

The estimated area planted in commercial orchards during the 1923 planting season was not large, the total area being approximately 180 acres. A number of orchards in different localities, moreover, were cut out, having been abandoned by the respective owners, who were unable to carry on through lack of finance. The total area of commercial orchards throughout the Dominion stands at approximately 30,000 acres.

Reports received from the field officers of the Division indicate that the past season's crop of both pip and stone fruit was, generally speaking, a satisfactory one, and considerable improvement was noticeable in the prices received by growers for good-quality fruit. Small-fruits, such as strawberries, raspberries, &c., suffered somewhat from the continued dry weather experienced during the fruiting season, and as a result the crop was below the average. Owing to damage by frosts the citrus crop in the Auckland District was only moderate. Lemon-culture is extending in the Bay of Plenty and Gisborne Districts, where considerable areas have been planted out in this fruit. Extensive floods experienced in the Marlborough District did considerable damage to orchards in the locality, some growers losing heavily.

In the majority of commercial orchards the control of orchard pests and diseases has been satisfactorily carried out. It was found necessary, however, to take proceedings during the year against a number of persons who had failed to comply with the regulations. Black-spot disease was much less in evidence, due, no doubt, to the fine weather which prevailed during the growing season. The conditions, however, were favourable to the spread of insect pests, and codlin-moth, red mite, and leaf-roller caterpillar did damage in those orchards where proper measures were not taken for the control of these pests. Brown-rot, for which no suitable control measures have yet been devised, has been very persistent, especially in the Auckland District, where considerable damage to stone-fruits was inflicted by this serious fungoid disease. In some localities mealy bug is giving a good deal of trouble, and tests are at present being conducted with the view of arriving at some satisfactory method of dealing with this pest. Reports to hand indicate that the natural enemy of the woolly aphis (*Aphelinus mali*), colonies of which were received last year from the Cawthron Institute and liberated in several districts, is doing good work in controlling the aphis. The operations of this beneficial insect will be watched with interest during the next season or two.

It is satisfactory to be able to report that no serious spread of fireblight disease has taken place during the past season. The control measures taken by the Department within the prescribed fruit areas affected by the disease have resulted in reducing the infection to a minimum in such localities, and there is every prospect of the disease being kept in check in these areas, with constant vigilance and attention on the part of the fruitgrowers concerned in co-operation with the Department's officers. In the non-commercial areas where the disease is existent the position remains about the same as last season, the infection mainly being confined to hawthorn hedges and such susceptible fruit-trees that have not been previously killed through the attacks of the disease. The infection, however, has not spread any further afield during the past season than those districts wherein it was previously located.

The accommodation in the main fruit cool stores has been fully taxed during the past season. Unfortunately, flesh-collapse was again in evidence in a number of the stores, and serious losses were incurred from this affection, particularly in regard to the Sturmer variety of apple. Although extensive investigations have been continued during the year by officers of the Biological Laboratory in co-operation with this Division, no definite results have yet been arrived at. It is hoped, however, from the information now gathered, that a solution of the difficulty will be reached before long.

#### EXPORT OF FRUIT.

A considerable development has taken place in the export phase of the industry, the quantity exported during the 1923 export season being considerably in excess of that of previous years, the total number of cases shipped being 147,972. Of this number 102,490 cases were shipped to Great Britain, 40,970 to South America, and 4,512 to Honolulu. Practically the whole of this fruit was shipped under the Government guarantee of 1d. per pound net return to the growers. The returns received on the Home markets were more satisfactory than those of the previous year, and as a result the claims made under the guarantee showed a marked decrease. Although a percentage of the fruit shipped to South America realized good prices, the greater portion was sold at a loss. There were various causes for this failure, and it was made evident that more systematic methods of marketing were necessary.

The guarantee has been extended to shipments of apples made during the 1924 export season, and up to the end of March last some 98,874 cases have been exported—81,059 to Great Britain and 17,815 cases to South America. It is expected that by the end of the season the total will have reached 250,000 cases. The bulk of the fruit is being sent from the Nelson Province, with smaller consignments from Central Otago, Marlborough, Wairarapa, Hawke's Bay, and Auckland districts. In connection with the shipments to South America this year, a *c.i.f.* offer, Monte Video, for 50,000 cases of apples at satisfactory prices was received, and was recommended for acceptance by the Fruit Export Advisory Committee. There is a good prospect of this order being fulfilled. In order that reliable information would be available as to the condition, &c., of the fruit on arrival at Monte Video, arrangements were made for an officer of this Department to proceed to South America in February last. His duties were to inspect and report on the various shipments coming to hand, and also to inquire fully into the conditions prevailing on the South American markets.

#### INSTRUCTIONAL AND EXPERIMENTAL WORK.

The usual practice of giving practical demonstrations on matters relative to orchard-management generally—spraying, pruning, &c.—has been continued during the year by the Orchard Instructors in