

Livestock Management in India

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ABSTRACT

In India livestock is mostly kept on the farm for milk production but not by every farmer. In early times a class of the village community used to keep milch animals for selling milks to customers within and outside the village to urban population who depended on the supplies coming from the rural areas. Now, the situation has changed and even the upper caste Hindus have entered into the dairy business. Now-a-days big dairies are found in metropolitan towns like Mumbai, Calcutta, Chennai. Array milk colony is an urban establishment for the production of milk to supply milk and milk products to the population of greater Bombay. In the villages the farmer right from big to small keeps at least a pair of bullocks for the field operations. Goat keeping is also found to be a very profitable enterprise especially for the marginal and small farmers which are supposed to be very economical to keep as it is said that "Goat is the poor man's cow". Goat is kept both for milk and meat purposes. There are breeds which are exclusively kept for meat like barberi and for milk known as jummnapari. There are other breeds also. Piggery has assumed great significance but still not very popular for every class of the community but is exclusively reared by a particular class of community.

Keywords: Livestock, Management, Goat keeping, Barberi, Jummnapari.

INTRODUCTION

Livestock form an integral part of the farming system in the European, Australian, American and African as well as in many other countries of Asia. In India cow is a sacred animal and is worshipped as mother cow because she sustains the health of a child as well as expectant and nursing mothers, convalescing individuals and old persons. In the vegetarian society this is the last source of animal protein. Milk in its fluid form is enjoyed by all and sundry. Milk products like khoa, pannier, dahi, cheese, malai are a source of a number of sweet meats and curry preparations. Goat milk was the favorite drink of Mahatma Gandhi and he kept and looked after the goat, at his Ashram. Besides, cows, buffalo and small animals like goat and sheep are kept for milk or meat or wool, especially wool in case of sheep. Broiler chickens are popular meat dishes at marriage parties, birthdays or other get together. Eggs of poultry or ducks are common at breakfast tables. Pork, mutton and beef are common non-vegetarian diet but beef animals are not slaughtered in India because of the sentiments of the major religious community of India, in continental countries, USA, Africa, Canada, and many Asian countries beef is a very popular dish and these live-stocks are maintained for this purpose and their slaughter is supervised in the most scientific manner. Under Indian agricultural system mixed farming is not a common practice and cattle farms are rarity in India. The country has predominantly a good number of small farms below two hectares in area and under the land constraint livestock keeping for milk production on large scale is not feasible except a couple of heads of milch cows or buffaloes. The common livestock are goats or pig that too with schedule caste or tribe farm owners. There are a few livestock farms both under private and government control which maintain livestock mostly for milk purpose or breeding purpose. Mostly, such dairy farms are for defense called Military Dairy Farm which is exclusively meant for army personnels.

There are cooperative or privately owned dairy farms. There are many poultry farms both government and private. Mostly private poultry farms are located in the states of Punjab, Haryana, Andhra Pradesh and outer skirts of Delhi, Uttar Pradesh and West Bengal. There are two basic problems faced in the management of livestock farms. Firstly, selection and combination of enterprises involving overall livestock programme of the farm, kind and combination of livestock and its size, secondly, the management of individual kind of livestock. Farmers keep livestock to generate income by transforming the feeds and fodder into milk, meat and eggs. The cooperative factors which help farmers are soil and climate which enables them to grow feed and fodder on their farm and the second being the price relationship which may prove profitable.

Livestock Adds to Income

- 1) The price of livestock or its products as compared to price of feed and labour allow the transformation into livestock products.
- 2) The available labour could be gainfully employed throughout the year on livestock.
- 3) The opportunity cost of the livestock system is favorable.

The Maintenance of Livestock Farm is Possible

Price of livestock products are relatively favorable, farmers' efficiency in producing livestock products, suitability of the nature of enterprise, soils, climate, crops produced locally are favorable, fund resources are favorable with quick turnover, size of the farm being favorable, risk taking ability of the farmer, likes and dislikes, his managerial ability, labour position in family as well as hired ones, building and equipment.

