Project report on

2+2 Buffalo dairy farm

Veterinary & Animal Husbandry Department

Govt.of Telangana

Dairy farming is an important subsector of Agriculture in integrating rural economy. It plays significant role in giving food security through supply of milk and also in enriching family nutrition. Dairying on scientific lines is one of the important sources of livelihood and regular income in rural India.

For successful dairying, before staring a dairy farm, farmer is advised to

- Undergo training on dairying mandatorily
- Has to visit a progressive dairy farm in his locality
- Should work for 7-14 days in dairy farm to get *hands on experience* on on day to day farming activities
- Should cultivate perennial forage in 1 acre of land (0.5 acres Non legume + 0.5 acres legume) as per advise given by local Veterinarian 2-3 months before purchase of animals without which dairying is not economical & sustainable

Other things to be considered are availability of nearest

- Vety institution for **Artificial Insemination** & **Vety aid** ,
- Local marketing facility for produced milk
- availability of medicines , fodder & concentrates

Suggested breed for dairying is Graded Murrah . A Graded Murrah is a cross between a pure Murrah and a local breed. It is efficient milk producer with an milk yield of 8-12 litres per day. They are well adapted to agro climatic conditions of Telangana region. They are more disease resistant. The incidence of milk fever & mastitis is less in comparison to CBC. They can thrive well on crop residues also. These are to be procured from AP or Tamilnadu states.

Buffalo milk contains more fat for which farmer gets better price. Telangana state government is supporting milk producers by paying an incentive of Rs 4 per every litre of milk produced which is an added benefit for better livelihood.

Production parameters

- Age at fist calving: 3 years
- Inter-calving period: 390 to 420 (**min 390**)
- Lactation period: **240** (Max 270 days)
- Daily lactation: 12 to 15 litters (in peak) avg 8 litres
- Dry period: 4-5 months.
- Gestation period: 300 days (average)
- Milking capacity: about **1920**-2200 *kg (per lactation)*
- Fat percentage: 7-8

Important physical characteristics of Murrah:

- **Body** : Sound built, heavy and wedge shaped.
- **Head :** Comparatively small.
- **Face & Neck** : Comparatively long.
- **Body color** : Jet-black with white markings on face and leg extremities
- **Tail** : Long reaching up to fetlock with black or white switch
- **Horns** : Short, tight, backward ,upward and curving inward.
- **Limbs** : Comparatively short but strong built.
- **Skin** : Soft, smooth with scanty hairs
- **Udder** : Fully developed, drooping, with equally distributed over the udder but hind teats are longer than fore teats.
- **Loin** : Broader and sliding forward.
- **Body weight** : The average body weight of 450 Kg
- **Height** : The average height at withers >4.3 feet
- **Length** : The length from point of shoulder to pin bone is 148.6 inches

A Buffaloe dairy with 2+2 Graded murrah is a sustainable unit for one family who maintains dairy on their own by cultivating green forages. Though a net income of Rs 8325 is estimated per month, it can be increased by 10-20% with better maintenance and Bio-security measures.

TECHNO-ECONOMIC PARAMETERS

Animal	Type of animal	Grade Murrah Buffalo
	No of animals	2+2 (4)
	Cost of animal	65000
	Physiological status at purchase	2 nd calving(freshly calved with **female calf** at foot) Or advance 2nd pregnancy
	Transport cost	Rs 5000
Lactation	Lactation days	240
	Dry days	150
	Avg.milk yield	8 lit/day (min)
Housing	Floor space (sft)/adult	50
	Floor space (sft)/calf	20
	Cost of construction per sft	150
Farm & farming equipment	Utensils & other farming hand equipment /animal	Rs 1000
	Chaff cutter	Rs 15000
Feed & Fodder	Cultivation cost of **Non legume** green forage /year (0.5 acres)	Rs 20000 (in 1st year only) From 2nd year it is Rs 5000
	Cultivation cost of **legume** green forage /acre/year (0.5 acres)	Rs 10000 (in 1st year only) From 2nd year it is Rs 5000
	Cost of Dry fodder /kg	Rs 5
	Cost of concentrate / kg	Rs 20
Insurance	Per animal/year 4% + 18% GST	Rs 3100 (rounded off)
Vety.aid	Per animal/year	Rs 1200
Labour	Beneficiary is the caretaker	0
Working capital	For 30 days@ Rs 100/day/2 animals	Rs 6000 (@3000/animal/2)
Sales	Sale price of milk /kg	Rs 32
	Incentive /kg	Rs 4
	Sale of manure /ton	Rs 2000

