

ENZOOTIC ICTERUS.

Several cases have been seen during the year, and cases of anæmia in hoggets have occurred in which the liver lesion—i.e., the supposed Gaucher cells, have been found.

SWINE.

MANGE.

Early in the year *Sarcoptes scabiei* var-*suis* was found present in scrapings from white pigs from the Manawatu. Subsequently a number of pigs on widely separated farms were found affected. Inspectors of Stock have sent in since then 148 scrapings from pigs all over New Zealand, and in 81 the parasites or their eggs have been seen. Compulsory treatment with crude oil will no doubt keep the parasite in check.

TRICHINOSIS.

Following a report on a case of trichinosis found in Wellington in a human being, 19,625 portions of diaphragm from different pigs were examined for the parasite, but with entirely negative results.

PIG-FEEDING TRIALS.

A number of weaners were fed in batches on whey-paste, meat-meal, and pollard, with a base of waste milk, the whole experiment being subjected to a costing process. Meat-meal was shown to give better weight and better bloom than other foods, and also was fed at a lower cost.

MISCELLANEOUS.

The remaining swine specimens were mixed, including spirochaetal ulcers, pasteurellosis, suspect abortion, parasitic condition, and diphtheritic enteritis.

POULTRY DISEASES.

Bleeding Experiment.—In continuation of the experiment related in last year's report, it may be recorded that the only hen left of three original bleeders used in breeding, died from anæmia due to hæmorrhage. Even after hæmorrhage had ceased, iron and ammonium citrate failed to raise the vitality of the bird. Two pullets and one cockerel from those bred from bleeder hens have developed bleeding, one from a feather follicle of the wing, the other two from leg scales. The remainder of about two dozen of these birds have been killed or have died except three pullets and one cockerel, one of the pullets being a bleeder. Biochemical tests on blood give no outstanding peculiarities, except anæmia at the time of hæmorrhage.

An Osteitis, similar in appearance to Paget's disease of human beings, appeared in a flock of poultry in the Wanganui district. The thyroid glands were so small in these cases that they were difficult to find, but percentage of iodine was normal. No tumours of the parathyroid were present, but the lymph glands appeared to be enlarged. The condition is one worth recording, but etiology is unknown.

NEWLY OBSERVED PARASITES.

Parasites observed or reported in this report for the first time in New Zealand during the year comprised the following: *Ixodes neumannii*, found on a Kiwi; *Chorioptes communis*, from udder of a cow; *Oesophagostomum brumpti*, from intestine of a monkey at the Wellington Zoo; *Sarcoptes scabiei* var-*suis*, from pigs.

QUARANTINE STATION.

Eleven dogs and five bitches were passed through quarantine; one bitch whelped. A percentage of animals were infected at the time of receipt with a very irritant dermatitis. There is no apparent parasite of any description to be seen present, and it would appear to be of dietetic origin. Treatment with external ointments and Donovans' solution internally has been developed and has proved very beneficial, the dogs usually being normal by the time they leave quarantine.

BIOCHEMICAL WORK.

Following is a report on biochemical work performed by Mr. S. W. Josland, Assistant in Biochemistry:—

"TECHNICAL.

Inorganic Phosphorus.—It has been the practice to determine inorganic phosphorus on the serum. In many instances, due to the difficulty of collecting and preparing serum-samples under field conditions, it has been felt that the results obtained for inorganic phosphorus have been higher than they should be, owing to the hydrolysis of organic acid soluble phosphorus. To overcome this difficulty an improved method of sampling has been introduced similar to that suggested by Dr. Malan, Biochemist, Onderstepoort (Union of South Africa, 10th Report, Director of Veterinary Services, 1930). By this method hydrolysis of organic acid soluble phosphorus is reduced to a minimum for a period of at least eight days, and the values obtained for inorganic phosphorus may be taken as fairly indicative of the degree of aphosphorosis of the animals concerned.

Magnesium.—The method in use for the determination of magnesium in serum is under investigation. Through the courtesy of the Chief Chemist a series of gravimetric determinations of magnesium have been made on samples on which micro-colorimetric determinations have been carried out. In all cases the determinations have yielded colorimetrically considerably lower results for magnesium. Experiments are being conducted with a view to improving the micro-technique.