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THE COST OF MILK PRODUCTION AT HOSUR AND MADRAS CITY

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It is not necessary for us to impress on the readers the importance of milk as a human food. Though consumption of milk *per capita*, in this country, cannot be compared with that in Sweden, Denmark, England or America, general requirements are becoming gradually, but very slowly, higher. The increase in travel mainly due to the bus service which connects remote places has considerably increased the number of coffee shops and hotels. These eating places have in turn created a demand for a regular supply of milk. This demand, be it noted, is in addition to the usual demand in the cities, towns and villages for general daily household requirements. Though there is a definite demand for milk, it is, however, to be regretted that there is no strong public opinion for the production of clean milk.

When there is demand for milk there appear milk-vendors to satisfy this demand. From the point of view of milkmen as well as of the consumers the transaction depends mainly on costs. The producer wishes to sell his product at a small profit over the cost of production, while the consumer wishes to purchase his requirements at as low a price as possible. We decided to work out the cost of production of milk at Hosur and Madras in order to find out if the dairy industry in this presidency is really paying.

The prevailing conditions at Hosur except for the lack of sufficient rainfall are suited for cattle breeding. The main function of this farm is cattle breeding so as to raise high-class bulls for sale to the ryots. Incidentally a large quantity of milk is naturally produced and it is fed to the calves so as to produce the kind of animals we have.

The stock consists of Crossbreds, Scindhes, Ongoles and Kangayams. In finding the cost of upkeep for dairy cows, both their lactation and dry periods have to be taken into consideration. These periods, being different in the different breeds, render the calculation difficult. However, an average has been worked out to get the ratio of milch to dry cows, taking all the breeds together. It is found that, for the year 1930–31, out of a dairy herd of 140 cows, 74 were in milk and 66 dry. The cost of milk production, as detailed below, has been arrived at on the basis of the above herd and by collecting data from various registers maintained on the farm.

THE COST OF MAINTAINING 140 COWS CONSISTING OF 74 MILCH AND 66 DRY FOR THE YEAR 1930–3

Items of Expenditure.

	Amount Rs.	A.	P.
Concentrated and bulky food	13,800	5	7
Grazing	3,640	0	0
Attendance including Maistries, Milkmen, Herdsmen, Water-carting, Fodder-carting, etc.	2,973	0	0
Housing (1½ per cent depreciation on the value of buildings, *viz.*, Rs. 38,000)	570	0	0
Depreciation at 15 per cent on the value of cows, i.e., Rs. 23,875	3,581	0	0
Veterinary charges	140	0	0
Cost of maintaining three breeding bulls	430	4	8
Assessment on 280 acres of land at Rs. 1–8–0 per acre...	420	0	0
Sundries : chains, buckets, feed troughs, etc. ...	560	0	0
Total ...	26,114	10	3

Receipts.

	Amount Rs.	A.	P.
74 Calves at Rs. 5 each	370	0	0
Dung at Rs. 9 from an animal per annum	1,260	0	0
Total ...	1,630	0	0

Milk produced 2,61,366 lb.

Deducting the value of calves and dung from the cost of upkeep it would be found that to produce a quantity of 2,61,366 lb. milk the farm has incurred an expense of Rs. 24,484–14–3. This works at Rs. 0–1–6 a lb.

It has already been noted that the stock at Hosur consists of Kangayams, Ongols, Scindhes and Crossbreds. If Kangayams, except for the few good milkers, and poor milkers in other breeds had been eliminated, as would be the case under proper dairying conditions, the cost of milk production would considerably be lower. Nevertheless, despite a very limited demand for milk in the locality the farm does not lose on the sale of milk. It must however be added that the cost of management, that is, pay of officers and ministerial staff has not been taken into account. This has been left out, for it would not be quite fair as the staff on the farm is not meant for dairying alone as there are other aspects of animal husbandry involved. From the commercial point of view however, the less the overhead charges the better. Again, it has to be pointed out for reasons already stated that the dairy equipment is not up to date. The cost of putting up the refrigerators and sterilizers would naturally add to the cost of production, but it would result in producing the cleanest milk possible, which is most necessary for building the nation.

