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AND RURAL HOME

The Recognized Exponent of Dairying in Canada

Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land—Lord Chatham.

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Three Factors That Make Dairying a Success

As Defined by Professor J. M. Trueman, of Nova Scotia Agricultural College

TAKE it there are three things necessary for the production of milk. You may be surprised at the one I put first. It is not the cow, it is not the feeding of the cow. It is not the feed which the cow eats. It is not the cow herself. It is the dairyman. Now, it is important to have a man who thinks and a man who has stored away in the cells of his brain knowledge that he has built up by years of work in the proper handling of cows. You may say, never mind about the man, give us some great cows like the ones in the barn at the Agricultural College and I will get the milk no matter whether I ever saw a cow before or not. You will not do it; you will ruin her in six months or milk her so that she won't produce half as much as she should produce. It is the man who handles the animal who must have the knowledge and that is where we come back to every time.

I remember a man whom I once knew who was driving a stage coach. About every other day that man would get mad and give the horses a kicking and would keep them in a nervous condition so that they were never able to do the work and nobody was ever satisfied. It works the same with a cow. The man who, every time the cow does not do just as he wishes, remonstrates with her with the stool, is not going to make a success.

I used to wonder what the man who drove the stage coach was good for and used to say that he was good for nothing. However, eventually we found a place for him, running a gasoline engine. When the engine did not work right, it was no good for him to beat it. He could not make anything by getting mad at the engine so he kept cool and used his brains. So if you have a man who cannot keep his temper, give him a tractor.

We have the man first, the cow second and then the feed to give her. These are the three important things.

Grade Cows Advisable.

Let us consider the cow as to her breeding. You might get a pure-bred cow that would sell on the market at from \$400 to \$500, but this is not the kind of cow you want to give best results. I have seen many men ambitious to get into the breeding of pure-breds. I would not give this advice. One or two here and there who have had the experience, have the capital and the ambition can make a success of pure breeds to furnish the foundation stock to use with a grade herd. In this province the greatest improvement in the dairy herds will be made by the use of pure-bred stock, and in buying a pure-bred sire care should be taken to study up his ancestry. Too many bulls are sold simply because they are pure-breds and not on account of their record.

It is the work of the Agricultural College to build up a herd which will provide pure-bred sires for the grade herds of the province. You will never get any sympathy from me if you come to buy pure-bred females, unless I recognize that the man has the ability to go ahead with the pure-bred business in the best case I am glad to do what I can for him. What we can do for Nova Scotia is to get the best females to be found and sell their sons to improve the herds

all over the country. This is the work which the best breeders of pure-breds are doing.

These bulls should be taken good care of and be used for a number of years. A man told me to-day that he had to sell his Ayrshire bull, because he was getting cross, and he was only three years old. If he was a good bull, he was just throwing him away as bad as breeding was concerned.

If you get a good bull and breed to grade cows, the next generation will be more than half as good again as their dams. In the second generation you will use the same bull on the 50 per cent heifer, this generation will be 75 per cent pure. The next time you may use another bull just as good, preferably bred along the same lines in an endeavor to get a definite strain of blood introduced into your country. In this way you will get the progeny 87 per cent pure.

So by buying a bull of the right kind and using him on these grade cows and keeping this up for five generations, which means 10 or 12 years' work, you have your herd 98.75 per cent of the right blood.

to find enough to go around and we have to use the poor ones.

I do not want you to think I am opposed to the right man going into the breeding of pure-bred cattle, but I will say that the general farmer who is producing milk is better off with this kind of stock than he is to try to breed pure stock. Even if they do sell at a high price there is nothing in it in the money way and you had better leave it for the men who have time, ability, capital and a chance to keep posted on it.

We would soon crowd out the breeder who was not giving us the best of stock if we did not kill the bulls off so much. A man came to me to-night and told me the experience his society had had. First they bought a good bull which gave them good results; then they bought a poorer bull and he was not satisfactory; then they bought another and he was not satisfactory. Now they have come to the conclusion that they must go back to a good breeder and put more real money into a bull.

The Feeding of Cows.

I will just take time to very briefly impress upon you some facts in regard to the feeding of cows.

