

APPRAISAL OF COMMERCIAL DAIRY UNIT
FARM MODEL OF DAIRY UNIT OF 10 CROSSBRED COWS

TECHNO-FINANCIAL ASSUMPTIONS

Components:-

Type Of Animal	CB. Cows
No of animals	10
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)	3,00,000
Shed for adult animals (40 sq.ft/animal; Rs. 80/sq.ft)	48,000
Equipment cost	20,000
Cost for fodder cultivation(for 1 acre)	15,000
B. Working capital	
Cost of Feeding first animal for one month	12,000
Total	3,95,000

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

Total Project Cost	3,95,000
Margin Money (Borrower/company)	75,000
Bank Loan	3,20,000

- 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	1250	575	720	0	1970	575
II	1400	425	1225	600	2625	1025
III	1400	425	1225	600	2625	1025
IV	1400	425	1225	600	2625	1025
V	1275	550	1225	600	2500	1150

Projected Profitability:-

Particulars	I year	II year	III year	IV year	V year
Income:					
By sale of Milk	3,35,400	4,09,500	4,09,500	4,09,500	3,90,000
By sale of Manure	3,750	5,000	5,000	5,000	5,000
Total	3,39,150	4,14,500	4,14,500	4,14,500	3,95,000
Expenditure:					
concentrated feed	1,01,250	1,41,500	1,41,500	1,41,500	1,36,500
Dry Fodder	40,875	54,750	54,750	54,750	54,750
On Veterinary Aid	5,625	7,500	7,500	7,500	7,500
Total	1,47,750	2,03,750	2,03,750	2,03,750	1,98,750
Net Income	1,91,400	2,10,750	2,10,750	2,10,750	1,96,250

Financial Analysis:-

Particulars	I year	II year	III year	IV year	V year
Cost:					
Capital Cost	3,95,000				
Recurring cost	1,47,750	2,03,750	2,03,750	2,03,750	1,98,750
Total Cost	5,42,750	2,03,750	2,03,750	2,03,750	1,98,750
Benefits	3,39,150	4,14,500	4,14,500	4,14,500	3,95,000
Residual value					80,000
Total Benefit	3,39,150	4,14,500	4,14,500	4,14,500	4,75,000
Net Benefit	-2,03,600	2,10,750	2,10,750	2,10,750	2,76,250
Discount Factor at 15 %	0.87	0.76	0.66	0.57	0.50
BCR	1.42: 1				
NPV	3,78,727				
IRR	>50% (98.93 %)				

Repayment Period:-

Year	Loan Outstanding	Interest (12%)	Net Profit	Repayment of Principal	Total Repayment	Net Surplus
1	3,20,000	38,400	1,91,400	95,580	1,33,980	57,420
2	2,24,420	26,930	2,10,750	1,20,595	1,47,525	63,225
3	1,03,825	12,459	2,10,750	1,03,825	1,16,284	94,466
4	0	0	2,10,750	0	0	2,10,750
5	0	0	2,76,250	0	0	2,76,250