

FRUIT COOL STORAGE.

Investigations in connection with fruit cool storage—a very important matter to the fruit-grower—have been continued during the year, and considerable work of an experimental nature carried out in co-operation with the Department of Scientific and Industrial Research, both in the local cool stores and on board ship. This includes fruit-scald control, maturity tests with apples and pears, wastage in export fruit, &c.

Further close attention has also been given to the loading and stowage of fruit shipments and the cool-storage conditions operating on the various vessels carrying fruit overseas. The rough-handling factor on the wharves, which has no doubt contributed largely to the wastage that occurs in export fruit, has been further looked into, and, although the practice is still more or less in evidence, an improvement has been brought about.

Numerous requests for advice and information on cool storage have been met, and visits of inspection made by the Cool Storage Officer attached to the Division to the majority of the fruit cool stores in the Dominion for the purpose of affording advice on the many related problems.

INSTRUCTIONAL AND EXPERIMENTAL WORK.

Practical instruction in the many phases connected with fruitgrowing by means of lectures and public demonstrations has been carried out by the field officers, as far as the curtailed expenditure would permit. The usual classes in fruit grading and packing were held in a number of the main commercial centres, any expenses in connection therewith being defrayed by the respective fruit-growers' associations.

The comprehensive orchard research scheme put into operation last year in conjunction with the scientific officers attached to the Plant Research Station, Palmerston North, has been continued, and a very extensive programme carried out in the various districts throughout the Dominion, which entailed a considerable amount of work on the field officers concerned. The testing of a large number of spraying compounds relative to their efficacy and behaviour under varying climatic conditions, better control of certain orchard diseases, control of earwig and grass-grub, and fertilizer treatment in orchards, are some of the features of this work. Tests with various fruit-tree stocks are also being continued. Spraying experiments on a fairly large scale have been carried out at the Research Orchard at Redwood's Valley, Nelson, where a number of manurial tests are in progress. The investigations at this orchard are being conducted in co-operation with the Department of Scientific and Industrial Research.

VITICULTURE AND WINEMAKING.

The crop of wine grapes varied according to the climatic conditions experienced in the various districts. A heavy crop which ripened later than usual was produced in the Auckland District. In Hawke's Bay and Poverty Bay considerable quantities of grapes were lost as the result of a very wet period towards the end of the ripening season. It is estimated the total output of wine for the Dominion will be in the vicinity of 100,000 gallons—an increase of some 25,000 gallons on last year's figures. Reports to hand indicate that the planting of wine grapes is steadily expanding.

The yield of outdoor table-grapes was well above the average, and a good season, as far as production is concerned, was experienced by growers of grapes under glass.

Towards the end of the year Mr. J. C. Woodfin, Vine and Wine Instructor, with headquarters at Wellington, was transferred to Te Kauwhata Horticultural Station as Acting Manager.

CIDER-MAKING.

There has been an increase in cider-production, the quantity manufactured during the year being estimated at 50,000 gallons, valued for commercial purposes at £12,500.

TE KAUPWHATA HORTICULTURAL STATION (LOWER WAIKATO).

A further portion of the Station property was handed over for development purposes during the year, leaving 94 acres for horticultural and viticultural work and general farming.

Favourable weather was experienced during the flowering season, and the grape crop was a fair average one. The new vines under trial have made good progress, and a number that have fruited give promise of being well suited for the district. Sales of wine amounted to 5,596 gallons, which realized £2,894. This represents a further decline in wine sales, and is no doubt due to the continued financial stringency. Owing to decreased sales and an increased grape crop, extra storage accommodation has had to be provided in the cellar. Notwithstanding the adverse conditions, the financial position of the Station is satisfactory, receipts exceeding the expenditure for the year by £1,180.

TOBACCO-CULTURE.

Much interest is still being manifested in the growing of tobacco in the Dominion, and the demands for advice and information on this subject have been considerable. An increase has taken place in the area planted in tobacco, and it is estimated the total acreage is now in the vicinity of 2,500 acres.

As the result of several years' experience, the industry in the Nelson and Motueka districts is in a satisfactory position, some fine crops being harvested this season. The bulk of the leaf is grown under contract to the manufacturing companies operating in New Zealand at remunerative prices to the grower. Considerable headway is also being made in the Auckland and Bay of Plenty districts, where some half-dozen tobacco-growing companies are operating.