

The War and the Cheese Industry

Shortage in rennet supply owing to raw material being cut off

The following is in part the address delivered by Mr. J. A. Ruddick, at the annual convention of the Dairymen's Association of Western Ontario, at Stratford, Ont., on Thursday, Jan. 17.

While the dairying industry has been affected in more ways than one by the terrible conflict which has now raged for over three years, and some of its branches have been threatened with serious interruption, it has so far been found possible to avert any serious difficulty and, on the whole, I think it may be said that industry has profited rather than suffered through the effects of the great war. But even though there may be a measure of increased profit arising out of the abnormal conditions which prevail, it is not a matter to gloat over, because we hold some things to be of far greater importance than mere material gain. To some of you possibly the war has already meant the loss of sons, brothers or other dear friends, while many of you are still filled with anxiety as to the fate which awaits loved ones who have gone forth on the great crusade. These are matters of greater concern to you than the price of cheese or of any other product of the farm. Nevertheless we must "carry on" and stand behind those who are at the front, and for that reason it is well to examine the situation and be prepared to make the best of it.

Apart from the general rise in prices one of the first effects of the war on the dairying industry was to cause a

SHORTAGE OF SUPPLY.

One did not have to be very far-seeing to realize that the supply of rennet for cheese making purposes was bound to be interfered with soon after the outbreak of war. Raw rennets from which the extract is made were for many years obtained chiefly in Hungary and Bavaria and latterly in Russia. Needless to say, these sources of supply have completely dried up, and for rennet extract, we must now depend on our own raw material. The stock of rennet extract on hand was sufficient for the season of 1915, but towards the close of that season it became evident that the end of the old supply was in sight.

It is unnecessary for me to refer at any length to the means which have been taken to find a substitute or of the success which has attended the use of pepsin for that purpose. Mr. Barr has given you all the details from time to time in circulars, and in addresses at the conventions relating to the tests and demonstrations at the Finch Dairy Station. It is very gratifying to be able to assure the cheesemakers that the quality of our product has not deteriorated since the use of pepsin became quite general.

With regard to supplies for another year, we have a reasonable assurance that if the cheesemakers will be content with sufficient to carry them a few weeks at a time and not try to stock up for the season that there will be no difficulty about meeting all our requirements. The Department of Agriculture holds as a reserve, in case of actual shortage, a limited supply of Armour's Soluble Powdered Pepsin, which is being sold to cheese factories at cost under certain conditions.

I would add just one word of caution and it is this: that cheesemakers should not under any circumstances use any brand of coagulant unless they know that it has been thoroughly tested by some competent authority. We have made it as plain as possible to all vendors of coagulants or substitutes for rennet that the Dairy Branch is ready to stand between the cheese makers and any irresponsible dealers to see that no inferior article is foisted on the industry, and that we will always be ready to make careful tests of any new coagulant which may be offered for sale, and to take steps to prevent its sale if it proves to be unsatisfactory.

Every effort should be made to help out the situation by saving the stomachs of calves which are slaughtered at the age when their stomachs are useful for this purpose. The local manufacturers of rennet extract are prepared to take all that are offered. As near as I can determine, there is no occasion for alarm over this matter, but we should not neglect any source of supply in sight.

The substitution of pepsin for rennet was effected with so little trouble, and without any of the factories experiencing any real shortage, that it is doubtful if it is generally realized how near the cheese industry was to a serious interruption. Without pepsin 75 per cent of the factories would now be closed.

At the present moment, we are confronted with a

real shortage in

The large tinned sheets used in the manufacture of cheese vats and factory milk cans have always been procured from the United Kingdom. In the interest of the supply of munitions the export of all such material is prohibited, except under license, and has been for some time, with the result that the stock of tinned sheets in Canada has become practically exhausted. The shortage is likely to be rather a serious matter if it cannot be relieved. The Department of Trade and Commerce has, during the past year, been making every effort through the High Commissioner to have the Ministry of Munitions grant a license for the export of a sufficient quantity of these large sheets to meet the requirements of the dairying industry in this country for next season. Last September the writer, as Dairy Commissioner, brought the matter to the attention of Mr. Jas. McGowan, the British member of the Cheese Commission, who on his return to the Old Country was to lay the matter before the Ministry of Food in view of the possibility of interference to some extent with supplies of cheese if some relief were not granted. Mr. McGowan has carried out the suggestion, but he writes that he is doubtful of having any success. I also brought the matter to the attention of Mr. A. J. Mills, of the British and Allied Mission in the United States, and the influence of the Canadian Food Controller has been enlisted. In fact every known means has been resorted to in order to secure a supply of these sheets.

The persistent refusal of the Imperial authorities to release this material is an intimation to us that the situation with regard to steel in the United Kingdom is very serious, and it begins to look as though we may have to do without them. It may be possible to secure sheets of a certain size in the United States, and I understand that some of the sheet metal firms in this country are endeavoring to arrange for the tinning of large medium-sized sheets in this country. In any case, it will be advisable to conserve as far as possible the vats and milk cans which would ordinarily be replaced by new ones. Under these circumstances, no apparatus should be discarded which can possibly be made use of. Some factories may have spare cheese vats, or there may be milk cans not in use. If so, the facts should be advertised so that others in need of these things may know where to get them. This association might open a sort of information bureau for that purpose.

