https://doi.org/10.29321/MAJ.10.A05020

Farming will never be a success unless the farmer had more voice in the disposal of his produce.—P. Morrel.

The
Madras Agricultural Journal

(ORGAN OF THE M. A. S. UNION)

Vol. XIX] AUGUST 1931 [No. 8

COST OF REARING CATTLE

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The ryot in India like his brothers in the rest of the world has always been an experimenter. While in the temperate climates the farmer has to work under severe winter conditions, the ryot here has equally great or perhaps greater difficulties to face during the hot summer and drought periods. All his work is one long experiment; the weather conditions should be favourable, his ploughings and general cultivation and manuring should be complete in time for sowing, and when he has sown, he is at the mercy of the weather. The severity of the test may be considerably lessened in those parts of the country where water-supply is abundant.

Having once grown his crop, he is then faced with the problem of marketing. He is generally indebted to the village money-lender who demands payment when the ryot is not able to dispose of his produce with advantage. If he had facilities with regard to loan from co-operative societies he is temporarily saved and can store his produce until such time as when he can realize the price he wants. Under the present general economic depression, however, even this prospect is lost to him.

Under these conditions he is faced with a problem of which he is the best judge and he alone can solve it. To begin with, he has to decide if he should grow the crop he has hitherto grown. If he does not wish to, can he grow another which would suit his conditions, and pay? In places where only one kind of crop, like rice, can be grown, it may not always be possible to work out a suitable rotation. When such is the case, what is he to do? When there is surplus of food-stuffs and there is no prospect of selling them at a profit in the near future the only thing to do is to feed them to cattle and convert the products into animal products and a useful manure. In other words, give more attention to animal husbandry.

In the best method of animal husbandry, as much home-grown food-stuff as possible is used for ration, and the farmer who does this at a low cost will realize the highest profits. It is very doubtful if the average ryot knows accurately the cost of growing the various crops and which of them really show profit. With cattle breeding, the ryot will be in greater ignorance as to the cost of rearing cattle. The purpose of this communication is to put forward what it actually costs to rear either a bull or a heifer until the animal is mature. Cost of rearing is worked out for the Kangayam, Scindhe and the Ongole, and the figures apply to conditions at Hosur. The animals get the best attention in every way, and the cost of labour is not high. If the ryot can produce well-bred animals at a cost lower than that at Hosur and show profit in his transaction, he may congratulate himself.

The rearing period of the animal is divided into three stages: Suckling, Yearling and Heifer or Young Bull. Suckling state is dependent on the lactation of the dams. Taking the average length of lactation, it is noted that there are marked differences in the breeds varying from 6 to 11 months. The next stage extends for a year, and in the third period there is variation depending on breeds. The maturity of the animal is arrived at by noting when the heifers first come to heat, or, in the case of bulls, when they begin to serve. In order to compare the cost of rearing for different breeds for a given period, cost of rearing has also been worked out for 2½ years in each breed.

TABLE I

Cost of rearing an animal to maturity

Breed	Heifer		Bull	
	Age at maturity	Cost	Age at maturity	Cost
		RS		RS
Kangayam	2½ years	210	2 years 8 months	290
Scindhe	2 years 4 months	270	2 years 11 months	375
Ongole	2½ years	300	3 years	385

TABLE II

Cost of rearing to a uniform age of 2½ years

Breed	Heifer	Bull
	RS	RS
Kangayam	210	280
Scindhe	280	320
Ongole	300	330

A table detailing items of expenditure in rearing is shown below :—

TABLE III

Cost of rearing a heifer and a bull up to 2½ years

Ongoles and Scindhes

Items of expenditure	Ongoles				Scindhes			
	Suckling stage, 9 months	Weaned stage, one year	Heifer, 9 months	Bull, 9 months	Suckling stage, 7½ months	Weaned stage, one year	Heifer, 10½ months	Bull, 10½ months
	RS A	RS A	RS A	RS A	RS A	RS A	RS A	RS A
Milk	147 0	...	...	...	129 0	...	...	...
Concentrates and bulky food	23 6	40 0	28 2	56 4	19 4	40 0	32 13	65 10
Grazing	2 12	13 8	20 4	20 4	2 4	13 8	23 10	23 10
Attendance	1 14	3 0	3 12	7 2	1 9	3 0	4 6	8 5
Housing	1 5	2 8	2 7	3 0	1 1	2 8	2 13	3 8
Veterinary charges ...	0 12	1 0	0 12	0 12	0 10	1 0	0 14	0 14
Sundries	1 8	2 0	1 14	2 4	1 0	2 0	2 3	2 10
Total ...	178 9	62 0	57 3	89 10	154 12	62 0	66 11	104 9
			297 12	330 3			283 7	321 5

TABLE IV

Cost of rearing a heifer and a bull up to maturity—Ongoles and Scindhes

Items of charges	Ongoles				Scindhes			
	Suckling stage, 9 months	Weaned stage, one year	Heifer, 9 months. Up to maturity (2½ years)	Bull, 1 year and 3 months. Up to maturity (3 years)	Suckling stage, 7½ months	Weaned stage, one year	Heifer, 8½ months. Up to maturity (2 years and 4 months)	Bull, 1 year and 3½ months. Up to maturity (2 years and 11 months)
	RS A	RS A	RS A	RS A	RS A	RS A	RS A	RS A
Milk				...			...	...
Concentrates and bulky food				93 12			26 9	96 4
Grazing	Same as above			33 8	Same as above		19 2	37 14
Attendance				6 14			3 8	12 4
Housing				5 0			2 5	5 3
Veterinary charges ...				1 4			1 0	1 4
Sundries				3 12			1 12	3 12
Total ...	178 9	62 0	57 3	144 2	154 12	62 0	54 4	156 9
			297 12	384 11			271 0	373 5

