

THE DAIRY.

Keeping Cream Right.

From an extended series of investigations in the care and handling of cream for butter making, Geo. H. Barr, Chief of the Dairy Division Department of Agriculture, Ottawa, draws the following conclusions:—

An ordinary cellar is not a good place in which to keep cream.

Cream must be cooled to 55 degrees, and held at that temperature to be delivered to the creamery every other day in a sweet condition. Setting the cream cans in water, or in water and ice, is the best method of cooling.

Cream delivered only twice a week must be cooled immediately after skimming to 48 or 49 degrees, and held at that temperature.

A refrigerator is not as good a place in which to cool cream as a tank with water and ice.

The natural ripening of gathered cream at the creamery will not produce butter with good keeping qualities.

The use of ten per cent. of clean-flavored starter improves the flavor and keeping quality of the butter.

Butter made from pasteurized cream without a starter has better flavor and better keeping quality than butter made from raw cream to which a good starter has been added, especially when the cream is tainted.

Pasteurized cream with 10 per cent of a starter added gave the best-flavored and best-keeping butter.

Cleanliness and low temperature are the two most important essentials in the production of fine-flavored butter with good keeping quality.

HORTICULTURE.

Co-operation of Fruit Producers.

There are in Nova Scotia 32 co-operative apple-selling associations. With the exception of two or three, these associations have united into a central selling association so that in all probability this year from 50 to 75 per cent of the fruit of the Annapolis Valley will be handled by a single selling association. Ontario has over fifty co-operative apple-selling associations. These are now being organized into a central selling association, so that, if not this year, in the near future a very large proportion of the apples grown in Ontario will be sold by a single selling agency. The fruit growers of British Columbia are also being united into co-operative selling associations, and it is their aim to have the selling of practically all the apples grown in British Columbia done through a single association. When this is consummated, no doubt the three large apple-producing provinces, through their three selling associations, will meet and so arrange business that practically a large proportion of the apples of the Dominion will be sold through what to all intents and purposes will be a single selling association. Even the suggestion of such a consummation will startle the consumer into the thought that here is a gigantic trust being organized, one more octopus to assist in sucking the life out of the poor consumer. Nothing could be further from the actual facts. Such an organization among apple growers will result only in good to the consumer, though of course the organization is undertaken primarily for the good of the producer. If the production of apples could be controlled as easily as the selling of them, we might indeed look for all the evils of a corner in the fruit market. Such, however, is not the case. It is in the interests of fruit growers—and the co-operative associations are simply the fruit growers combined—to lower the price to the consumer. I have no hesitation in saying that no greater disaster could come upon the fruit industry than a series of years with high prices, made so by trust methods. That these views are shared by fruit growers I think is amply demonstrated by the fact that for the last half dozen years the California Fruit Exchange has controlled from 40 to 60 per cent. of the total output of citrus fruits in California, a control that was quite ample to enable them to make a corner in citrus fruits at any particular time they wished—and I may say, in parentheses, I believe they would have done so if they had considered it for the good of the industry to do so—but they have not done so and citrus fruits were never cheaper to the consumer and the grower never before received such good returns as since the inception of the California Fruit Exchange.

In Canada there are tens of thousands of acres just as suitable for apple culture as the land already in orchard. Any artificial manipulation of prices would only result in increased plantings, not only by the members of the co-operative associations, who hold much of this land, but by

others, and eventually disaster would come upon the whole industry through over-production.

What the united fruit growers' associations want is a wider distribution and an increased consumption. They propose to benefit themselves directly by the economies that will be introduced into the selling and shipping of the fruit, and they will benefit themselves indirectly by lowering the price to consumers, thereby increasing consumption. For this purpose there is no agency quite so efficient as the organization of the consumers into co-operative buying associations. The selling associations cannot reach the individual consumers, and, therefore, until the consumers are organized, they are obliged to market through middlemen and under conditions that still unnecessarily increase the cost of selling the fruit. They are, therefore, particularly anxious for the organization of the consumers, and no doubt a part of the propaganda fund which is being set aside by the selling associations will be used to help in the organization of the consumers.

There are other forces at work just now that will assist materially. Co-operation is in the air. The grain growers of the North West are now being thoroughly organized, and it is hoped that something can be done this season through this organization. The railway people of Canada have started a large consumers' co-operative scheme. The labor organizations are agitating to the same end, and while all these larger schemes are being worked, here and there is being established a co-operative store in Canada that is proving the efficacy of co-operative methods.

To illustrate the advantages that may accrue let me cite a single case of what has actually happened, and this will be more effective than any amount of talking that may be called "theory." The civil servants of Ottawa want strawberries. The fruit growers of St. Catharines grow strawberries and wish to sell them. In the ordinary course of trade, a fruit merchant goes among the strawberry growers, buys their fruit and has the individual growers draw the fruit to the railway station where it is loaded into a car. The necessity of passing from one grower to another and making a separate bargain with each takes time, and, presuming that the buyer started Monday morning, he probably could not begin to load his car until Monday afternoon, and in the usual course of things it would be Tuesday, or

berries to sell. The consumers' society in Ottawa could take a carlot in a day and the fruit growers in St. Catharines could pick a carload in half a day. Consequently, arrangements were made in advance between the consumers in Ottawa and the fruit growers in St. Catharines. The consumers put in their orders for the quantities they wished, one crate, two or three crates, and the morning that the picking was to be done for this particular car, a telegram was sent to Ottawa, noting that the car would arrive the next day at 11 o'clock. The manager of the co-operative store in Ottawa then notified each member that had ordered berries when to expect them, and preparations were made in the way of getting fruit cans, sugar, etc. The next morning the car arrived at the station, and the fruit was delivered direct from the car to the home of the consumer, and many of the consumers in Ottawa were using berries for their luncheon that had been picked near St. Catharines the preceding forenoon. There were at least two, and probably three loadings and unloadings on wagons saved, and the consumers were their own middlemen.

