



## GROWTH PERFORMANCE OF TELLICHERRY GOATS IN AN ORGANIZED FARM

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### Abstract

The data from 27 male Tellicherry goats and 10 female Tellicherry goats maintained at the Livestock unit of Tamilnadu Agricultural University were taken for the study (Coimbatore, India). The goats were maintained as per the routine feeding and management practices of the farm. The average birth weight recorded was  $2.62 \pm 5.04$  Kg for male and  $2.34 \pm 0.72$  Kg for female kids. The average body weight at 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, and 36 months for male and female goats and average daily gain in body weight were calculated respectively. Correlation of age with average body weight (ABW) showed positive correlation ( $R^2 = 0.99$ ) and were significant at  $P < 0.01$ , correlation of age with average daily gain (ADG) in body weight was positive. The correlation between the ADG and ABW was positive ( $R^2 = 0.41$ ) but not significant. Growth Rate and ADG are important traits in livestock production and management and these traits are affected by feeding and management under farm conditions.

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### INTRODUCTION

Goats are important species of livestock in India. They contribute greatly to the agrarian economy, especially in areas where crop and dairy farming are not economical, and play an important role in the livelihood of a large proportion of small and marginal farmers and landless labourers. Tellicherry goats are one among the recognized breeds of goats in India and is widely distributed in Malabar region of Kerala and also reared in different places of Tamil Nadu. This breed is considered as a unique genotype exhibiting higher multiple birth percentages and higher milk yields. Studies on performance of Tellicherry goats in their native environment have been reported [1] and in Tamil Nadu [2, 3]. Goat rearing has been promoted by various governmental and non-governmental organizations all over the world to mitigate rural poverty, especially in unfavorable arid/semi-arid tropical environments [4]. Goats are a drought-tolerant animal, eating mainly wild grasses, tree buds and leaves. They require less care, and reproduce quickly as they start to bear kids from the age of one year old. They also provide small farmers and landless laborers with precious employment opportunities in agricultural lean seasons and play an important role as "livestock" since they can be sold when most needed, for instance, during a severe drought [5]. Birth weight, weaning weight, growth rate and ADG are economically important traits. These traits are controlled by

polygenes and are also affected by feeding practices, climatic factors and management under farm conditions. Hence, this study was conducted to estimate the pattern of growth in Tellicherry goats under prevailing natural and ecological conditions in Tamil Nadu, India.

### MATERIALS AND METHODS

The data sets of 27 male Tellicherry goats and 10 female Tellicherry goats of 36 months of age were taken for the study. The body weights at different ages (i.e. at birth and at 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33 and 36 months) were recorded. Their feeding was mainly through grazing of the available seasonal fodder and forages. However, the animals were offered concentrate ration during scarcity period as well as during breeding season for flushing. The young ones were kept indoors. They were allowed to suckle their dams freely from evening through morning till the goats were taken out for grazing in the morning. Water was provided for 24 hours in the barns. The feeding practices remained uniform throughout the study period. Average birth weight, body weight and daily gain were calculated. One-way ANOVA was calculated using graphpad prism software v 5.0.

### RESULTS AND DISCUSSIONS

The birth weight of the Tellicherry goats in the farm was  $2.62 \pm 5.04$  Kg for male and  $2.34 \pm 0.72$  Kg for female. The average body weight at 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, and 36 months for male and female goats are presented