

ECONOMIC VIABILITY OF SMALL SCALE DAIRY FARMS

(The experience of a mid-country dairy farmer)

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The mid-country has a long tradition in dairying, a legacy left behind by the colonial planters. Today it survives as an important supplementary source of income to the poor segments of the people in the villages and estates.

There are hardly any lands in the mid-country to establish pastures or grazing lands economically. Thus the dairy farmers have to depend on grasses found in ravines, paddy field ridges or roadsides to feed their cattle. The relatively mild weather permits lush growth of grasses such as Guinea A, 'Fox Tails' and legumes such as

Gliricideia for almost nine months of the year. From mid-January to mid-April is the dry season, during which anything from paddy straw to Jak fruits are fed to the cows. Temperate breeds such as Friesians, Ayresshire, Jersey, Shorthorn etc. now exist in this area as a mixed breed called cape cows. This herd is constantly being upgraded by A.I. (artificial insemination) programmes of the Department of Animal Production and Health. These animals easily outyield local breeds by 3-4 fold.

Informal Cattle 'Exchange' Market

The dairy farmers have to maintain dairies in their small holdings or behind their line rooms. The majority

of them keep a herd of 1-3 cows and about 1 follower.

To start a dairy farm is by no means an easy task. The selection of a good animal needs expert guidance, and also one has to invest a good sum. At the informal cattle markets in the urban centres such as Gampola and Nawalapitiya, there are 'cattle brokers', who function as a kind of 'cattle exchange'. They do provide a useful service to the dairymen in buying and selling cattle. The price of a cow is determined on the open market price of milk, the yield of milk per day, its physical appearance and age of the cow. If the market price of milk is Rs. 3/50 per bottle (current price) and the cow yield 10 bottles, the value of the total quantity of milk produced per day is multiplied by one hundred. So the value of the cow in this case is Rs. 3,500/-. The broker's fee is Rs. 50/-.

Poor Feed Resources

Adequate and nutritious feed is important in maintaining a good dairy herd. A cow needs about three bundles of grasses. If bought grass is given, the cost per bundle is Rs. 4/-. Even then the grasses that could be obtained do not provide all the nutrients a cow needs. Hence whatever the theories pronounced by researchers on rearing cows with grasses alone, these animals in the mid-country have to be provided with a good ration of concentrates, if adequate quantity of milk is to be obtained. The ingredients most popular in these areas are poonac and low quality rice bran on 1:2 basis with minerals which cost around Rs. 5/36 per kilogram at current rate. The current price of poonac is Rs. 128 per cwt and rice bran Rs. 70/50 per kgs. The quantity of poonac in the ration declines when its price goes up. A few farmers give readymade feeds such as dairymax.

Farmer Attitudes to A.I. Services

A few years ago farmers obtained the services of stud bulls of temperate breeds maintained in these areas to service their cows. Now there are only a few such bulls as the farmers sold out most of them with the increased popularity of A.I. services. Currently an A.I. service costs Rs. 25/- whatever the official rates are. If the cow does not conceive, two subsequent insemination are done for which only the 'bus

fare' will have to be paid. The cost of a natural service by a stud bull is higher at Rs. 70/-. Two subsequent services are free if the cow does not conceive.

However, the dairy farmer and the A.I. extension worker are faced with several demoralising situations since of late.

The extension worker naturally expects these farmers to be bit more 'scientific'. Unfortunately most of these farmers lack the knowledge or basics of good dairy management. The most common complaint of the extension workers is that the farmer is late in detecting a cow in heat and of informing the veterinary surgeon's office.

On the other hand farmers complain that the extension workers are not prompt enough and that they provide preferential treatment to well-to-do people. Thus A.I. services do not reach all the dairies in an even manner.

There are instances when even the writer himself was disappointed due to the non arrival or late arrival of the extension worker. The A.I. service has to be carried out within 36 hours after the heat occurs. There were instances when frozen semen was not available. On such occasions the farmer's frustration is understandable when he has to travel 5-6 miles to reach the veterinary surgeon's office quite often by bus leaving aside his other work.

Neglect of the Pregnant Cow

The heifer needs no special feeds for the first calving. However, during subsequent calvings a pregnant cow has to be looked after very carefully to get the best possible yield of an animal. During this period, particularly during the last two months of pregnancy, she has to be fed with an extra ration and concentrates and minerals of about 3 kilograms. The number of farmers who can afford to feed the cow in this manner is minimal as it will cost around Rs. 160/- a month.