It would now be interesting to follow the method adopted by the Madras City milkmen. We do not wish to go in length with regard to general conditions concerning this trade as Mr. Krishnan Nambiyar has

detailed elsewhere (November 1931 issue). Briefly the average common milkman of Madras has no proper stabling under hygienic conditions. He purchases cows in milk, kills the calf by starvation and sells the cows as soon as they become dry. His method of marketing is to milk the cows in front of the customers' door in the street. When customers are not particular he milks the cows at his house and distributes the milk rarely without adulteration. In his trade he often sells buffalo milk adulterated with water as cow's milk. It may be added incidentally that most of the cows sold do not generally return to the villages nor are they maintained during the dry period for re-sale to the owner. Generally they are purchased by the butcher.

COST OF MILK PRODUCTION BY THE MADRAS MILKMAN

Expenditure.

				RS.	A.	P.
Cost of 3 Ongole cows giving about 2½ measures on an average for 10 months lactation at Rs. 150 each			...	450	0	0
Interest on Rs. 450 for 10 months at 12 per cent.			...	45	0	0
Cost of ropes, utensils, etc.	...	...	...	5	0	0
The milkman's wages for 10 months at Rs. 15 per month.				150	0	0
License fee on 3 cows	...	...	...	5	0	0
Rent on stalls for 3 animals for 10 months at Rs. 2 per head per month	...	...	...	60	0	0
Cost of feeding 3 cows for 10 months :						
Per day :—						
				RS.	A.	P.
Gingelly cake 3 vis. at 8 vis. per rupee	...		0 6 0			
6 measures wheat bran at 18 measures per rupee	...	...	0 5 4			
6 measures Bengal-gram husk at 18 measures a rupee	...	...	0 5 4			
Redgram husk at 20 measures a rupee	...		0 4 10			
Salt	...	...	0 0 6			
4½ twists of paddy straw	...	...	0 4 6			
Total per 3 cows per day	...	...	1 10 6			
Total for 10 months or 300 days	...		496 14 0	496	14	0
Unforeseen expenses	...	...		3	2	0
Grand Total	...			1,215	0	0

Receipts.

Selling price of 3 cows when dry	...	...		150	0	0
Cost of raw dung of three animals for 10 months at Rs. 5 per head per month	...	...	...	150	0	0
Total	...			300	0	0

The average quantity of milk produced by 3 cows during the period at 2½ measures per head per day : $2\frac{1}{2} \times 3 \times 30 \times 10 = 2{,}250$ measures.

The cost of producing 2,250 measures of milk is Rs. 1,215 *minus* 300, or Rs. 915.

Cost of one measure of milk is Rs. 0-6-6. (One measure is 4 lb.).

The sale price of one measure being Rs. 0-8-0 the profit is Rs. 0-1-6 per measure.

From the above figures it will be noted that the milkman does make a profit. It must however be remembered that in most cases, excepting rich owners and contractors, the milkman has no reserve in case of animals dying of disease. Again the milk yield given here is a conservative estimate. In practice, it is doubtful if the average cow gives the expected quantity, for the milkman in his anxiety to make large profits does not feed his stock as well as he should. Again, if the cows are well stalled and milking is done and preserved under hygienic conditions, the milkman is likely to make very little profit, as the cost of production would naturally be higher. As matters stand, if the Madras City milkman produces really clean milk, the price of milk is likely to go up.

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WHY IT IS CHEAP TO MAINTAIN A HEAVY MILKER

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General condition of cattle management in this country indicates that no selection is made strictly from the utility point of view. Sentiment very often without rational reasoning affects animal husbandry. It is common knowledge that a vast number of cattle including buffaloes and sheep are not worth their keep. Any traveller will notice how indifferently our cattle are maintained. The ryot does not yet, despite the continual depression in the economics of the country, understand the value of keeping a productive animal. Again, we have Pinjarapoles for the weak and old animals when there are thousands of useful animals starving in the country. It would be far more useful for Pinjarapoles to buy up young and useful dry cattle meant for the slaughter houses and maintain them during the dry period and sell them back to milkmen. In the interest of the country it would be very useful and humane to kill all useless animals by the humane method instead of starving the cattle to death.