

DETAILED PROJECT REPORT ON
DAIRY FARMING (COW)



SUBMITTED BY:

SUBMITTED BY:

PROMOTER NAME

XXXXXXXXXXXXXXXXXXXXX

PROJECT LOCATION

XXXXXXXXXXXXXXXXXXXXX

PREPARED BY:

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CHAPTER - I
ABOUT THE PROMOTER

PARTICULARS	ABOUT THE FIRM & PROMOTERS
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- | | |
|------------------------------|--------------------|
| 1. Proprietor Name | : xxxxxxxxxxxxxxxx |
| 2. Address (Resi.) | : xxxxxxxxxxxxxxxx |
| 3. Contact Number | : xxxxxxxxxxxxxxxx |
| 4. Date of Birth | : xxxxxxxxxxxxxxxx |
| 5. Educational Qualification | : xxxxxxxxxxxxxxxx |
| 6. Project Location | : xxxxxxxxxxxxxxxx |
| 7. Constitution | : xxxxxxxxxxxxxxxx |
| 8. Product | : xxxxxxxxxxxxxxxx |
| 9. Experience | : xxxxxxxxxxxxxxxx |

CHAPTER – II

PROJECT DESCRIPTION

Introduction

Animal husbandry and agriculture are synergistically involved and are the important source of income and employment in rural areas. Among them, dairying provides security to farmers, especially when agriculture fails. Dairy farming is essential to millions of poor households across the country not only as a source of income but also as a major source of protein, supplementary nutrition, fertilizer, fuel and a store of wealth. Enhancement in milk processing has necessitated the increased demand for milk and this triggered the setting up of many commercial dairy units in medium and small scale in different parts of the country.

Today most of the dairies across India produce milk processed from Jersey and H.F cows. In a bid to feed our growing population we have neglected our native breeds of cows whose milk was always considered to be medicinal. Scientific evidence suggests that milk from desi cattle has several advantages over the milk of exotic european varieties of cattle like Holstein, which were introduced in India as a measure to enhance milk production through cross breeding. The nutritional value of milk of Indian cows is the highest along with many many curative properties against many diseases.

Dairying with desi breeds has generated ample scope for developing the dairy farming on commercial lines as a business enterprise.

Production Technology

Project Location:

Dairy farm is located in the area where assured market of milk round the year is available. It is easily accessible to the main road.

Feed & Fodder:

Fertile land of 10 acres with assured irrigation facilities is available so that all the seasonal fodder crops could be successfully raised and abundant good quality green fodders will be made available for animal feeding throughout the year.

1. Feed should be balanced and offered twice a day with 8-10 hours interval.
2. Cow require dry matter daily @2.0 kg and 2.5 kg/100kg body weight, respectively.
3. About 2/3 parts from dry +green roughages and 1/3 part of total dry matter need should be fulfilled with concentrate mixture.
4. If green fodder is in practice of feeding the animal, concentrate mixture should have 11-12 % protein. If there is no green fodder then atleast 18% protein must be in the concentrate mixture.
5. Type of feed should be changed gradually otherwise it will provide adverse effect on the digestion system of the animal.
6. Dry and green fodder should be offered just after feeding the concentrate mixture.
7. Animal should be allowed to drink fresh and clean water twice a day.
8. Animal should be offered clean, tasty, digestible, nutritious and cheap feed.
9. Mineral mixture and common salt each @ 25-50 gm should be given to fulfill mineral requirement of animal.
10. Breeding bull should be provided 20-30% additional ration above to maintenance need.
11. For growth, milk production and pregnancy, extra ration in the form of concentrate mixture should be offered.
12. 1 kg concentrate mixture for production of each 3 kg milk should be given per day.
13. 1.5 Kg. per day extra concentrate allowance during advance pregnancy to meet extra need of nutrients for growth of foetus.
14. At least 5 kg green fodder per day must be included in the feeding of milch animal otherwise milk production will be decreased. While feeding the animal, one should behave lovely.

Water:

Good quality fresh water for animal drinking and for the cleaning, washing etc. is available

Electricity:

Adequate supply of electricity is available.

Labour:

Honest, economic and regular supplies of labours are available.

