

As regards your note drawing special attention to the carriage of stock on the railways, I may mention that, in the tick-infested areas, when stock are not accompanied by a permit from an Inspector the Railway officials have instructions to warn the owner that the removal of such stock is a breach of the Cattle-tick Regulations on his part, also to report the matter to the Inspector of Stock for the district.

8. "That the attention of the Bacteriological Department of the Government be drawn to the large amount of sterility existing amongst cows at the present time, and that urgent steps be taken to cope with the trouble, which is causing very considerable loss."

*Reply.*—This question was discussed with Dr. Reakes, Director-General of Agriculture, and Mr. A. R. Young, M.R.C.V.S., Director of the Live-stock Division. It was stated that sterility is frequently associated with contagious abortion, in other cases by vaginitis, and sometimes probably by dietetic causes. The Department proposed to carry out a special investigation in order to obtain any further knowledge possible, particularly regarding preventive measures. Vaccination was not yet established as a safe and reliable treatment, and under New Zealand conditions, where the cows are not housed, there would be difficulty in applying it in practice, even if it were adopted. Officers of the Department throughout the country were doing a great deal in advising settlers and assisting them to overcome both vaginitis and abortion. The Board agreed that every possible attention is being given to the matter by the Department.

9. "That the Agricultural Department be requested to issue a leaflet on the benefits of dehorning cattle, and the best method of dehorning."

10. "That all cattle (registered purebreds excepted) be dehorned before attaining the age of two years; the Government be asked to legislate in that direction."

*Reply.*—Mr. A. R. Young's article in the *Journal of Agriculture* of January, 1918, was brought under notice, and it was agreed that it was quite suitable for reproduction in leaflet form. The Department of Agriculture was asked to publish it accordingly. An introduction is also being added to the leaflet, dealing with the great suffering and damage being caused by horned cattle in trucks and yards. The Board, however, is not at the present time prepared to recommend that the matter should be dealt with by statute as proposed.

11. "That the question of disease in turnips in the several districts affected be investigated by the Agricultural Department, the loss in the failure of crops being a most serious one to the growers and the Dominion."

*Reply.*—Mr. A. H. Cockayne, Director of the Fields Division, explained the work so far done by the Department to find a swede turnip resistant to dry-rot, the carrying-out of which work, he said, presented no difficulties from a scientific point of view, but many from a departmental point of view, as it would cost considerable money and require skilful attention from both the breeding and pathological standpoints. The Board decided to recommend to the Minister that the work should be pushed on, as the results would many times repay the outlay.

12. "That an endeavour be made to eradicate or check the spread of hutiwai, and that a most thorough method of research work be undertaken by the Department of Agriculture."

*Reply.*—Mr. Cockayne, Director of the Fields Division, was invited to place his views on this question before the Board, and the following paper read by him is quoted for the information of your executive:—

"*The Control of Hutiwai.*—It is difficult at the present moment to outline any direct research work in connection with the control of hutiwai. The Fields Division has, however, carried out a considerable amount of field-work regarding the main methods that have and are being employed against the weed.

"It has been pretty clearly shown that the continued presence and increase of hutiwai is a clear indication that either the management conditions are faulty or else the country is of such a nature that proper management is not possible. Where the spread of hutiwai has been occasioned by fairly continuous close grazing with sheep, spelling the pasture, so that the runners of the plant become raised from the ground-level, and the heavy grazing of these spelled areas by cattle alone during the late summer and winter is a regular practice. This method of control has eliminated hutiwai as a serious weed over thousands of acres in the North. On country suitable for cattle which is moderately well subdivided hutiwai offers no great difficulties in control. The number of cattle necessary for successful crushing will vary according to the badness of the weed, and the ratio of cattle to sheep may vary from one to ten down to as low as one to three and a half. A good deal, however, depends on the actual size of the individual paddock: the smaller the paddocks the wider can be the ratio.

"There are, however, two classes of country where the control of hutiwai presents serious difficulties. These are areas unsuitable for cattle-grazing and where mortality is likely to be high, and areas where the boundaries are often badly fenced and the cattle cannot be confined and are liable to be lost. In the latter cases fencing is the only solution, and in the former (and this refers particularly to steep faces and country requiring a second burn) one will have to have recourse to burning followed by surface sowing with grass. The Fields Division is carrying out some work in this direction in the Whangamomona County to determine what type of mixture is most suitable for country of this description.

"The natural-enemy method of control has not been lost sight of, but at the present time the outlook in this direction is not promising. Recently there have been reports that