The absence of such practices also deprives the cow of prime health at calving, protection from diseases such as milk fever, and a calf with higher weight for vigorous growth. Under such circumstances the cape cow cannot give out its best during lactation, so that through no fault of hers, it is the cow that is condemned when she gives a low yield, not the

poor management. Ultimately she ends up in a slaughter house very early.

Poor State of Calf Rearing

The calf as it grows needs at least about 5 bottles of milk per day for at least 60 days, which is the recommended practise by vets. Five bottles of milk cost around Rs. 17/50 at free market rate or Rs. 10/50 at the co-operative milk collector's price. Will our subsistence farmers allow such an allocation even if an excellent calf is born due to the A.I. service. *What is the point of having a good A.I. service if this calf is not brought up properly giving a right allocation of milk?* Some farmers even have the idea that the cow hide's milk for her calf, and therefore they draw out the maximum possible milk. The ultimate result is the high calf mortality rate, which is said to be about 40 percent in these areas. This is a great loss to the farmer, and to the country.

However, if a female calf survives up to the age of 7-8 months she could be sold for about Rs. 600-700, whereas male calves are sold for slaughter for about Rs. 200-300.

The Milking Cow

Generally milk is taken for consumption only after the fourth day of calving.

The absence of healthy milking habits among most of these dairymen cost them a lot due to mastitis, a disease of the udder. The high incidence of mastitis could be controlled if farmers could resort to simple preventive practices such as the use of potassium permanganate solution in washing the udder, and dipping the teats after milking in the same solution, which kills disease causing germs. This is an inexpensive practice which will not cost more than Rs. 5/- per month. But this is something unheard of among our small scale dairymen in this area.

The milk production of a lactating cow peaks at the end of the second month. Thereafter if the cow is well fed, the milk production keeps at the same level for another 1-2 months. The lactating cow has to be fed 2-3 kilograms of concentrates depending on the milk yield.

A cow could be milked for about 10 months during which period she may

yield about 2,000 bottles of milk (after leaving about 300 bottles for the calf, if the calf is properly fed) worth around Rs. 5,000/-.

Mode of Milk Sales

The dairymen sell their milk either to the local boutique or to the co-operative society or to both.

In the open market, the current price of a bottle of milk is Rs. 3/50. It is a 'tradition' in some of these areas to mix it with (at least twenty five percent) water. However, the quantity that could be marketed is limited, due to lack of purchasing power of the neighbours.

The milk collection for the Co-operative Producers Association is carried out by a contractor, who is usually a shrewd businessman. This man keeps a tight control over the milk suppliers by giving them advances (loans) for emergencies. He checks every can of milk, with a lactometer, for water and any sub standard milk he instantly rejects. He therefore gets the best milk from producers, but pays them the lowest rate (minus transport charges) irrespective of fat or of SNF contents. The current rate received by producers in these areas is around Rs. 2/80 per ltr. or about Rs. 2/13 per bottle.

Operational Cost of Milk for the First Five Months of Lactation

Cost	(Rs.)	Selling price per bottle	(Rs.)
3 bundles of grass	16.00	2.13	
Concentrates	5.36		Assumptions
Labour cost	10.00		1) Milk yield per cow is 10 bottles per day
Total	31.36		2) A manday is required for 3 cow unit.
Cost per bottle	<u>3.14</u>	<u>3.14</u>	
Loss per bottle		- 1.01	

Under the circumstances the dairy farmers should receive at least Rs. 5/00 per bottle at farm gate, at least to break-even. If this happens we would expect a progressing dairy industry. If such concessions could be provided to the local sugar industry, why cannot the dairy farmers be given the same facility.

Cowsheds and Drugs

A farmer has to incur considerable expenses to put up a small cow shed. He has to cement the floor. Then he has to spend Rs. 300 - 400 every other

year to purchase cadjan for the roof. Also, coir ropes for the animals, particularly if they are tethered, are needed every other month. Each of these ropes or 'Theda' cost Rs. 10-11 each.

Medical attention and drugs for the animals are needed quite often. For convenience farmers consult private practitioners of Veterinary medicine, who are mostly retired extension workers of the Department of Animal Husbandry. They provide quite an efficient service for a moderate fee. But purchase of medicines from local drugs stores is expensive. A popular

wormer such as 'Nilworm' is now difficult to get in these areas.

Conclusion

It is the opinion of the writer, who has about 15 years of dairying experience, that before starting new dairy ventures in the country it may be prudent to think about the ways and means to tap the full potential of our cape herd by improving of dairy management. This is the most neglected aspect in the mid-country dairy development programme at grassroots level.