Entrepreneurship

Introduction

171209CH05

Entrepreneurs are self-employed people and create job opportunities for others. They perceive an idea, and organise production or services by mobilising resources. They, then, market products and services in order to earn profits. Their work may involve initial risks but promising rewards.

Dairy farming is one of the important activities carried out by people in rural areas of our country. The importance of dairy farming is only next to agriculture. It not only provides continuous income to a dairy farmer and improves the dietary standards of the person's family but also reduces unemployment to a large extent. This Unit focuses on how to develop entrepreneurship skills in dairy farming.

Session 1: Fundamentals of Entrepreneurship in Dairy Business

Agri Business Incubation

The Government of India launched the Agri Business Incubation (ABI) scheme in 2003. The scheme aims to create an ecosystem for startups in the dairy sector so as to facilitate entrepreneurship

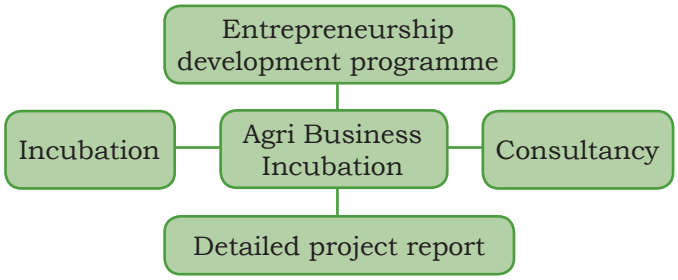

Fig. 5.1: Components of Agri Business Incubation

development in its various areas. Entrepreneurship development programmes play a vital role in ensuring an inclusive and sustainable agricultural system, as well as, livestock farming. The different components of ABI are shown in Fig. 5.1.

Entrepreneurs and their characteristics

Dairy entrepreneurs are people who seek self-employment opportunities by setting up a dairy farm, organising production of milk by mobilising resources, and finally, marketing milk and other dairy products to earn profits. The important characteristics of an entrepreneur are as follows.

- Confident
- Takes initiative
- Innovative
- Updated
- Persistent
- Systematic planner
- Goal setter
- Risk taking attitude
- Tries to cash in on opportunities
- Persuasive skills
- Problem solving attitude
- Efficient worker
- Committed to work as per contract rules

Entrepreneurship opportunities in the dairy sector

At present, the Government of India's policy is to encourage self-employment rather than creating salaried jobs. There are self-employment opportunities in almost all fields. Self-employment opportunities reduce unrest among the young population. For rural people, self-employment in the dairy sector is most suitable. The various self-employment opportunities in dairying are shown in Fig. 5.2.

Fig. 5.2: Self-employment opportunities in the dairy sector

Categories of dairy entrepreneurs

Dairy entrepreneurs may be categorised into three types based on the type of risk they are willing to take. The risk taking attitude is not an inborn trait but is built gradually. Different people have different risk taking orientation by virtue of their background, personality, socialisation skills and experiences. Risk is a situation, involving exposure to any kind of danger and the consequent losses.

Table 5.1: Categories of dairy entrepreneur

High risk entrepreneurs	Moderate risk entrepreneurs	Low risk entrepreneurs
• When complete and necessary information about various aspects of dairy farming is not obtained and the venture is started, it is a situation of high risk. • Such entrepreneurs do not consider the resources available or reflect on their experiences, and hence, tend to make arbitrary decisions.	• They do a lot of calculation about their strengths and weaknesses, capabilities and resources in the dairy business before taking a decision. • They are clear about their goal. • They assess various alternatives to reach their goal. Their target is to achieve at least 40–60 per cent profit so as achieve the desired outcome.	• Such people undertake a certain activity, wherein, they want 100 per cent success. • They do not like to face a situation, where there is even 1 per cent chance of failure. • Such entrepreneurs tend to achieve the goal within the limited resources. They like to shoulder responsibilities for the performance of the business. But on failure, they own the responsibility and try to understand the reason behind it. They want to rectify it in the next attempt.

