

CHAPTER IV

PROFITABILITY ANALYSIS OF LIVESTOCK PRODUCTS

Farming in developing countries, including Pakistan, is not entirely a subsistence occupation. The farmers sell part of their produce and purchase some of the inputs. Consequently, the farming business is affected by the changes in prices of outputs and inputs, technology and marketing developments. The farmer has to undergo the difficult process of continuous decision-making and choosing among the alternative uses of scarce resources. In order to have maximum net profit, it is crucial for a farmer to acquire new knowledge regarding the profitability of various enterprises. The profit per unit of output from any enterprise can be derived as "Profit = Average value per unit - Average cost per unit". Such knowledge about profitability of various products is important for the farmers, planners, policy makers, administrators and other concerned individuals, who are associated with the farming sector, because of the following reasons.

1. Profitability studies help in achieving the efficient organization of farm business. The analysis of costs and returns of various farm enterprises shows the weak and strong points and thus helps in efficient farm management. It suggests to a farm manager to correct any serious mal-adjustments and effect improvements in the organization by eliminating the weaker links and substituting them with stronger ones. Cost of production studies which cover all farm

enterprises furnish very useful information on enterprise profitability and thus afford to the farmers a better choice for combining alternative farm enterprises in a manner that ensures optimum use of available resources.

2. The results of cost and profitability studies are highly useful aids in the formulation of price policies which constitute an important public policy instrument for manipulating supply and demand of various commodities. Price fixation of any commodity requires information on per unit cost of production. In the absence of such an information, any attempt at price fixation will be highly inadvisable. For instance, if the government fixes the price of commodity without reference to cost of production, it is highly likely to be either below or above the unit cost. If that is below the farmer's cost of production, they would likely curtail or cease the production either by applying less quantities of various inputs to the crops concerned and/or by substituting it by other competitive crops. If on the other hand, the price is so fixed that it is above the unit cost of production, the farmers will likely increase the production of the concerned commodity either by applying more quantities of various production inputs and/or by diverting resources from other commodities. The above two situations would either decrease or increase the supply of the concerned commodity in the market and at the same time are likely to jeopardize the production of other products. Thus, price fixation of a commodity on the basis of unit cost of production is essential for

sustaining/improving production of various agricultural commodities.

3. Cost of production studies are also important from the stand point of formulation of policies with regard to agricultural taxation, subsidization of inputs and advancement of credit.

It is a common observation that some farmers achieve far better levels of productivity and income in farming than others, under similar conditions, using more or less similar resources. What are those practices and inputs that help enhance output levels? That is the point which should be very well understood.

Yield is a major factor which determines level of profit, but it must be considered in relation to level of input use. It must also be recognized that if there is any weak link in the production chain, there would, in general, be little scope for improving the other links unless the weak link is removed. For example, if the nutrition of dairy buffaloes is basically at fault, the improvement in genetic potential will probably bring little or no extra returns. The main factors influencing the profitability of milk and lamb production are given in Figures 4.1 and 4.2, respectively.

Total lactation yields are generally of less importance to the manager than average annual yields per buffalo. The latter can be estimated by dividing the total volume of milk produced on the farm by the average number of buffaloes both in milk and dry. Buffalo numbers can be obtained from the average of twelve monthly livestock counts.

