

HORTICULTURE DIVISION.

During the year Mr. T. W. Kirk, who had been Director of this Division since its establishment, retired on superannuation. He was succeeded by Mr. J. A. Campbell, Assistant Director, and Mr. W. T. Goodwin, a member of the orchard instructional staff, was appointed to the assistant directorship. Mr. Kirk has been connected with the Department of Agriculture almost from its inception, and this opportunity is taken to record a hearty appreciation of his valuable services.

The Fruitgrowing Industry.—Generally speaking, the apple and pear crop of the past season was on the light side. In most localities the unfavourable weather conditions experienced during the setting-period militated against heavy crops being obtained, but good average crops of all fruits were harvested in the Otago District. The stone-fruit crop in the Canterbury and Nelson districts was satisfactory. In other districts the yield was medium to light. A further large area was planted out in strawberries and tomatoes in the Auckland District, and the returns were above the average. In other localities the tomato crop was not so good, continuous wet weather during the fruiting season being favourable to the development of fungus disease. The citrus crop this year was a good average one. A pooling system for the marketing of lemons has been adopted by the Tauranga growers. The fruit is packed in the green state and forwarded to a depot in Auckland, where it is properly cured and then packed for the market under approved brands. These brands have already a favourable reputation, and there is every prospect of the venture proving successful. The estimated area planted in commercial orchards during the year is 203 acres. This brings the total area of registered commercial orchards for the whole of the Dominion to approximately 30,000 acres.

Export of Fruit.—During the 1921 export season a total of 48,912 cases of apples and 3,112 cases of pears was exported from the Dominion. Of these, 45,154 cases apples and 3,012 cases pears were shipped to London, and 3,758 cases apples and 100 cases pears to Honolulu. The fruit for the Home market was consigned through the New Zealand Fruitgrowers' Federation, and as the prices obtained were satisfactory there was no claim on the Government guarantee of 1d. per pound. It is expected that the total quantity shipped in the 1922 season will be in the vicinity of 120,000 cases, which will constitute a record for New Zealand since exporting commenced. The bulk of the fruit sent forward for examination prior to export has been quite up to the standard required by the regulations, and very little trouble has arisen with regard to the grading and packing. There is still room, however, for improvement in the method of branding and marking cases, and it is hoped that with a little further experience there will be more uniformity in this respect. A satisfactory feature is the wiring of cases at each end. This was one of the stipulations made under the guarantee, and has proved of great benefit in preventing breakages, &c., during handling.

Orchard Diseases.—The majority of commercial orchardists are doing satisfactory work in the control of diseases and pests. It was, however, found necessary to take proceedings against a number of growers in various districts for failing to comply with the requirements of the Orchard and Garden Diseases Act. The outbreak of fireblight in the Auckland District towards the end of 1919 has demanded close supervision in order to keep it within bounds. It is gratifying to report that this disease did not make its appearance in commercial areas during the past season, although infection was fairly general in other areas bordering commercial orchards. The cutting-down of hawthorn and the systematic destruction of hold-over cankers contributed to a large degree in preventing reinfection in the commercial areas. Good work has been performed by the Department's officers and by the temporary men engaged in fireblight-inspection duties, many of whom worked long hours in order that the hawthorn work should be completed before the blossoming-period. A slight outbreak of fireblight occurred in the Patea district at the end of December last, but prompt measures were taken, and, as far as it is possible to judge, every known source of infection has been eliminated in this locality. An outbreak of citrus bark-blotch occurred during the year, and steps are being taken for its control. It is at present confined to citrus areas in the Auckland District. The pear-leaf-rolling midge, which has gained a hold in one or two districts, is proving somewhat difficult to deal with. The Division is co-operating with the Biology Section in carrying out experiments for its control. Brown-rot of stone-fruits was again in evidence. In some localities the infection was more pronounced than during the previous season.

Spraying and other Experiments.—Tests with spraying compounds—new preparations in particular—were continued at the horticultural stations, &c. Experiments in orchard cover-crops, and in strawberry, tomato, and tobacco culture, were also continued during the year.

Demonstrations, Lectures, and Classes.—The usual demonstrations and lectures on matters relating to orchard-management were given by the Orchard Instructors in their respective districts during the winter months. The increasing demand for practical advice in pruning, spraying, &c., is a good indication that these demonstrations are appreciated by persons interested in fruitgrowing.

Certificates of Proficiency.—Every facility is offered to those desirous of qualifying for the Department's certificate of proficiency in apple grading and packing. Classes were again conducted in the main commercial centres, and examinations held at the end of the season. The usual examinations of persons desiring to qualify for the Department's certificate in pruning and spraying were also conducted.

Co-operative Fruit-testing Areas.—The bulk of these test plots have now fulfilled the purpose for which they were established, and have been handed over to their respective owners. Some eight still remain under supervision, the period for which they were taken having not yet expired. Arrangements have been made to plant an area at Mongonui, North Auckland.

Sale of New-Zealand-grown Fruit for Local Consumption.—The requirements of the regulations governing fruit for the local markets are now becoming generally known, and the majority of the growers are carrying out their obligations in a satisfactory manner. The system as a whole is proving very useful to all concerned in the fruit trade, and is of great assistance to our officers in the inspec-