It can be readily seen where the advantage was. Not only was the fruit in much better condition, but it was considerably cheaper, and yet the fruit growers got the full price which they asked for the fruit.

No more need be said to show the very great advantage of having not only the producers thoroughly organized, but the consumers as well.

A. MCNEILL,
Chief Fruit Division.

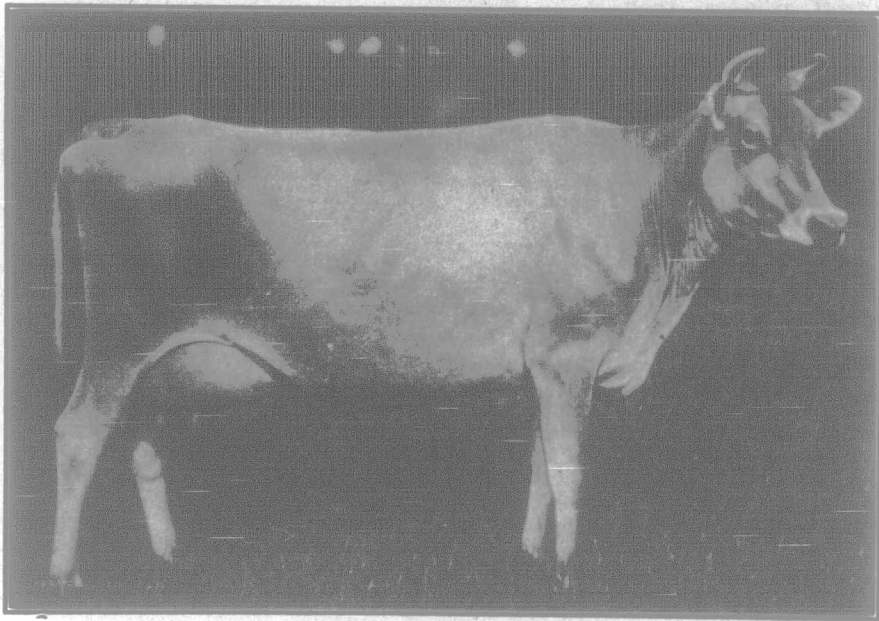
Co-operation of Consumers.

Co-operation among Canadian consumers is a comparatively new thing. In England, the single institution, the Co-operative Wholesale Society, is supporting nearly every need of a population only slightly less than the whole population of Canada. To have attained this proportion there must certainly be some merit in co-operation. One of the reasons why consumers have not combined co-operatively in Canada is the want of proper co-operative legislation. Some improvement, however, has been made, and it is now possible to use the ordinary Joint Stock Company Act, with fairly satisfactory results, by limiting the number of shares that any particular individual may hold.

The Civil Servants of Ottawa have been operating a co-operative grocery store for two years, and now have a membership of nearly five hundred, though these can scarcely all be called active members. The business has been put upon a thoroughly firm foundation, and paid this year five per cent. on capital invested, and, in addition, two per cent. was returned to all customers on their purchases at the store. This in itself is a substantial showing, and indicates that co-operative methods will succeed even under the adverse conditions now existing.

The chief difficulty we have experienced has been lack of capital. It is hard to persuade people that a co-operative association is not in some way or other a charity concern, and there are few people who will accept the condition which ought to go with each consumer's co-operative society, namely, that each member should put up capital to finance his own account. We have found in our experience that it takes about \$20 per member, on the average, to finance the ordinary corner-grocery business. That is to say, the ordinary member requires about \$20 worth of goods upon the shelves in order to supply his needs, and if cash is the basis he will be obliged to put up that amount. Cash, of course, can be hired directly from the banks, but that usually requires that some one becomes personally responsible to the bank, and this usually falls upon the directors. My conclusion is that it is better to insist upon each member bringing in his own capital, and there will be no necessity then for borrowing for ordinary purposes.

There is, however, another source of expenditure that may be called extraordinary, that is to say, certain goods cannot be bought and sold to advantage immediately. These will require special financing. Cheese, for instance, should be purchased in September in sufficient quantities to



Muriel's Oxford Daisy.

A three-year-old Jersey heifer, first at Bath, and first and champion at Oxford and Royal Counties Shows in England.

possibly Wednesday before the car would be finally loaded. Presuming that the car was loaded Tuesday, it would reach Ottawa Wednesday morning, when the fruit would be carted from the car to the wholesale warehouse. If the fruit was put on the auction, it would be sold the same day and then delivered to the retailers. There would be no special preparation and no chance for preparation on the part of the consumer, and it is quite possible that in the majority of cases, even though the fruit was bought Wednesday, it would not be used until Thursday, and as a matter of fact much of the fruit would remain with the retailer Thursday, and some of it much longer, the net result being that, delivered in this way, the fruit is three or four days between picking and the consumer. Even the best arrangements made by private dealers can only shorten this, perhaps by a single day.

Now this is what happened when both consumer and producer were organized: The Civil Service Co-operative Supply Association, with a membership of between 400 and 500, wanted strawberries. The co-operative fruit growers of St. Catharines, three hundred strong, had straw-