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The Effect of Transmissible Gastroenteritis on the Metabolism of Baby Pigs

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by their clinical manifestations and pathological changes. (2) To determine the etiological agent for each of these diseases and possible relationships between them. (3) To determine by standard epidemiologic means the geographic distribution, incidence and importance of these diseases in the cattle population. (4) To develop adequate means of prevention and control of these diseases.

The procedure to be used in attaining these objectives are as follows: (1) Sufficient numbers of natural and experimentally induced instances of each of these diseases should be subjected to critical clinical and clinical-pathological examinations. Complete gross and histologic pathological studies should be made on natural and experimental cases during the course and at the terminal stages of the disease. This will be necessary before adequate comparisons can be made between these various similar diseases. (2) The first step in this procedure must be to determine by proper means whether the disease is transmissible. If the causative agents are infectious in nature adequate comparisons as to their relationships should be determined by acceptable standard procedures. These procedures would include cross-protection tests, serum neutralization tests and other serological procedures. Studies of the physical and chemical properties of the agent should be included. (3) After the etiologic agents have been determined and serological techniques have been developed, valid surveys can be instituted to determine the extent and incidence of the various diseases in this group. This will permit a critical evaluation as to the economic importance of these conditions. (4) With an understanding of the causative factors adequate control measures may be developed by the proper use of specific vaccines or other biological or pharmaceutical preparations.

Committee
P. D. Beamer, University of Ill.
Fred Maurer, Armed Forces Institute of Pathology.
K. McEntee, Cornell University.
D. G. McKercher, University of California.
L. O. Mott, Agricultural Research Service.
C. J. York, Pitman-Moore Company.
Chairman, W. R. Pritchard, Purdue University.

Dykstra Veterinary Hospital
The new Dykstra Veterinary Hospital at Kansas State College has been named in honor of Dr. R. R. Dykstra, deam emeritus of veterinary medicine. The dedication ceremony for the modern $575,000 two story native limestone structure will take place on June 2, 1955, in conjunction with the veterinary college’s Golden Anniversary. Besides providing facilities for small and large animals there is a large amphitheater with a seating capacity of 285. Dr. Dykstra, a member of the graduate class of 1905.

THE EFFECT OF TRANSMISSIBLE GASTROENTERITIS ON THE METABOLISM OF BABY PIGS. The effect of transmissible gastroenteritis infection upon feed consumption, water, nitrogen, sodium, and potassium balances and blood constituents of 6 young pigs was investigated. Six pigs were maintained as noninfected controls. The pigs were 26 days of age at the time of infection. The incubation period as measured by the appearance of vomition or diarrhea varied from twenty-four to seventy-two hours. All the infected pigs showed symptoms of the disease. The pigs lost an average of 4 per cent of their body weight during the last two 24-hour periods. Feed consumption, weight gain, blood glucose, and the amount of water, nitrogen, sodium, and potassium retained were decreased by the infection. Following infection the fecal water was increased forty-fold and hemoglobin values were slightly increased. There was no elevation in the average temperature of the exposed pigs. The heart, liver, kidney, spleen, and intestine weights were calculated as percentage of body weight and comparison of these values for the infected with noninfected pigs revealed no differences.


Iowa State College Veterinarian