Figure 4.1: Factors influencing profitability per buffalo

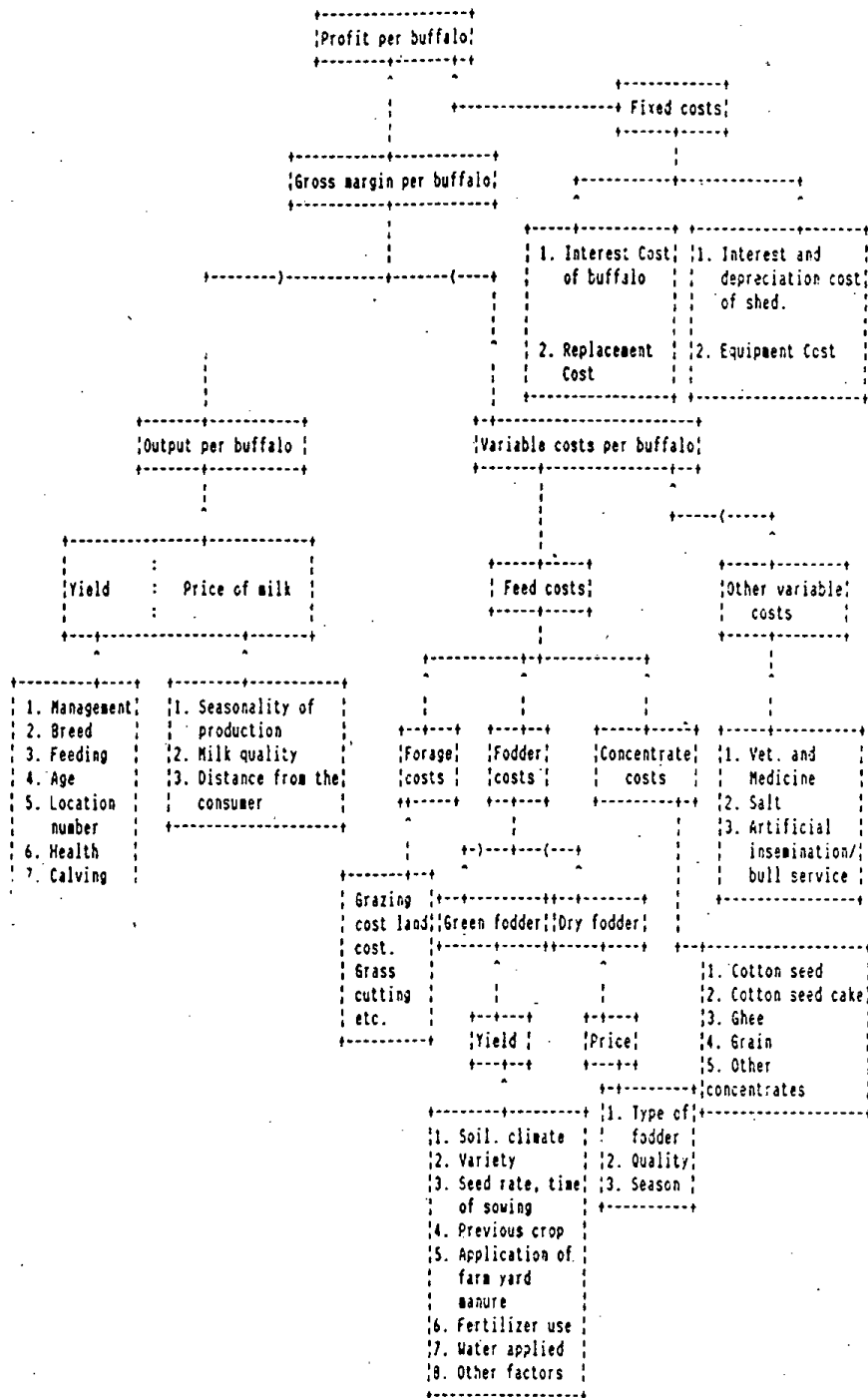
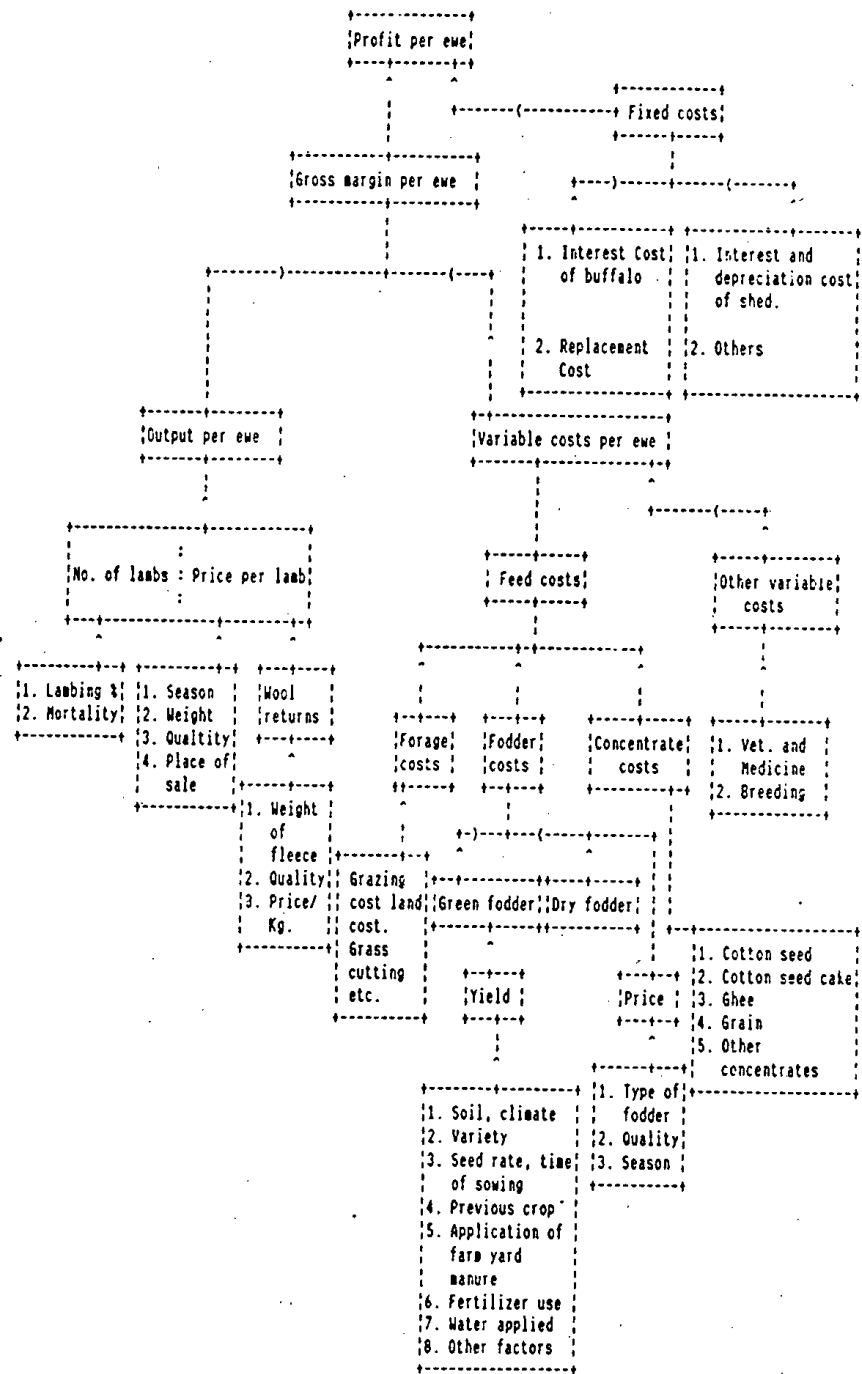


