

calves with stronger constitutions would result from a more prolonged feeding with milk or other reasonable substitute, and in the rearing of good calves better feeding is the basis of success. The production of stronger, better-constituted yearlings would improve the disease position generally in many herds in the course of a few years.

SHEEP.

A very satisfactory year has been experienced by the sheep-farmer in the matter of prices for wool, lambs, and fat sheep generally. Wool commanded very good prices throughout the season, and this, no doubt, largely influenced the good returns from lamb and mutton. From a production point of view, the season commenced well with an improved lambing percentage, but, unfortunately, the wet spring and summer made it difficult to fatten and finish the lambs as early as usual. Although the lambs grew well they lacked finish early and many "seconds" were seen at the freezing-works in the early part of the season. In some districts an improvement took place later and the high prices ruling have resulted in a marked increase in the killing of sheep and lambs for export. Increased slaughtering figures are given for many works as compared with the previous season.

At the same time there is a considerable carry-over of hoggets in poor condition and heavily infested with parasites. This is very general this year on account of the heavy rainfall and luxuriant growth of unsuitable feed for sheep, factors which favour parasitic propagation and infestation of stock.

Some considerable loss of sheep from pneumonia in Otago and Southland was under investigation during the year, but generally no serious outbreak of sheep disease has occurred during the year.

Photo-sensitization (Facial Eczema).—No major trouble was experienced during the year due to this condition. The climatic and feed conditions did not favour the onset of this disease. In the Gisborne district a small number of sheep were affected to a slight extent, as evidenced by the condition of some livers examined when stock in this district was slaughtered. During the months of January and February inquiries were made in regard to the condition in the Poverty Bay district.

No cases of the disease came under notice in the Mackenzie Country or in Otago Central, although species of hypericum were seen in both districts.

Parasitic Disease.—The control of parasitic disease in sheep during the past season has again proved to be very necessary if heavy losses are to be avoided. The unseasonable feed conditions for sheep throughout have made it difficult to carry over hoggets with any degree of immunity from loss. Hogget feeding and wintering is a more or less specialized branch of sheep-farming and unless farmers give special thought and attention to it the results are at times very discouraging. The provision of supplementary feeding in the way of hay, roots, ensilage (and in some cases oats and peas are available) reduces the risk of loss to a very marked extent. It is necessary also to provide a balanced ration wherever possible, as too much watery feed such as roots alone prove of doubtful value. Too much emphasis is often placed on the use of drenches of worm preparations without due attention to the feed conditions. In other cases, although the feed conditions are reasonable, drenching is totally neglected or left until the hoggets become weak and scouring takes place. The instructions given by field officers to drench early and repeat at intervals with a reliable drench such as the copper sulphate-nicotine mixture, and attention to the feed conditions are most satisfactory, and where carried out give very satisfactory results. It is pleasing to record that this drench is being quite generally used in the eradication of worms from infested stock.

Infectious Enterotoxaemia of Lambs (Pulpy Kidney).—Reports indicate that in the Otago district the losses from this disease were generally below the average of the last two years. In a few instances, however, lambs of an older age were affected with the disease, and this also applied to some losses recorded in the Nelson district.

An extension of the vaccination of the pregnant ewe with a view to conferring immunity on the lambs through the colostrum was organized and carried out by Mr. Dayus, District Superintendent, Dunedin. Mr. Dayus reports: "In all, 2,608 ewes were vaccinated with a vaccine prepared at the Wallaceville Veterinary Laboratory. In addition, observations were maintained on a group of 1,141 ewes, which were vaccinated by farmers, in some cases without help, with a commercial enterotoxaemia vaccine purchased from the Commonwealth Serum Laboratories, Royal Park, Victoria. In all cases a suitable number of control ewes were reserved, which, with the vaccinated ewes, were depastured together. The results briefly show that in the group of 2,608 vaccinated ewes the losses of lambs from pulpy-kidney disease were eight, whereas in the control group of 2,500 unvaccinated ewes the losses totalled eighty-four, or in other words the losses of lambs from vaccinated ewes were 0.306 per cent., whereas the loss of lambs from the control unvaccinated ewes was 3.36 per cent. In the second trial, using the commercial vaccine, the losses of lambs from 1,141 vaccinated ewes were 22, or 1.92 per cent., whereas the losses of lambs from 2,275 control ewes were 84, or 3.68 per cent."

Lymphadenitis.—Although the incidence of this disease in sheep is not so high in New Zealand as in some other countries, it is, nevertheless, a disease which, from a carcass and meat inspection point of view, requires to be kept in check to enable the export of these products to be carried out without any undue restrictions. It has been clearly demonstrated that the regular annual palpation of live sheep will detect affected animals and a continuance of this practice on infected properties over a few years leads to a marked reduction of the disease in infected flocks. Furthermore, the precautions, previously outlined, at shearing-time should be more seriously adopted by farmers in order to reduce the incidence of the disease in the carcass to a minimum. The chronic nature of the disease which allows it to remain undetected in many cases until the carcass is examined for export may account for a lack of interest. Affected carcasses are rejected for export.