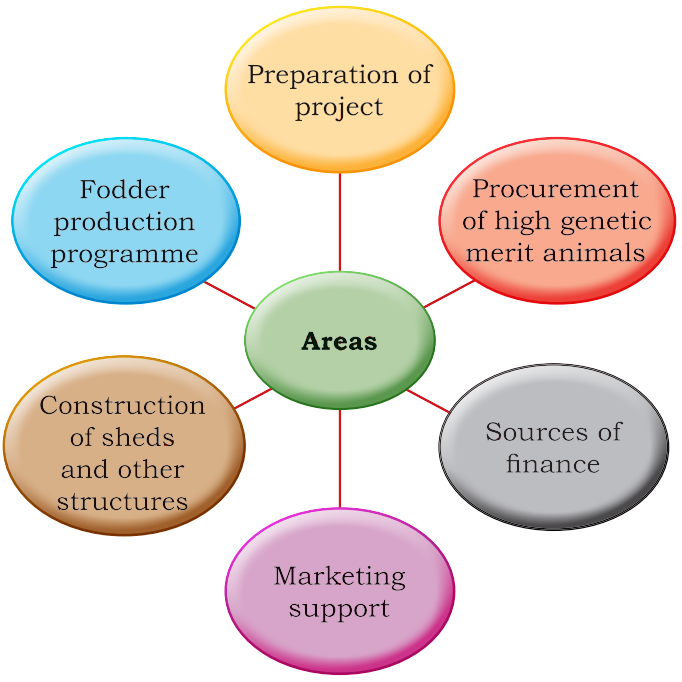

Fig. 5.3: Areas where a dairy entrepreneur needs help after training

Steps for becoming a dairy entrepreneur

After deciding to become a dairy entrepreneur, the person needs to gather information on how to procure the necessary infrastructure and resources, check on the availability of animals to set up a dairy farm, potentiality and feasibility of fodder production, etc.

After collecting the initial information, the entrepreneur needs to undergo training in various aspects of dairy farming like setting up a feed manufacturing unit, managing different categories of dairy animals like calves, heifers, lactating, dry and pregnant cows and buffaloes, marketing of the produce like milk and milk products, etc. During the training programme, the

entrepreneur must understand the pros and cons of the various aspects of production. After completing the training, the person is ready for the implementation stage. As the entrepreneur is new, support needs to be provided in areas as shown in Fig. 5.3.

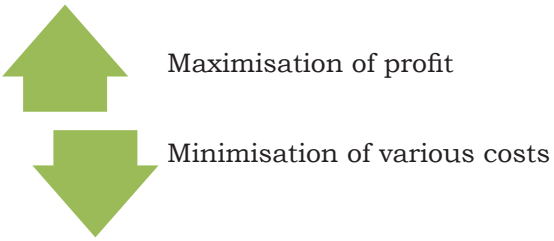

Fig. 5.4: Law of dairy economics

Fundamentals of dairy economics and finance

The fundamentals of economics and finance are no different in dairying as compared to other sectors. Economics deals with the optimum utilisation of resources. The basic questions in finance, such as return on capital, are as much applicable in the field of dairying as in any other sector like crop production, transport, housing, etc. Dairy production economics is concerned with the choice of production pattern and resources used to maximise the objectives of the dairy farmer. The law of dairy economics (Fig. 5.4) explains the conditions under which dairy production (profit and output) and various costs can be maximised and minimised, respectively.

Economic aspects in dairy farming

Diversified farming

Dairy animals fit well in diversified farming programmes. These animals can be clubbed with agriculture, fishery, horticulture, etc., thereby, helping the farmer earn extra income.

Utilisation of agricultural by-products

In agriculture, major by-products like straws are bulky in volume and the farmer is compelled to sell them at throwaway prices. It is also not economical to transport them to far-off places for selling. Dairy animals consume such by-products and convert roughage into milk.

Price fluctuations

Unlike agricultural produce like grain, pulses, etc., price fluctuations in milk and milk products is comparitively less, though it depends on the demand and supply chain.

Seasonality of income

Agricultural income is seasonal in nature as farmers receive income only on the harvest of crops. On the other hand, dairy enterprise provides income on a daily basis throughout the year.

Maintaining soil health

Fodder is grown on farms to provide feed to the animals. These are soil conserving and soil building crops. The manure produced may be utilised as natural fertilisers for growing agricultural crops economically.

Draft power

Male animals are utilised for draft purposes. In India, most small farmers still use bullock power. The size of land holdings is small and they are becoming even smaller. These farmers cannot afford mechanical farm operations. Therefore, utilising draft power is the best option available before them.

Factors influencing dairy economics

Economics of feed and fodder

The main objective of dairy economics is to reduce the feed cost as it roughly accounts for 60–70 per cent of the total production cost. Economic feeding practices are important as they can alone decrease the cost of milk production. Feeding *ad libitum* green forage will decrease the feed cost, thereby, reducing the milk production cost. Feeding leguminous fodder improves milk production. The use of unconventional feed like brewer's waste, pea pods, etc., that are available at low prices may also be used to reduce the feed cost, resulting in lower cost of milk production. Fodder availability remains excess during the rainy season. Excess green fodder with desired nutritive value can be preserved in the form of silage or hay and used during the lean period. This will also help reduce the cost of milk production.