I suppose it would be possible to make a cheese vat out of small tin plate. In the early days of the industry the large sheets were not used. All vats had a seam at the corner all the way round, and the bottom was made of comparatively small pieces, with seams running lengthwise as well as crosswise. The manufacturers will know better than I do if this is feasible.

CONDENSED MILK.

The war has created a very big demand for condensed milk, and some feeling has been aroused over the favorable position of this article as compared with cheese. The complaint from cheese manufacturers and patrons of cheese factories is based on what they consider to have been an unfair competition with the price of cheese held at one level while the price of condensed milk is allowed to boom unrestrainedly. The question is a somewhat local one, and is confined chiefly to those districts where the condensaries are located, but it may not be out of place to discuss it here very briefly.

With regard to the complaints, it seems to me that they are based on a false assumption. In the first place the difference in price is not due to the fact that the price of cheese is limited, but because the demand for condensed milk was so great that no matter how high the price of cheese went, the condensaries would have been able to exceed it, and get the milk just the same.

Of course the obvious reply is that condensed milk should have been dealt with in the same manner that cheese was. That seems reasonable, but there were difficulties in the way, some of them apparent perhaps, others not so well known to the public at large. The trade in condensed milk, in its international aspect, is quite different from that of cheese. The United Kingdom is practically the world's market for cheese. We sell fully 99 per cent of our surplus in that market and New Zealand has no other outlet. Every country with an export cheese trade looks to Old England as her chief if not her only customer.

In the case of condensed milk it is quite different. We have been exporting about one-half of our output to the United States, only about one-third to the United Kingdom, and the remainder to some 25 different countries. The difficulties of control are obvious. You may be sure the matter has not been overlooked, for I happen to know that it has been and no doubt is yet, under consideration.

I do not suppose that there is any kick coming from those milk producers who are so fortunately situated as to be able to take advantage of the high price being paid for milk at the condensaries, and it would be a sort of "dog in the manger" policy for the patrons of cheese factories to object, seeing that the control of condensed milk prices would not give them any more for these cheese. It is the owners of cheese factories who are hardest hit, and have a grievance if any one has. There is this to be said, however, if the demand for condensed milk is to be a permanent one, then the passing of the cheese factory in certain districts is a matter of evolution and is bound to be upsetting in some interests as evolution always is. The manufacture of cheese is only a means to an end, that end being the profitable use of milk. If a better means is offered to reach the same end and the right thing to do ordinarily, is to take advantage of it. There is an element of doubt, however, in the present case, for it is more than probable that the demand for condensed milk will fall off after the war, and in that event some of the milk now going to the condensaries will revert to the cheese factory or some other outlet. If that occurs, the disorganization of the cheese factories which is now going on, will be a serious disadvantage.

There is another aspect of the situation which is of importance in the present circumstance, and that is the lack of by-products from condensed milk for stock raising. It is possible that the value of the skim milk and whey is somewhat overlooked when comparing returns for the milk alone. There is still another thing to be considered, and it is this, that when the condensed milk business monopolizes any particular territory the necessity for paying a premium to draw the milk from the cheese factory or the creamery will cease to exist. I am not prepared to say that the milk condensaries will take advantage of such a situation, should it arise, but experience teaches us that it generally happens that way. These are some of the things which should be considered by those who are tempted to desert the old cheese factory.

COLORED CHEESE.

It seems quite probable that as a result of the experience of the past season the making of colored cheese may be discontinued entirely. With the uniform price for both kinds there was certainly no inducement to make colored, although the Commission was glad to get what was offered. According to our records, there were 348,524 boxes of colored cheese as against 1,511,713 of white. I am rather surprised that there were so many.

The war has also interfered with the supply of caustic potash, which is used as the solvent in the best brands of cheese coloring. Caustic potash in pre-war times came from Germany. It is quite possible that some other source may be discovered, if not already, but lacking caustic potash it is necessary to use caustic soda which is inferior, and as I understand it cheese coloring made with soda is only about half the strength of that which is made with potash.

While the authorities in England have been asking for a larger proportion of colored cheese, I have not heard any very serious complaint, and if the coloring of cheese were done away with entirely, I do not think there would be any permanent bad effect on the cheese industry. The present situation seems to afford an opportunity of discarding what has been in reality a useless practice.

CANADA'S CIRCULATION FIGURES.

Canada's per capita circulation at the end of November was estimated by a banker the other day at \$32, against \$23 a year ago, says the Montreal Gazette. It is the highest on record, but considerably below the United States figures.

According to figures compiled by the U. S. Treasury Department, the general stock of money in the United States on January 1 this year amounted to \$6,256,198,271, an increase of \$1,244,152,754, compared with a year ago. The total of money in circulation on the first of the year was \$5,120,424,905, an increase of \$679,492,274 over January 1, 1917.

The per capita circulation, based upon an estimated population of 105,000,000, is placed at \$48.76. For the year the increase in population amounted to 1,712,000, while the per capita circulation figure increased \$5.76.