

## PERFORMANCE TRAITS STUDY OF BLACK BENGAL GOAT IN SAVAR AREA

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### Executive Summary

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At present, Black Bengal goats are found abundantly all over the area of Bangladesh but there is little information regarding their potential and true role in rural development. In order to undertake any development work in the rural area, the goat production status including phenotypic and genetic characterization and their problems and prospects should be identified. Considering the above point in view the study was undertaken with the objectives of to determine the growth performance of Black Bengal goat in village condition and to find out the effects of different factors on body weights at different ages. The study was conducted at Savar Upazila under Dhaka district. Out of 12 villages, 3 villages namely Kalma, Adorshagram and Anarkoli were purposively selected for the study from July 2016 to June 2017. Least-squares means for body weights at birth, 3, 6, 9 and 12 months of ages were 1.10, 5.02, 8.41, 10.41 and 12.42 kg, respectively. Sex of Black Bengal goat has highly significant ( $p < 0.01$ ) effect on the body weight at 3 months ( $5.22 \pm 0.04$  and  $4.77 \pm 0.04$  kg) and 6 months of ages ( $8.74 \pm 0.04$  and  $7.96 \pm 0.04$  kg) respectively for male and female. Moreover, sex has significant ( $p < 0.05$ ) effect on the body weight at 9 months ( $10.66 \pm 0.09$  and  $10.10 \pm 0.10$  kg) and 12 months ( $12.88 \pm 0.06$  and  $11.82 \pm 0.07$  kg) respectively male and female. Male was heavier body weight than female in all the ages. Type of birth has highly significant ( $p < 0.01$ ) effect on body weight at birth, 3, 6, 9 and 12 months. Single type ( $0.99 \pm 0.01$  kg) birth of kid weight was higher than twins ( $0.93 \pm 0.01$  kg) and triplets ( $0.87 \pm 0.01$  kg). First, second and third parity of dam has highly significant ( $p < 0.01$ ) body weight at 3 months ( $4.95 \pm 0.05$ ,  $5.04 \pm 0.04$  and  $5.08 \pm 0.05$  kg) and 12 months ( $12.21 \pm 0.67$ ,  $12.39 \pm 0.08$  and  $12.67 \pm 0.07$  kg) and significant ( $p < 0.05$ ) effect at birth weight ( $0.94 \pm 0.01$ ,  $0.95 \pm 0.01$  and  $0.97 \pm 0.01$  kg) and 6 months body weight ( $8.29 \pm 0.06$ ,  $8.37 \pm 0.05$  and  $8.54 \pm 0.05$  kg) respectively of all ages. Body weight is higher in third parity than first and second parity in all ages. Season has a highly significant ( $P < 0.01$ ) effect in birth weight ( $0.91 \pm 0.01$ ,  $0.99 \pm 0.01$  and  $0.97 \pm 0.01$  kg), 3 months ( $4.87 \pm 0.04$ ,  $5.22 \pm 0.04$  and  $4.89 \pm 0.06$  kg), 12 months ( $12.21 \pm 0.06$ ,  $12.65 \pm 0.07$  and  $12.30 \pm 0.10$  kg) of ages respectively in winter, summer and rainy season. In winter, summer and rainy season has significant effect ( $P < 0.05$ ) at 6 months body weights ( $8.20 \pm 0.04$ ,  $8.63 \pm 0.05$  and  $8.23 \pm 0.07$  kg) respectively. The growth performance better in summer season than rainy and winter season was observed in all ages. Thus, it can be concluded that male type of sex, single type kid, 3<sup>rd</sup> parity of dam and summer season was better to the growth performance of Black Bengal goat.

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