High yielding animals

Selecting high yielding animals is important for dairy farming. Unless the animals have a high yielding capacity, even quality feeding or increasing feed quantity cannot improve milk production.

Replacement of uneconomical animals

Dairy animals can economically produce milk only up to five to six lactations. In subsequent lactations, milk production drops significantly. Therefore, the animals must be culled (removal of unproductive animals from a farm) and replaced with heifers reared at the farm itself or animals of high genetic merit. Replacement of unproductive animals by farm grown heifers is comparatively more economical. Moreover, the entrepreneur must also have information about the ancestry of the animal.

Management aspects

These are the key in maintaining the optimum production level and keeping the animals healthy. Poor health of animals reduces milk production drastically. It takes a lot of time to make the animals healthy enough so as to reach their original level of milk production, thereby, incurring huge economic losses to a farmer.

Efficient use of labour

The labourers need to work efficiently to ensure that the farm to generates maximum profit. This further improves the economics of milk production.

Efficient marketing of milk

It plays a major role in the dairy business. Even a small increase in the sale price of milk will have a major impact on the economics of dairy farming.

Sound business practices

Business practices, appropriate to dairy farming, are important at all levels, such as purchase of inputs, disposal of products and by-products, etc. The optimum use of land and manure to produce fodder crops with less investment affects the economics of milk production in a dairy farm.

Lactation period is the time from calving until the cow or buffalo dries off, i.e., the time during which the animal is producing milk.

Dry period is the time from the end of lactation till the animal gives birth.

Starting a dairy business

A person must have experience in handling dairy animals before venturing into dairy business. For those entrepreneurs, who do not have first-hand experience in the sector, it is essential that they themselves work in a dairy farm first before starting a dairy business. They must begin with few dairy animals, and gradually, increase the herd size as their experience and confidence grows. As a beginner, the entrepreneur must strive to keep costs to the minimum. For example, the person can hire few local people as labourers as it is easier to cut down labour costs in the beginning. The entrepreneur must interact with other dairy farmers in the area for advice and suggestions, and share ideas and equipment. The entrepreneur must be open to new ideas being introduced in the sector to improve one's business efficiency. Dairying is a challenging business for the following reasons.

- It is a capital, labour and management intensive business, prone to outbreak of diseases.
- It is difficult to set up a dairy business in an urban area due to high cost of land and labourers, even though a majority of the consumers live in urban areas.
- The waiting period for returns is long in milk production business. The maturity period for cows and buffaloes to start producing milk takes time, thus, leading to tight profit margin.
- Maintaining constant milk quality and production is a challenging task.
- Marketing of milk and milk products is challenging.
- It is difficult to increase the scale of operation.

Preparing a dairy business plan

The plan for starting a dairy business must include the following information on technical, financial and managerial aspects, based on the type of unit to be set up and its capacity.

Technical aspects

- Land and land development (location, area, proximity to connecting and main roads, site map, etc.)
- Proposed number of milch animals
- Civil structures (different type of sheds to house adult animals, heifers, calves and bulls, storeroom, milking parlour, etc.)
- Equipment and machinery (chaff cutter, milking machine, feed grinder and mixer, milking pails and cans, biogas plant, bulk coolers, etc.)
- Maintenance of records (breeding record, source of purchase of feed and medicines, place of purchase, final cost of the animals)
- Production parameters (milk yield per day, lactation, dry period, parity)
- Breeding facilities (availability of semen and expenditure per animal)
- Expenditure on veterinary help, labourers and other staff required in the farm
- Expenditure on electricity and drinking water, including expense on creating structures for these facilities
- Marketing of milk and considerations for place of marketing, distance of market from the farm, selling price of milk, periodicity of payment to be received
- Miscellaneous aspects, such as selling of culled animals, manure, empty gunny bags, etc.

Financial aspects

- Financial viability (internal rate of return, benefit cost ratio, net present worth)
- Financial position of borrowers, such as profitability ratios
- Lending terms (rate of interest, grace period for loan, repayment period, nature of security)

Notes

Managerial aspects

An entrepreneur's profile must be assessed on the following points.

- Individual, partnership, cooperative society or others
- Capability in managing a dairy farm
- Previous experience in dairy farming
- Financial soundness
- Technical and other relevant qualification
- Adequate number of technical and managerial staff

Other aspects

- Name of the financial institution
- Training facilities
- Assistance available from State or Central government
- Regulatory clearances, if any, etc.