Veterinary Aid: Veterinary Hospital/ Doctors are available close to dairy farm

CHAPTER – III

MARKET POTENTIAL

Milk is one of the widely and extensively used items in Indian cuisine throughout country. India has the privilege to be the largest producer of liquid milk but still there is a gap between demand and supply. With milk product exports forming around 5 per cent of India's total milk production, and domestic demand for dairy products remaining strong, there is the demand-supply gap.

It is generally believed that Indian cows are low in productivity. It is for this reason that Indian cows are despised at home. But more recently, world over there is a growing awareness about the nutritional superiority of the milk of the native breeds. This is measured in the form of A2 milk. 100 per cent of milk of *desi* cattle breeds contains the A2 allele making it richer in nutrients and much healthier than the milk of exotic cattle breeds. As A2 milk comes into greater demand, the shift will affect not only grass-fed raw milk farmers and large international companies, but convention dairy farmers who must supply what consumers want. India is finally waking up to the importance of its native cow breeds. Desi cow milk as a healthier alternative to industrial milk which has been accused of being laden with antibiotics and stress hormones. Desi cow milk is essentially chemical-free and healthier as the cows are fed grass or organically cultivated fodder.

While the exotic cattle breeds may be producing higher milk but because of the concentration of A1 allele gene in their bodies, the milk they produce is much inferior in quality. There is established market of various products such as cosmetics, medicines, food supplements/ items from Cow urine, dung and Cow milk.

Since A2 milk builds up immunity, it certainly offers a big advantage over the commonly sold milk. In India, consumers are willing to pay a premium if dairy entrepreneurs will be able to sell A2 milk in pouches. At the same time, promotion for A2 milk will help farmers shift to traditional breeds which very well integrate with natural farming systems.

CHAPTER – IV

SWOT ANALYSIS

Strengths:

- Urbanization, burgeoning population, raise in per capita income and change in food habits which leads to increased consumption of desi cow milk
- Food requirement and related cost is lower as compared to exotic breeds.
- The desi cows have a good immunity system and are easily acclimatized to Indian conditions, hence the hassle & cost of disease is less.
- Cow urine is used for therapeutic purposes in traditional Indian medicine, Ayurveda. In Ayurveda, it is claimed to be helpful in the treatment of leprosy and cancer. It is also known for its disinfectant and antiseptic properties.
- Desi Cow Milk helps in reducing acidity, (a common problem today)
- Desi Cow milk is like nectar, because it has amino acids which make its protein easily digestible
- Provide regular income to the dairy entrepreneurs.
- Dairy farming helps directly in increasing crop production by making available draught power, manure and cash income on day- today basis.
- Cooperative dairying has increased milk production.
- Favorable Government policies for development of desi cow livestock sector

Weakness:

- Lower productivity of animals
- Labour shortage and high wage rate in dairy farming
- Limited investment or delay in the availability of funds in setting up or expansion of milk procurement.
- Poor infrastructure in many areas for transporting rurally-produced milk to major processing centers.

Opportunities:

- Cost of desi cow milk production in India is low.
- Scope exists for higher milk yield through better use of crop residues and other feeds upgrading cattle.

- Improving availability of animal health care facilities
- Better returns because of increased awareness in consumers about milk quality.
- Good scope exists for value-added products like panner, curd, ghee, buttermilk, khoa etc.
- Latest packaging technology can help retain nutritive value of packaged products and extend their shelf-life.

Threats:

- Natural calamities like floods, drought, diseases that can affect feed to cattle population.
- Seasonal fluctuations in milk production
- Dwindling fodder resources
- Middlemen still control a very large proportion of the milk procurement. Serious efforts need to be taken to eliminate them from the supply chain.
- A parallel economy is thriving on adulterated liquid milk including synthetic milk in certain pockets which needs to nip in the bud.

CHAPTER- VI
ECONOMICS OF THE PROJECT

A. PROJECT PROFILE (Financial)

Sr. No. PARAMETERS	VALUE
1 Breed	HF (cross breed)
2 Unit Size	25
3 Product	Milk, Mannure
4 Cost of the project	31,67,375
5 Bank loan	23,75,531
6 Margin money	7,91,844
7 Financial Indicators	
BC R	1.22 :1
N P W 15% (Rs.)	33,79,860
I R R %	47.03
Average DSCR	2.7
8 Interest Rate (% per annum)	12
9 Repayment	7 years

