



# ECONOMICS OF MALABARI KID REARING AS A SHORT TERM ENTERPRISE UNDER INTENSIVE CONDITIONS

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## Abstract

*The study investigates the economics of rearing goats for short period under different rearing system viz. rearing on PVC slatted floor, concrete slatted floor and wooden slatted floor. The net income and benefit cost ratio was high when the returns was calculated from the sale of kids. Rearing of animals up to six months for meat is also economic but the profit margin is less compared to sale of kids. In the current study, it was observed that animals reared on PVC floor fetched the highest benefit cost ratio in terms of sale of kids or meat. The net income from a single kid in the current study varied from Rs. 893.81 (PVC floor), followed by (760.03) wooden floor and 703.41(concrete floor) when the animals were reared for meat. While when the kids were sold, the net income from PVC floor was Rs.2118.31, that of concrete floor was Rs.1999.41 and wooden floor was Rs.1653.03. The benefit cost ratio was highest when the animals were reared for meat ie., in PVC group it was 1.40 followed by wooden group (1.35) and finally the concrete group (1.32). When the animal were sold at six months the benefit cost ratio varied from 1.96 in PVC floor, 1.91 in concrete floor and 1.75 in wooden floor.*

**Key words:** *Malabari goat, economics, flooring systems*

In Kerala, goats are reared primarily for meat and milk. Recently there has been a trend towards meat oriented production in the state. The production of chevon and mutton had augmented to 18,935 Metric Tonnes from a scanty 5,012 Metric Tonnes (Integrated Sample Survey, 2011-12). However limited land holdings have not only arose the problem of fodder scarcity, but also reduced the land available for keeping livestock. The livestock production system is now dominated by small holders. In the urban system, with restricted land holdings farmers prefer economic and hygienic animal housing that can be easily manageable. In Kerala, goats are reared mainly on wooden slatted floors, recently concrete slatted floors and Poly Vinyl chloride slatted floors are used in some parts. The demand for chevon is always on increasing trend. Hence many entrepreneurs venture into stall fed goat rearing to get quick return. Hence the study investigates the economics of rearing goats for short period under different systems of management.

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## MATERIALS AND METHODS

Eighteen weaned kids with uniform physical parameters viz. body weight, height, chest girth and body length was selected for the experiment. The kids were weaned at one month of age and reared up to six months of age. They were randomly allotted to each group.

### Flooring systems

Six randomly chosen animals each were housed under intensive system in separate concrete houses with either of the three floors viz. Poly Vinyl Chloride slatted, concrete slatted and wooden slatted. The houses were built in north- south orientation with the floor platform raised to 1.5 m above ground level. The side walls were concrete half walls and the rest, iron wire meshed. Apart from the flooring type, all other conditions were same for the three houses. The kids were group housed with an average floor area of 0.5 m<sup>2</sup>/kid. The pens were cleaned with water once daily. The labourers for routine cleaning were rotated between the three houses.

### General management

The animals were fed with kid starter prepared from the following ingredients: Yellow maize, Soya bean meal, Rice bran and Fish meal. Along with doe's milk, all the kids were given starter feed prepared as per BIS specification (IS: 5560:1970). The proximate composition of feed was carried out as per AOAC (1990) and the values are presented in Table 1. Solid feed was introduced at seventh day of birth. The feed was given *ad libitum* for two hour daily along with *ad libitum* fodder – Hybrid Napier (CO3). The offered feed was the previous day plus an additional 10% in order to minimize feed selectivity problems. The animals were tethered during feeding time to ensure that each animal receives equal quantity of feed. The kids were intensively reared all throughout the experiment. At six months of age two animals each from the different treatments were slaughtered to obtain the average dressing percentage and average weight of meat.

A comparative economics of goat production in the different treatments were worked out. The total expenditure of goat rearing was divided into various components like value of kid, cost of feed, cost of labor, other miscellaneous cost and veterinary expenses. The total expenditure per goat for 6 months in each treatment was worked out. Returns in the goat farming include sale of kids and value of meat, head, stomach and feet. The annual net income per goat and Benefit cost ratio was calculated.

