

## THE BUTTER INDUSTRY.

*Creamery Butter.*

Apart from the reduction in the total quantity of creamery butter produced for the year, this branch of dairying has been carried on even more successfully than during the preceding season.

In the Auckland Provincial District, where the greater portion of the output is manufactured, there has been a noticeable improvement in the quality of the finished product reaching the central stores for grading and shipment. The progress in this respect can be correctly attributed to the comparatively cool weather during the beginning and middle of the season. Another reason for this improvement is the extension of the system of cream-grading, and more especially the payment of a differential price for the cream according to grade. Furthermore, the recent amalgamation of the larger dairy companies operating in the Waikato has also had its effect in a similar direction. The disastrous element of competition for the supply of cream which formerly existed in this locality has been almost eliminated. The result thus achieved may be taken as an encouragement towards a wider adoption of the cream-grading system, and also towards a better understanding as between the dairy companies regarding the competition for the raw material.

The quality of butter made in Taranaki, Wellington, Canterbury, and Otago has been well up to that of the average of these Provinces in former years, and numerous consignments came forward for which the makers well deserved credit. The flavour of that from the leading factories was excellent, and all possessed that degree of uniformity which is much desired in the product in order to maintain the country's reputation for butter of the best quality.

Although the foregoing is true, it has to be admitted that the butter from quite a number of the factories was not up to such a high standard. The faults were mainly in flavour, and showed unmistakable signs of previous deterioration in the cream from which it was made. It is undoubtedly one of the weak points in the system of selling that butter which merely reaches first grade, or little more, can be disposed of for a price equal to that from the factories which receive the highest pointing. Providing even a small premium were paid for the latter it would be the means of stimulating greater interest in the production of the best quality. Fortunately the quantity of second-grade butter made in New Zealand is small and only amounted to 5.6 per cent. for the period covered in this report.

The body, texture, and colour of the butter made during the year calls for no special comment, as this feature of the work is as a general rule carried out by the factorymen in a manner which is highly commendable.

*Whey Butter.*

Although the manufacture of whey butter at cheese-factories can only be considered a side-line, by means of which it is now possible to save the butterfat which formerly came under the heading of an unavoidable loss, where the necessary care is exercised it is a side-line which is netting a good return for the capital invested in the plant and machinery specially required for this purpose. The quantity of whey butter received at the grading-stores for the year amounted to 18,739 cwt., valued at £149,292, taken at the price paid for this product under the contract for sale to the Imperial Government. With this additional amount of revenue at their disposal there can be no question of the wisdom of dairy companies in devoting their attention to this particular branch of the industry.

The year has marked a considerable change in the manufacture of whey butter on the part of a number of the cheese-factories, from which a product of fine quality has been turned out, and it has been in contrast to the inferior article formerly made. The results obtained at these factories are an object-lesson in what can be accomplished when the details of the process as recommended are put into daily practice. It is no exaggeration to say that the best whey butter produced has been superior to some of the creamery butter made under the home-separation system. On the other hand, the quality of the whey butter consigned to the grading-stores by other companies had nothing to commend it, some consignments being ill-flavoured and most objectionable as a product intended for human consumption. The cause of such inferiority is entirely due to lack of care and of interest on the part of the makers, who apparently have no desire to do better work for their employers.

As a general rule, the appliances in which the whey is handled prior to separation have been found in fairly good order and showed an improvement during the year, but the Instructors in the ordinary course of their duties have had to insist on the separation of the whey being discontinued at factories where the plant and utensils have been allowed to become unclean or insanitary. For instance, the use of ordinary galvanized piping for the conveyance of whey to the separators, and which cannot be maintained in a thoroughly clean condition, can no longer be permitted, as it is a fruitful source of contaminating the product. Given the right class of plant and fittings, together with a reasonable amount of skill and attention, no factory need manufacture whey butter of inferior quality.

*Moisture in Butter.*

In order to prevent the export and sale of butter which contains more water than the legal standard of 16 per cent., it is found necessary to take a large number of samples at the time of grading, and to subsequently test these samples for water-content. The number of such samples dealt with during the year amounted to 15,047, showing an average of 15.007 per cent. of water, as compared with an average of 15.09 per cent. for the 1918-19 season.

Acting under the statutory power conferred by the Dairy Industry Amendment Act, 1915, the butter which was found to contain an excess of water was reconditioned and the percentage reduced to conform with legal requirements, the expense incurred in this respect being made a charge against the owners of the produce, who were compelled to dispose of it in the manner prescribed. Only in the case of a fractional excess was the butter allowed to be returned to the manufacturer. Generally speaking, the law regulating the quantity of water permissible in butter has been well observed; but where offences of this nature are repeated it would seem necessary to prosecute the owner, and where a conviction is obtained to ask the Court to inflict a substantial penalty.