B. BASIS & PRESUMPTIONS

Sr. No.	Particular	Unit	Quantity
I. Techno-economic parameters			
1	Floor space (sqft) per adult animal	sq. ft.	40
2	Floor space (sqft) per calf	sq. ft.	20
3	Inter-Calving period (Lactation days 280 + Dry days 120)	Days	400
4	Rate of interest for bank loan (%)	Rs.	11
5	Repayment period	Years	7
6	Freshly calved animals in 1st or 2nd lactation are purchased in two batches at an interval of 5 to 6 months.		
7	Once the young animal reared within the herd that is ready to calve, would replace the oldest animal.		
8	The animals apart from 1st, 2nd or 3rd lactations are assumed to be sold off to maintain constant herd size.		
9	Male calves are assumed to be sold off		
10	Cost of rearing calves is not considered as it will be nullified by their sale value		
II. Expenditure norms			
1	Cost of cow including transportation	Rs./per animal	90,000
2	Cost of construction of shed	per sq. ft.	100
3	Cost of concentrate	Rs./kg.	40
4	Cost of cultivation of green fodder	Rs./acre/annum	10,000
5	Cost of dry fodder	Rs./kg.	35
6	Rate of construction of labour quarter, store room	per sq. ft.	150
7	Cost of chaff cutter (power operated)	Rs.	50,000
8	Electric motor	Rs.	25,000
9	Cost of equipment per animal	Rs.	1,000
10	No. of unskilled labour required	Nos.	1
11	Cost of one unskilled labour per	Rs.	1,00,000
12	Cost of veterinary aids	Rs./animal / annum	750
13	Cost of electricity & water	Rs./Month	500
14	Milking machine with accessories	Rs.	80,000
15	Water Spray Machine	Rs.	30,000
16	Insurance	% per cost of animal	5
III. Income norms			
1	Milk yield per cow per day	ltrs.	20
2	Selling price of milk	Rs.per ltrs.	30
3	Production of Manure	tonn/year/cow	5
4	Selling price of manure	Rs./ton	1,500

C. TOTAL COST OF PROJECT

Sr. No.	Particular	Unit	Unit rate	Quantity	Amount in Rs.
I. Capital Cost					
1	Land & site development				
	Land				Own
	Site development				25,000
					<u>25,000</u>
2	Buildings				
	Shed for adult animal	Sq.ft.	100	1,000	1,00,000
	Shed for adult calves	Sq.ft.	100	500	50,000
	Labour quarter	Sq.ft.	150	250	37,500
	Milk room	Sq.ft.	200	200	40,000
	Water tank	Ls.			50,000
					<u>2,77,500</u>
3	Cost of animals including transportation	Nos.	90,000	25	22,50,000
4	Plant and Machinery				
	Milking Machine with accessories	Ls.			80,000
	Chaff cutter and equipment	Nos.	50,000	1	50,000
	Electric motor	Nos.	25,000	1	25,000
	Generator set	Nos.	50,000	1	50,000
	Cost of Electrification	Ls.			10,000
	Cost of equipments like Weighing Machine, Milk cans, Buckets etc.	Rs./ animal	1,000	25	25,000
	Water Spray Machine	Nos.	30,000	1	30,000
					<u>2,70,000</u>
5	Preliminary Exp. (Project Formulation, Consultancy, Contingency etc.)	%	5		1,41,125
					<u>TOTAL- A</u>
					<u>29,63,625</u>
II. Working Capital (for first month of first batch)					
	Cost of feed for first month of first batch	per day per animal	340	375	1,27,500
	Cost of fodder cultivation in 2 acres				20,000
	Insurance for the first batch of animal	%	5		56,250
					<u>TOTAL- B</u>
					<u>2,03,750</u>
					<u>GRAND TOTAL (A+B)</u>
					<u>31,67,375</u>

