

# Problems of the Dairyman

*Tuberculosis --- The Dairy Barn --- Milk Prices too Low --- Milking Machines --- Feeds*

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All lines of effort dealing with production are facing special problems at this time. The ranks of the producers have been drawn upon to fill the ranks of those who fight that men who stay may have freedom to produce. Both ranks of men, those at the front and those on this side, are facing new problems, new hardships and new responsibilities. It should not be said of those who form the home-ranks that they have weakened under the fire of these problems.

German guns are said to have sunk over three million pounds of cheese in the first two weeks of January. Production must take into account these losses, meet them, and in addition, produce foods in quantities never before equalled.

The problems presenting the most serious difficulties are those of food and labor. The problems of housing, the combatting of diseases, and the fact that dairy products have more or less of a competitor in oleomargarine, are questions of somewhat minor importance at the present time, but still merit the earnest consideration. Briefly, let us discuss the minor problems first.

I consider that we made a national blunder in permitting the sale of oleomargarine in Canada. The food value of this product is so decidedly inferior to that of butter in the nourishing qualities it contains, that those families who consider that the pressure of necessity compels them to use this substitute, will do so to the detriment of the health and mental well-being of the young people who are growing up in these homes. It is to be expected that this product will not compete with anything but low-grade butter, and since Alberta has the reputation of making very little of this class of goods, oleomargarine will hardly be a serious competitor, in a discriminating market. As a menace to the dairyman it may prove nothing but a shadow. Its introduction is unfortunate more from the standpoint of the consumer than that of the producer, though it is bound to be injurious to both classes. It is to be hoped that in the interests of the good health of the nation that this product may be withdrawn from Canadian markets as soon as the war closes.

## A Zone System to Combat Tuberculosis

We must in time face the question of tuberculosis in Canadian herds. I have sometimes thought that the question might be dealt with by dividing this province at least, into zones, that importations to and exportations from these zones should be made only under test, that in time, the whole of the province could be included and cleared of the disease by the gradual multiplication of the healthy zones. It is admitted to be a big task to clear an entire province at one time, but if the work were undertaken in this way I do not see why the disease could not be gradually eliminated.

Whether this scheme would work in practice is not so much the question as it is that some plan should be evolved for the handling of this disease so that we may look forward to a future in which the health of the human population of the province is not menaced by diseased herds. We have been paying too little attention to the health of the family and relatively too much to the health of the animal. A visitor to a southern town was remarking on the fact that a number of houses along the river were set up on posts to provide for the possible rise of the stream. As he walked along he came to one particular house where the area underneath was enclosed for three feet along the ground with boards nailed to these posts, and going over, he found a large number of hogs in the enclosure under the dwelling. The owner was asked as to whether he did not believe that this practice of housing hogs beneath the residence was unsanitary, to which he replied, "No, I've kept hogs under this house for the last eleven years, and there has never one of 'em been sick."

It is a difficult matter to build a dairy barn that is at once economical, sufficiently warm for winter, and well-ventilated. The term economical must not be interpreted to mean low cost, but to convey the idea of being as low in cost as is consistent with the securing of the other requisites necessary to maximum production of the herd housed in the building. The two-story barn, with storage provided for food above the cows, is the most satisfactory type of building. The ceiling of the first story should not be too high, and the ventilating system capable of being regulated so that the intake of air may be fully controlled. The ventilating shafts carrying out the foul air should be double-boarded, with paper between, so that the out-going warm air will not cool too quickly, causing the formation of frost and the gradual filling of the ventilator shafts with frost during protracted periods of cold. Concrete floors, steel fixtures, and plenty of room behind the cattle are items which add to the initial cost, but which contribute to permanency, cleanliness and reduction of the labor cost in the handling of the herd. It is not to be doubted that the cost

same labor. It is a fact, however, that frequently an enquiry into the methods in vogue will make clear to the owner certain changes in method which will reduce labor without detracting from efficiency. Every operator should enquire of himself as to whether there are not some changes in his system which might be introduced that would effect a saving in labor.