Just to keep a 1,000-lb. cow for one year, just to maintain her so she will do her work, just to pump the blood, just to keep her warm and enable her to move around would take 255 lbs. of protein and 2,892 lbs. of total nutrients. In order to produce 8,000 lbs. of four per cent milk, she will require 520 lbs. more of protein and 2,800 lbs. of nutrient. This will be supplied by 4,500 lbs. hay, 5,300 lbs. turnips, 428 lbs. of bran, 428 lbs. middlings, 214 lbs. oats, 428 lbs. cotton seed and five months' pasture. If you were to figure the cost of feed, it would be as follows:

Hay	.....	\$25.68
Turnips	.....	13.37
Bran	.....	8.56
Middlings	.....	10.70
Oats	.....	6.00
Cotton Seed	.....	12.84
Pasture	.....	10.00

\$97.54

When you give her 775 lbs. of protein and 5,692 lbs. of nutrient, you must remember that you have to feed her 225 lbs. protein and 2,892 lbs. nutrient to just keep her alive.

You will have to add for expenses \$60. Do not think that all it costs to keep a cow is to feed her. We have to add to that the labor which is equal to \$40 anyway, and then there are the various taxes, taxes, insurance, veterinary attention, bull service, etc., which will make a total of not less than \$60. The cost of keeping a cow is, therefore, \$150. If she gives 320 lbs. butter fat at 40c, the returns are only \$128. Add to this skim-milk, manure and calf and there will be a small profit. I would call your attention to the fact that it takes as much for the actual maintenance of a cow giving 4,000 lbs. as for a cow giving 8,000 lbs. This would be a good thing to impress upon your patrons' minds. Make them understand that a cow giving 4,000 lbs. milk costs as much to maintain as a cow giving 8,000 lbs. It costs so much to maintain an ordinary cow, that you cannot possibly make anything out of her.

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What Physicians Know About Butter

By E. W. SIMMONS

THE other day I stopped a local physician on the street and said to him, "Doc, what do you know about butter?" "I know a lot more than I did a few weeks ago," he replied. "I had children in three different families under my care who were not doing well. Nothing specific was the matter with them, but they were not growing, not developing the way they should. In the first case I prescribed certain medicine and, knowing that the child had not been drinking milk, also told the parents to give her plenty of milk and butter. There was such a decided change in the child within a week that I made up my mind it was not the medicine that was responsible. On investigation I found that the child previously had been eating butter substitutes, and I decided that the butter and milk caused the improvement. I then told the parents of the other children to spend their money for butter instead of medicine and doctor's fees, for in those other cases I found they had been using butter substitutes also. You ought to have seen those kids two weeks later."

At the Wisconsin Dairymen's Association last winter, I heard Miss Amery, of the University of Wisconsin, say in her address in the war hospital of what it was found that wounded soldiers who did not have milk and butter recovered but very slowly from their wounds. These same men given a liberal supply of milk and butter healed their wounds quickly.

Not only does the dairy cow produce food, not only does she produce a cheap food—indeed, perhaps the cheapest, not only are dairy products important as food for human beings, but, in the light of recent discoveries, we must look upon milk as the indispensable element in the dairy industry. There is not a business built upon some passing fancy or transient fashion; it is built upon the firm foundation of human need that will surely last so long as human nature endures.

Stick to One Breed.

In too many instances the breed is shifted. If you have been working on the Holstein and change to the Shorthorn you break down the work you have been doing. This is the story. I might talk here for a week and give lectures after lecture but I cannot tell you anything more about breeding. Improve your stock on the plan of "every time a little." Have every generation a little better than before.

One reason you get discouraged is that you do not get a bull good enough. The price is the smallest thing. When you pay \$200 for a bull you are a great deal more likely to take care of him. The trouble is that we do not buy good enough bulls. We buy poor bulls and after a year or two they are turned over to the butcher. We shift and shift and have not a chance to select as we have to use about all the bulls that are born from decent cows. If you would buy bulls and keep them for ten years, we would have to throw away the bulls that were not up to the highest mark but that is what we have to scratch around the country

An address to the cheesemakers and creamery men of Nova Scotia.