Figure 4.2: Factors influencing profitability per Sheep



Genetic potential, feeding and management are the major factors that affect milk yield. Buffaloes potential can be improved by using proven sires.

Nutrition is another factor which influences the performance of buffalo. At present the livestock in Pakistan, on the average, is significantly under-nourished. The deficit of the present availability of feed and fodder is estimated at 15-30 percent of the requirements in terms of nutrients. Management is concerned with almost all the factors that affect profitability.

Milk yield is also significantly reduced because of various diseases. Calving index or the average interval between calvings is another major factor influencing average yield per animal.

Milk price, which is an important determinant of the income/profitability, is influenced by seasonal variations (summer or winter), quality of milk sold and transportation cost.

COST AND PROFITABILITY ESTIMATION PROCEDURE

Estimation of cost of production of an enterprise (crop or livestock) is a very complex exercise. There are various fixed cost items representing about 60 percent to 70 percent of the total costs. The fixed costs are jointly shared by all the enterprises but in varying proportions and intensities. The cost of any one farm enterprise cannot be determined individually in precise terms. Therefore, costs of all the farm enterprises such as crops - wheat, cotton, sugarcane, fodder, etc., and livestock- buffaloes; cows, bullocks, etc., should be determined jointly, since all these enterprises, are interrelated on any given farm. It is very difficult to apportion fixed cost items to individual

enterprises such as milk, beef, wheat, etc. The procedure to workout all these details is explained under two main headings, i.e., labor input and capital input. Moreover, estimation of milk and beef production costs are also explained.