TABLE V

Cost of rearing a Kangayam Heifer and Bull up to 2½ years

Items of charges	Kangayams							
	Suckling stage, 6½ months		Weaned stage, one year		Heifer, 11½ months		Bull, 11½ months	
	RS	A	RS	A	RS	A	RS	A
Milk	109	0	...		...		...	
Concentrates and bulky food	14	14	14	0	12	0	71	14
Grazing	2	0	13	8	25	14	25	14
Attendance	1	4	3	0	4	9	9	0
Housing	0	15	2	8	2	7	3	11
Veterinary charges ...	0	10	1	0	0	15	0	15
Sundries	1	0	2	0	2	7	2	14
Total ...	129	11	36	0	48	4	114	4
					213	15	279	15

TABLE VI

Cost of rearing a Kangayam Heifer and Bull up to maturity

Items of charges	Kangayams							
	Suckling, 6½ months		Weaned, one year		Heifer, 11½ months. Up to maturity (2½ years)		Bull, 1 year & 1½ months. Up to maturity (2 yrs. 8 mths.)	
	RS	A	RS	A	RS	A	RS	A
Milk							...	
Concentrates and bulky fodder							75	0
Grazing							30	0
Attendance	Same as above						10	12
Housing							4	8
Veterinary charges ...							1	2
Sundries							3	6
Total ...	129	11	36	0	48	4	290	7
					213	15	290	7

Details of calculation.

Milk fed to a calf is taken as an average of 6 lb. per day and the cost at 1½ annas a lb. This item has been found the costliest of all.

2. The cost of concentrates and bulky food is the actual extracted from the Cattlefood statement, but fodders have been valued at their cost of production.

3. Grazing charges have been fixed by noting the quantity of grass consumed by an adult animal per year from the register maintained for the purpose and by calculating the value thereon. For a suckling calf and an yearling, ¼ and ½ the rate, respectively, of an adult has been considered adequate.

4. Attendance charges are the actuals worked out from the coolies' muster.

5. Housing is an item the cost of which cannot be easily arrived at. Stables designed for Military horses, have provided accommodation for cattle and the cost, if worked out, would be an exaggerated figure. To get an equitable rate, calculation has been based on plinth area occupied by an animal and the cost worked out at Re. 1 per sq. foot. The interest on capital is charged at 5 per cent and the depreciation at 2½ per cent.

6. The Veterinary charges are the actual cost of medicine used and coolies engaged in the hospital. The cost works out to Re. 1 per animal per annum.

7. Under Sundries a rough figure, Rs. 2 to 3 per animal per year, has been put. This item consists of the cost of buckets, feed troughs, chains, ropes and miscellaneous articles, leave wages to attendants, extra charges in inoculating animals, etc.

From the statement it will be noticed that :—

(i) The heifers mature earlier than bulls. Kangayams and Ongoles heifers mature at 2½ years while Scindhes take a slightly shorter period.

(ii) Kangayams cost least and the Ongoles most.

(iii) The cost of milk fed to calves forms the heaviest item of expenditure.

From our observations it is clear that the average ryot does not keep accounts systematically and is not sure whether or not his industry really pays. He mainly goes by the market prices and is unable to say if the cost of production is really low enough to make the commodity he sells, pay. If he maintains costings there is little doubt that he will soon realize which department in his industry is paying. So far as cattle breeding is concerned he will find out that animals graded by pure bulls would fetch a better price than those bred by the 'scrub' bull. He will also find out that there are many items of expenditure like grazing, doctoring, depreciation of animals, etc., which he has not included in the cost of rearing animals. When he works out the cost of rearing animals on the lines detailed above, he will soon find out if his method of rearing pays.

'NORTHERNS' COTTONS

I.—THEIR HISTORY AND PRESENT POSITION

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A. *Topography of the tract and the habitat of types.*—Circumvented by the Veligondi Hills—that part of the Eastern Ghats bordering Nellore and the two inland districts of Cuddapah and Kurnool—by the Uppalapad Plateau which is an outspur of the Mysore Tableland in the south-west of the Kurnool District, by several bosses west of the Handri valley in the Pattikonda Taluq, by Tungabhadra in the north till Sangameswaram and the Kistna in continuation after the confluence, lies the 'Northerns' Cottons Tract, rich in long stapled cotton, amongst the indigenous types of the Peninsula. It comprises chiefly Kurnool District excepting a portion of the Pattikonda Taluq, Cuddapah District, and a portion of Anantapur. Nandyal, Kurnool, Proddatur and Tadpatri are the important centres of the tract. According to the Report of the Indian Cotton Committee, 1919, the estimate of area and output of 'Northerns' is 439,000 acres and 65,000 bales (each of 400 lb. of lint) respectively. But groundnut, in its expansion, taking a portion of the extent under cotton and the prohibition of rail-borne cotton from beyond Tarlupadu (on the Guntakal-Bezwada line of the