TOTAL PROJECT OUTLAY

Non-Recurring	Animal cost @ 65000 /animal	2,60,000
	Transport @ 5000 /animal	20,000
	Insurance @ 3100 /animal	12,400
	Housing @ 10500 /animal	42,000
	Farm equipment @ 1000 /animal	4,000
	Chaff cutter @1	15,000
Recurring	Fodder cultivation cost	35,000
	Working capital @ 6000 /animal	12,000
	Labour	0
TOTAL		4,00,000

DAILY FEEDING & ITS COST CHART

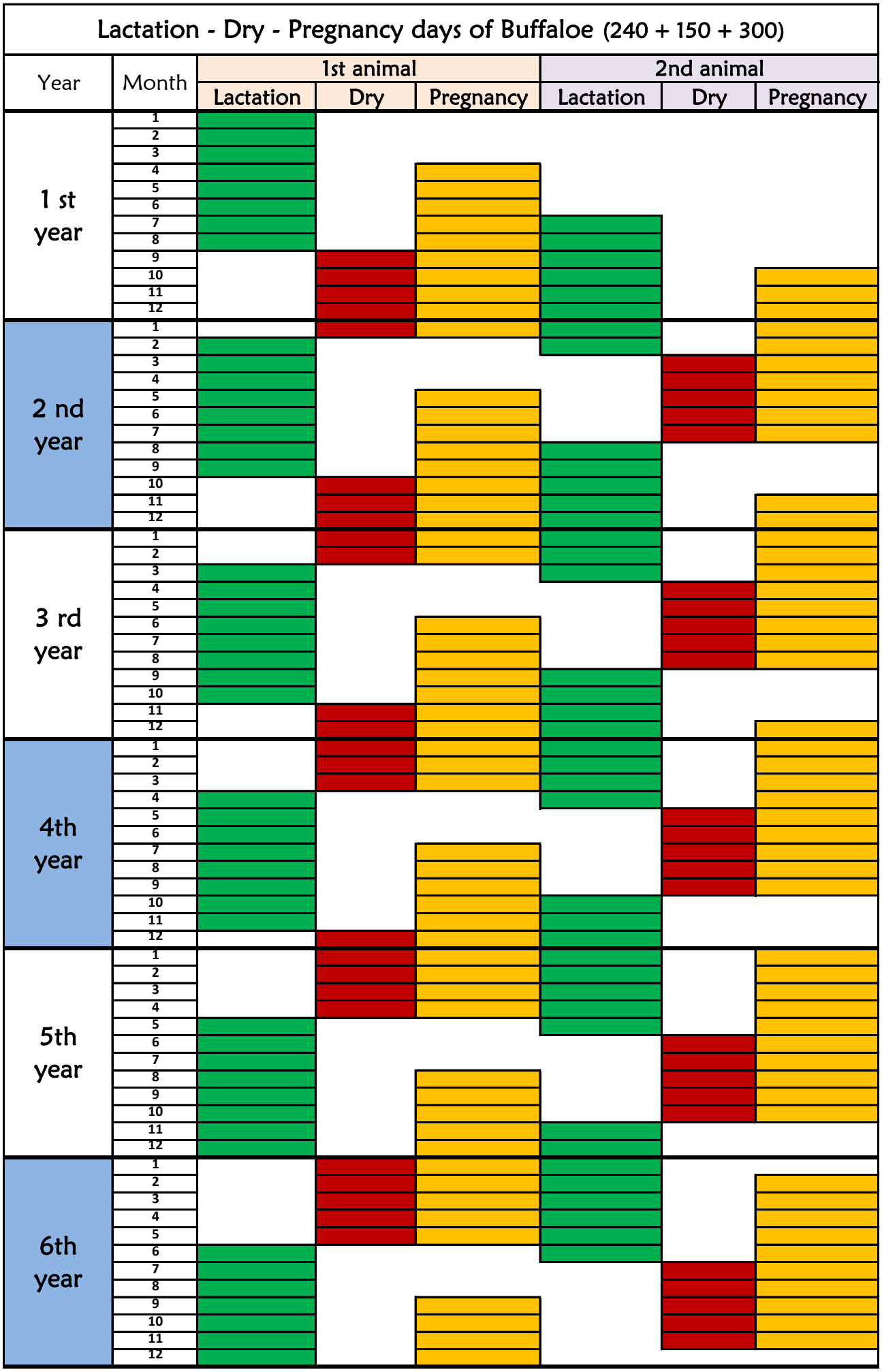
Type of feed & fodder		Cost in Rs/kg	During lactation		During dry	
			Quantity	feeding cost /day	Quantity	feeding cost /day
Concentrate feed		20	3	60	1	20
Green fodder (first year prodn cost is considered)	Non legume	0.50	30	15	25	12.50
	Legume	0.50	6	3	5	2.50
Dry fodder	Paddy straw	5	5	25	5	25
TOTAL				103		60

