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## Effect of feeding concentrate mixture based pellet versus concentrate mixture on growth performance of goats

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**Abstract**

Eighteen growing goats were selected on the basis of nearby to body weight of each group. The goats were divided into 3 groups. T<sub>1</sub>- Dry Roughages *Ad lib*+ 2Kg Green Fodder+ Concentrate Mixture (Without Pellet), T<sub>2</sub>-Dry Roughages *Ad lib*+ 2Kg Green Fodder+ (50% Concentrate Mixture Based Pellets + 50% Concentrate Mixture), T<sub>3</sub> - Dry Roughages *Adlib*+ 2Kg Green Fodder + Concentrate Mixture Based Pellet. The value observed for weekly gain in body weight per animal were 0.27, 0.31, and 0.30 kg in treatment T<sub>1</sub>, T<sub>2</sub>, and T<sub>3</sub> respectively. The corresponding values for average daily gains in body weight were 0.039, 0.045, and 0.044 kg. The mean gain in chest girth was 9.75, 11.10 and 10.35 cm, while the gain in body length 6.20, 7.30 and 7.10 cm and mean gain in body height at wither point was found to be 9.86, 11.43 and 10.55 cm for the treatments T<sub>1</sub>, T<sub>2</sub> and T<sub>3</sub> respectively.

**Keywords:** Chest girth, body length, body height, pellets

**Introduction**

Goats can easily fit into the small scale farming system, which constitute the majority of the farming system in India. However, maximum and profitable milk and meat production from goats can be achieved only if suitable and locally available feeds are used. Cheap feeds in the form of high digestible nutrient, tree legumes are interesting in this respect; concentrate mixture is with high total digestible nutrient. It has low crude protein content. Goats are the most remunerative livestock in India because of their ability to multiply faster (short generation intervals) and capacity to survive under diverse economical condition. In the present situation, due to scarcity of good quality feeds and fodder, it has become very difficult to rear such type of valuable animal for efficient production.

**Methodology****Selection of Experimental goats**

Eighteen growing goats were selected on the basis of nearby to body weight of each group. The goats were divided into 3 groups. Thus each group was consisted of 6 goats for the study.

**Feeding Treatment.**

T<sub>1</sub>- Dry Roughages *Ad lib*+ 2Kg Green Fodder+ Concentrate Mixture (Without Pellet)

T<sub>2</sub>- Dry Roughages *Ad lib*+ 2Kg Green Fodder+ (50% Concentrate Mixture Based Pellets + 50% Concentrate Mixture)

T<sub>3</sub> - Dry Roughages *Adlib*+ 2Kg Green Fodder + Concentrate Mixture Based Pellet.

**Result and Discussion****Body weight**

The weekly and daily body weight gain of goats is shown in table 1. The value observed for weekly gain in body weight per animal was 0.27, 0.31, and 0.30 kg in treatment T<sub>1</sub>, T<sub>2</sub>, and T<sub>3</sub> respectively. The corresponding values for average daily gains were 0.039, 0.045, and 0.044 kg. The variation among different treatments was found to be statistically significant ( $p < 0.05$ ). The body weight gain was significant ( $p < 0.05$ ) higher in goats of treatment groups T<sub>2</sub> followed by T<sub>3</sub> and T<sub>1</sub>. Higher total gain was noticed in T<sub>2</sub>, indicated that supplementation of Based pellet increased the growth rate of experimental goats. These observations was in agreement with findings of Tambhale *et al.* (2013) who also noticed in weight gain was higher in T<sub>3</sub>

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followed, indicated that supplementation of homemade Concentrate mixture increased the growth rate of experimental goats.

**Table 1:** Mean daily and weekly body weight gains of experimental goats

Treatment	Total weight gain (kg)	Daily weight gain (kg)	Weekly weight gain (kg)
T <sub>1</sub>	3.54	0.039	0.27
T <sub>2</sub>	4.06	0.045	0.31
T <sub>3</sub>	3.97	0.044	0.30
F test	NS	NS	NS
SE (m)±	0.18	0.002	0.01

### Body Measurement

The result obtained in the terms of the chest girth, body length and body height are presented in table 2.

**Table 2:** Mean gain in body measurement of experimental goats at the end of each period under different treatment (cm)

Treatment	Chest Girth	Body length	Body height
T <sub>1</sub>	9.75	6.20	9.86
T <sub>2</sub>	11.10	7.30	11.43
T <sub>3</sub>	10.35	7.10	10.55
F test	NS	NS	NS
S.E(m)±	0.84	0.27	0.79

#### 2.1 Chest girth

The mean gain in chest girth was 9.75, 11.10 and 10.35 cm for the treatment T<sub>1</sub>, T<sub>2</sub> and T<sub>3</sub> respectively was treatment significantly ( $p < 0.05$ ) higher in goats of treatment group T<sub>2</sub> followed by T<sub>3</sub> and T<sub>1</sub>.

#### 2.2 Body length

The mean gain in body length for the treatment T<sub>1</sub>, T<sub>2</sub> and T<sub>3</sub> were found to be 6.20, 7.30 and 7.10 cm, respectively. The variation among different treatments groups was found to be statistically significant ( $p < 0.05$ ).

#### 2.3 Body height

The means gain in the body height at wither point was found to be 9.86, 11.43. and 10.55 cm, for the treatment T<sub>1</sub>, T<sub>2</sub> and T<sub>3</sub> respectively. The variation among different treatments groups was found to be statistically significant ( $p < 0.05$ ).

The result on body measurements are in agreement with the finding reported by Bade (2004) [2], who noticed that sole feeding of papal can meet out maintenance as well as growth requirement and it has high nutritive values fodder for kids. Kumar *et.al.* (1984) [3] also observed and average daily gain in growth performance parameters (body weight, height, length and chest girth). When the bucks fed with concentrate mixture. It indicating that concentrate mixture is fairly nutritious without any adverse effect on this health of the animals. The results of this investigation are well comparable with the result of present study.

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