



## Study of Average Daily Gain in Weight in Preweaning and Postweaning Life of Lambs

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### Abstract

Growth rate is important trait of sheep as they primarily reared for mutton production in hilly areas of Pakistan although wool and milk are also gained from them. One hundred sheep containing both male and female equally in numbers were recorded for gain in weight for two hundred days after lambing. Data consisted of their age in days, sex, birth weight, and present weights at the time of recording. Lambs were weaned after 80 days. Pre-weaning and post weaning rate of growths were measured and subjected to one way analysis of variance to test the differences between pre-weaning and post-weaning average daily weight gains and effect of sexual dimorphism on these respective growth rates. Weaning group were significant ( $P \leq 0.05$ ) while sexes could not productive significant differences in respective growth rates. It is therefore concluded that better management in pre and post weaning stages could effectively enhance the meat produce in sheep.

**Keywords:** Sheep; Average Daily Gain; Weaning; Management; Mutton Production

### Introduction

In Pakistan there are more than 28 established breeds of sheep which serve to produce wool, meat and to some extent milk thus fulfilling the demands of rural poor flock men which are also got employed in this enterprise of livestock [1-3]. Among these sheep breeds most of them are medium sized and are produced on almost zero inputs as there are no dedicated grazing lands for them and they are natural scavengers of agricultural like waste crops residues and other spontaneously grown natural vegetation in form of herbs, shrubs or bushy trees or other non-purposefully grown grasses that usually appear in or after rainy season in the country. Other scrub vegetation alongside the roads is also a form of feeding materials for these miserable animals.

Nowadays, some commercial farmers are looking after these sheep for more gain in weight through serving of commercial fattening feeds. Here the most important task is to get more meat out of the available living resources. Although sheep heads account for nearly 31 million yet the availability of good quality meat is scarce

[4-5]. More attention is required to better management and nutrition of the sheep along-with breed improvement through specific breed objectives [6]. The priority areas need to be well defined in spite of blind production. Sheep may be more prolific and productive when given full attention [7]. The presently work aimed at exploring the rate of growth in pre and post weaning stages in both sexes of local sheep and to highlight certain factors affecting these traits.

### Materials and Methods

Data on local sheep breed maintained at government livestock farm were recorded on 50 male and 50 female sheep of Thalli breeds found in the Thal desert of Pakistan. The lambs are usually kept with their dams up to 80-90 days and then separated. The sheep are grazed from 0900 hrs to 1500 hrs and provided clean sweet drinking water twice daily. During grazing their lambs were retained in captivity in order to save them from predators and other attacking animals. After returning from grazing field animals were offered some wheat bran @ 250 per head without any distinc-

tion. Male and female sheep (ancestors) were retained in separate houses and grazing areas. Only lambs were allowed to stay with their dams until let for grazing and throughout the night during their stay at houses.

The variables of interest were sexes, age, birth weight and weight at the end of trial (nearly 200 days). Two traits were calculated from the recorded data: pre-weaning and post weaning average daily gains.

The statistical analyses were conducted using one way ANOVA in Statistix version 8.0.

## Results and Discussion

The findings showed that gender differences were non-significant ( $P > 0.05$ ) for pre-weaning and post-weaning growth rates although the average weight gain in pre-weaning and post weaning period had significant differences ( $P \leq 0.05$ ). It was wonderful to know that female sheep had higher average growth rate ( $147.12 \pm 6.72$  grams/day) as compared to male sheep ( $139.64 \pm 6.65$  grams/day). In the weaning stages, average growth rate in pre-weaning age was sufficiently higher ( $183.83 \pm 10.51$  grams/day) as compared to post weaning ( $102.93 \pm 5.29$  grams/day). It is clear from the analysis and prevailing circumstances that until and unless better nutrition is provided to the lambs they could not thrive better. When they were dependent on their dams (milk feeding) they showed higher growth rate as compared to that when they were separated.

## Conclusion and Recommendations

Therefore, is strongly recommended either the lambs should be provided better nutrition after weaning or they must have prolonged stay with their dams that although produced very little amount of milk yet sufficed the needs of their lamb progeny. For better meat production, better feeding management and better nutrition is necessarily required for the little lambs who are the future meat entities.

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