D. MEANS OF FINANCE

Particular	Unit	Quantity	Amount in Rs.
Term loan	%	75	23,75,531
Own contr	%	25	7,91,844
TOTAL			<u><u>31,67,375</u></u>

iii) PROJECTED PROFITABILITY

Sr. No.	Particular	Unit	Unit rate in Rs.	Quantity	I year	II year	III year	IV year	V year	VI year	VII year	
1 Income												
I)	Sale of milk											
	Total Milk Production (total lactation days* milk yield per cow per day	Ltrs.			98,750	1,31,250	1,31,250	1,31,250	1,31,250	1,31,250	1,31,250	
	Selling price of milk per ltrs	Rs.			30	30	30	30	30	30	30	
	Income from milk	Rs.			29,62,500	39,37,500	39,37,500	39,37,500	39,37,500	39,37,500	39,37,500	
III)	Sale of culled animals				1,48,125	3,93,750	3,93,750	5,90,625	5,90,625	5,90,625	5,90,625	
IV)	Sale of manure	Ton	1,500	125	1,87,500	1,87,500	1,87,500	1,87,500	1,87,500	1,87,500	1,87,500	
	TOTAL (A)				32,98,125	45,18,750	45,18,750	47,15,625	47,15,625	47,15,625	47,15,625	
2 Expenditure												
	Feed during Lactation Period	per day per animal	340	6,563	16,78,750	22,31,250	22,31,250	22,31,250	22,31,250	22,31,250	22,31,250	
	Feed during Dry Period	per day per animal	255	1,500	3,66,563	6,53,438	6,53,438	6,53,438	6,53,438	6,53,438	6,53,438	
	Cultivation of green fodder	acre/annum	2	10,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	
	Electricity, Water	Rs./month	500	12	6,000	6,000	6,000	6,000	6,000	6,000	6,000	
	Unskilled workers	per annum	72,000	2	1,44,000	1,58,400	1,74,240	1,91,664	2,10,830	2,31,913	2,55,105	
	Veterinary aids	per animal	750	25	18,750	18,750	18,750	18,750	18,750	18,750	18,750	
	Insurance	%	5		112,500	112,500	112,500	1,12,500	112,500	112,500	112,500	
	Transportation	Lumsum			25,000	25,000	25,000	25,000	25,000	25,000	25,000	
	TOTAL (B)				23,71,563	32,25,338	32,41,178	32,58,602	32,77,768	32,98,851	33,22,042	
3 Net Income					TOTAL (A-B)	9,26,563	12,93,413	12,77,573	14,57,024	14,37,857	14,16,774	13,93,583

F. Financial Analysis

Particulars	I year	II year	III year	IV year	V year	VI year	VII year
Capital Costs	29,63,625						
Recurring cost	23,71,563	32,25,338	32,41,178	32,58,602	32,77,768	32,98,851	33,22,042
Total Cost	53,35,188	32,25,338	32,41,178	32,58,602	32,77,768	32,98,851	33,22,042
Benefit	32,98,125	45,18,750	45,18,750	47,15,625	47,15,625	47,15,625	47,15,625
Depreciated value of buildings, furniture & fixtures @ 10%							2,45,105
Depreciated value of plant & machinery @ 15%							1,15,695
Closing stock value @ 10% Depreciation							13,17,375
Total Benefit	32,98,125	45,18,750	45,18,750	47,15,625	47,15,625	47,15,625	63,93,800
Net Benefit	-20,37,063	12,93,413	12,77,573	14,57,024	14,37,857	14,16,774	30,71,758
Discounting Factor@ 15%	0.87	0.76	0.66	0.57	0.50	0.43	0.38
NPV cost at 15% DF	46,41,613	24,51,257	21,39,177	18,57,403	16,38,884	14,18,506	12,62,376
NPV benefits at 15% DF	28,69,369	34,34,250	29,82,375	26,87,906	23,57,813	20,27,719	24,29,644
NPW at 15% DF	33,79,860						
BCR at 15% DF	1.22 :1						
IRR %	47.03						

G. Term Loan Repayment

Rate of interest - % per annum : 12.00

Opening balance of term loan : 23,75,531

Year	Loan Outstanding	Net Income	Principal	Interest	Total Repayment	Net Surplus	DSCR
1	23,75,531	9,26,563	339362	285064	624425	3,02,137	1.5
2	20,36,170	12,93,413	339362	244340	583702	7,09,711	2.2
3	16,96,808	12,77,573	339362	203617	542979	7,34,594	2.4
4	13,57,446	14,57,024	339362	162894	502255	9,54,768	2.9
5	10,18,085	14,37,857	339362	122170	461532	9,76,325	3.1
6	6,78,723	14,16,774	339362	81447	420808	9,95,966	3.4
7	3,39,362	13,93,583	339362	40723	380085	10,13,498	3.7
Avg. DSCR							2.7