LACTATION – DRY PERIOD CHART

Particulars		YEARS					
		I	II	III	IV	V	VI
Lactation days	1st batch 2 animals	480	480	480	480	480	420
	2nd batch 2 animals	360	420	420	420	420	360
	Total	**840**	**900**	**900**	**900**	**900**	**780**
Dry days	1st batch 2 animals	240	240	240	240	240	300
	2nd batch 2 animals	0	300	300	300	300	300
	Total	**240**	**540**	**540**	**540**	**540**	**600**

Project report is based on following assumptions

1. Freshly calved Graded Murrah buffaloes will be purchased in two batches of two animals each/batch at an interval of **6** months
2. Availability of one acre land for fodder cultivation is prerequisite for this project
3. Dung produced will be utilized as manure for fodder cultivation
4. Cost of rearing calves not considered as it will be replaced by their sale
5. All are to be insured and in case of death of adult animal, new animal will be purchased from insurance claim money
6. Heifers will be used as replacement stock


Lactation - Dry - Pregnancy days of Buffaloe (240 + 150 + 300)
Year
Month
1st animal
2nd animal
Lactation
Dry
Pregnancy
Lactation
Dry
Pregnancy
1 st year
2 nd year
3 rd year
4th year
5th year
6th year
1
2
3
4
5
6
7
8
9
10
11
12

YEAR WISE INCOME - EXPENDITURE STATEMENT

(2+2) Buffaloe dairy farm

			1st Year	2 nd Year	3rd Year	4th Year	5th Year	6th Year
Gross INCOME	Sale of milk@32/lit/8 lit		215040	230400	230400	230400	230400	199680
	Incentive@4/lit		3360	3600	3600	3600	3600	3120
	Sale of Manure @2000/ton (1.5 ton/animal/year)		9000	12000	12000	12000	12000	12000
	TOTAL		**227400**	**246000**	**246000**	**246000**	**246000**	**214800**
EXPENDITURE	Feeding cost	Lactation@Rs 103/day/animal	86520	92700	92700	92700	92700	80340
		Dry @Rs 60/day/animal	14400	32400	32400	32400	32400	36000
	Vety aid		4800	4800	4800	4800	4800	4800
	Insurance 50% subsidy		6200	6200	6200	6200	6200	6200
	fodder cultivation		35000	10000	10000	10000	10000	10000
	TOTAL		**146920**	**146100**	**146100**	**146100**	**146100**	**137340**
SAVINGS/Year/4 animals			**80480**	**99900**	**99900**	**99900**	**99900**	**77460**
Income per month			**6707**	**8325**	**8325**	**8325**	**8325**	**6455**