Common lending terms of financial institutions

After ensuring technical feasibility and economic viability, a scheme is sanctioned by a bank. The loan is disbursed in two to three stages against the creation of specific assets, such as construction of sheds, purchase of equipment and machinery, purchase of animals and recurring cost on the purchase of feed or fodder for the initial period of one to two months. The end use of the funds is verified and constant follow-up is done by the bank. Commonly practised lending terms of most banks and other financial institutions are as follows.

Net Present Value (NPV)

The NPV of a project is the potential change in an entrepreneur's wealth caused by the dairy project, while the time value of money is being accounted for.

Internal Rate of Return (IRR)

It is used to evaluate the attractiveness of a project or investment. If the IRR of a new dairy project exceeds the bank's required rate of return, then that project is desirable. If the IRR falls below the required rate of return, the project must be rejected.

Benefit Cost Ratio (BCR)

It is an indicator used in cost-benefit analysis and attempts to summarise the overall value for money of a project or proposal.

Profitability ratios

Such ratios in dairy business are used to assess the farm's ability to generate earnings compared to its expenses and other relevant costs incurred during a specific time period.

Table 5.2: Project details of a business plan for 10 crossbred cows

S. No.	Basic assumptions	Units
1.	No. of crossbred cows	10
2.	No. of animals per batch	5
3.	Cost of animal (₹/animal)	40,000
4.	Selling price of culled animal (₹/animal)	5,000
5.	Transportation cost (₹/animal)	2,000
6.	Average milk yield per cow (litre/day)	10
7.	Floor space per adult animal (sq ft)	120
8.	Cost of construction per sq ft (₹)	600
9.	Cost of chaff cutter (power operated in ₹)	60,000
10.	Cost of equipment per animal (₹)	1,000
11.	Insurance premium (per annum)	4%
12.	Veterinary aid/animal/ year (₹)	2,000
13.	Feed requirement	
	• Concentrate for maintenance (kg/animal/day)	1.5
	• Concentrate for milk production (kg/kg milk yield)	0.4
	• Green fodder (kg/animal/day)	20
	• Dry fodder or wheat straw (kg/animal/day)	4
14.	Cost of concentrate feed (₹/kg)	22
15.	Cost of dry fodder (₹/kg)	5
16.	Cost of green fodder (₹/kg)	2
17.	Quantity of concentrate feed in one bag (kg)	50
18.	No. of labourers*	1
19.	Salary of each labourer per month (₹)	7,000

*One person can manage 10 lactating animals

20.	Cost of electricity and water/animal/year (₹)	300
21.	Selling price of milk (₹/litre)	42
22.	Sale price per gunny bags (₹)	15
23.	Income from manure (per animal/year in ₹)	1000
24.	Lactation days	305
25.	Dry days	90

Table 5.3: Cows purchased

Total number of animals	**10**
Batch 1: animals purchased at the initiation of the project	5
Batch 2: animals purchased after six months of project initiation	5

Table 5.4: Calculation of lactation and dry days

Particulars	**Days**	**Year**				
		1	**2**	**3**	**4**	**5**
Batch 1	Dry days			20	45	70
	Lactation days	270	295	300	300	295
	Dry days	90	70	45	20	
	Lactation days	5	—	—	—	—
Batch 2	Dry days	—	—	—	—	—
	Lactation days	180	90	115	195	220
	days		90	90	90	90
	Lactation days		185	105	80	75
Total for a pair of animals	Lactation days	455	570	520	575	590
	Dry days	90	160	155	155	160
Yield of two animals		4550	5700	5200	5750	5900

Table 5.5: Year-wise feed requirement (kg) for different categories of animals

Feed	**Animal**	**Year**				
		1	**2**	**3**	**4**	**5**
Concentrate (kg)	Milch	12512.5	15675	14300	15812.5	16225
	Dry	675	1200	1162.5	1162.5	1200
Green fodder (kg)	Milch	45500	57000	52000	57500	59000
	Dry	9000	16000	15500	15500	16000
Straw (kg)	Milch	9100	11400	10400	11500	11800
	Dry	1800	3200	3100	3100	3200

Table 5.6: Year-wise milk production (kg), and availability of gunny bags

Item	1	2	3	4	5
Milk	22750	28500	26000	28750	29500
Gunny bags	176	225	206	226	232

Table 5.7: Economics of dairy project for a unit of 10 cows for five years

Capital expenditure	Rate (₹)	Units	Total (₹)
Land		Available with the entrepreneur	
Cost of construction of sheds	600	1200	7,20,000
Cost of cows	40,000	10	4,00,000
Transportation cost of cows	2,000	10	20,000
Cost of equipment	—	—	—
Farm implements (bucket, rope, etc.)	1,000	10	10,000
Cost of chaff cutter (power operated)	—	—	60,000
Total capital expenditure	—	—	12,10,000
Total project cost is ₹12.1 lakh			

