

ECONOMICS OF GOAT PRODUCTION IN TWO SUB-REGIONS OF WEST BENGAL

Asit Biswas¹, Santanu Bera^{*2}, Rameswar Panda³, Dulal Chandra Roy⁴ and Manik
Chandra Pakhira⁴

¹Veterinary Officer, Govt. of West Bengal

²Head, Dept. of Livestock Production Management

³PhD Scholar, Dept. of Livestock Production Management

⁴Assistant Professor, Dept. of Livestock Farm Practice

Faculty of Veterinary and Animal Sciences

West Bengal University of Animal & Fishery Sciences

37, K. B. Sarani, Kolkata – 700 037

E-mail: dr.santanubera77@gmail.com (* *Corresponding Author*)

Abstract: The study of economics of goat production was carried out three hundred seventy six (376 nos) Black Bengal goats in two sub-regions of West Bengal. The two sub regions are GFP (Gangetic Flood Plane) and CFP (Coastal Flood Plane). The information pertaining to the present study was collected from two hundred ninety three (293 nos) goat farmers by participatory and rapid rural appraisal techniques in repeated interactions. The group receiving compound feed along with broken wheat & maize combination attained maximum growth i.e. 13.34 kg followed by growth in Compound Concentrate Feed & Broken Wheat; Compound Concentrate Feed, Broken Wheat & Rice; Compound Concentrate Feed; Broken Wheat & Rice bran and Broken Rice & Rice bran was 12.84, 12.66, 12.28, 12.08 & 11.71 kg, respectively.

Keywords: Black Bengal goats, rapid rural appraisal technique, concentrated feed.

Introduction

In India, incomes from livestock farming account for 15–40% of total farm household earnings (World Bank, 1996). Livestock rearing is mostly traditional in India and based on socio-economic considerations (Bhat and Taneja, 1998) due to dearth of quality feeds and poor feeding practices. Livestock rearing is very important for rural economy and supplements a farmer's income and often act as a support in times of agricultural crop failure. According to the latest Economic Survey, livestock accounts for nearly 5% of the country's gross domestic product. West Bengal possesses a valuable genetic resource of dwarf goat called Black Bengal Goat (Synonym Bengal Goat). Black Bengal goats possess the unique characteristics of high prolificacy (avg. 2.8 kidding rate), short kidding interval, early slaughter weight, delicious lean meat and super fine skin quality.

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Sale of goats and goat products (meat, skin and milk) by farmers is the major source of cash for purchase of clothes, grains and other essential household commodities. In addition, goats are raised mostly to safeguard against crop failure and unfavourable crop prices in intensive cropping areas. Goats represent a more liquid form of capital than cattle and are readily tradable (Sendros, 1993). Supporting the economically weak and specially women to properly raise goats can have a good impact on their income, social status and the local environment (Sinn *et al.*, 1999).

Lack of up-to-date and location specific information on production and marketing systems is often a major limitation to productivity and production improvement endeavours in goats (Peters and Horpew, 1989; Ayele *et al.*, 2003). Goat meat known as 'chevon' is relished in all countries of Asia, Africa and Middle East where there is a tradition for meat consumption from both sheep and goats. Chevon is often preferred than mutton as in Rajasthan's Luni catchment area and the owners are unwilling to replace their goats with sheep in spite of sheep being more economic. The vast majority of the poorer section of rural population depends on goat rearing for income and certain amount of meat and milk for home consumption. Goat rearing involves lower investment and hence suited even to the landless labourers and marginal farmers. The present study has been undertaken in field condition to study economic index of goat production.

Materials and methods

Study Area: The data pertaining to economics of goat production at village level were carried out in two agro-climatic sub-regions viz. Gangetic Flood Plain (GFP) that includes Ayeshpur-Panchpota and Ganguria villages of Nadia district and Coastal Flood Plain (CFP) that includes Jatirampur village of Gosaba in the South-24-Parganas under Agro-climatic regions of Lower Gangetic Plain Region, Zone-II of West Bengal. Both of the mentioned sub-regions are under the project work of "All India Co-ordinated Research Project" on Goat Improvement, Black Bengal field unit.

Collection of Information: The information regarding the present study were collected by participatory approach, investigation and rapid rural appraisal technique (Cavestro, 2003) from 293 goat owners in respective villages in repeated interactions.

Feeding Practices:

As most of the farmers practiced their goat feeding solely on grazing and only few percentage of farmers provide additional supplements either as a single or two or compound concentrate @ 100 g each goat every alternate day up to marketing age, the cost of goat production on the

basis of supplement would be taken into consideration. Only free grazing of goat production assumed as control. Other factors like vaccination, deworming and managerial cost remain constant in all type production systems. The extra cost being spent for additional supplement was taken into consideration for calculation of goat production at the market age with that of control. The selling price of goat was calculated on the basis of Rs. 200/ per kg live weight (as per Govt. rate).

Results and Discussion

Concentrate supplement	Rate/kg concentrate	Total cost of concentrate	Weight of goat at marketing	Additional growth (%)	Selling cost @ Rs 200/per kg live wt.
Compound Concentrate Feed (50:50)	24	324	12.28	11.03	2456
Broken Wheat + Rice bran (50:50)	11	149	12.08	9.22	2416
Broken Rice + Rice bran (50:50)	11	149	11.71	5.87	2342
Compound Concentrate Feed + Broken Wheat (50:50)	18	243	12.84	16.09	2568
Compound Concentrate Feed + Broken Wheat + Maize (50:25:25)	19	257	13.34	20.61	2668
Compound Concentrate Feed + Broken Wheat + Rice (50:25:25)	18	243	12.66	14.47	2532
No Supplementation	-	-	11.06	-	2212

From the above table, it has been found that most of the goat owners (60%) reared goat only by grazing system & little supplementation of tree leaves or local grasses. Only 40% farmers provided compound feed produced from local market or homemade concentrate or combination of both. The extra cost involved for feeding of concentrate mixture for a definite period of time (up to marketing age) was taken into consideration during calculation of economics of goat production. The cost belongs to various categories of supplementation was different and the additional growth for different groups also differ. Accordingly the additional

growths bring forth the extra revenue for farmer by selling the goats while comparing with the control (no supplementation). From the table it was observed that the group receiving compound feed along with broken wheat & maize combination attained maximum growth i.e. 13.34 kg followed by growth in Compound Concentrate Feed & Broken Wheat; Compound Concentrate Feed, Broken Wheat & Rice; Compound Concentrate Feed; Broken Wheat, Rice bran and Broken Rice, Rice bran was 12.84, 12.66, 12.28, 12.08 & 11.71 kg respectively.

From the table it may be concluded that the goat owners in the village condition of the above two sub-regions would be more benefitted in terms of economic index when they do practiced the goat rearing by supplementing additional concentrate besides normal grazing & feeding system.

Tadele Tefera (2007) showed that 44% of women farmers were able to acquire revenue by selling milk from their goats, estimated to be 0.5 to 2 liters per day. It is clear that the income from goat sales and goat milk had a substantial impact on the rural poor by enabling them to secure their food supply and improve their livelihoods.

The economic viability of livestock production can be subject to large variations due to factors beyond the producer's control, such as level of Government intervention and world market price. Currently livestock production systems are unable to compete with world market prices. They are dependent on common agricultural policy.

Conclusion

From the above study, it may be concluded that Farmers would be more benefitted by rearing goat in terms of economic index when they do practice goat rearing by providing additional input (concentrate feed) besides their normal management.

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