

## VETERINARY MEDICINE

# Virus Threatens Porkers

➤ A SERIOUS potential threat to the nation's \$2 billion pig industry was revealed in Washington, D. C., with the announcement of a hitherto unrecognized hog-cholera virus which causes outbreaks shortly after injection of the standard anti-serum.

The U. S. Bureau of Animal Industry identified the variant virus when it checked on post-treatment outbreaks which occurred this summer in Iowa, Nebraska and Minnesota.

It is believed that the variant virus was introduced into affected herds as part of the cholera—anti-cholera treatment, when the variant instead of the standard virus was unknowingly injected. A small quantity of the standard virus is injected at the time of serum inoculation to make the immunity permanent.

Until this announcement, only one hog-cholera virus was recognized. Government scientists stress the point that if standard virus is used in the treatment, immunity

is completely effective against both forms of the disease.

Hog-cholera, which is spread by flies and possibly other insects and birds, strikes suddenly, wiping out whole herds in a short time. Ever since it was recognized as a virus disease early in the century, it has been kept under close control, although there was a serious outbreak in 1926, due largely to inadequate supplies of serum.

In a single year losses have run as high as \$65,000,000. Hog-cholera is one of the first diseases to be studied by the Department of Agriculture, having been investigated as early as 1878. The policy has been one of control, not eradication.

In the absence of exact figures, present losses from hog-cholera are estimated to be about 20 to 30 pigs per thousand. The 1948 hog population was 55,038,000, estimated to be worth \$2,355,609,000.

Science News Letter, December 3, 1949

But they found more destruction, particularly to the central nervous system, than previous work indicated. It was noteworthy that animals exposed to repeated episodes of deficiency showed damage in the brain centers known as the basal ganglia and other tissue which in man are often involved in Parkinson's Disease.

No neuritis was found in the thiamine-deficient monkeys, confirming recent work which indicates that this condition is the result of a multiple deficiency.

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## MEDICINE

# Vitamin B<sub>1</sub> Lack Harmful

➤ A VITAMIN B<sub>1</sub> deficiency apparently will do more harm to the central nervous system than scientists have thought it would.

This is reported by Dr. James Rinehart, professor of pathology at the University of California Medical School in the the ARCHIVES OF PATHOLOGY (Aug.).

Dr. Rinehart and his associates, Dr. Louis D. Greenberg and Melvin Friedman, are in the midst of a study of the effects of vitamin B deficiencies in the monkey.

Nearly all past studies of vitamin B<sub>1</sub> deficiency have been done on lower animals, particularly rats. So. Dr. Rinehart wanted

to find out just what the deficiency would do to an animal which more closely resembles man physiologically.

Precise studies of such deficiencies in monkeys have become possible only recently, with the development of a reliable synthetic diet for these animals. By withdrawing a single nutritional factor from this diet, scientists can determine the effects of its withdrawal.

Dr. Rinehart and his colleagues confirmed previous findings with lower animals including damage to the central nervous system, the heart and interference with red blood cell manufacture.

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