## Efficiency and Cost of Milking Machine

The mechanical milker should receive the consideration of every dairy farmer who is handling fifteen or more cows. The Experimental Farms System has been carrying on experiments for several years at the Central Farm at Ottawa, with various makes of mechanical milkers, and have reached the conclusion that a saving in labor of from thirty-five to forty per cent. may be effected by the use of such a machine. It has been estimated that the cost of hand-milking is 7.2 cents per cow per day where men are paid 25 cents per hour. The cost of machine-milking has been placed at 4.5 cents per cow per day, labor being valued at the same rate, and having allowed for the running expenses of the machine.

The average cost of installation, taking into consideration several of the most popular of the machines on the market, would average about \$500 for an outfit capable of milking four cows at once, and a herd of from twenty-five to thirty cows. These figures would place the cost of installation at from \$16.00 to \$25.00 per cow, depending upon the size of the herd. The smaller the herd the larger the cost per head to install. Given a man with an interest in his work, the machines are proving very efficient and the results, as far as the cattle themselves are concerned, have been entirely satisfactory.

The question of pasturage is important. Cultivated grasses increase the acre-carrying capacity of land at least one hundred per cent. The following varieties of grass are recommended: Kentucky blue grass, brome grass, western rye grass, and a combination of timothy and alsike clover. In most cases in Central Alberta

these grasses may be seeded with a nurse crop, preferably barley. In Southern and South-eastern sections no nurse crop should be used.

Western rye grass, brome grass, and timothy and alsike combinations make good hay for winter use. If it is cut when in the late milk or early dough stage and cured as greenfeed oats make excellent fodder for winter use, while the same crop cut into the silo at the same stage of development will produce silage of excellent quality. The quality can be still further improved by adding peas to the seed mixture in the proportion of one bushel of peas to two of oats to the acre. This crop has produced yields of from eight to twelve tons per acre, and the fodder has enabled us to reduce the cost of producing a pound of butter by about twenty per cent. as compared with the same fodder cured as hay. Fortunately our province produces large crops of oats and barley, and these grains, particularly oats, can be used with satisfactory results as the main concentrated ration for dairy cattle, feeding one pound of grain to every four pounds of milk.

## Importance of Good Breeding

Constant improvement in the herds of the West can be effected only by the use of good sires. If good blood is consistently used in the herds of dairy cattle we should be able to increase the average production per head by fifty per cent. in ten years.

In closing, let me point out that the dairy industry is one of the most important branches of agriculture at the present, and for all future time. This importance is two-fold: The need of increased dairy production in the present emergency cannot be denied, and the place that dairying will play in the upbuilding of the manhood and womanhood of the nation is greater than is generally recognized.



The question of the best pasture is very important. Cultivated grasses increase the acre-carrying capacity of land at least one hundred per cent.

of building will be lower later on, and those men who find their equipment, even though not fully satisfactory at the present time, yet capable of being adjusted to such an extent as to make possible the efficient handling of their herd, will be well advised to make these necessary adjustments, delaying temporarily the construction of more elaborate building accommodation.

## Milk Worth More than it Sells At

Sound business sense demands that any line of endeavor shall offer fair profits before attracting capital and labor investment. Dairying has not offered sufficiently attractive inducements in the way of profits in recent years to warrant very increasing investments in this branch of animal husbandry, in competition with other lines of agriculture. Milk is the cheapest and most nutritious food on the market to-day. I am not suggesting that the price of milk to be raised to such an extent that it would be even on an equal basis with other foods, but that the price of milk and its products be advanced in order that the profits resulting to the dairyman would be such as to attract larger investments, and so increase production.

The cost of the nutrients in milk at the prices at which it is being retailed to-day are away below the cost of nutrients in steak, salmon and chicken, and would permit of some equalization without injustice to the consumer. Milk at twelve cents per quart represents 699 calories of heat; steak at thirty-five cents per pound represents 280 calories; salmon at twenty cents per pound represents 300 calories, and chicken at thirty-three cents per pound represents 283 calories of heat.

When men are working to what they consider their full capacity, no one receives much thanks for suggesting an increase of output with the