

without being more or less spoiled. That much good cream is received from many farms is not denied, and to the owners all credit is due. If the same remark could be applied to other farms the ground for criticism of this sort would be non-existent. But the age of the cream in many cases is not its worst fault. The real trouble lies much deeper than that. Improper cleansing of the utensils, including mechanical milkers, separators, and the premises where the cream awaits despatch to the creamery is the major cause of inferior butter. Large quantities of cream tainted in flavour and unfit for the production of first-class butter thus reach the factories, and these supplies are not rejected, on account of the competition existing between dairy companies and dairy-factory proprietors. Only when a delivery may have reached the stage of decomposition is it rejected.

To remedy the general defects in the cream accepted an ingenious process of treatment is resorted to at the factory—namely, the neutralization of the acidity by means of an alkaline agent, which is made effective by the application of a high pasteurizing temperature. This treatment is only a partial success with much of the cream, and the result is a butter low in grade, which cannot be expected to stave off the margarine danger of replacement. One district in particular has worked up an unenviable distinction for its butter as the direct influence of the method in vogue—namely, the wrong method of home separation. To prevent misunderstanding let it be said that there is a right method of home separation, which is practised on many farms without injury to the product. There is no getting away from the fact that the wrong method of handling the cream on the farms is seriously lowering the quality of our butter, and, further, it has been very marked in certain districts during the year.

The position in regard to the butter industry of the Dominion at present is simply this: the quality in some districts is gradually going back—it has gone back considerably during the past year—and thus the industry as a whole is being affected by a reduction of the general average. Unless some united action is taken whereby the cream separated on the farms is handled with more care and sent forward to the creameries at shorter intervals, and the element of unhealthy competition minimized, it means a further drop in the quality, followed by a reduction in the market value of the New Zealand butter.

Space will not permit a detailed reference to the manner in which the threatened loss may be averted, but a brief statement on the question is given in the section of this report dealing with the need of instruction at dairy farms.

Whey Butter.

It is now the custom at cheese-factories to provide machinery for skimming the whey immediately after the liquid leaves the cheese-vats, in order to save the small percentage of butter-fat left in the liquid. Some of the dairy companies elect to put in whey-separating appliances only, and to dispose of the whey cream to one of the butter-factories at a price agreed upon. Others, again, prefer to provide a complete buttermaking plant for this purpose, including the essential refrigerating machinery for regulating the temperature of the cream and water and for keeping the butter cool after it is made.

Where every care is taken in handling the whey in a thoroughly clean and sanitary condition, and an approved process of manufacture is closely followed out, a really good article has been made, and one which may always be expected to command a ready sale at good prices. Owing, however, to the careless manner in which this branch of cheese-factory work has been carried out by some of the manufacturers, a product of inferior quality and of low market value has been the result. A rather common fault has been the neglect to keep all the appliances—more especially the whey-tanks and piping for the conveyance of the whey—in a scrupulously clean condition. In fact, the Inspectors of the Division have, in the worst cases of the kind, found it necessary to call upon the dairy companies to thoroughly cleanse all the appliances used for this purpose under threat of stopping the work altogether, which course never failed to have the desired effect.

During the year 16,825 boxes of whey butter were graded for export, making a total of 8,412 cwt. The decision arrived at by the Department to insist upon all such butter being branded with the words "whey butter" was carried into effect during the year. This was found necessary in order to protect the interests of other classes of butter made in New Zealand. It does not, however, appear that any difficulty has been experienced in disposing of the product on account of this new brand, and there has been practically no opposition to its introduction by any of the companies concerned.

Butter for Military Camps and Transports.

One of the additional duties allotted to the Division towards the end of the year was the purchase of supplies of butter for the military camps and transports. A quantity considered sufficient to fill the requirements of the Defence Department from the expiry of the then-existing contracts up to the end of August next was secured. The prices paid were equal to f.o.b. export value, and, with the exception of two consignments, all the butter was bought direct from the dairy companies. Only first-grade butter of uniform quality was accepted. Since these purchases were made there has been an advance in the market price of butter.

It may be mentioned here that dairy-produce used at the military camps is inspected from time to time by an officer of the Dairy Division, who is qualified to pass judgment on the class of produce supplied. This arrangement was made by request of the Defence authorities as a further protection against the delivery of inferior produce.