

APPRAISAL OF COMMERCIAL DAIRY UNIT
FARM MODEL OF DAIRY UNIT OF 20 CROSSBRED COWS

TECHNO-FINANCIAL ASSUMPTIONS

Components :-

Type Of Animal	CB. Cows
No of animals	20
Cost of one animal(including transportation and insurance) (rs/-)	30,000
Average milk yield (liters/day)	12
Selling price of milk/lit (rs/-)	13
Sale of manure/animal/year (rs/-)	500
Culled value/ animal at the end of fifth lactation (rs/-)	8,000
Veterinary aid /animal/year	750
Rate of interest (%)	12
Residual value of shed and equipment to be taken(yes/no)	NO
Repayment period(years)	3
% Of net surplus towards repayment	80

Feeding Schedule :-

	Lactation Period		Dry Period &	
	Quantity(Kg)	Cost	Quantity(Kg)	Cost
i. Concentrate Feed (Rs.10/Kg)				
For milk (1 kg/3 litre)	4	40	0	0
For Maintenance+preg.	1	10	1.5	15
ii. Green Fodder	20	0	20	0
iii. Dry Fodder(Rs.3/Kg)	5	15	5	15

Particulars	Cost (Rs.)
A. Capital Cost	
Cost of Crossbred Cows including transport cost & Insurance cost (6 animals; Rs. 30,000 each)	6,00,000
Shed for adult animals (40 sq.ft/animal; Rs. 80/sq.ft)	96,000
Equipment cost	25,000
Cost for fodder cultivation(for 1 acre)	30,000
B. Working capital	
Cost of Feeding first animal for one month	24,000
Total	7,75,000

- Based on the Norms the funding for dairy unit was as follows

Total Project Cost	7,75,000
Margin Money (Borrower/company)	1,50,000
Bank Loan	6,25,000

- Based on an inter-calving period of 400 days (280 lact.days + 120 dry days), the lactation chart for the animal farm is given below.

Year	I Batch		II Batch		Total	
	Lactation days	Dry days	Lactation days	Dry days	Lactation days	Dry days
I	2500	1150	1440	0	3940	1150
II	2800	850	2450	1200	5250	2050
III	2800	850	2450	1200	5250	2050
IV	2800	850	2450	1200	5250	2050
V	2550	1100	2450	1200	5000	2300

Projected Profitability :-

Particulars	I year	II year	III year	IV year	V year
Income:					
By sale of Milk	6,70,800	8,19,000	8,19,000	8,19,000	7,80,000
By sale of Manure	7,500	10,000	10,000	10,000	10,000
Total	6,78,300	8,29,000	8,29,000	8,29,000	7,90,000
Expenditure:					
concentrated feed	2,02,500	2,83,000	2,83,000	2,83,000	2,73,000
Dry Fodder	81,750	1,09,500	1,09,500	1,09,500	109,500
Labor cost	48,000	48,000	48,000	48,000	48,000
On Veterinary Aid	11,250	15,000	15,000	15,000	15,000
Total	3,43,500	4,55,500	4,55,500	4,55,500	4,45,500
Net Income	3,34,800	3,73,500	3,73,500	3,73,500	3,44,500

Financial Analysis :-

Particulars	I year	II year	III year	IV year	V year
Cost:					
Capital Cost	7,75,000				
Recurring cost	3,43,500	4,55,500	4,55,500	4,55,500	4,45,500
Total Cost	11,18,500	4,55,500	4,55,500	4,55,500	4,45,500
Benefits	6,78,300	8,29,000	8,29,000	8,29,000	7,90,000
Residual value					1,60,000
Total Benefit	6,78,300	8,29,000	8,29,000	8,29,000	9,50,000
Net Benefit	-4,40,200	3,73,500	3,73,500	3,73,500	5,04,500
Discount Factor at 15 %	0.87	0.76	0.66	0.57	0.50
BCR	1.32: 1				
NPV	6,09,595				
IRR	>50% (78.85%)				

Repayment Period :-

Year	Loan Outstanding	Interest (12%)	Net Profit	Repayment of Principal	Total Repayment	Net Surplus
1	6,25,000	75,000	3,34,800	1,92,840	2,67,840	66,960
2	4,32,160	51,859	3,73,500	2,46,941	2,98,800	74,700
3	1,85,219	22,226	3,73,500	1,85,219	2,07,446	1,66,054
4	0	0	3,73,500	0	0	3,73,500
5	0	0	5,04,500	0	0	5,04,500

Courtesy: Department of Animal Husbandry, Government of Andhra Pradesh, India