Table 5.8(a): Year-wise recurring expenditure (₹)

Items	Year				
	1	2	3	4	5
Feed					
• Cost of concentrate	2,90,125	3,71,250	3,40,175	3,73,450	3,83,350
• Cost of green fodder	1,09,000	1,46,000	1,35,000	1,46,000	1,50,000
• Cost of straw	54,500	73,000	67,500	73,000	75,000
Cost of health coverage for cows	15,000	20,000	20,000	20,000	20,000
Labour charge	84,000	84,000	84,000	84,000	84,000
Electricity and other charges	3,000	3,000	3,000	3,000	3,000
Cost of insurance premium of cows	16,000	16,000	16,000	16,000	16,000
Total recurring expenditure	5,71,625	7,13,250	6,65,675	7,15,450	7,31,350

Table 5.8(b): Year-wise income statement (₹)

Items	1	2	3	4	5
Milk	9,55,500	11,97,000	10,92,000	12,07,500	12,39,000
Sale of gunny bags	2,640	3,375	3,090	3,390	3,480
Sale of manure	10,000	10,000	10,000	10,000	10,000
Year-wise total gross income	9,68,140	12,10,375	11,05,090	12,20,890	12,52,480
Year-wise total recurring expenditure	5,71,625	7,13,250	6,65,675	7,15,450	7,31,350
Year-wise gross profit	3,96,515	4,97,125	4,39,415	5,05,440	5,21,130
Month-wise gross profit	33,043	41,427	36,618	42,120	43,428

A study of the dairy business plan [Table 5.2 to Table 5.8(b)] shows that the entrepreneur can earn nearly ₹3.58 lakh in the first year itself, i.e., ₹29,900 per month, which later increases up to ₹39,480 per month.

Table 5.9: Project details of a business plan for 10 buffaloes

S. No.	Basic assumptions	Units
1.	No. of buffaloes	10
2.	No. of animals/batch	5
3.	Cost of animal (₹/animal)	100,000
4.	Selling price of each culled animal (₹)	30,000
5.	Transportation cost (₹/animal)	2,000
6.	Average milk yield (litre/day)	8
7.	Floor space per adult animal (sq ft)	120
8.	Cost of construction per sq ft (₹)	600
9.	Cost of chaff cutter (power operated in ₹)	60,000
10.	Cost of equipment per animal (₹)	1,000
11.	Insurance premium (per annum)	4%
12.	Veterinary aid/animal/year (₹)	2,000
13.	Feed requirement	
	• Concentrate for maintenance (kg/animal/day)	1.5
	• Concentrate for milk production (kg/kg milk yield)	0.5
	• Green fodder (kg/animal/day)	20
	• Dry fodder/ wheat straw (kg/animal/day)	6
14.	Cost of concentrate feed (₹/kg)	22
15.	Cost of dry fodder (₹/kg)	5
16.	Cost of green fodder (₹/kg)	2
17.	Quantity of concentrate feed in one bag (kg)	50
18.	No. of labourers (one person can manage 10 lactating animals)	1
19.	Salary of each labourer per month (₹)	7,000
20.	Cost of electricity and water/animal/year (₹)	300
21.	Selling price of milk/litre (₹)	52
22.	Selling price per gunny bag (₹)	15
23.	Income from manure (per animal/year in ₹)	1,000
24.	Lactation days	305
25.	Dry days	90

Table 5.10: Buffaloes purchased

Total number of buffaloes	10
Batch 1: animals purchased at the initiation of the project	5
Batch 2: animals purchased after six months of project initiation	5

Table 5.11: Calculation of lactation and dry days

Particulars	Days	Year				
		1	2	3	4	5
Batch 1	Dry days	—	—	20	45	70
	Lactation days	270	295	300	300	295
	Dry days	90	70	45	20	—
	Lactation days	5	—	—	—	—
Batch 2	Dry days	—	—	—	—	—
	Lactation days	180	90	115	195	220
	Dry days	—	90	90	90	90
	Lactation days	—	185	105	80	75
Total for a pair of animals	Lactation days	455	570	520	575	590
	Dry days	90	160	155	155	160
Yield of two animals (in litre)		3,640	4,560	4,160	4,600	4,720

