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Beach, B. A.

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BULLETIN NO. 4

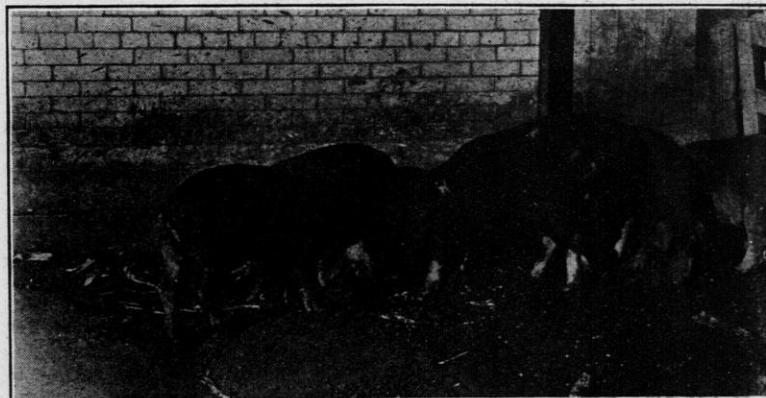
NOVEMBER, 1913

WISCONSIN BANKERS' FARM BULLETIN

HOG CHOLERA AND ITS PREVENTION

BY

B. A. BEACH
ASSISTANT VETERINARIAN
WISCONSIN COLLEGE OF AGRICULTURE



HEALTHY, CHOLERA-IMMUNE PIGS

(These Pigs had been given the serum treatment and remained well after exposure)

DO NOT DESTROY THIS BULLETIN BUT FILE IT WHERE YOU CAN FIND IT
WHEN WANTED.

HOG CHOLERA AND ITS PREVENTION

Any disease of live stock which makes so serious inroads into the available meat supply of the country as does hog cholera should be given serious consideration and all possible steps taken to control, prevent and eradicate it. The annual loss is many millions of dollars and is yearly increasing, consequently pork prices are steadily advancing and the "meat famine", so much talked about, may become a reality unless drastic measures are taken.

Hog cholera was probably introduced into this country from England in 1833. Now the disease is prevalent in every state in the union to a greater or less extent. The **Geographical Distribution.** worst outbreaks occur in the corn belt states for the simple reason that more swine are grown there. It has been reported in 44 of the 71 counties in Wisconsin during the past year.

No germ has ever been found which can be considered the sole cause of hog cholera. If a germ is the actual cause it is so small that it will pass through a porcelain filter which will not **Cause.** permit the passage of the smallest organism known to scientists. Therefore the causative agent is referred to as a "filterable virus."

The infection may be transferred from place to place in a number of different ways, among the more common are the following:

How Spread. 1. Dogs and birds; 2. Running water; 3. Shipping crates, wagons and stock cars, or in any way by which particles of dust or filth can be carried from place to place.

Unfortunately the symptoms of hog cholera are not constant, but vary with the individual and in different outbreaks. The disease may take an acute or chronic form, the difference being **Symptoms.** largely one of duration. At times the first animals affected die very rapidly, some of them even before they develop noticeable symptoms. Usually, however, it will be observed that the pigs

1. Do not come up to the trough at feeding time and refuse to eat or eat very little.
2. Huddle together and attempt to hide in the straw.
3. Resent being aroused and when made to walk appear to be stiff and sore.
4. Have a characteristic hacking cough.
5. Have a watery discharge from the eyes which may dry up and gum the lids together.
6. Become constipated for the first few days. This is followed by a persistent diarrhea.

7. Develop a fever which is shown by a rise in the temperature from 104° to 109° F. (The normal temperature varies between 100° to 103 1/2° F.)

The characteristic markings of an affected carcass are important guides in determining whether or not death was due to hog cholera.

Post Mortem Findings. Among the principal changes may be mentioned the following:

1. The skin along the belly and flanks assumes a red color.
2. The numerous lymph glands of the body, especially those of the throat and along the intestinal tract, become congested.

