Definite fleeting hypomagnesæmia occurred in two cows, while in a third the condition was more prolonged and accompanied by clinical symptoms of grass staggers.

The design of the experiment was such that definite conclusions as to etiology could not be drawn.

The occurrence of two cases of grass staggers in the two experiments was, however, interesting in view of the fact that the animals were well fed throughout the previous winter.

New experiments are under consideration, and older cows, more susceptible to grass staggers, will be employed.

Johne's Disease.—A small supply of P.P.D. has been obtained by courtesy of Dr. Watson, Director of the Veterinary Research Institute of Ottawa, Canada. This is being tried in the field.

Production of johnin at Wallaceville has not yet been put on a practical basis.

Experimental work in connection with Johne's disease is very desirable, and the purchase of a farm for definite observation over at least a five-year period would appear desirable.

Contagious Abortion.—No experimental work has been carried out on this disease. In the two laboratories of Hamilton and Wallaceville a total of 1,514 blood-samples have been examined, 469 of which were positive.

Arsenic Poisoning of Cattle.—In connection with the toxicity of arsenic in the Reporoa area, certain experiments were carried out at Wallaceville on cattle by Mr. L. W. N. Fitch.

A heifer was drenched with four grains of arsenic (As), as sodium arsenite, daily for three days. Examination of milk and urine by the Chief Agricultural Chemist showed no increase in the arsenic content of milk and urine, so, ten days later, a further 16 grains of arsenic was administered. This amount was repeated on the two following days. The beast appeared unwell on the day of the third dose. The following day she refused to eat, her gait became unsteady, and she died on the fifth day, after receiving her first dose of 16 grains. Post-mortem, she exhibited a most severe ulcerative gastritis, while the first part of the small intestine was acutely inflamed.

Following this drenching experiment, two steers were fed, over a prolonged period, arsenic containing mud from farms in the Reporoa district on which mortalities, supposedly due to arsenic poisoning had occurred.

No. 1 steer received mud containing 1·75 grains of As_2O_3 per ounce from the 23rd May, 1939, to 20th August, 1938, at the rate of 2 oz. per day in the initial part of the experiment. Later it was increased to 4 oz. daily.

No. 2 steer received mud of approximately twice the concentration of arsenic, part being present in the form of the sulphide. This steer was fed from 4th October, 1938, to 20th December, 1938, at the rate of 20 oz. daily.

At the termination of the above periods, as the animals were showing no serious symptoms, they were turned out.

Ragwort-feeding to Cattle and Sheep.—A cow mentioned in previous reports as having been kept, together with sheep, on a diet of 1 lb. of rosette-stage ragwort per day and later for three months having been given ragwort-infusion, has recently calved and appears to be quite normal.

The two sheep were kept on ragwort until the end of this year, a period of two years and a half. They were then slaughtered, and an examination made of the livers. One sheep was normal but the second showed some increase in fibrous connective tissue, together with a number of so-called Gaucher-like cells. Apparently the amount of toxin to be found in rosette-stage ragwort is very low and insufficient, unless fed in large quantities, to cause any serious damage to sheep and to cattle.

Sheep Diseases.

Diagnosis.—Five hundred and thirty-six specimens from sheep were received, but the outbreak of facial eczema accounted for two-fifths of the specimens. Of the others, entero-toxæmia accounted for eighty-seven and contagious ecthyma for sixteen. One case of tuberculosis was recorded.

Two cases of blackleg in sheep were recorded following inoculation of the flock against entero-toxæmia. This is not uncommon in Australia and is not alarming, but is reported as a matter of interest.

Enzootic icterus appears to have been a little more prevalent this year, while the dry autumn resulted in a considerable amount of rye-grass staggers following the first showers of rain. While considerable suspicion has always existed that ergot in some form is present causing staggers, the experience in hoggets at Wallaceville rather disproves the ergot theory.

Facial Eczema.—Owing to an extensive and acute outbreak of facial eczema in April of this year it became necessary to undertake a serious investigation of the disease, and all the facilities of the country were called into operation.

Dr. J. F. Filmer was called upon to co-ordinate the work, and he reports as follows :—

> "(1) In May, 1938, a Facial Eczema Management Committee was convened by the Minister, comprising Dr. J. F. Filmer, Chairman, Dr. Annett, Messrs. Hayward and Anderson, representing the stock-owners, Mr. E. Bruce Levy representing the Department of Scientific and Industrial Research, and Mr. O. W. Smallfield. The research work in connection with facial eczema has since that date been co-ordinated by this committee.
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> "(2) During the 1938 outbreak a field survey was made in the Waikato District by five veterinarians and five agricultural instructors assisted by agrostologists from the Department of Scientific and Industrial Research. Based on the information collected by these officers, advice has been issued to the farmers with a view to enabling them to prevent recurrence