

INSTRUCTIONAL AND EXPERIMENTAL WORK.

There has been a considerable demand during the year for information and advice on the many phases connected with fruit and vegetable growing and horticulture generally. The constant changing of orchard properties also entails the giving of a considerable amount of attention to the new owners who look to the Department for advice and guidance. The lectures and practical demonstrations on up-to-date methods of orchard-management given by the Instructors in their respective districts, as far as restricted travelling-expenses would permit, are of considerable assistance to growers in combating the various problems associated with fruitgrowing. Instruction has also been given in the grading and packing of fruit—a very important matter to the fruitgrowers—by the continuation of classes on these subjects in the main commercial centres, thus giving those attending the classes an opportunity of sitting for the departmental certificate of competency in apple-grading and packing. Facilities have also been given for candidates to sit for the certificate in orchard pruning and spraying.

Further progress has been made in connection with the orchard research scheme inaugurated some four seasons ago in conjunction with the scientific officers attached to the Plant Research Station, Palmerston North, and a considerable amount of detail work has been accomplished.

One of the main features of the programme being carried out is the testing-out of various spraying compounds and other materials for the better and more economic control of diseases and pests. It is expected that the results obtained will materially assist orchardists in obtaining a greater degree of protection for their crops against pests and diseases at a minimum of cost. Interesting results are also being noted in connection with the orchard manurial trials designed with the view of determining the influence of certain manures on the disease-resisting powers of the trees and the yield and quality of fruit.

Not less important to the fruitgrowing industry are the root-stock tests with different varieties of fruit-trees, including pip, stone, and citrus.

Various trials have also received attention at the Research Orchard, Appleby, Nelson, where the operations are conducted in conjunction with the Department of Scientific and Industrial Research. Several visits to the orchard have been made by members of fruitgrowers' associations and others during the year, and keen interest manifested in the work in progress.

A further supply of filbert-trees of the species *Corylus maxima* propagated from those originally received from Messrs. Cadbury, Ltd., England, was distributed for trial purposes in different suitable districts.

VITICULTURE AND WINE-MAKING.

A steady increase is taking place in the area planted in outdoor vines both for wine and table purposes, and there has been a considerable demand for grape-vines of different varieties.

In the Auckland Province the crop of wine grapes, taken as a whole, was above the average. The earlier and main crop varieties in the Hawke's Bay and Poverty Bay Districts were considerably reduced through damage by heavy rain during the ripening period. The quantity of wine produced from the current season's crop is estimated at 148,000 gallons, an increase of some 10,000 gallons on the previous year's figures.

The crop of outdoor table grapes, mainly of the Albany Surprise variety, was slightly below the average. Prices realized were considered to be satisfactory.

Vines grown under glass were remarkably free from fungoid disease and pests. The increasing demand for the Black Hamburg and other indoor varieties would indicate that, although the returns to growers are lower than those obtaining a few years ago, there is still a satisfactory margin of profit.

CIDER-MAKING.

An increase is noticeable in the quantity of cider manufactured commercially during the year, the total being approximately 36,500 gallons, as compared with 30,000 gallons for the previous year.

THE KAUPHATA HORTICULTURAL STATION (LOWER WAIKATO).

Climatic conditions were favourable to farming operations and growth generally throughout the year. Although an unusually dry summer was experienced, there was sufficient feed for grazing purposes. A limited number of sheep and young steers were grazed for fattening, sales of live-stock amounting to £117. Some 4 acres of scrub and dead wattle were cleared for sowing in grass next autumn, and an addition of 2 acres to the vineyard partly stumped.

The grape crop was a satisfactory one, and produced approximately 14,500 gallons of wine. Some 15,304 gallons of wine which were sold during the year realized £6,842.

The interest taken in the recently introduced varieties of both table and wine grapes continues to increase, and the demand for cuttings and rooted vines was again considerable.

The financial position of the Station is satisfactory, receipts exceeding expenditure by nearly £3,000.

TOBACCO-CULTURE.

The total area planted in tobacco in the Dominion during the 1934-35 season was approximately 1,800 acres. Of this some 1,500 acres were planted in the Motueka District, 166 acres in the Auckland District, and 102 acres in the Nelson District. This shows a considerable reduction as compared with the figures of the previous year. The closing-down of a number of companies operating in the Auckland District affected the area planted in that locality. In the Motueka District, where the bulk of commercial tobacco is grown, a considerably less acreage was planted out. This shortage appears to be largely due to a lack of co-operation between the growers themselves, and also between the different companies concerned in the handling of the crop.