## RESULTS AND DISCUSSION

The highest net income and benefit cost ratio was high when the returns were calculated from the sale of kids for breeding. Rearing of animals up to six months for meat is also economic but the profit margin is less compared to sale of kids. Furthermore slaughter of kids requires additional facility. In the current study, it was observed that animals reared on PVC floor fetched the highest benefit cost ratio in terms of sale of kids or meat. The net income from a single kid in the current study varied from Rs. 893.81 (PVC floor), followed by (760.03) wooden floor and 703.41 (concrete floor) when the animals were reared for meat. While when the kids were sold, the net income from PVC floor was Rs. 2118.31, that of concrete floor was Rs.1999.41 and wooden floor was Rs.1653.03. Singh et al. (2011) obtained overall average net income of Rs. 1183.66 in case of Barbari breed and Rs. 894.06 in case of local breed but the authors had accounted income based on sale of kid, goat, milk and manure. The total expenditure in the current study ranged from Rs. 2211.19 (PVC floor), followed by Rs. 2189.97 (wooden floor) and Rs. 2186.59 (concrete floor). But Singh et al. (2011) reported that the annual total expenditure per goat per year was Rs. 2578.92 for small flock size group, Rs. 2577.68 for medium herd size group and Rs. 2426.05 for large flock size group in Barbari goats. Kumar (2007) reported that The total cost per doe per annum in was worked Rs 2354, Rs 2137 and Rs 2527 respectively, in the different groups. Again the benefit cost ratio was highest when the animals were reared for meat i.e., in PVC floor it was 1.40 followed by wooden floor (1.35)

and finally the concrete floor (1.32) (Table 3). When the animal were sold at six months the benefit cost ratio varied from 1.96 in PVC floor, 1.91 in concrete floor and 1.75 in wooden floor (Table 2).

## CONCLUSION

Malabari goat rearing for short periods can be considered as a new vista for entrepreneurial intervention. However the

current study had excluded the various fixed cost that is inherent to any investment. It was also inferred that rearing of Malabari kids for sale of kids at six months was more beneficial compared to sale of meat. Also PVC floor was more economic in terms of meat production or sale of kids. Even though the overall expenditure was slightly higher in PVC floor compared to the other two floors, net income was high from animals reared on PVC floor.

**Table 1.** Proximate composition of concentrate feed and grass (Hybrid Napier CO3)

Composition	Kid starter	Grass
Dry matter	91.85±0.05	18.05±1.01
Crude Protein	23.01±0.25	10.34±0.72
Ether Extract	3.03±0.65	1.93±0.49
Crude Fibre	5.3±0.80	34.22±1.15
Total ash	14.3±2.70	12.81±2.22
Acid Insoluble Ash	3.05±1.25	5.39±0.09

**Table 2:** Economics of kid production based on returns from sale of kids

	Particulars	Concrete	Wood	PVC
A	<b>Expenditure</b>			
1	Value of kid (initial)	300	300	300
	@ Rs. 300 per kid up to 7 days			
2	Cost of feed for 6 months	686.59	689.97	711.19
	@Rs 25 per kg feed and fodder Rs. 2.5/ kg			
3	Cost of labour	1050	1050	1050
	One labour at Rs.350 per day			
4	Miscellaneous cost and Veterinary expenses	150	150	150
sum(1-4)	Total expenditure	2186.59	2189.97	2211.19
B	<b>Income</b>			
	Average weight of kid at six months	11.96	10.98	12.37
	Sale of kids (at six months)	4186	3843	4329.5
	Rs. 350 per kg body weight			
	Total income	4186	3843	4329.5
A-B	Net income	1999.41	1653.03	2118.31
	Benefit cost ratio	1.91	1.75	1.96

**Table 3:** Economics of kid production based on returns from sale of meat

	Particulars	Concrete	Wood	PVC
A	<b>Expenditure</b>			
1	Value of kid (initial) @ Rs. 300 per day old kid	300	300	300
2	Cost of feed for 6 months @Rs 25 per kg feed and fodder Rs. 2.5/ kg	686.59	689.97	711.19
3	Cost of labour One labour at Rs.350 per day	1050	1050	1050
4	Miscellaneous cost and Veterinary expenses	150	150	150
sum(1-4)	Total expenditure	2186.59	2189.97	2211.19
B	<b>Income</b>			
	Average meat per kid	4.84	4.96	5.27
1	Average value of meat Rs. 500 per kg	2420	2480	2635
2	Head Rs 200 each	200	200	200
3	Stomach (Rs 150 per animal)	150	150	150
4	Feets (Rs. 120 per animal)	120	120	120
Sum (1-4)	Total income	2890	2950	3105
A-B	Net income	703.41	760.03	893.81
	Benefit cost ratio	1.32	1.35	1.4

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