Table 5.12: Year-wise feed requirement (kg) for different categories of animals

Feed	Animal	Year				
		1	2	3	4	5
Concentrate (kg)	Milch	12512.5	15675	14300	15812.5	16225
	Dry	675	1200	1162.5	1162.5	1200
Green fodder (kg)	Milch	45500	57000	52000	57500	59000
	Dry	9000	16000	15500	15500	16000
Straw (kg)	Milch	13650	17100	15600	17250	17700
	Dry	2700	4800	4650	4650	4800

Table 5.13: Year-wise milk production (kg) and availability of gunny bags

Item	1	2	3	4	5
Milk	18200	22800	20800	23000	23600
Gunny bags	176	225	206	226	232

Table 5.14: Economics of dairy project for a unit of 10 buffaloes for five years

Capital expenditure	Rate (₹)	Units available with the entrepreneur	Total (₹)
Cost of construction of sheds	600	1200	7,20,000
Cost of buffaloes	1,00,000	10	10,00,000
Transportation cost of buffaloes	2,000	10	20,000
Cost of equipment			
Farm implements (bucket, rope, etc.)	1,000	10	10,000
Cost of chaff cutter (power operated)	—	—	60,000
Total capital expenditure	—	—	18,10,000
Total project cost is ₹18.1 lakh			

Table 5.15(a): Year-wise recurring expenditure statement (₹)

Items	Year				
	1	2	3	4	5
Feed					
Cost of concentrate	2,90,125	3,71,250	3,40,175	3,73,450	3,83,350
Cost of green fodder	1,09,000	1,46,000	1,35,000	1,46,000	1,50,000
Cost of straw	81,750	1,09,500	1,01,250	1,09,500	1,12,500
Cost of health coverage for buffaloes	15,000	20,000	20,000	20,000	20,000
Labour charges	84,000	84,000	84,000	84,000	84,000
Electricity and other charges	3,000	3,000	3,000	3,000	3,000
Cost of insurance premium for buffaloes	40,000	40,000	40,000	40,000	40,000
Total recurring expenditure	6,22,875	7,73,750	7,23,425	7,75,950	7,92,850

Table 5.15(b): Year-wise income statement (₹)

Items	1	2	3	4	5
Milk	9,46,400	11,85,600	10,81,600	11,96,000	12,27,200
Sale of gunny bags	2,640	3,375	3,090	3,390	3,480
Sale of manure	10,000	10,000	10,000	10,000	10,000
Year-wise total gross income	9,59,040	11,98,975	10,94,690	12,09,390	12,40,680
Year-wise total recurring expenditure	6,22,875	7,73,750	7,23,425	7,75,950	7,92,850
Year-wise gross profit	3,36,165	4,25,225	3,71,265	4,33,440	4,47,830
Month-wise gross profit	28,014	35,435	30,939	36,120	37,319

Institutional help for dairy farming

There are various government and private schemes for the development of the dairy sector and marketing of milk. Few of them run by the Government of India are as follows.

- Livestock Insurance Scheme
- National Programme for Bovine Breeding (NPBB)
- National Programme for Dairy Development (NPDD)
- National Livestock Mission
- National Dairy Plan
- National Bank for Agriculture and Rural Development (NABARD)
- Dairy Entrepreneurship Development Scheme
- National Kamdhenu Breeding Centre (NKBC)
- *Rashtriya Gokul Mission* (RGM)
- *E-pashu Haat*

Practical Exercise

Activity

Prepare a business plan for starting a dairy business.

Material required: writing material and calculator

Procedure

- Gather information about various inputs required for setting up a dairy farm.
- Calculate the quantity of inputs required for the farm.
- Estimate the expected milk output from the dairy unit.
- Prepare a business plan to run the farm in your notebook.
- Present it before the class.

Check Your Progress

A. Multiple Choice Questions

1. The characteristics of an entrepreneur is/are _____.
   (a) takes initiative (b) persistent
   (c) systematic planner (d) All of the above
2. Which of following condition(s) is true in case of a dairy entrepreneur?
   (a) Income is seasonal
   (b) Gets income once a year
   (c) Gets income throughout the year
   (d) None of the above

NOTES

3. Dairy farming is _____ in nature.
   (a) capital intensive (b) labour intensive
   (c) management intensive (d) All of the above
4. What are the different components of Agri Business Incubation?
   (a) Entrepreneurship development programme
   (b) Incubation
   (c) Consultancy
   (d) All of the above

B. Fill in the Blanks

1. _____ is a situation involving exposure to danger and consequent losses.
2. In India, bullocks are mainly used for _____ purposes.
3. The time from the end of lactation until the cow or buffalo gives birth is called _____ period.
4. Fodder availability remains excess during _____ season.
5. Dairy animals can economically produce milk only up to _____ lactations.

