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How Profitable is Dairy Farming

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ARTICLE ID: 27

Information is the main input for decision making. Good decisions require quality information in terms of content, credibility and timeliness. We usually value physical inputs although information is more valuable than any other input. Due to lack of proper information or inability to access the required information many people incur severe losses in personal as well as business aspects. Decision making is choosing the best possible alternative course of action from the available alternatives. To choose the best alternative we need to know the available alternatives as well as their benefits and losses. For example, when a cow is in heat the owner has several alternatives like

1. He can take the cow to a bull or
2. Take it to an insemination centre or
3. Inviting an inseminator to his farm for insemination or

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4. Ignore or skip the heat because of other pressing engagements.

His decision depends upon the information he has on the availability of a bull, its breed, cost involved in natural service, cost of AI, availability of the inseminator, the competence of the inseminator, previous experience with the inseminator, availability of labour to take the cow to a bull or insemination centre, cost involved in calling the inseminator to his farm etc. Whether his decision is right or wrong will be known only after the decision was implemented. In this example, it will be known when the cow is examined for pregnancy. If the cow is pregnant the owner will be happy and feels that his decision was right and he will try to implement same decision in future occasions also. On the contrary, he may avoid going to the same inseminator or discontinue taking his cow to the same bull.

What is important here is the farmer should get the right information regarding advantages of getting the cow inseminated, who is the best inseminator in his area and his charge for insemination, which bull semen is ideal for his cow, what is the appropriate time to get the cow inseminated, how to maintain record of the particulars of insemination, when to get the cow examined for pregnancy and by whom and where, etc. The focus of the farmer must be on getting the cow pregnant that too with good quality pedigreed bull semen. Hence, the farmer must understand that his cow becomes pregnant when it was inseminated at the right time by a skilled inseminator with good quality semen with proper AI equipments. This is true with any decision on adopting or not adopting any technology or practice in his farm. The farmers must know that every technology or practice will have both advantages and disadvantages. His ability to choose technologies to suit to his requirement depends upon the information he possesses on the technologies available to him.

Objective:

The farmer must have a clear-cut objective about the purpose for which he is rearing cows. The objective could be to increase milk production with or without increasing the number of

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cows, reduce cost of milk production, increase profits etc. There are basically three types of dairy farming depending upon the extent of grazing to feed the cows.

1. **Landless dairy farming:** The dairy farmer without land rears 1 to 3 crossbred cows. They convert their family labour into milk by allowing the cows to graze in public or private lands for about 6 to 10 hours a day. They feed purchased inputs which include paddy straw and little quantity of concentrates. On an average a cow gives about 4 to 6 litres of milk per day although it has the capacity to give more milk. They usually sell almost all the milk produced with very little (about 250 ml) for household consumption. The income they get through sale of milk forms a substantial share in their total family income (50 to 100 %). The objective of the landless dairy farmer is to produce milk (may be less than what the cow can give) without spending much on cash inputs. The majority of these farmers have less or no contact with any extension agency and they have very little knowledge about the new practices or technologies.
2. **Mixed farming:** The farmer owns some land and grows crops and rears few cows. The by -products of crop (paddy straw, rice bran etc) will be utilised for dairy cows and the by-products of dairy farming (dung, urine, etc) will form the inputs for crop farming. The farmer sells the excess milk after retaining for family consumption. This dairy income forms about 10 to 50 % of the total family income. The objective is to utilise the farm products and the income they get through dairy farming is a bonus to them.

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3. **Commercial dairy farming:** The farmer rears large number of cows basically to produce milk for sale. The cows are usually stall fed with farm grown or purchased green and dry fodder. They feed their cows with lots of concentrates. They try to adopt new practices or technologies which help them to produce more milk. The objective is to make as much profit as possible.

What information is to be collected?

Irrespective of the type of farming the farmer must know the present economic condition of his farm. In general, dairy farmers do not maintain records of their animals which is a big constraint to know whether their farms are running under loss or profit. Hence, the farmers must maintain record of his farm which includes expenditure on all purchases (feed, fodder, treatment or AI cost, hired labour, etc). He must acquire the simple skill of calculating the cost of production of milk. This could be compared with price of milk which he is getting by selling the milk. As the landless dairy farmers and small holder dairy farmers are majority in number the focus is on improving the dairy income of these farmers. The profitability of the dairy farm depends upon the quality of the cows (breed and health), quality and quantity of feed and fodder, type of management and the extent of use of improved methods of farming and the price at which milk is sold.

The following are the general tips to improve the dairy farm income:

1. Utilise family labour without hiring the labour. Hiring full time or part time labour for taking care of few animals will not be cost effective. In general, one full time labour can take care of 6 to 8 cows.
2. Feed green fodder (not grass or bund grass or grazing lands) at least 20 to 25 kgs per day for a crossbred cow yielding about 8 litres of milk per day. Inability to feed the cows with green fodder will result in poor reproductive performance of the cows. The cows may not come into heat, may not conceive even after repeated inseminations.
3. Feed paddy straw about 5 kg per day per cow. The cost of paddy straw should not be more than Rs.1.50 per kg. He must be able to procure and stack it during the paddy harvesting season to reduce the cost of paddy straw.
4. Feed concentrate @ one kg concentrate per 2 kgs of milk. Sometimes the farmers feed more concentrates than required resulting in over feeding and economic loss to the

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farmer. When the cow is in advanced pregnancy (6 months onwards), it should be given one more kg of concentrate to provide proper nourishment to the foetus.

5. The cows must be milked by his family members without hiring a milker or milker vendor. When a farmer is using his family labour, he will come to know about the health status of the cow (the milk yield will come down when the cow is in heat or sick). Similarly, many diseases (like mastitis) which are usually transmitted through vendors could be prevented.
6. Adopt clean milk production practices which reduce the milk losses through spoilage. The cows must be provided with good shed with proper flooring and good ventilation. They need to be groomed and cleaned everyday (not only on Fridays) with water. This will keep the cow healthy free from ticks and insects and improves its blood circulation.
7. The number of cows in milk must not be less than 3 in a farm of 5 adult cows. The cows must conceive within 3 to 5 months after calving.
8. The profitability of the farm depends up on the price at which the milk is being sold. The thumb rule is that the farmer should be able to purchase one and half kg of concentrate from the income he is getting by selling one litre of milk. For example, if the price of concentrate is Rs. 18 per kg the farmer should sell milk at least at Rs27 per litre of milk.
9. Culling of cows must be practiced. Sell those cows which are giving less milk, not conceiving after several inseminations, remains dry for long period of time (more than 6 months), not able to recover from diseases or becoming sick quite often, etc.

Caution to the new entrants: These days many graduates wish to enter into dairy farming as an enterprise. These graduates are usually new to the dairy farming (without any prior experience) must undergo training on dairy farming in a reputed training institute. It is a folly to think that dairy farming can be maintained through remote control. One should know that dairy farm demands full time from the owner/ manager as the animals need to be fed and milked twice daily. The cows being biological entities, the milk production and its quality is not under the control of the manager. Any flaw in breeding, feeding, health care and management reflects poorly upon the economics of dairy farming. Before venturing into dairy farming, one needs to collect as much information as possible by visiting dairy farms in the nearby locality. It is also possible to assess the economics of dairy farming before venturing

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into it by collecting the appropriate information regarding prices of both inputs and outputs. This helps the new entrant to take the right decision whether to venture into it or not.