(4) The separation of cream must be done in a separate room, and no internal-combustion or steam engine shall be in the same room.
(5) Cream is required to be graded, and differential payments made according to grade. At least ½d. more must be paid per pound of butterfat for finest-grade cream than for first grade, and not less than 1d. per pound of butterfat lower for second grade than for first; and in addition ½d. per pound lower must be paid for cream containing less than 35 per cent. of butterfat, irrespective of grade.
(6) The grading of cream must be done by graders holding a certificate of competency issued by the Department of Agriculture, the graders to keep certain records of their work.
(7) A number of regulations deal with the testing of milk and cream supplied to dairy factories. Owners of dairy factories are required to take samples of milk and cream and make tests for butterfat in a prescribed way, to use accurate scales, and the graduated glassware used for making the tests must be such as has been tested by the Department and found correct.

Subsidy to Herd-testing Associations.—A subsidy of £8,000 was granted for the season 1927–28, and gave a decided impetus to the important work of cow-testing. The subsidy was distributed by a special Board in order to secure the fairest and most effective allocation. The subsidy has been renewed for 1928–29, the sum granted being £10,500. The numbers of cows under herd test (not including the official herd-test system) for the past three seasons is as follows: 1925–26, 169,776; 1926–27, 170,150; 1927–28, 224,130.

Official Herd-testing of Purebred Cows.—This recently instituted scheme (an adjunct to the certificate-of-record system), has met with a gratifying amount of success. The sampling of the milk is carried out by C.O.R. officers at the time of their visits to breeders.

Control of Animal Disease.

The careful supervision maintained and the strict precautions taken in connection with importations have enabled the Dominion to continue free from many serious diseases of live-stock which cause loss in other countries, and no new trouble of any kind has gained entrance. Active measures for combating to the best advantage those diseases present here have been carried out, these consisting of research at the Wallaceville Veterinary Laboratory, closely linked up with investigations, experiments, and general observations in the field by the field staff. Those troublesome-dairy-cow diseases, contagious abortion, mammitis, and temporary sterility, have been the subject of an organized attack, specially skilled officers devoting their entire attention to this. In addition, the Director-General during his recent visit abroad made a special point of gathering all the information he could regarding what has been done in the way of research in other countries, bringing back all the new knowledge obtainable, and establishing direct contact with scientific workers similarly engaged abroad. Medicinal treatment for temporary sterility is being given a good trial. The adoption of a special blood test which enables it to be determined whether a cow is harbouring the germs of contagious abortion is proving of considerable value in aiding farmers to take precautionary measures against the spread of this disease. In the year 1926–27 the number of tests made was 837, while in 1927–28 the number was 1,953. A special vaccine for contagious abortion is being given a thorough trial.

As regards contagious mammitis, much research work has been done, and special vaccines have been and are being tested out. It is evident that management methods have a good deal to do with the prevalence of this trouble, and advice in this connection forms a feature of the activities of the field officers.

In order to increase the staff at the Wallaceville Laboratory a skilled Veterinary Bacteriologist has been engaged in Great Britain, and he is now spending some months in visiting research institutions in the United Kingdom, the Continent of Europe, and South Africa before coming on to New Zealand.

Apart from dairy-cow diseases, various troubles affecting sheep and lambs have been the subject of investigation, and in the case of a sheep-disease resembling braxy these have enabled preventive measures to be adopted which are already showing good results.

A considerable increase in our knowledge regarding the influence of the mineral content of pasture plants upon the health and productiveness of farm-animals has been brought about by research in the United Kingdom and elsewhere, including New Zealand, and this knowledge is being applied here, both in instruction to farmers on established facts, and in continued research regarding the influence of food constituents upon the incidence, control, and eradication of disease, and the maintenance of a high standard of health and productiveness. A good instance of this is shown by the successful result of the Department's lengthy investigation into bush sickness (iron-hunger) of ruminant stock, which has proved that by providing medicinally the needed constituents the trouble can be effectively prevented, or, in animals already affected, completely cured. As regards bush sickness, the Department has not been content to stop at successful medicinal treatment, but has been carrying out in a more comprehensive manner work aimed at finding a method by which the soil and the pastures can be so treated as to enable the pasture plants to provide stock with all the food-constituents necessary for the maintenance of health and vigour. This includes a soil survey of the known affected areas.

Other important investigational work which has been in progress during the past two years is being carried out in a King-country area where a definite lime deficiency has been found to exist in the soil, and this is aimed at determining the most economically effective method by which the trouble can be so overcome as to enable grazing stock to be kept in sound health and condition. In this, as in the bush-sickness investigations, the Veterinary and the Chemistry Branches of the Department