

The following figures show the number of cases of fruit exported in each export season since 1911: 1912, 14,869; 1913, 33,000; 1914, 67,964; 1915, 62,164; 1916, 19,246; 1917-19, nil; 1920, 34,585.

Demonstrations and Lectures by Orchard Instructors.—Although interfered with to a large extent by fireblight inspection, this work was carried on as far as was practicable during the winter months. The practical advice given in pruning, spraying, &c., and the information imparted on the control of orchard diseases, is apparently greatly appreciated by those interested, the attendance at such demonstrations being in the majority of instances very satisfactory. Besides the instruction given in the ordinary course of their duties, officers of the Division have frequently attended special classes at the Trentham, Tauherenikau, and Pukeora military institutions, and given lectures and demonstrations on the various branches of both fruitgrowing and beekeeping. Advice has also been supplied on the laying-out of the ground at these places, and plans provided.

Classes in Apple Grading and Packing.—Considerable interest is being manifested in these classes, which are held during the year in the main commercial centres. Four persons gained the Department's certificate in fruit-grading, eleven a first-class certificate in fruit-packing, and four a second-class certificate in fruit-packing. The total number of certificates issued to date are—Ten first-class certificates in fruit-grading, twenty-eight first-class certificates in fruit-packing, and six second-class certificates in fruit-packing.

Spraying Experiments.—These experiments have been continued during the year, the bulk of the work being conducted at the Arataki Horticultural Station, Hawke's Bay, and the Papanui Experimental Orchard, Christchurch. Tests were carried out for the control of red mite, woolly aphis, black-spot, codlin-moth, powdery mildew, and brown-rot. Various new spraying-compounds were also tested in order to ascertain their merits for the control of certain diseases. The main results as they come to hand are published in the Department's *Journal*, and are of value to growers who are anxious to keep abreast of the times in the management of their orchards.

Miscellaneous Experiments.—During the year experiments in tobacco and strawberry culture were commenced in the Auckland District; also green-manuring tests at Loburn, in North Canterbury. Particulars of the results obtained are not yet available, but these will appear in the *Journal* in due course.

Co-operative Fruit-testing Areas.—Some twenty-six of these plots still remain in operation in different parts of the Dominion. Valuable information has been obtained from these areas, which serve to show what varieties of fruit-trees are best suited to particular districts, and are also an excellent means of demonstrating up-to-date methods in pruning, spraying, cultivating, &c.

Fruit Cool Storage.—The comprehensive experiments undertaken last year in the picking, handling, and packing of fruit for cool storage were continued by the Orchard Instructor at Hastings (Mr. W. H. Rice). This year's test was designed to ascertain: (1) The best stage of maturity at which to pick fruit for successful storage; (2) the value of wrapping as against non-wrapping of fruit prior to storage; and (3) the effect of russet on the value of fruit for storage. Eight varieties of apples and three varieties of pears at different stages of maturity were used for the carrying-out of the test. The results of the experiment again demonstrated the important bearing that proper selection, handling, and transit to store have on the ultimate successful cool storage of fruit. Full particulars appeared in the January, 1921, number of the *Journal*.

Fruit-preserving Industry Act.—Several applications were received during the year for advances under this Act for the erection of fruit-packing sheds, extension of cool stores, &c. Grants to the amount of £3,500 were made, which brings the total advances to date up to £88,000. Cool-storage chambers—one with a ten-thousand-case capacity and a smaller one to hold two thousand cases—were also erected privately in the Hawke's Bay District.

Sale of New-Zealand-grown Fruit for Local Consumption.—Regulations under the Orchard and Garden Diseases Act relating to the sale of New-Zealand-grown fruit of specified kinds for consumption within the Dominion have been formulated, and came into force on the 15th April, 1920. These regulations provide for standard grades, packages, and marking. In addition, all owners offering fruit for sale are allotted a registered number, which must be branded on the cases in characters of 1 in. block type. Growers generally recognize that these regulations are a step in the right direction, and little difficulty has been experienced in getting them to fulfil their obligations.

Orchard Registration and Orchard-tax.—During the year 6,812 commercial orchards were registered, and a similar number of orchard-tax demand notices sent out. The amount collected in tax was £1,939. As mentioned in previous reports the moneys thus received are paid over to the New Zealand Fruitgrowers' Federation (Limited), less cost of collection, and are utilized in furthering the interests of the fruitgrowing industry in the Dominion. A considerable amount of work is involved in the sending-out of reminders to those persons who neglect to register or fail to pay the tax on due date.

REGISTRATION OF NURSERIES.

A total of 491 nurseries were registered and certificates issued; this represents an increase of thirty-seven as compared with last year. The enforcement of the nursery regulations has resulted in considerable improvement in the standard and cleanliness of stock in nurseries.

HORTICULTURAL STATIONS.

Te Kauhata (Lower Waikato).

On the whole the season was very favourable for the carrying-out of the work of this station in its various branches. Excellent crops of fruit were secured, and suitable weather conditions