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85° F., with disastrous results to the cheese. At those factories only in which provision had been made for holding the cheese in better order was the loss sustained brought down to a minimum.

These conditions of congestion obtained right through the season. The stock of cheese held in New Zealand at the time of writing is still large, and it is expected that it will not be cleared until well on towards the beginning of next season.

While many of the dairy companies were forced to incur increased expenditure in addition to the losses incidental to holding the cheese for a longer time than usual, the majority of them accepted the position as being unavoidable and made the best arrangements they could under the circumstances. It is believed that everything was done by those responsible to expedite the despatch of the cheese with as little delay as possible, no blame being attachable to any one, and the shipping companies concerned did their best to meet the situation with the ships available.

## DAIRY INSTRUCTION.

The number of officers constantly engaged in giving instruction to butter and cheese manufacturers was ten, and in addition four others devoted a portion of their time to this duty. The total aggregate number of days spent at cheese and butter factories by these officers amounted to 957. Apart from the instruction afforded on such occasions, the officers paid a total of 1,098 visits to the factories in the course of the year.

The efforts made by the men engaged in this work were almost invariably successful, although in some cases it was found that only temporary improvement was effected in the produce, due to the non-compliance with some essential part of the process recommended by the Instructor. This was usually followed up by a return visit to the factory and a further demonstration of the manner in which the work should be conducted. As each Instructor had his own group of factories to supervise, it was found possible to keep in close touch with the work all through the season, except in the more isolated districts, which also received some attention. The advice of the Instructors was frequently sought by the directors of dairy companies in regard to almost every phase of the work, and in many cases board meetings were attended for that purpose.

The formation of dairy companies and the building and equipment of factories also engaged the attention of the Instructors where required, and was much appreciated by those settlers who were concerned in establishing dairy factories in their districts.

## URGENT NEED FOR INSTRUCTION AT DAIRY FARMS.

The one great weakness in the dairy industry of New Zealand is and always has been the improper treatment which the milk receives at the hands of a number of the producers, and since the beginning of the home-separation system the same can be said in regard to cream. The introduction of milking-machines, which are yearly increasing in number, has made this difficulty much more acute. To put the matter briefly, the lack of cleanliness in the dairy premises and dairy utensils and appliances on the farms is the direct cause of much inferior cheese and butter being made. This hindrance has now become not only a serious bar to progress, but a real menace to the welfare of factory dairying in the Dominion.

In the course of their duties during the year the Instructors have noticed an abnormal amount of inferior milk and cream being delivered to the factories. On many occasions the farms from whence these supplies came were visited for the purpose of locating the cause of inferiority, when it was almost invariably found that either the ordinary dairy utensils, cream-separators, or milking-machines had not been kept thoroughly clean. In many instances the conditions were so bad as to be almost unbelievable unless they had actually been seen. In such cases the owners were, of course, immediately called upon to cleanse the appliances or abandon their use as directed by the Instructors, and as a general rule this was done with alacrity by the farmers after the faults had been pointed out to them in a reasonable manner. Owing, however, to the small number of Instructors in comparison to the number of farmers in need of advice of this kind, only a small proportion of the work requiring immediate attention could be undertaken. It will therefore be seen that a very grave danger threatens the industry, which if allowed to go on without further attempt at reform must inevitably result in an ultimate loss both to the producers and to the country as a whole. Only those who are in intimate touch with dairying are aware of the present unsatisfactory state of affairs in this respect. It has not yet been fully realized by many of the farmers themselves, and the unusually high prices being obtained for our butter and cheese at present are misleading, in that complaints about the quality of the produce are always few when the market demand is keen.

The main reason for the inferiority in the milk and cream supplies to factories is undoubtedly due to the lack of knowledge on the part of the farmers who are responsible. They require practical instruction from men who will impart the necessary information in an acceptable manner. Such instruction to be effective must be given on the farm, and this is the remedy recommended for the somewhat alarming drop in the quality of our butter and cheese.

Questions may be asked as to the cost of such a programme and where the money is to come from. The answer is that the dairy industry is now sufficiently established to bear the whole of the expense incurred by the Government in carrying on the excellent system of grading butter and cheese for export. Dairy companies and factory-proprietors might well be asked to pay a charge of this work. The revenue thus saved would provide a sum of money equivalent to the necessary expenditure required for the employment of a sufficient number of Instructors to cope