Cattle Farm with 10 crossbred cows: Project

Assumptions

- 1. The cost of land for the project is not considered.
- 2. Inter-calving period of 390 days (300 lactating days and 90 dry days)
- 3. Provision for silage bunker & mister set
- 4. Change in market price of the animals assumed in following manner
- 1. Animals in 1st lactation: No change
- 2. Animals in 2nd lactation: +5%
- 3. Animals in 3rd lactation: -5%
- 4. Animals in 4th lactation: -10%
- 5. Animals in 5th lactation: -30%
- 6. Animals in 6th lactation: -50%
- 7. Animals in 7th lactation: -70%
- 5. Once the young animal, reared within the herd that is ready to calve, would replace the oldest animal.
- 6. The animals apart from 1st, 2nd or 3rd lactations are assumed to be sold off to maintain constant herd size.
- 7. Required land is available for cultivating green fodder for animals.
- 8. For lactating animals, total dry matter of feed and fodder is assumed to be in the range of 3.5-4 kg per 100 kg body weight.
- 9. For dry animals, total dry matter of feed and fodder is assumed to be around 2.5 kg per 100 kg body weight.
- 10. The project is considered as on-going and therefore, terminal values of assets are not considered.
- 11. Male calves are assumed to be sold off.

- 12. Price assumptions are on average basis and would vary region to region
- 13. Provision for any taxation has not been made
- 14. Of total 10 cows purchased
- 5 cows are of 1st lactation having yield of 15 litres/day, costing ₹ 60,000/ animal
- 3 cows are of 2nd lactation having yield of 18 litres/day, costing ₹ 63,000/animal
- 2 cows are of 3rd lactation having yield of 17 litres/day, costing ₹ 60,000/animal
- 15. Of 10 animals, 5 are assumed to be purchased at the beginning of the project and rest after 6 months
- 16. Provision for manual chaff cutter
- 17. No milking machine

Project Details	(Indicative)	e) for 10 Cow Farm
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Land requirement for cattle shed, storage and silage 2325 sq.f

Project cost

Item Amount (₹)

Cattle shed for adult animals	420,000						
Cattle shed for calves	140,000						
Cattle shed for heifers	245,000						
Silage bunker	37,500						
Construction for storage area	233,340						
Animals	623,000						
Equipment	16,000						
Contingency Fund	34,300						
Total Project cost	1,749,140						
Fixed cost (₹)							
Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Depreciation of cattle shed	103,834	103,834	103,834	103,834	103,834	103,834	103,834
Depreciation of equipment	1,600	1,600	1,600	1,600	1,600	1,600	1,600

Relative change in value of herd	-9,000	-63,000	-15,000	18,000	72,000	0	0
Interest on capital investment	209,897	209,897	209,897	209,897	209,897	209,897	209,897
Total fixed cost	306,331	252,331	300,331	333,331	387,331	315,331	315,331
Variable cost (₹)							
Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Green fodder cultivation	48,000	48,000	48,000	48,000	48,000	48,000	48,000
Green fodder cost	0	0	0	0	0	0	0
Dry fodder cost	143,904	210,240	245,280	280,320	280,320	280,320	280,320
Concentrate cost	171,976	240,576	261,016	281,456	281,456	281,456	281,456
Mineral mixture cost	15,282	21,564	23,754	25,944	25,944	25,944	25,944
Labour charges	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Insurance charges	24,120	24,120	24,120	24,120	24,120	24,120	24,120
Veterinary & breeding expenses	15,000	15,000	15,000	15,000	15,000	15,000	15,000

Electricity & water charges	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Transportation cost for milk sale	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Minor repair of building/ equipment	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Interest on working capital	6,866	7,331	7,520	7,710	7,710	7,710	7,710
Total variable cost	506,148	647,831	705,690	763,550	763,550	763,550	763,550
Income (₹)							
Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Milk	854,120	1,200,420	1,109,160	1,031,940	1,067,040	1,165,320	1,165,320
Gunny bags	2,460	3,440	3,730	4,020	4,020	4,020	4,020
Sale of animals	2,000	2,000	2,000	62,000	134,000	122,000	224,000
Sale of dung/ manure	12,600	16,800	16,800	16,800	16,800	16,800	16,800
Total receipt	871,180	1,222,660	1,131,690	1,114,760	1,221,860	1,308,140	1,410,140

PBDIT (Operating Profit) (₹)	365,032	574,829	426,000	351,210	458,310	544,590	646,590
Net Profit (₹)	58,701	322,498	125,669	17,879	70,979	229,259	331,259
IRR	18.4%						
ROI	21.9%						