23 H.—29.

## Export of Fruit.

Unfortunately, the very satisfactory export trade that was being built up has had to be abandoned for the time being owing to the war, no fruit being exported during the year. The effect of this on the local markets, however, has not had the detrimental effect on prices that may have been expected. This is due, no doubt, to the improved marketing-facilities that are being adopted by many of the co-operative companies now operating in the various fruit districts, and also to the considerably increased capacity provided by means of the Fruit-preserving Industry Act for the cool storage of fruit. The following figures show the number of cases exported each year from 1908 till 1916, when exporting ceased:—

Export Season,			Number of Cases.	Export Season,			Number of Cases.
1908	 	 	1.236	1913		 	33,000
$1909^{\circ}$	 	 	191	1914	• •	 	67,964
1910	 	 	5,647	1915		 	62,164
1911	 	 	6,031	1916		 	19.246
1912	 	 	14.869				

#### Inspection at Fruit Markets and Shops.

The inspection of locally grown fruit in auction-rooms and shops has been carried out as usual, and the Inspectors report a busy season owing to the increased quantities of fruit sent on to the markets. The quality generally has been satisfactory, and lines well graded and packed. It was necessary, however, to condemn a number of consignments that were badly affected by black-spot and codlinmoth.

#### Fruit-preserving Industry Act.

The benefits of organization are being realized by the fruitgrowing community, and strenuous efforts are being made to place the industry on a sound footing. In this direction the advantages offered under the above-mentioned Act are being fully appreciated. This Act was specially designed to assist the fruit industry in the establishment of bona fide cool stores for fruit, fruit-packing, sheds, fruit-canning works, and other works in connection with the packing, grading, or preservation of fruit. Already advances have been made to some ten companies aggregating £43,000. The provision of cool-storage accommodation will have the effect of prolonging the ordinary fruit season, and thereby more adequately meet the local requirements of the Dominion between seasons.

## Certificates in Pruning and Spraying.

During the year some twenty persons sat for examination in pruning and spraying. Of these eight secured first-class certificates and five second-class. These examinations are held each year in the different centres.

# Apple Grading and Packing Classes.

During the winter months a number of the instructors held classes in fruit grading and packing. A feature of the work is the number of women now coming forward to take up this very important branch of fruitgrowing, consequent on the calling-up of expert packers for military service. Some twenty certificates of efficiency in grading and packing have now been issued.

# Co-operative Fruit-testing Plots.

Sixty-five of these plots have been established in different localities throughout the Dominion. Valuable results are now being obtained from some of the older-planted areas, particulars of which will appear in the Departmental *Journal* from time to time. Besides demonstrating what varieties of fruit are best suited to any particular district, these plots also serve as valuable guides in the correct methods to adopt in pruning, spraying, cultivation, &c.

# Spraying Experiments.

The climatic conditions prevailing during the past three years have been very favourable to the development of fungoid diseases. A disease comparatively new to New Zealand, known as brown-rot (Monilia fructigena), has made very rapid progress, causing very heavy losses, particularly to stone-fruit growers. Other forms of fungi more common to the country have also been abnormally active. With a view to again demonstrating the efficacy of the remedial methods advocated by the division in the latter case, and with the object of devising a satisfactory remedy for brown-rot, spraying experiments have been made a leading feature of the work of the division during the season, both on our horticultural stations and in co-operation with individual fruitgrowers and fruitgrowers' associations. Owing to the excessive damage done by brown-rot, and the absolute necessity of devising some reliable means of checking the disease, it is the intention of the division to take up the question of spraying experiments far more extensively during the coming season.

Tests on a considerable scale are being conducted at the Arataki Horticultural Station with spraying-compounds at various strengths for the control of orchard diseases. Some of these are—Control of woolly aphis; control of powdery mildew; control of leaf-curl and dieback of peach; control of plum-rust; control of red mite. Experiments with oil sprays at different strengths are also receiving attention. Numerous new spraying-compounds that have recently come on to the market are also being tested with the view of ascertaining their efficacy as applied to New Zealand conditions. Particulars of the results obtained will be published in due course.