



It Welcomes Practical Progressive Ideas.

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 Chelmsford

VOL. XXXVII

TORONTO, ONT., JANUARY 24, 1918

No. 4

Suggestions on the Production of Butter and Cheese in 1918*

We Need Better Cows—Cheaper Feed—More Labor—More Economical Use of By-Products and a Higher Price for Cheese

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THE beginning of the year 1918 finds the world short on food and the people hungry as never before, because it is a peculiarity of humans that the shorter the supply of staples in the cupboard, the more hungry we become. Particularly short is the supply of butter, more especially in Great Britain, where butter has been selling for as high as one dollar per pound during the past year. Fats of all kinds are scarce, milk-fat more than all others, because of the slaughter of cows and lack of labor to milk and care for dairy cattle. There is no substitute for milk-fat. The action that relies on vegetable and animal fats other than milk fat, especially for children, has taken the first serious step in physical and mental degeneration. However, I am to deal with practical suggestions on the production of butter and cheese for the coming season.

The first one is that old one of better cows, which is at the basis of all increased production of dairy products. In these times, farmers cannot afford to feed poor cows. While we may not be able to breed very many cows which produce 100 lbs. of milk or over in 24 hours and 20,000 lbs. milk in a year; or make four to five pounds of butter in a day and 1,000 lbs. in a year, the fact that we have a number of such cows, and stimulate breeders to greater efforts than ever to produce these phenomenal producers, thus increasing the world's supply of milk fat, without increasing the number of cows and at the same time we shall be conserving the supply of feed.

The organizations which are doing most to improve the dairy cattle of Ontario are the Records of Performance and the Record of Merit for purebred stock and the Caw Testing Association for the owner of common cows or unregistered stock. These, coupled with private records are making gradual though slow improvement in the milk cows of Canada.

Cheaper Feed Essential.

The second suggestion which, like a good appetite, always remains with us, when in a healthful condition, is to secure more and cheaper feed for butter and cheese production. Cheap and abundant grass, softage, silage and root crops, with a reasonable quantity of grain and by-products, such as bran, oil cake and condensed meal are essential for increasing the production of butter and cheese. Liberal feeding of the right kind of feed is essential for increased production. Unfortunately the feed problem on many farms is acute. With the present price of grain and millfeeds the temptation is to lessen the quantity of these to a point below what is required for profitable production in winter time, as a certain amount of concentrated feed is essential along with roughage, to produce milk in large quantities. Large producers require about one pound of meal for three to five pounds of milk produced. The great importance of cheap feed is realized when we consider that approximately one-half the cost of producing milk is for feed.

The Labor Problem.

The third practical suggestion relates to a very acute problem on dairy farms, at the present time, namely, the labor problem. No class of farmers have been hit so hard as have dairy farmers in the present condition of labor. Many have sold their herds of dairy cattle and gone into other lines of farming because of help shortage. This condition is likely to continue for some time. The remedies which have been suggested are, to buy more dairy machinery, such as tractors, milking machines and cream separators; utilize women help; import foreign labor; conscript labor; and grow more help on the farm.

Not only is there a shortage of skilled labor on dairy farms, but the creameries and cheese factories of Ontario are like, to be short handed for 1918. This latter is fully as serious as the help problem on the dairy farms. Without our factory system of manufacturing butter and cheese, milk would be a drug on the market. While it is true that a considerable quantity of butter is still made on Ontario farms, and also some cheese, the quantity is lessening each year and likely to be markedly so from now on, as poor dairy butter will have to compete with ocomargarine and will have to be sold at imitation butter prices.

Labor demands may be summed up in six words—short hours, easy work, big pay.

Cheese Prices Must Advance.

