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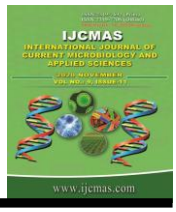

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Profitability of Goat Rearing in Ahmednagar District of Maharashtra, India

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A B S T R A C T

Goat being one of the earliest domesticated animals is known for its relatively longer association with human beings and known as "Poor man's cow" in India. . The study was conducted to collect the information from the goat rearers regarding profitability of goat rearing in Ahmednagar district of Maharashtra during year 2019-20. The data were collected through personal interview using a well structured questionnaire from 60 goat rearers. Three groups of farmers were identified on the basis of flock size i.e. small, medium and large.. The per flock per annum total cost incurred was Rs 131050.61, Rs 92863.82 and Rs 49105.97 in large, medium and small size of goat units, respectively. In general, total cost was Rs 91006.80 in which share of variable cost was 77.4 per cent followed by that of fixed cost (22.6 per cent). It was observed that, gross return was Rs 209501 per farm in large size of goat unit followed by Rs 137100.9 and Rs 68488.5 in medium and small size of goat unit. At overall level gross return was Rs 138363.46. The net profit in business was Rs 19338.52 in small size of goat unit, Rs 44237.67 and Rs 78450.38 in medium and large size of goat unit. At overall level net profit was Rs 47356.66 per goat unit. It was clear that output-input ratio was higher as 1.60 in large size of goat unit than that of medium (1.48) and small (1.37) size of goat unit. At overall level output-input ratio was 1.48. It inferred that the large and medium size of goat units were profitable than that of small size of goat unit because of variable cost is high in small size of goat unit.

Introduction

Goat is a multi functional animal and plays important role in the economy and nutrition of landless, small and marginal farmers in the country. Goat rearing is an enterprise which has been practiced by a large section of population in rural areas. India has a very large and diverse genetic resource of goats. Goat plays a significant role in economic upliftment of rural poor. Total Goat Population in the country is 148.88 Million during 2019 (20th Livestock Census, Year 2019). Total Goat has increased by 10.14% over previous livestock census (135.17 Million, 19th Livestock Census, 2012). About 27.8% of the total livestock is contributed by goat. Total goat meat production of India is 1041.13 thousand tonns. Resource poor people on zero input

mostly rear goats in India. Therefore the development of goat production is considered to be a pathway for comprehensive agricultural development.

Materials and Methods

Multistage sampling design was adopted in selection of district, tehsils, villages and goat rearers. Ahmednagar being major goat rearers districts contributing the highest share in total goat population of the Maharashtra state. At first stage, from these district two tehsils i.e. Rahuri and Sangamner were selected on the basis of availability of highest goat population. The sampling technique adopted for this investigation was random sampling with the village as a primary unit and the goat rearers as an ultimate unit of sampling. At second stage, four villages i.e. two villages each from Sangamner and Rahuri tahsils, were selected randomly. From Sangamner tehsil two illages viz. Saikhindi and Nimon and from Rahui tehsil Vambori and Khadambe are selected on the basis of highest goat population. From each village 15 farmers purposively selected for study. Selected Farmers are categorized into three groups viz. small, medium and large flock holder according to number of goats reared by them. The data is collected by personal interview method using well structured questionnaire.

The data were related to the total cost incurred in rearing of goats including value of initial stock, investment on feeding, labour wages etc. The data related to produced output like meat, milk, manure are also collected. The economics of goat farming was calculated on the basis of the information provided by the farmers on rough estimates / approximations because due to social, cultural and educational limitations and due to lack of adequate record keeping (about expenditure and income from goat farming) the data could not be narrated by the farmers with greater degree of accuracy.

Results and Discussion

Category wise annual expenditure

Annual expenditure on goat farming was estimated based on depreciation on shed , depreciation on goat, investment on feeding, labour wages, electricity, veterinary aids spend in an year and other miscellaneous charges. Total expenditure is divided in two terms viz. variable cost and fixed cost. Variable cost includes expenditure on feeding, human labour, veterinary aids, electricity charges and miscellaneous charges. Per farm annual expenditure in goat rearing business was estimated and is presented in table 1. The results revealed that, the variable cost was higher as Rs 98827.87 in large size of goat unit followed by Rs 72584.42 and Rs 39952.28 in medium and small size of goat units, respectively. At overall level variable cost was Rs.70454.85.

The fixed cost was highest as Rs 32222.73 in large size of goat unit followed by Rs 20279.40 and Rs 9153.69 in small and medium size of goat units, respectively. At overall level fixed cost was Rs 20551.94. Thus, total cost was Rs 131050.61, Rs 92863.82 and Rs 49105.97 in large, medium and small size of goat units, respectively. In general, total cost was Rs 91006.80 in which share of variable cost was 77.4 per cent followed by that of fixed cost (22.6 per cent).

Category wise income

Returns in the goat farming include value of milk, sale of goat kids and value of manure. The result of the study revealed that maximum income of goat rearing is obtained from sale of goat kids and culled animals. In general total returns obtained from goat rearing, sale of goat kids has contribute major share (82.66%) followed by milk (13.82 %) and manure (3.52) (Table 2).

