are goats that have been registered as a local breed according to the decree of Ministry of Agriculture No 695/Kpts/PD.410/2/2013. Furthermore, the Directorate General of Livestock and Animal Health decide several location as breed development areas to improve the genetic constituent of the breed. This study was conducted at Banjarmangu Sub District of Banjarnegara district, Central Java to 24 farmers who raised PE goats with a total of 53 heads from different sex and age. Data were analysed using General Linear Model (SAS 5.0), with dependet variables of body weight (BW), body length (BL), withers height (WH), chest circumference (CC), chest depth (CD), shoulder width (SW), rump height (RH), rump width (RW), cannon circumference (CC) and ear length (EL), with the independent variables were sex and age of the goats. Several morphological indices such as Body Index (BI), Height Index (HI), Length Index (LI), Area Index (AI) and Thorax Index (TI) were calculated. The results showed that WH, CC and RH were significantly ($P<0.05$) influenced by sex and age of goats with the average of WH, CC, RH were 52.43 kg, 83.74 cm and 82.81 cm, respectively. Whereas BW, BL, EL, CD and SW were significantly ($P<0.05$) influenced by sex with the average were 52.43 kg; 77.3 cm, 33.1 cm, 32.5 cm and 19.6 cm, respectively. In addition, the average of BI, HI, LI, AI and TI were 92.16 ± 8.55 ; 96.54 ± 3.43 ; 96.24 ± 9.25 ; 6255.80 ± 1293.69 and 60.68 ± 9.45 , respectively.

Keyword: body measurement, Etawa grade goats, morphometri index, genetic constituent.