Notes.

NEW RECORDINGS OF ANIMAL DISEASES.

Animal diseases and parasites, not previously recorded in the Territory are described. All were found in livestock in the Morobe District of New Guinea.

Ascaris Vitulorum—

A specimen of *A. vitulorum* was passed by a zebu calf at Singaua during collection of a faecal sample.

A. vitulorum is a large worm, measuring up to 30 cm. in length with a soft transluscent appearance. The life-cycle is migratory, involving stages in the liver and lungs. From the lungs, the larvae migrate up the trachea to the pharynx and pass down the oesophagus to the intestine, where they mature. In a pregnant animal, the foetus may become infested when larvae escape into the general circulation.

Symptoms produced by this parasite include loss of appetite, unthriftiness and diarrhoea. Piperazines are effective in removing *A. vitulorum*.

Avian Encephalomyelitis—

An outbreak of this disease occurred among a batch of chickens imported as day-olds into Lae. There were 500 chickens in this batch and they were three weeks old when the outbreak started. Deaths occurred over a period of one week with a total of 21 (4%) affected. All affected birds either died or were destroyed.

Avian encephalomyelitis is caused by a virus and is generally seen in chickens one to two weeks old. The disease is believed to be transmitted to chickens from infected breeders via the egg. Mosquitoes are thought to transmit the disease among breeders.

Affected chicks first show a dull expression followed by an ataxic gait. The ataxia becomes more pronounced as the disease progresses, the chickens resting on their haunches and showing little control over their gait when disturbed. A tremor of the head and neck may be evident. The ataxia progresses until the chick is unable to move about and death follows.

Avian encephalomyelitis may be confirmed by histopathological examination of the central nervous system. Confirmation of the Lae outbreak was made in this manner.

Avian Thrush—

This disease was diagnosed among a batch of nine weeks old chicks reared on a large poultry farm in the Morobe District. In this outbreak about 25 per cent. of the batch of 150 were affected and about 10 per cent. died or were destroyed. Lesions consist of easily removed necrotic material in the corners of the mouth. Two birds were autopsied but did not show the commonly described crop and proventricular lesions.

The disease is caused by a fungus *Monilia albicans* which was cultured from an affected bird in this outbreak. No effective treatment is known and in this outbreak the birds threw off the disease as they matured.

Enzootic haematuria—

Enzootic haematuria was diagnosed in a native-owned cow in the Wain Census Division. In the past, other cows in this area are said to have died with similar symptoms.

Enzootic haematuria is characterized by the intermittent passages of bloody urine, leading to emaciation, weakness and death due to anaemia. At autopsy, haemorrhages and friable, easily bleeding tumours (haemangiomas) are found in the bladder wall.

The cause of this disease is not known. It occurs as an area problem, usually on poor, neglected or recently opened up land and tends to disappear as soil fertility and land management improves. No effective treatment is known.

Juvenile osteoporosis—

This nutritional disease, characterized by poor bone development, has been commonly seen in cats at Lae.

Generally cats under six months of age are affected. Symptoms usually appear suddenly and include reluctance to move, lameness, posterior weakness progressing to posterior paralysis and obvious deformity of the hind quarters. Affected cats resent handling.

Juvenile osteoporosis of cats is caused by a deficiency of calcium in the diet. Popular cat foods such as muscle meats, heart, liver and kidney are low in calcium and the diet of young

cats should always contain milk to provide the necessary calcium. Cats when young can be taught to eat many foods, though later when eating habits are well established, they may starve rather than change. In these cases, when milk is refused, calcium tablets should be provided.

In the early stages of the disease addition of a calcium supplement to the diet often produces a dramatic cure, however, later in the course of the disease, the condition is incurable.

Trichostrongylus axei—

Some specimens of *T. axei* were found in the stomach of a horse at Lae during a routine post-mortem examination.

The adults of this nematode are very small and slender, measuring up to 8 mm. in length. The same species is found in the abomasum of cattle. The life cycle of *T. axei* in horses is uncertain but is known that the larvae penetrate the mucosa of the stomach.

The worms cause a chromic inflammation of the stomach and can cause a loss of condition in infested horses. Carbon disulphide and phenothiazine have both been recommended for treatment of *T. axei* infestation in the horse.

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THE PREPARATION AND GERMINATION OF BESOEKI COFFEE SEED.

Besoeki strain of Robusta Coffee beans realize premium prices, and consequently the policy of the Department of Agriculture is to supply seed of only this strain to Extension Centres and private growers.

Preparation of Seed—

After harvesting, the berries are pulped mechanically to remove the skin, and the beans are allowed to dry in the shade for a few days, during which time damaged and broken beans are removed. The seed is then mixed with powdered charcoal or woodash to dry off the remaining moisture and to prevent the beans from sticking. Seed is then ready for packing and distribution by air-freight. There are approximately 1;100 Besoeki coffee seeds to the pound.

Germination—

A study has been made on the effect of age on the germination of Besoeki seed. Results have shown that a very poor strike is achieved from seed which has been held for more than two months. It is preferable for the seed to be planted within a month of the date shown on the back of the Certificate of Inspection which accompanies the package. Germination should commence about a month after planting.

A trial was carried out on one month old Besoeki seed to compare depths of planting of one inch and half inch. Results showed that slightly earlier germination resulted from half inch planting, but by forty days after planting, one inch planted seed germinated faster than half inch. By the end of the trial, one inch planting resulted in 70 per cent. germination, against 60 per cent. for the half inch planting.

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