

Export of Fruit.—A commencement has again been made in the export trade in fruit, which had ceased in 1916 owing to lack of shipping facilities brought about by the war. Considerable difficulty was experienced in obtaining shipping-space, but arrangements were made for the shipment of some 15,000 cases to London by the s.s. "Athenic," sailing early in April, and further consignments by two later boats. Every care is being taken at this end to ensure the fruit arriving at destination in good condition, and it is hoped the results will be entirely satisfactory. The shipments are being made under the Government guarantee of 1d. per pound to shippers. The new export regulations recently gazetted should greatly assist in the proper grading, packing, &c., of fruit for export, and thus place the industry on a sound footing. The following figures show the number of cases exported in each export season from 1908 to 1916: 1908, 1,236; 1909, 191; 1910, 5,647; 1911, 6,031; 1912, 14,869; 1913, 33,000; 1914, 67,964; 1915, 62,164; 1916, 19,246.

Apple Grading and Packing Classes.—These classes have been continued during the year in the main commercial centres, and were well attended. Six persons sat for the Department's certificate, and of these one gained a second-class certificate of competency to pack fruit. The numbers of certificates issued to date are—Six first-class certificates in fruit-grading, seventeen first-class certificates in fruit-packing, and two second-class certificates in fruit-packing.

Demonstrations by Orchard Instructors.—The usual practice of giving demonstrations in up-to-date methods in pruning and spraying during the winter months has been continued during the year by the Orchard Instructors in their respective districts. Keen interest is manifested in these demonstrations by growers and others, many coming long distances in order to be present. There is little doubt of their desire for knowledge in all matters pertaining to the improvement of methods of production.

Co-operative Fruit-testing Areas.—A number of these plots have now reverted back to the owners, the term for which they were taken having expired. Valuable results were obtained from the bulk of the areas, and some of these have been published in the Department's *Journal*. Some forty-two plots remain in operation in different parts of the country, the agreement in connection with these being still in force.

Spraying Experiments.—The carrying-out of experiments for the control of orchard diseases and the testing of various spraying-compounds has been continued during the year. It is of the utmost importance to growers that reliable brands of sprays be used, and it is in their interests that these tests are conducted by the Division. The work is carried out at the horticultural stations, and in private orchards in co-operation with the fruitgrowers' association. Tests for the control of the following diseases were made: Brown-rot, black-spot, red mite, brown beetle, silver-blight, apple-leaf hopper, pear-leaf-rolling midge, and verrucosis of lemon. Manurial experiments were also conducted on fruit-trees. Particulars of the results obtained are published in the *Journal* in due course.

Fruit Cool Storage.—Comprehensive experiments in the picking, handling, and packing of fruit for cool storage were undertaken last season. This was done with the view of assisting growers and to help the cool-storage companies to improve their present working-practices, and at the same time to ascertain the storage qualities of the different varieties of apples and pears. Full details appeared in the January, 1920, number of the *Journal*. Arrangements have been made for the continuation of the experiments next season.

Fruit-preserving Industry Act.—The assistance given under this Act for the erection of cool stores and packing-sheds has been of great value to the fruit industry. The total advances made to date represent some £84,500. It is estimated that the quantity of fruit placed in cool store this season will greatly exceed that of former years.

Orchard Registration and Orchard Tax.—Some 7,563 commercial orchards were registered during the year, and £1,894 collected in orchard-tax. The moneys 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.

REGISTRATION OF NURSERIES.

This work is progressing satisfactorily, and reports received from the Instructors indicate that nurserymen generally are eager to comply with the regulations. 454 nurseries were registered, being an increase of forty as compared with last year. The fees collected totalled £458 5s.

HORTICULTURAL STATIONS.

Te Kauwhata (Lower Waikato).

A successful season has been experienced at this station. The fruit crops were heavier, and the weather conditions enabled fungoid disease to be more easily kept in check. On the fruit-farms the trees have made splendid growth, and the same applies to the trees in the old nursery and the home orchard. The grape crop was an excellent one, the weather being very favourable during both the setting and ripening periods. The lucerne area has done well considering the dry season. One cutting was made in December and another in February. The autumn-sown plot is well ahead of that sown in the spring, the former at the end of March being 9 in. high. 350 tons of wattle-bark have been stripped in good order and some 60 tons disposed of in the bundle. The plot sown in clover to ascertain the value of such covering in checking the spores of black spot, as against cultivated land, has been further tested, but with no apparent result.

A good demand continues for the wine made at the station, particularly for Frontignac (sweet red). The following are particulars of wines sold during the year: Frontignac, 6,788 gallons, value £4,018 16s.; Madeira, 969 gallons, value £581 8s.; claret, 688 gallons, value £354; hock, 557 gallons, value £293; unfermented, 22 gallons, value £13 4s.; total, 9,024 gallons, value £5,260 8s.

Arataki (Hawke's Bay).

The weather throughout the year was exceptionally dry, the rainfall being considerably below the average. Such conditions are against growth, particularly on this station, where the soil is shallow and overlies shingle. Heavy frosts during April caused a fair amount of injury to the immature wood of both grape-vines and fruit-trees, whilst late frosts during November injured the