Table.1 Category wise annual expenditure per year in different flock size

Sr. No	Particular	Size of goat unit			Overall
		Small	Medium	Large	
1	Dry fodder	1047 (2.13)	1302.75 (1.4)	1622.55 (1.24)	1324.1 (1.45)
2	Green fodder	1992.5 (4.06)	2316.75 (2.49)	3243.75 (2.48)	2517.66 (2.77)
3	Concentrates	4254 (8.66)	9432 (10.16)	15217 (11.6)	9634.33 (10.6)
4	Human Labour	27440 (55.88)	49670 (53.49)	64570 (49.3)	47226.66 (51.9)
5.	Medicine	275 (0.56)	655 (0.71)	1192.5 (0.91)	707.5 (0.78)
6.	Electricity charge	192.5 (0.39)	475 (0.51)	870 (0.66)	512.5 (0.56)
7.	Miscellaneous expenditure	155 (0.32)	382.5 (0.3)	742.5 (0.57)	426.66 (0.47)
8.	Interest on working capital @ 13%	4596.28 (9.36)	8350.42 (8.99)	11369.57 (8.68)	8105.42 (8.91)
9.	**Variable Cost (1 to 8)**	**39952.28 (81.36)**	**72584.42 (78.16)**	**98827.87 (75.4)**	**70454.85 (77.4)**
10.	Depreciation on goat @ 12.5%	7056.25 (14.37)	16812.5 (18.1)	27141.25 (20.7)	17003.33 (18.7)
11.	Depreciation on shed @ 10%	1065 (2.17)	1303 (1.4)	1707.5 (1.3)	1358.5 (1.49)
12.	Depreciation on equipments @ 10%	125.32 (0.25)	154.23 (0.17)	180.74 (0.14)	153.43 (0.17)
13.	Interest on fixed capital @ 11%	907.12 (1.85)	2009.67 (2.16)	3193.24 (2.44)	2036.67 (2.24)
14.	**Fixed Cost (10 to 13)**	**9153.69 (18.64)**	**20279.40 (21.84)**	**32222.73 (24.6)**	**20551.94 (22.6)**
15.	**Total Cost (Σ9 &14)**	**49105.97 (100)**	**92863.82 (100)**	**131050.61 (100)**	**91006.80 (100)**

Table.2 Annual income per year in different flock size

Sr. No	Particular	Size of goat unit			Overall
		Small	Medium	Large	
1.	Return from young goats (Produced goats)	8606.25 (80.42)	7667.28 (82.49)	7209.23 (85.68)	7827.59 (82.66)
2.	Return from milk	1740 (16.26)	1304.29 (14.03)	880.96 (10.47)	1308.42 (13.82)
3.	Return from manure	355.07 (3.32)	323.38 (3.48)	323.49 (3.84)	333.98 (3.52)
4.	**Gross return (∑ 1to 3)**	**10701.32 (100)**	**9294.97 (100)**	**8413.69 (100)**	**9469.99 (100)**
5	Variable cost	6242.54 (81.36)	4920.97 (78.16)	3968.99 (74.01)	5044.17 (78.68)
6.	Fixed cost	1430.26 (18.64)	1324.87 (21.04)	1294.08 (24.13)	1366.40 (21.31)
7.	**Total cost (Σ 5 and 6)**	**7672.80 (100)**	**6295.85 (100)**	**5363.07 (100)**	**6410.57 (100)**
8.	Operating income (Gross return minus variable cost)	4458.78	4373.99	4444.70	4425.82
9.	Net profit (Gross return minus total cost)	3028.52	2999.12	3150.61	3059.42
10.	Output-Input ratio (Gross return divided by total cost)	1.39	1.47	1.59	1.48

It was observed that, gross return was Rs 209501 per farm in large size of goat unit followed by Rs 137100.9 and Rs 68488.5 in medium and small size of goat unit. At overall level gross return was Rs 138363.46. The net profit in business was Rs 19338.52 in small size of goat unit, Rs 44237.67 and Rs 78450.38 in medium and large size of goat unit. At overall level net profit was Rs 47356.66 per goat unit. It was clear that output-input ratio was higher as 1.60 in large size of goat unit than that of medium (1.48) and small (1.37) size of goat unit. At overall level output-input ratio was 1.48. It inferred that the large and medium size of goat units were profitable than that of small size of goat unit because of variable cost per goat was high in small size of goat unit. It revealed that, capital investment in large and medium size of goat unit rearing was more efficient than that of small size of goat unit.

In conclusion, the result of the study indicated that goat rearing is the profitable business in the study area and it provides opportunity of regular income and employment to the small, marginal and landless farmers. The socio economic conditions of goat rearers can be improved through combination of modern and indigenous knowledge of goat rearing which will not only generate income for their livelihood but also contribute much to the nutritional and health security.

References

Pawar, B. R., Chivare, S. A., Kauthekar, P. U. and Mane, A. L. (2012) Costs, returns

and profitability of goat rearing business in Maharashtra, *Research Journal of Animal Husbandry and Dairy Science*, 3(2): 85-87.

Prabu, M., Selvakumar, K. N., Pandian, S. S., Kumar, G. S. and Meganathan, N. (2011) Profitability analysis of goat farming in Tamil Nadu, *Indian Journal of Animal Resources*, 45(1): 32-37.

Singh, S.P., Singh, A. K. and Prasad, R. (2013). Economics of Goat Farming in Agra District of Uttar Pradesh, *Indian Research Journal of Extension Education*, 11(3): 37-40.

Ahmad, S., Fayaz, M., Ali, G., Saddozai, K. N., Salman, M., Hussain, A., Akbar, I., Aisha Bibi, Hussain, S. M., Hussain, I. and Khan, A. (2015). An economic analysis of goat rearing in Kohistan district, Khyber Pakhtunkhwa, *Journal of Entomology and Zoology Studies*, 3(3): 484-488.

Bashir, B. P., Venkatachalapathy, R. T. and Subin, K. M. (2017) A study on annual expenditure and income from goat farming in Kerala, *Journal of Extension Education*, 29(4): 5978-5983.

Khadda, B. S., Singh, B., Singh, D. V., Singh S. K. and Singh, S. B. (2018) Economics of goat farming under traditional system of management in Uttarakhand, *Indian Journal of Traditional Knowledge*, 17(4): 802-806.

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