Inspection of Milking-machines.—Notification of 1,357 milking-machine installations were received, compared with 2,856 for the previous year. Milking-machine installations inspected numbered 820 new and 749 used, a total of 1,242. Considerable extra work was entailed in inspection work relating to the issue of permits for milking-machine parts and rubberware as required by the Milking Machinery Control Order, and figures indicate that officers of the Division made 3,151 visits in connection with the issue of permits and issued 1,949 permits.

The purpose of this work was to conserve the limited available stocks of metal parts and rubberware, and it is estimated that as a result there was a reduction of approximately

50 per cent, in the sales of machines.

Steps have been taken to devise a type of rubberware which will utilize less raw material, and to reduce the quantity supplied to the bare necessities of the dairy-farmer. Efforts towards a more equitable distribution of the available rubberware have, however, not been altogether successful, and plans to meet the position are under action.

\*Certificate-of-record and Government Official Herd Testing.—First-class certificates-of-

record issued during the calendar year 1942 number 605, as compared with 550 in 1941.

In addition, 106 second-class certificates were issued.

Of the cows which received first-class certificates, 428 were in the yearly division and the remaining 177 in the 305-day division, average production being 520 10 and 445 80 lb. fat respectively. Second-class certificates were accorded 83 cows in the yearly division, and averaged 508 41 lb. fat. The remaining 23 were in the 305-day division, and averaged 415:01 lb. fat.

The number of cows tested under the Government official herd-test during the year was 2,595, as compared with 3,137 for the preceding year.

#### HORTICULTURE DIVISION

#### REPORT OF W. K. DALLAS, DIRECTOR

The general activities connected with horticultural affairs have been maintained at a reasonable level. Minor activities of the Division have remained in abeyance, but nothing of an essential nature has been neglected. Officers of this Division have co-operated with the Fields Division in the Services' Vegetable Production Scheme.

#### CLIMATIC CONDITIONS

Throughout the Dominion the weather on the whole was a distinct improvement on that of the previous year, conditions generally being quite favourable for the production of fruit, vegetables, and most other horticultural crops. There was an absence of damaging frosts and hailstorms in those districts where such have been previously experienced. most areas an adequate rainfall was experienced. In some districts, however, heavy winds damaged a portion of the crop, while the dry conditions which were experienced had a detrimental effect upon the normal sizing of the crop.

### HORTICULTURAL DISEASES

Black-spot has been somewhat in evidence in most fruitgrowing districts, but in comparison with the previous year can be described as only slight. The prevailing seasonal conditions, materials used, together with the attention given by orchardists to the control of this disease, are largely responsible for this satisfactory condition.

Codling-moth has caused some slight damage to apples in the Auckland, Hawke's Bay,

and Nelson districts. In other districts it is reasonably under control.

Spotted wilt of tomatoes has caused a more general loss in plants than in past seasons. Cane wilt in raspberries, particularly in the Wairarapa district, has caused considerable

damage during the past season. Measures are being taken to combat this infection.

Citrus canker for the time being appears to be quiescent. No further infection has been reported from Tauranga since June, 1942. In the Kerikeri district eradication measures have apparently proved successful, as no further infections have been recorded.

Fireblight, which has been inactive for a number of years, flared up in several districts this season. Steps are being taken to discover and cut out the "hold-over" cankers of the disease.

## Orchard and Nursery Inspection

The inspection of orchards and nurseries has of necessity been curtailed. Inspection for citrus canker has been fully maintained.

#### FRUIT AND VEGETABLE INSTRUCTION SERVICE

Orehard instruction has had to be reduced. Instruction by correspondence has been given where it was not practical to make personal visits. Vegetable-culture instruction, however, being more closely associated with the war effort, has been increased.

# EXPERIMENTAL WORK

Experimental work in the field has been much restricted, and only existing experiments and long-term projects were continued. Experiments in connection with cool storage and gas storage of fruit are still being carried out in co-operation with the Department of Scientific and Industrial Research.

Owing to heavy losses experienced in recent years by onion-growers, the Department undertook a trial in the Canterbury district with dry heat storage of onions under commercial conditions. The experiment proved successful.