

**CORRELATION BETWEEN *BODY CONDITION SCORE* AND VITAL
STATISTICAL SIZE ON *LITTER SIZE* AND BODY GAIN OF ETTAWA
CROSSBREED GOATS IN KALIGESING
DISTRICT PURWOREJO REGENCY**

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ABSTRACT^{*)}

This study aims to determine the correlation between BCS and body size on litter size and body weight gain of Etawah crossbreed goats in Kaligesing District, Purworejo Regency. The research material used was 100 cows in the parent, pre-weaning and post-weaning stages of Etawah crossbreed goats. This study uses a survey method with. The variables observed were BCS, body length, gumba height, chest circumference, litter size and weight gain. Data were analyzed by multiple linear regression. The results of this study indicate that the average age of farmers is 48.28 years, the education level of farmers is 26% elementary school graduates, 40% junior high school and high school 34%, the aim of raising livestock as a main business is 40% and as a side business 60%, the experience of raising an average 19.65 years old, the number of livestock ownership is 10.91. The BCS value of PE goats was 2.47, litter size 1.86, body length, pre-weaning and post-weaning champ 76.87cm, respectively; 43.75cm and 49.92 cm, the height of the parent gumba, pre-weaning and post-weaning champ respectively 80.35 cm; 45.78 cm and 54.96 cm, breast circumference of the parent, pre-weaning and post-weaning cepe respectively 82.39 cm; 44.19 cm and 57.58 cm, the pre-weaning weight gain was 106.58 g/day and the post-weaning weight gain was 49.67 g/day. Feed consumption DM 17.98 kg/day/AU. The correlation between BCS and body size to litter size has a significant relationship ($P < 0.05$) with the value (r) = 0.395, the value (R^2) = 0.156 with the regression equation which is $Y = 1.866 + 0.361X_1 + 0.004X_2 - 0.022X_3 + 0.006X_4$. The correlation between body size and weight gain of pre-weaned and post-weaned goats was significant ($P < 0.05$) with value (r) = 0.645, value (R^2) = 0.416 and with the regression equation $Y = 173.839 + 1.928X_1 - 0.950X_2 + 2.715X_3$. It was concluded that there was a noticeable correlation between BCS and body size to litter size and weight gain.

Keywords: BCS, body size, litter size, body weight gain, Etawa crossbreed goat (PE).

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