

CASEIN.

During the year 1,933 tons casein came forward for grading, as compared with 1,868 tons for the previous year, the quality being of a high uniform standard. The grading of this product, which is not compulsory, is carried out at three grading-ports only—Auckland, New Plymouth, and Wanganui. A considerable quantity is shipped through Auckland ungraded. The total exports for the year amounted to 2,934 tons, of a value of £148,170.

TESTING BUTTER FOR MOISTURE AND SALT CONTENT.

The legal maximum for moisture in butter is 16 per cent., and in order to avoid the possibility of consignments being shipped overseas containing excess moisture a box from each churning forwarded for grading was tested for water-content. In all 177,144 were tested, 0.4 per cent. of which were found to exceed the legal limit. These were withdrawn from shipment and reconditioned.

Salt tests totalled 163,235, of which 0.3 per cent. were outside the range permitted, shipment of these latter being withheld. To fill special orders, a few consignments with a salt-content outside the range permitted were allowed shipment.

GRADING OF CREAM.

The grading of cream and payment according to grade has proceeded on uniform lines, and a fairly close adherence to the standards set by the Division has been maintained. From a cream grader's as well as a supplier's point of view the season has been a difficult one, and during the hot weather many suppliers had their cream graded below finest for the first time in their experience.

The regulations gazetted some little time ago, which prevent suppliers from changing over from one factory to another during the major portion of the year, have been of material assistance in maintaining the grading standards.

GRADING OF MILK.

The wisdom of introducing the grading of milk with differential payments according to grade has been amply demonstrated during the season under review. Difficulty was experienced during the extremely hot weather in delivering milk of a consistently high quality, and it is the consensus of opinion that the grading has been the means of maintaining a fairly uniform standard supply. At present it is optional to grade either daily or three times during each ten-day testing period. Quite a number of companies grade daily, but the universal adoption of this method would further assist in maintaining a more uniform milk-supply.

FARM DAIRY INSTRUCTION.

Of a total of 368 dairy companies in operation throughout the Dominion, only 84 of these, with approximately 34,000 suppliers, are at present co-operating with the Department in the employment of Farm Dairy Instructors. Thirty-six of these officers are engaged in this service, thirty-four of whom are in the North Island and two in the northern end of the South Island. As these officers give instruction to suppliers in the production, care, and treatment of milk and cream, and in the sanitation of the dairy premises and plant, which, in effect, goes to the root of the industry, the need for this service being made a national one is therefore paramount. Suppliers to all dairy companies total approximately 72,000, and of this number some 38,000 are without the services of a Farm Dairy Instructor, and are therefore under no direct supervision.

INSPECTION OF MILKING-MACHINES.

In order to ascertain whether milking-machine installations are in accordance with the regulations an inspection of all new erections is made as opportunity offers. During the year 1,608 new and reconditioned plants were installed, as compared with 1,781 for the previous year. Of this total, 1,459 have been inspected, 905 of which were "passed" on first inspection, the balance of 554 requiring in most instances minor alterations to bring them into line with the requirements of the regulations.

CHECK-TESTING SUPPLIERS' MILK AND CREAM SAMPLES AT DAIRY FACTORIES.

Reports received from the officers carrying out the check-testing of milk and cream samples of suppliers to dairy companies indicate that the testing is being carried out satisfactorily, and that both in regard to equipment and test-room practice there is little to which exception can be taken. Managers generally are now more favourably disposed to check-testing, and consider the system tends to considerably lessen complaints from suppliers.

During the year check tests numbering 483 were carried out.

SPECIAL INVESTIGATION : CHEESE MANUFACTURE.

The experimental work carried out at the New Zealand Co-operative Dairy Co.'s Rukuhia Cheese-factory by the Division, under the charge of Mr. H. A. Foy, Dairy Instructor and Grader, in conjunction with the company's manager, Mr. A. Laurent, which was commenced in October, 1933, was concluded in June of the following year. The object of the experiment was to determine whether a clean and cooled milk from healthy cows, if manufactured under good conditions, would produce a cheese which would evidence all the desirable qualities of a cheddar cheese, including closeness of texture.