Circumstances related to livestock keeping are two:

- 1) Livestock fitted to crop production,
- 2) Crop production is managed in relation to livestock.

Livestock Fitted into Crop Production

Under Indian conditions, especially in North India, arable farming is practiced growing paddy, wheat, jowar, bajra, maize, oilseeds and pulses the farmers keep a couple of head of livestock both milch animals or work stock like bullocks.

The by-products of the crops are fed as feeds or fodder to these livestock. For example, paddy straw, wheat straw (bhusa), stalks of jowar, bajra and maize, the bhusi of arhar, and oil cakes from the oilseeds. The selection of the livestock depend on the by-products but also in accordance to the soil and climate for instance, goat and sheep fit well in the arid climate poultry could be kept as supplementary enterprise.

Livestock as a Major Enterprise

In case of dairy farming, in particular, crops are selected which are mostly used as fodder both green and dry for the livestock which should be also in accordance to the class of livestock kept on the farm. The fodder crops which are selected are for Rabi berseem and Khairf jowar, bajra, maize both for grain and fodder. There are fodder varieties of jowar like sudan chari, or common jowar used as fodder only. In the Rabi season berseem is cultivated as fodder crop which is most suitable for cows and buffaloes. There are cases where two livestock compete with each other for the resources, for instance, buffalo or cow or meat animal and milk animals, or broiler or layers in case of poultry farms, it is the prices that will



determine the combination of enterprises. Only that enterprise will be selected which will give greatest return for the resources.

Livestock Enterprises may be Competitive or Supplementary

- 1) They may be competitive when an addition or increase in one enterprise causes a reduction in the size of the other or the existence of the one excludes the existence of the other with the amount of capital or other resources given. For example, heifers raised for sale or for milk production.
- 2) They are supplementary when one can be added without contracting the other. The example dairy cow or heifers are raised and the farmer can keep some poultry along with milk cows or heifer because the former will not compete with the later for capital or other resources. Whenever this enterprise (poultry) becomes competitive prices are taken into consideration as an important factor and opportunity cost becomes operative. In this regard the scavest resource whether, feed, labour, building, or investment fund should be considered first. That enterprise which gives the greatest return is continued with.
- 3) Complementary in livestock is less common if there is any complementary it is found in dairy and swine enterprise kept for pork purposes as the by-product of dairy milk (skim milk) could be fed to hogs. Prices are not considered for the complementary enterprises.

The other example is in livestock and crop enterprises because the manure produced on the dairy farm could be used as organic manure in case of organic farming for crops. Prices become the final determinant of short-run and long-run planning as their combination and number is to be decided. This should be in consideration with crop plan at the basic stage. Opportunity cost principle is applied to livestock in a similar manner as it is done for the crop enterprises and this is applied through prices.

Even then one should remember that it is not the absolute level of prices but the relative level of prices which is important in deciding to produce the livestock, the kind of products and the quantity to produce and the method of production to employ. Hence, the price of livestock product must be compared to the prices of feed and other resources used in the production of livestock. It is, therefore, necessary to compare the milk/feed price ratio for the dairy farms. If the price of milk or mutton is higher than the price of feeds and fodder then it should be continued. Similarly, for the other resources to the price ratios are considered. In this calculation three things are taken together that is, price, enterprise relationship and the number of each livestock produced within the resources.

In short run fixed costs are not taken into consideration and only the variable costs of feed and other items need to be related to price. In livestock production the principles of comparative advantage directs the farmers to use only those resources for the products which will give the highest income through the prices. Relative prices of feed and product price ratio. It is not the absolute price but the relative levels which is important in deciding when to produce livestock, the kind and the number of heads of each and which method of production to employ. By relative level is meant that the price of livestock must be compared with the prices of feed and the other resources used in producing it.

