

the minimum amount of work necessary to give the Division's recommendations a reasonable chance of success. Efforts are still being made, in conjunction with the Biological Laboratory, to find some suitable method for the control of the pear-leaf-rolling midge, which is doing a considerable amount of damage in some localities—chiefly in the Auckland District. In several districts mealy bug continues to give a good deal of trouble. Colonies of the natural enemy of this pest have been distributed from the Biological Laboratory to different infected localities, and the results will be watched with interest. Reports to hand indicate that the natural enemy to the woolly aphis (*Aphelinus mali*), colonies of which have been distributed by the Cawthron Institute to various parts of New Zealand during the past two seasons, is still doing excellent work in the control of this pest.

#### EXPORT OF FRUIT.

The 1924 fruit export season was a record one, a total of 243,429 cases being exported, representing nearly double the quantity shipped during the previous year. Of this total 200,643 cases of apples and 1,385 cases pears were shipped to Great Britain; 39,178 cases apples and 47 cases pears to South America; and 2,176 cases apples to Honolulu. The bulk of the fruit was shipped under the Government guarantee of 1d. per lb. net return to the growers. The prices obtained on the Home markets were, generally speaking, satisfactory, and little recourse was made on the guarantee. Returns obtained on the South American market were not so good, owing chiefly to the fact that the bulk of the consignments had more or less deteriorated on the voyage. As a result the claims made under the guarantee in respect to these shipments were fairly considerable.

Some valuable information was obtained by Mr. W. H. Rice, of this Division, who was commissioned to proceed to Montevideo at the beginning of last export season and inspect and report on the various New Zealand shipments coming to hand, and also to inquire fully into the conditions prevailing on the South American markets. Amongst other matters Mr. Rice mentions in his report that he is strongly of the opinion that to facilitate fruit arriving in South America in good condition it should be shipped in cool storage and not as ordinary cargo, as has been the custom hitherto.

The Government guarantee has been extended to shipments of apples made during the 1925 export season, the guarantee being restricted to a maximum of 300,000 cases. A feature of the 1925 export arrangements is that several direct shipments will be made from Nelson during the season.

#### INSTRUCTIONAL AND EXPERIMENTAL WORK.

In addition to their other duties, practical demonstrations and lectures on matters relative to orchard-management generally, pruning, spraying, &c., have been continued during the year by the Orchard Instructors in their respective districts. In addition to these, apple grading and packing classes have been conducted in the main commercial centres. A considerable number of candidates sat for the Department's certificate of competency in pruning and spraying, apple grading and packing—a fair percentage being successful.

Of the co-operative fruit-testing areas originally established by the Department in co-operation with reliable fruitgrowers, only two now remain in operation, the others having fulfilled the requirements for which they were planted. The two still under action are situated at Tanekaha (North Auckland) and Henderson (Auckland). That at Henderson is devoted to citrus-testing, which has reached an interesting point of development. The plot at Tanekaha was planted in mixed fruit-trees in 1922, and at present is only in the initial stage.

#### TE KAUWHATA HORTICULTURAL STATION.

The usual farming operations were carried out at this station during the year. Exceptionally wet weather experienced during the greater part of the year interfered to a fair extent with outside work. This was ideal for the growth of grass and field crops generally, but detrimental to fruit-growing. The breeding-ewes wintered fairly well and produced a fair percentage of lambs. Gross returns from sheep for the year were: Wool and skins, £152 19s. 9d.; fat lambs, £314 5s. 4d.; fat sheep, £8 15s. 10d.; total, £476 0s. 11d. Approximately 250 tons of dry wattle-bark were harvested, 200 tons being sold and the balance stored in sheds till required by tanners. A quantity of wattle timber has been disposed of on a royalty basis.

In the vineyard the necessary work of pruning, spraying, and cultivation was carried out. The grape crop, generally speaking, was only fair. With a view to increasing the crop a scheme of manuring is under consideration. The sales of wine manufactured at the station were slightly in excess of those of the previous year, the total quantity sold being 6,721 gallons.

#### ORCHARD REGISTRATION AND ORCHARD-TAX.

During the year a total of 6,774 commercial orchards were registered, representing some 30,000 acres of all varieties of fruits. Tax-demand notices were issued to all registered orchardists, and the amount of £1,970 collected in orchard-tax. A considerable amount of clerical work is involved in the checking of payments, changes of ownership, abandoned orchards, &c.

#### REGISTRATION AND INSPECTION OF NURSERIES.

This work has progressed smoothly, and little difficulty has been experienced in the carrying-out of the requirements of the regulations. Nursery stock generally is in good condition and comparatively free from disease. A total of 587 nurseries were registered and inspected and certificates issued. The registration fees collected amounted to £591 10s.