

hurried and apparently careless work at this time, which resulted in an inferior finish. Lack of attention to these details may mean a doubling-in of the bandage, which leads to cracks that permit mould-growth to penetrate into the cheese, necessitating the discarding of portions when the cheese is cut. It is hoped that factory-managers will take greater interest in this phase of the work, which, although generally regarded as a detail, is nevertheless of very great importance.

Heated cheese: There was some delay in shipping from New Zealand the cheese made towards the latter end of the 1920-21 season. Some of this cheese arrived in Britain during their 1921 summer months, and some as late as September. There was probably more dissatisfaction and loss respecting these shipments than had previously been connected with New Zealand cheese exports during the last two decades. The complaint was mostly to the effect that the cheese was overheated and damaged at the ends. As soon as advice was received efforts were made to locate the cause of the trouble. It was known that some cheese had deteriorated to some extent in store while awaiting shipment, and had got overheated before going on board the overseas steamer. It was also known that cheese in apparently good condition had been shipped and had opened up at the other end in an unsatisfactory condition. There was evidently room for improvement in the whole chain of handlings to which some of our cheese was subjected. The matter was taken up with the shipping companies and the factory-managers concerned. The companies storing the cheese prior to shipment have also given the matter earnest attention. It is fortunate that the cheese of the 1921-22 make is arriving on the British market in a condition which, up to the time of writing, has produced no complaints.

Cheese from part-skimmed milk: One dairy company during the past season has been manufacturing at one of its branch factories cheese from milk a portion of which had been skimmed. If the monetary returns be such as to induce an extension of this innovation in New Zealand cheese-manufacture, and a greater proportion of part-skimmed-milk cheese be made, the question of determining on a different grading-standard and method of branding may require further consideration. According to the present regulations under the Dairy Industry Act, it is quite legal for cheese from part-skimmed milk to be exported, provided the branding be in conformity with the requirements. It is advisable, however, that dairy companies should not be precipitate in diverting their cheese-manufacture from that of whole milk.

Casein.—The manufacture of casein has been carried on at quite a number of centres during the past season. The choice has largely been in favour of the manufacture of the lactic-acid variety. Some improvement in quality has been noted, and it is considered that more care has been given to the manufacture. The manufacture of rennet casein has been given a good deal of attention with a view to improving the quality. It is now considered that New Zealand can (from certain factories) turn out a rennet casein which will compare favourably with the product of France, which is considered by the trade as setting the standard of quality.

Milk-powder.—A large quantity of powder from both whole and skimmed milk was manufactured during the spring and summer months, and it is reported that the quality has been good. Climatic conditions have been especially favourable in the districts in which milk-powder factories are located. This fact, together with the supply from a large number of additional cows, caused a considerable increase in the aggregate output. The latter was rather beyond immediate requirements, and most of the factories discontinued in February or March the manufacture of milk-powder and diverted to cheese, or butter and casein. It is understood that the manufacture of milk-powder is likely to be resumed next spring as usual.

Testing of Purebred Dairy Cows.—During the year 309 breeders have been testing under the certificate-of-record system, which represents an increase of twenty-nine in number, or 10 per cent., as compared with the previous year. The number of purebred cows tested by these 309 breeders was 811, a decrease of 129 cows, or 16 per cent. The fee of five guineas per cow charged from the 1st January, 1921, shows its influence on the new season's entries, as it will be noticed that, although the membership was increased, the number of cows entered evidenced a slight decrease, pointing to the fact that the increase from three to five guineas per cow has increased the proportion of breeders testing only one or two cows. The increase in fee has thus not decreased the Department's loss in connection with this service as much as was desired, and it has therefore been found necessary to increase the fee for testing one cow. For cows tested on one farm, and starting test during the year commencing 1st April, 1922, it is proposed to charge ten guineas for the first cow or heifer and three guineas for each subsequent cow or heifer. During the year a change in the C.O.R. sampling system was instituted. The spring brought an increased membership, which made it impossible for the staff of testing officers to handle the work, while owing to the financial stringency it was deemed inadvisable to appoint further testers. It was therefore found necessary to reduce the time spent at each farm per month, and from the 1st September last testing officers have visited for three milkings only, instead of four as previously, for cows milked twice a day.

Association Testing of Dairy Herds.—The popularity of the association method of testing dairy cows still increases. As in the past, officers engaged in the testing of purebred cows have extended their duties to the association testing of ordinary grade and crossbred herds. The staff, however, has not been able to cope with all associations calling for assistance along this line. Officers have this season tested cows for some fifty associations, as compared with forty associations for the previous year. The charge for this association testing is 2s. per cow. The herds numbered 1,080 and the cows 25,912, as compared with 713 herds and 19,799 cows in 1920-21, representing increases of 51 per cent. and 30 per cent. respectively. In addition, some 19,652 cows have been tested by dairy companies to whom the owners were suppliers—an increase of 15,958 cows—and it is hoped that the future will bring a still further development of the association testing-work. The total number of cows systematically tested last year was 45,564, which is not a satisfactory proportion of the Dominion's milking-stock. One would like to see herd-testing a definite part of every dairy company's organization, the cost to be borne by the company. This would result in more systematic herd-development, with a resultant benefit to the revenue of the individual, the dairy company, and the country as a whole.