C. Mark 'True' or 'False'

1. After the completion of training, the entrepreneurs are ready for the implementation stage.
2. Agricultural income is seasonal in nature as farmers receive income only on the harvesting of crops.
3. Efficient marketing of milk does not play a major economic role in dairying.
4. Dry period is the period from the end of lactation till the animal gives birth.
5. An entrepreneur must have self-confidence and risk taking attitude.

D. Match the Columns

A	B
1. Entrepreneur	(a) Involves exposure to danger and consequent losses
2. Agriculture	(b) The time from calving until an animal dries off
3. Risk	(c) Equipment and machine
4. Lactation period	(d) Mobilises resources to earn profits and generate job opportunities
5. Chaff cutter	(e) Seasonal income

Session 2: Marketing of Inputs and Outputs in Dairy Business

Market information about inputs required in a dairy farm

For efficient and economic milk production, timely purchase of inputs at reasonable rates is essential. As milk and milk products are perishable in nature, they cannot be kept in a farm unsold for a long period. Therefore, their immediate disposal is important. The inputs required to run a dairy farm are mentioned in Table 5.16.

Table 5.16: Dairy farm inputs and their characteristics

Inputs	Characteristics
Feed and feed supplements	These are the major inputs required in a dairy farm. But they incur the maximum cost. The purchase of feed and feed supplements depends on the number of animals, stage of their life cycle (lactation and pregnancy stage), work performed by them (if it is a milch or draft animal), gender, etc.
Medicines and other chemicals	Medicines are needed to cure animals of various diseases and infections. Some chemicals like cleaning agents, etc., are also needed.
Equipment and tools	A number of tools are required — from milking utensils to transportation vehicles — to run a dairy farm.
Workforce	Services like veterinary, equipment repair and maintenance, etc., are needed in the farm for which efficient workforce is required.

Market updates with special focus on e-marketing

Information is required at all levels in the marketing channel. Before an entrepreneur decides to process and market a dairy product, it is important to know the potential market for each product, to ensure when, where and how much of each product is to be manufactured and marketed. Therefore, it requires securing and utilising marketing information that must address the factors as given in Fig. 5.5. In the absence of a comprehensive marketing information system, short market survey or consumer studies are useful tools for gathering such information.

Fig. 5.5: Marketing information

E-marketing provides the dairy farmer with an opportunity of buying and selling products online, and getting information and services on the Internet and other online platforms. It includes use of a company website in conjunction with online promotional techniques, such as search engines, banner advertising, direct e-mail and links or services from other websites. E-marketing is an economical and quick way to promote milk products. In online business, one can buy or sell products 24×7 round the year without employing anyone. E-marketing websites provide one with flexibility, efficiency and security of e-paying taxes, fee, renewal of licences, etc.

Marketing of milk and milk products

The following pricing mechanisms are adopted in the country for the sale of milk and milk products.

Price based on fat and SNF

The percentage of fat and Solid Not Fat (SNF) is a basis for setting the price of milk and milk products.

Open market based price

Another important way to fix the price of milk and milk products is to set the price at par with the price prevailing in the market.

Input based pricing or mark-up price

In this price mechanism, the total cost of inputs is calculated and a reasonable profit is added. We already know that the main buyers of milk and milk products can be the neighbourhood, open market or local collector or shops, local dairy or cooperative society, local processors like sweet shops, caterers, hotels, etc. The selection of a buyer depends on the demand and supply condition. If the village has an active cooperative society, which collects milk and provides facilities and services to the members, then the farmers must become its members and sell the milk to it.

Other options include selling milk to the neighbourhood and in the open market. Whatever the option, it needs to have a regular client base as milk is a perishable commodity. During lean period, there can be low demand so the possibility of selling milk to other markets can be a explored. Similarly, during festive season, there can be high demand. A portion or extra milk can be sold to other processers like sweet shops, caterers, hotels, etc., at a remunerative price. Since milk is perishable in nature, it can be processed and sold in the form of milk products like curd *(dahi)*, thickened milk *(khoa)*, cottage cheese (paneer), ghee, etc.

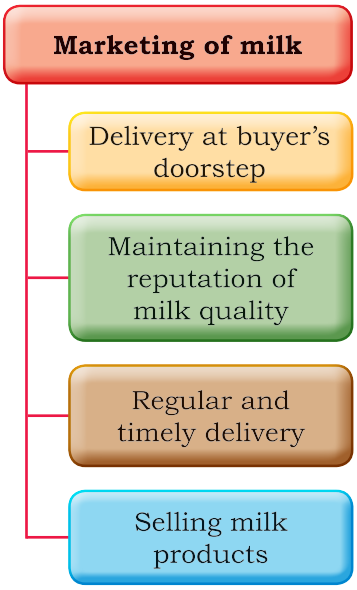

Fig. 5.6 Important aspects of marketing of milk

Ways of marketing produce

Milk is a perishable commodity and subject to changes in price. The price elasticity of milk is high. Therefore, attracting a remunerative market price is a challenging task. For fetching such a price, the owners must keep the following in mind (see Fig. 5.6).

