

How to formulate a project report for 20 dairy cow units

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It is always suggested by experts to open a small dairy unit to the farmers. Setting up small scale enterprise helps farmers which are having less or no previous experience. It may well provide them additional source of income. In future farmers can develop their farm gradually to big herds. For providing assistance to the farmers many banks or financial organizations provide loan under various development schemes.

Small dairy units for the farmers

For establishing a small herd, bank loan can be obtained by a matriculate or trained rural person having own required land for establishing farm for crossbred cattle. This borrowed money should earn such income that farmers can repay loan along with interest charged by the bank. Obtaining sufficient income from such availed loan amount depends upon one's ability to execute work in proper manner. Broad suggestion regarding working management is provided below:

Factors considered for setting unit of 20 dairy crossbred cows

Calculating capital investment

- | | |
|---|-----------------------|
| 1. Cost of 20 milch cows @ Rs. 30,000/ cow | Rs. 6,00,000 |
| 2. Cost of cattle shed with mud tile roof, brick floor and half brick wall (covered area- 70 sq. m. & open area- 140 sq.m.) | Rs. 4,80,000 |
| 3. Cost of equipments like milk cans, pails, buckets, chains, balance, etc. | Rs. 40,000 |
| 4. Miscellaneous | Rs. 10,000 |
| Total capital investment- | Rs. 11, 30,000 |



SPACE REQUIREMENTS FOR DAIRY UNITS:

Floor space requirements of dairy animals in loose housing (BIS: 1223 -1987)

Type of animal	Floor space per animal (m ²)	
	Covered area	Open Area
Young calves (< 8 weeks)	1.0	2.0
Older calves (> 8 wks)	2.0	4.0
Heifers	2.0	4-5
Adult cows	3.5	7.0
Adult buffaloes	4	8.0
Cows approaching calving	12	20.5
Bulls	12	120.0
Bullocks	3.5	7.0



Feeding manger and water trough requirements of dairy animals (BIS IS 11799:2005)

Type of animal	Feeding manger length per animal (cm)	Water trough length per animal (cm)
Young calves (< 8 weeks)	40-50	10-15
Older calves (> 8 wks)	40-50	10-15
Heifers	45-60	0-45
Adult cows	60-75	45-60
Adult Buffaloes	60-75	60-75
Calving females	60-75	60-75

Bulls	60-75	60-75
Bullocks	60-75	60-75

Calculation of average days in milk and dry;

Wet: Dry cow = 80: 20

Calculation for one year

1. Milch cows in days- $16 * 365 = 5820$ days
2. Dry cows in days- $4 * 365 = 1460$ days
3. Milk yield/cow/day= 10 Kg
4. Total milk yield= 58400 Kg
5. Selling price of milk= Rs. 30/Kg

Calculating operational/ recurring expense for one year:

S.N.	Parameters	Expenditure (Rs.)
1	Feed for milch cows- 5840 days * Rs. 100	584000
2	Feed for dry cows 1460 days * Rs. 55	80300
3	Insurance @ 3%	24000
4	Medicine Rs. 800/cow + vet. Cost	40000
5	A.I. cost @ Rs. 100/A.I. with 2A.I./cow/conception	4000
6	Labour charges @ 200/day/labour * 365 days	146000
7	Depreciation charges for cows @ 10%	60000
8	Depreciation cost for shed and equipments @10%	54000
9	Miscellaneous	10000

Total expenditure- Rs. 1002300

Calculation of Income for a year:

S.N.	Parameters	Income (Rs.)
1	Sale of milk 58400 Kg * Rs. 30/Kg	1752000
2	Farm yard manure- 200 Kg/day @ Rs. 80/ qtl. * 365	43800
3	Followers	25000
Total income		18,20,800

Calculating profit for a year:

1. **Annual profit**= Income- expenses
= Rs. 18,20,800- Rs. 10,02,300
= Rs. 8,18,500
2. **Profit / month**= Rs. 68208
3. **Profit/month/cow**= Rs. 3410

Calculating repayment of loan:

Assuming borrowed amount as loan of Rs. 10, 00,000 for capital investment, repayment would be for bank loan interest for capital given @ 12% interest p.a. as follows:

Year	Profit (Rs.)	Installment (Rs.)	Interest @ 12% (Rs.)	Total payment (Rs.)	Surplus amount (Rs.)
1	818500	200000	120000	320000	498500
2	818500	200000	96000	296000	522500
3	818500	200000	72000	272000	546500
4	818500	200000	48000	248000	570500
5	818500	200000	24000	224000	594500

Production of fodder:

12 acres of land would be sufficient to provide green fodder for 20 dairy units. Some fodder crops like Green maize, Cowpea, Berseem, Sorghum, Hybrid Napier, Sudan grass, Paragrass, oats can be sown for obtaining green fodder round the year. In summer season Green Maize, Cowpea, Sorghum, Sudan grass can be sown and cultivated. During winter season oats, Berseem, Maize, Lucerne can be utilized. Napier, Paragrass, Guinea grass can be well utilized in lean periods.

CONCLUSIONS

Considering this model, it can be said that Rs. 5, 00,000 as annual income could be obtained from a 20 dairy cow herd with proper management strategies. However, this model will fluctuate with change in different parameters like market, climatic conditions, productive and reproductive traits of animals, etc. By seeing this model one can gradually, with experience, formulate his/her own project proposal.

Note: This is typical example of formulating financial statements for a general dairy unit. However, different places may have different rates, services and animal, also different productive and reproductive traits. So, those factors should be considered for developing such projects for dairy unit establishment.