

Commenting on the use of the vaccine in the Dunedin district, Mr. Dayus, District Superintendent, reports:—

"The experience of the 1937 season in Otago and Southland, where the vaccine has been used by farmers themselves on a more extensive scale than was formerly possible, has supported the results obtained in the earlier experimental work previously recorded. It was not claimed then that the loss from pulpy kidney in lambs would be entirely eliminated by vaccination of the ewes. The contention was put forward that there was a possibility of reducing the mortality, and this has been the case in the more extended trials under practical farming conditions. In the majority of cases mortality has been very considerably reduced, thus making vaccination a practical and economic consideration. It seems evident that many more sheep-farmers will carry out the vaccination of their ewes next season. The vaccine is being stocked, as before, at the Veterinary Laboratory, Wallaceville, Wellington. That farmers themselves are reasonably satisfied with the results is evidenced by the inquiries received to obtain vaccine for this coming season. Many of those using it on a large scale last season have already put their orders in for this season's supply, and they are satisfied that the results justify the expense and trouble. It is to be hoped that the vaccination method, which is now developing into an established procedure, will produce permanent results; if this is so, then we shall have gone some distance on the way to effectively controlling pulpy kidney in lambs."

*Lymphadenitis*.—The Division continues to advise sheepowners in instances in which a high percentage of sheep are found affected with lymphadenitis on slaughter at freezing-works, and particulars of the precautions necessary to reduce the incidence on the farm are given. Sheep-farmers would be well advised to take more cognizance of this disease in their flocks, as it has a very important bearing on the examination of mutton for export on account of the stringent view taken of its presence in the carcass by the Ministry of Health, England. The eradication or lessening of the disease on a farm is a matter of considerable economic importance.

*Pregnancy Toxaemia (Ante-partum Paralysis) in ewes*.—Some losses from this disease took place in Hawke's Bay, where owing to dry conditions an acute shortage of feed existed, resulting in a serious loss of condition in the ewes. The disease was also reported as fairly prevalent in North Otago, where a dry season again occasioned feed shortage. The provision of supplementary feed to ensure that no break occurs in the balanced feeding of the ewe flock during the gestation period is the surest way for sheepowners to prevent the occurrence of this disease.

*Contagious Ecthyma (Sore Mouth)*.—Vaccination against this condition with vaccine prepared at the Wallaceville Laboratory continues to give excellent results. In the Tapanui district 2,622 lambs were vaccinated, and in only one of this number did the condition make its appearance. Vaccination in the Wairarapa and Wanganui districts on farms on which the trouble was prevalent gave similar satisfactory results.

*Hydatid Disease*.—The high incidence of hydatid disease in the viscera of slaughtered stock constitutes a serious reflection on stockowners in the apathy which is generally shown regarding any attempt to control this disease. Owing to the publicity given to the life-cycle of this parasite every farmer should know the relationship between the hydatids found in the lungs and livers of sheep and cattle and the tapeworm of the dog. Until such time as the feeding of raw offal to dogs is discontinued the incidence of this trouble is not likely to become less. The publicity work accomplished by the Hydatid Research Department of the Otago University in its efforts to lessen the most serious aspect of the problem—hydatid disease in human beings produced through infection from dogs harbouring tapeworms—is deserving of the greatest praise, and it is hoped that the legislation which has been passed providing for a year's supply of arecoline hydrobromide (worm medicine) to be issued to each dog-owner at time of registration of the dog will have the effect of materially lessening the incidence of this most serious disease communicable to human beings. The two things necessary for the farmer to do are (1) dose all dogs on the farm with arecoline hydrobromide four times a year, and (2) stop the feeding of raw offal to dogs. If these conditions were fulfilled by the farming community hydatid disease in human beings in New Zealand would in a short time be eradicated.

*Liver-fluke and Black Disease*.—The control of black-disease in the liver-fluke-infested country of Hawke's Bay is now well under control by the use of black disease vaccine. During the year Mr. Macfarlane, Zoologist, Wallaceville Laboratory, identified the snail which acts as the intermediate host of the liver-fluke in the Hawke's Bay district.

The presence of liver-fluke was reported in both cattle and sheep killed during the year at the Dunedin abattoir. This is the first known record of liver-fluke in Otago. The origin of the sheep and cattle has been traced, and an investigation by Mr. Macfarlane to determine the position has been arranged.

*Sheep Blowfly*.—The investigation which has been commenced into the blowfly problem in Marlborough continues, Mr. Macfarlane, of the Wallaceville Laboratory, being in collaboration with Dr. Miller, of the Cawthron Institute, in the survey. Mr. Blair, District Superintendent, Christchurch, reports a heavy incidence of blow-fly strike in Canterbury during the summer, the climatic conditions being favourable to the fly.

*Foot-rot*.—With the exception of Canterbury, the incidence of this disease during the year was not high, yet it must be recognized as a factor of considerable economic loss to the sheep-farmer. Control measures must be based, firstly, on recognition of the contagious nature of the disease, and, secondly, on the definite necessity of strict isolation of affected sheep until recovery takes place. A comprehensive article on foot-rot prepared by Mr. Doyle, Veterinarian, Dunedin, will shortly appear in the *Journal of Agriculture*, and will detail the full measures necessary in the suppression of the disease.

*Lice and Ticks*.—Careful inspection of sheep exposed for sale at saleyards was maintained during the year by the stock inspection staff. It was necessary in many instances to lay informations against sheepowners for having exposed their sheep for sale in a lousy condition, but the necessity for such action has not shown an increase on past years.