

Some Notes on Economy in Dairy Farming.

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RECENTLY the question of the milk supply in Ceylon generally, and in Towns in particular, has been receiving wide attention. Generally speaking, Up-country, in the Planting Districts, the supply of milk—its cleanliness and wholesomeness need not now be discussed—is plentiful. But, Up-country, Dairy farming is more or less incidental to either cattle breeding, or keeping cattle for manure. In Towns, where Dairies are run purely for the supply of milk, the supply is inadequate. The reason seems to be that those Dairies which do not draw a fair percentage of their profit from the local water supply are found, after a time, to be run at a loss. The causes which contribute towards the losses sustained in Dairy farming do not appear to have been investigated, and it is thought that some notes which might clear up a few of the problems which the dairy farmer has to solve would be of interest.

If, in an ordinary business, a proper system of accounting is necessary, it is very much more necessary in Dairying, and the system must, of necessity, be more elaborate than the simple keeping of a Cash Book, Journal, and Ledger. While it would be quite possible to shew from these three books that either a profit or a loss is made, they will not help the farmer to learn whether the profit can be increased, or the loss converted into gain. To learn this it is essential that two records—the Milk Record, and the Food Record—be kept daily, and a statement of costs drawn up once a year.

Before saying anything about the two books mentioned above, it would be well to pay some consideration to the rearing of young stock, which is an inevitable part of Dairy farming. It is obvious that rearing young stock is necessary for one purpose, and one purpose only—to supply the farmer with his future herd. If the cows he raises are worthless, then he is doing bad business. Unless he keeps a very careful account of his expenditure on rearing calves, and gets his young stock valued periodically, he will not know whether he is investing his money wisely or not. He must realize that to rear a heifer that will not develop into a good paying cow is a waste of money, and to rear a bull that will develop into nothing but a scrub is useless. The milk that is fed to

a calf before it is weaned will bring in, if sold, quite a large sum of money. Within three months a calf will consume somewhere in the neighbourhood of a hundred gallons of milk, which if sold in Colombo, will bring in over Rs. 250·00. It must be very obvious that no cross-bred bull of that age, raised in a Dairy, is worth more than a tenth of that sum. To deliberately throw away as large a sum as Rs. 225·00 in three months on rearing a perfectly useless animal is very little short of criminal folly. It is far more economical for the farmer to kill and bury his bull calves, and worthless heifers than it is to rear them and allow them to eat up profit that rightly belongs to him.

The rearing of young stock is an investment pure and simple. It is as much an investment as buying a cow. The expenditure incurred in rearing calves should therefore be a Capital charge. If, when the stock is valued, there is a difference between the actual value and the amount spent on them, this should be written off as a loss if the expenditure is the greater, or added as a profit if it be less. When a heifer calves and comes into the milking herd, the young stock account should be credited with her value, and the herd account debited. It is very necessary to keep a very careful account of expenditure on calves, as unless this is done it would be quite easy to let a lot of useless calves eat up all, or more than all, the profit earned by a herd of good cows.

It is essential to keep a record of the daily yield of every cow in the herd. (It may be stated in passing that this record should not be kept in bottles. Bottles vary in size, and it is never clear what is meant precisely when quantities are spoken of in "bottles." Besides, the froth makes it well nigh impossible to measure milk accurately. The best system is the one adopted by every Dairying country in the World—the system of keeping the Milk Record by weight. For all practical purposes it is quite sufficient to calculate the yield at ten pounds to a gallon.) From this record the farmer can draw many inferences. He will know which cows' heifers are worth keeping. He will be able to work out his cost of production per gallon, and per cow. He will have a very sure indication of the health of his herd, since one of the first symptoms of illness in a cow is a drop in the milk yield. Above all, he will be able to raise the average yield of his herd, which is one of the greatest factors in the economical production of milk.

Perhaps the most prolific source of trouble from a financial point of view is caused the farmer by wasteful feeding. In Dairy farming it is obvious that the food given must find its way into the milk pail. If it eventually goes into the manure heap it is wasted. There is only one way of being economical in feeding Dairy cows, and that is by feeding according to the yield. A ration that is properly balanced as regards albuminoids and

carbo-hydrates is a *sine qua non*. The question of well balanced rations cannot be discussed here, but as an example of where waste may easily take place it might be stated that if a deficiency of albuminoids is fed the cow will have to draw on her body for nitrogen, and will lose condition, with the result that her yield will diminish. A deficiency in carbo-hydrates can be made good by feeding an excess of albuminoids, but this is wasteful, as the latter are very much more expensive than the former. If no excess of albuminoids is fed to make up a deficiency in carbo-hydrates, then the cow will draw on her body for albuminoids, which will be split up, the nitrogen being excreted as ammonia, while the residue will supply the deficiency in carbo-hydrates. It will be seen that a deficiency in both albuminoids and carbo-hydrates have the same result—the depletion of albuminoids stored in the body of the cow, with resulting loss of condition and diminution of yield.

Unless an efficient system of costing is adopted there is a danger that the farmer may keep several "thieves" in his herd—cows who will rob him of profit that is legitimately his. The profit made by the whole concern—even the profit per gallon—is not sufficient. The farmer must know what share each cow in his herd is paying towards the total profit, or whether he is keeping any cows which are causing him a loss. Since the quantity of food given to each cow will vary as her yield, it would not be possible to obtain the requisite degree of accuracy by averaging the expenditure on food. A daily record of food given to each cow should therefore be kept, and the value calculated at the end of the year. All other expenditure, which should include depreciation in value of the herd, and any loss in rearing calves, may be averaged. A statement can now be drawn shewing the actual expenditure on each individual cow in the herd. The total income from sale of milk, and all its products, divided by the total recorded yield will give the actual average selling price per gallon. Since the yield of each individual cow has been recorded it would be quite simple to calculate what gross income each cow has given, and the difference between this and the expenditure will shew the profit or the loss made by each cow for the year.

Unless some system as indicated above is adopted it would be impossible for the farmer to know whether he has any cows in his herd who are not worth their keep, and it should be obvious that without this knowledge it would be dangerous in the extreme to attempt to carry on a Dairy business. One often hears it said that Dairy farming is not a paying proposition, and there can be very little doubt that those who embark on the business without any proper system of accounts or costs will come to grief. If, however, a Dairy is run on proper, commonsense business lines, there is no reason, whatsoever, why it should not pay quite as good a dividend as any other paying concern.