3. Red patches appear in the lungs and other signs of pneumonia are present.

4. The kidneys show small, red spots on their outer surfaces.

5. The marrow of the bones changes to a black color in advanced cases.

Good husbandry consists in keeping the herd free from disease. The following directions are given as an aid to this end, and should be carefully observed in neighborhoods where **Preventive Measures.** cholera prevails.

1. Avoid going to your neighbors' hog pens where cholera is thought to exist.

2. Keep the dogs and other pet animals shut up.

3. Quarantine newly purchased or borrowed hogs for 4 or 6 weeks. Especial reference is here made to show animals returned from fairs and stock exhibits.



PIGS SICK AND DEAD WITH CHOLERA

(These Pigs had never been treated with the serum and later all died from Cholera)

4. Disinfect the pens and troughs daily (5% carbolic acid solution, 5% solution of commercial formalin or 3% creolin solution in water are effective disinfectants.)

5. Keep the hogs hungry so that their bowels will be active.

6. Do not feed too much new corn—a slop diet is best.

7. Have all hogs vaccinated with serum to prevent the disease absolutely.

1. The serum alone method or the injection of hog cholera serum into the hog's tissues. This treatment will render swine immune for a few weeks to three months. It should be used, (a) In herds where the disease has already made its appearance; (b) In herds where it is desired to hold the hogs only a short time in order to fit them for market.

2. The simultaneous method or the injection of disease producing blood (virus) and serum at the same time. There is considerable danger of loss from this treatment, but if the animals survive they will be immune for life. The losses following this method have been so great in Wisconsin that it has been largely discontinued.

3. The combination method or the injection of serum alone followed in 7 to 14 days by the injection of serum and virus. This method is recommended as the safest and most satisfactory where a permanent immunity is desired. It can be employed in infected herds as well as in cholera-free herds.

The best site to inject the serum is the arm pit or the loose skin between the front leg and the body. Injection into the ham is objectionable inasmuch as deep abscesses

Where and How to Vaccinate. may form and render the ham unfit for food. Large hogs are snubbed up

to a post and vaccinated behind the ear. The temperature of all animals should be taken before treatment and virus given to none with a temperature higher than 104° F. The site of injection should be thoroughly scrubbed with soap and water to which some antiseptic has been added, then sponged off with carbolic acid solution or some other good disinfectant. The serum should be injected with a previously sterilized 20 or 30 c.c. hypodermic syringe; the virulent blood with a separate syringe, care being taken not to inject virus at exactly the same point as the serum in order to avoid a mechanical mixture.

Keep the animals for three or four days before they are to be vaccinated in clean, dry quarters and reduce the feed one-third.

Care of the Hogs Before and After Vaccination. Plenty of fresh, clean water should be provided. After vaccination the hogs

should be fed sparingly with a slop or soft feed, and kept away from mud holes and wallows. Sanitary quarters are essential to a successful termination especially if virus has been employed.

Hogs that have been kept in damp, filthy quarters or those suffering from some other disease should not be given the serum treatment.

Precaution. If a hog is unthrifty or is infected with chronic cholera he should not be treated for the results will be unsatisfactory. It is often difficult to determine whether infection is present or not unless a very careful examination is made by an experienced veterinarian.

The State Serum Plant. The last legislature passed a law authorizing the Agricultural College at the University of Wisconsin to manufacture and sell hog cholera serum at one cent per cubic centimeter to residents of the state. This is less than half the price charged for most commercial serums.

On account of the danger of spreading hog cholera by the virus, a provision was included in the law which limits its use to veterinarians and by them only with the consent of the state veterinarian who should be notified of all outbreaks. The serum is supplied to any swine owner upon request to the Veterinary Department, College of Agriculture, Madison, Wis. Information about the doses required for hogs of different weights and related matters will be cheerfully given upon request.

Similar Bulletins upon topics of timely interest to farmers, will be issued monthly by the Agricultural Committee of the Wisconsin Bankers' Association. Future bulletins may be secured upon request to local banks, Members of that Association.