If we are to increase or even maintain our present cheese output, the price of cheese must advance over the prices allowed by the Cheese Commission of 1917, which was 21 1/2 cents per pound for grade one cheese, at the port of Montreal. We have no hesitation in saying that there is no other near its food value as compared with the prices paid for meat and other protein carrying foods. The competition from milk condenseries is driving the cheese factors to the wall. Both patrons and manufacturers of cheese are having a serious time and something must be done to relieve the situation or our cheese trade, the result of over half a century of fostering care, will be out of existence in a few years. Some claim that the present condensed milk boom is only temporary. A leading American dairy journal recently said:—

The Food Situation

THE food situation in the Allied countries of western Europe is graver than has been at any time since the beginning of the war. Information has been received by the Food Controller which shows that the utmost effort must be made to increase spring acreage and to secure a much larger production of bread grains in 1918 than was done in 1917. Mr. Hoover has already pointed out that if ships have to be sent to more distant countries to carry food stuffs to Europe, fewer ships will be available to carry soldiers and supplies from this continent, with a result that the continued participation of the United States and Canada in the war will be greatly hampered.

The situation has been thoroughly canvassed, and among those who have studied it, there is unanimous agreement that the only solution of the food problem is greater production in North America. In this connection it is especially important that the spring acreage sown in bread grains should be as large as it can possibly be made.

Every person who can possibly produce food must do so, no matter how small his or her contribution may be. Those who cannot produce food, can be considered as consumers. The utmost economy is imperative. The situation today is critical and the world is rapidly approaching that condition when price will not be the most important question, but when even the people of Canada may be glad to eat any food which they can obtain.

The successful prosecution of the war by the Allies will depend to a very large extent upon the extent of food production and food conservation this year by the people of North America.

"We have no food product to-day that is in such great demand for export as is condensed milk, and the manufacturers can afford to pay prices for it that will drive the creamery and the cheese factory, with which the condensery competes, out of business. . . . One creamery has put in a part of a condensing outfit, and is selling the condensed product in bulk to another condensery which is canning it."

If the condenseries are allowed to pay the high prices which have prevailed during the season of 1917, then cheese manufacturers must receive at least 26 cents a pound wholesale for number one quantities paid \$2.85 per 100 lbs. for milk testing 3.5 per cent. fat for the month of November, 1917, and \$2.50 per cwt. for four per cent. milk. Milk testing 3.5 per cent. fat will make about nine and one-half pounds of marketable cheese per 100 lbs., and four per cent. milk about 10 1/2 lbs. cheese per cwt. One hundred pounds of three and one-half per cent. milk made into cheese which sells for 25 cents per pound would be worth \$2.17 1/2, which means that 17 1/2 cents would have to be realized for the by-product whey which is practically impossible if fed to calves or pigs. There is also the cost of manufacturing which would amount to 19 cents at two cents per pound of cheese. We can readily see that the cheese patron and cheese manufacturer are badly handicapped when competing with condenseries under present arrangements. It is not too much to say that number one cheese should sell for as high a price per pound as does number one beef or bacon.

The new slogan regarding prices to be paid for farm produce is, "Cost of Production, Plus a Fair Profit." Whether this is obtained by means of Government regulation or through cooperation and organization among farmers, makes little difference, but this principle carried into farm practice, means a new era in agriculture.

Manufacturing the By-product.

While live stock would no doubt suffer considerably if there were neither skim-milk nor buttermilk for calves and pigs, the fact that from 12 to 15 pounds of edible food, highly protein in character, may be made from 300 pounds of these by-products whereas it requires from 25 to 30 pounds skim-milk or buttermilk to produce a pound of calves or pigs, we see that considerable human food is lost by feeding these to pigs instead of converting them directly into food for humans. Assuming that a pound of skim-milk cheese is equal in food value to a pound of gain in pigs, 100 lbs. of skim-milk or buttermilk converted into cheese would be three as economical in the production of human food as feeding hogs on these by-products and by many would be considered cleaner and pleasanter work. Whether or not the consuming public is of this opinion remains to be tested.

To sum up—in order to increase the production of butter and cheese for 1918, more cows and better cows are needed, more and cheaper feed, more labor on dairy farms and in factories, or its equivalent in machinery, higher prices for the cheese produced in 1918, than was paid in 1917, and the manufacture of larger quantities of dairy by-products into palatable, digestible, merchantable food products for direct human consumption, rather than, through the agency of animals by which latter process a large part of the energy value and protein compounds of skim-milk and buttermilk are lost.

*The opposition to Chinese labor on the farms or in the factories of Ontario is overwhelmingly strong. This province is going to remain white, Toronto Globe.

*An address before the recent Experimental Union Convention.