Delivery at buyer's doorstep

Convenience is an important factor for fetching the market price of a product. This practice is adopted by a large number of small dairy farmers in the country.

Maintaining reputation

Once the quality and hygiene of milk and milk products are established, people are ready to buy them at a premium price.

Regular and timely delivery

Milk is required daily in every household. Timely and regular service can help fetch the desired market price.

Selling milk products

Selling milk products like ghee, *dahi*, paneer, etc., to regular buyers is an added advantage. Thus, the farmer finds new buyers in the existing consumer base, thereby, reducing extra effort and cost.

Fig. 5.7: Clients of a dairy farm

Developing confidence among market players

The various clients of a dairy farm are shown in Fig. 5.7.

Financier

Finance is the backbone of any business. Timely and adequate finance is the key to successful business and can be achieved by efficient dealing. It can be maintained by timely repayment of loan, record and document maintenance.

Input suppliers

Cordial relations with suppliers can get the owner a profitable deal. Discounts, quality inputs, timely supply, after-sale services, etc., are the benefits one can derive out of cordial relationship with the suppliers.

In a large dairy farm, these are, usually, the following category of outputs.

- Raw milk
- Milk products
- Organic manure (Farm Yard Manure, vermicompost, compost, etc.)
- Surplus animals
- Culled animals
- Carcass

Dairy workers

They are the people, who work at the farm and perform various operations — from cleaning to milking. Cordial relations with labourers help in retaining them and result in less absenteeism. Besides, the workers also develop empathetic behaviour towards the animals. Time-to-time incentives and rewards motivate them to work harder.

External services

On many occasions, expert advice of a veterinarian is required for regular animal welfare and in case of an emergency. Details of the facility and service management need to be maintained and be accessible to those working in the farm at all times. Besides, services of engineers are required for the maintenance of machines

Buyers

There can be a variety of buyers. Various category of buyers are shown in Table 5.17.

Table 5.17: Category of buyers

Buyers of milk and milk products	Buyers of organic manure	Buyers of surplus and culled animals
• People in the neighourhood • Open market • Local dairy or cooperative society • Local shops, caterers and hotels	• Local famers for crop production • Wholesellers	• Local dairy farmers • Local traders • Traders from other place

Check Your Progress

A. Multiple Choice Questions

1. Which of the following is provided by e-marketing websites?
   (a) Flexibility
   (b) Efficiency of work
   (c) Better security for e-paying taxes
   (d) All of the above
2. Milk price in India is, usually, determined by _____.
   (a) fat % in the milk
   (b) SNF % in milk
   (c) both (a) and (b)
   (d) None of the above
3. Which of the following is not a dairy product?
   (a) *Dahi* (b) Paneer
   (c) *Khoa* (d) Soft drinks
4. Maintaining cordial relations with dairy workers help in _____.
   (a) retention
   (b) less absenteeism
   (c) empathetic behaviour towards animals
   (d) All of the above

B. Fill in the Blanks

1. As milk and milk products are _____ in nature, they cannot be kept unsold for a long period.
2. _____ is the backbone of a business.
3. During festivals, the demand for milk remains _____.
4. The price elasticity of milk is _____.
5. _____ is required at all levels in the marketing channel.

C. Mark 'True' or 'False'

1. For efficient and economic milk production, timely purchase of all outputs at reasonable rate is essential.
2. E-marketing provides an opportunity of buying and selling products, information and services online.
3. E-marketing is an economical and quick way of promoting milk products.
4. In online business, one cannot sell or buy a product 24×7 without employing anyone.

D. Match the Columns

A		B
1. Feed	(a)	Curing animals of diseases
2. Medicine	(b)	Online buying and selling of products
3. E-marketing	(c)	Major input in a dairy farm
4. Milk price	(d)	Backbone of a business
5. Finance	(e)	Fat and SNF

E. Crossword

			[1]F			[2]F			
[3]P			I	S	H				
[4]K									
		A	N						

Across

3. Milk is a _____ product, thus, it has to be disposed of as early as possible.
4. It is a kind of milk product.
5. It is a type of milk product.

Down

1. _____ is the backbone of any business.
2. The percentage of _____ is the basis for setting milk price.