In a similar manner this ratio is applicable in the production of milk, poultry, eggs, mutton, etc. Since feed is an important constituent of the total costs in livestock production the farmer must discuss these price ratios viz., the milk/feed ratio; the eggs/feed ratio; mutton/feed ratio;

pork/ feed ratio etc. In some productive activities labour cost is important as a commercial cost.

There are three things which become a pointer as to which livestock enterprise (milk, mutton, broiler, layers, etc.) will give the greatest return from the resources at the command of the operator and these are:

- 1) Price.
- 2) Nature of enterprise relationship,
- 3) The amount of livestock product which can be produced within the resources on hand.

CONCLUSION

Thus, we compare the two competing enterprises. When we relate cost to prices obtainable, we have to keep in mind all costs. Fixed and variable which are depended on short-run or long run on the nature of the farm whether it is new setup farm or has been running since long. The farmers who have just begun farming the enterprises which give the quick returns, for example, broilers or egg production be taken first. As we take into consideration the total resources for calculating opportunity cost, similarly, we can take a single resource either labour or capital.

REFERENCES

- 1) Bardhan D (2007) India's trade performance in livestock and livestock product. Indian J Agric Econ 62:902
- 2) Akinmoladun OF, Muchenje V, Fon FN. (2019) Small Ruminants: Farmers' Hope in a World Threatened by Water Scarcity. Animals 9:456
- 3) Das VK, Kumar AG (2017) Drivers of farmers' income: The role of farm size and diversification, working paper 013, Indira Gandhi Institute of Development Research, Mumbai DFI, Volume IV, Ministry of Agriculture and Farmers' Welfare, Government of India, New Delhi
- 4) Kumar A (2010) Exports of livestock products from India: Performance, Competitiveness and Determinants. Agricultural Economics Research Review 23, no. 347-2016-17033: 57-68.
- 5) Birthal PS (2008) Making contract farming work in smallholder agriculture. New Delhi: National Centre for Agricultural Economics and Policy Research.
- 6) BAH S (2017), Basic Animal Husband ry & Fisher ies Stati sti cs 2017, Government of India, Department Of Animal Husbandry, Dairying & Fisheries Krishi Bhawan, New Delhi
- 7) Dhakal CK, Re gmi PP, Dhakal IP, Khanal B, Bhatta UK, Barsi la SR, Acharya B (20 13) Perception, impact and adapta tion to climate change: an analysis of livestock system in Nepal. J.
- 8) Bettencourt EMV, Tilman M, Narciso V, Carvalho MLDS, Henriques PDDS (2015) The livestock roles in the wellbeing of rural communities of Timor-Leste. Revista de Economia e Sociologia Rural 53:63-80
- 9) Birthal PS (2008) Linking smallholder livestock producers to markets: Issues and approaches. Indian J Agric Econ 63:19-37
- 10) Dikshit A K, Birthal PS (2013) Positive environmental externalities of livestock in mixed farming systems of India. Agric Econ Res Rev 26:21-30.
- 11) Kumar A (200 9) Indi a's Livesto ck Sector Trade: Opportunities and Challenges, NCAP Policy Paper 24. National Centre for Agricultural Economics and Policy Research, New Delhi



- 12) Birthal PS, Joshi PK, Kumar A (2002) Assessment of research priorities for livestock sector in India, Policy Paper 15, National Centre for Agricultural Economics and Policy Research (ICAR), New Delhi, India.
- 13) Birthal PS, Taneja VK (2012) Operationalizing the pro-poor potential of livestock: Issues andstrategies. Indian J Anim Sci 8 2:441-447
- 14) Birthal PS, Taneja VK, Thorpe W (2006) Smallholder livestock production in Ind ia: Opportunities and challenges, National Centre for Agricultural Economics and Policy Research, New Delhi, India & International Livestock Res earc h Institute, Nairobi, Kenya.