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### Brucellosis (Bang's Disease or Contagious Abortion) : In Cattle, In Hogs, in Man

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# Brucellosis

(Bang's Disease or Contagious Abortion)

IN CATTLE

IN HOGS

IN MAN

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AGRICULTURAL EXTENSION SERVICE

SOUTH DAKOTA STATE COLLEGE

U. S. DEPARTMENT OF AGRICULTURE

George I. Gilbertson, Director of Extension

In Furtherance Acts of Congress May 8, June 30, 1914

tible animals are introduced. Many aborting cows will have a retained placenta or "after-birth."

Treatment of the sick animals is largely a sanitary problem. The herd should be under the supervision of a veterinarian. Infected cows should not be bred for at least 60 days after an abortion. Neither should they be allowed to run with the rest of the herd. All dead calves should be burned. The stalls and barns should be thoroughly cleaned and disinfected.

Vaccination is helpful under certain conditions and if properly done, especially in beef herds. Vaccination is much more satisfactory in young cattle and there has been entirely too much promiscuous vaccination in adult cattle. The first step in the control of this disease is to have the cattle blood-tested. After this, judgment can be used as to what system of control should be put into operation. Depending upon the circumstances, the reactors may be removed and a clean herd maintained. This is the only satisfactory system where whole milk is sold. Of course, pasteurization kills the germs in milk.

Another system is to vaccinate the heifer calves between the ages of six and eight months, and remove all of the reacting cows. In some herds, it is a hardship to take out all of the infected cows so some of the better ones are maintained in the herd until they lose their usefulness, along with the vaccination of the heifer calves. The vaccination of cattle cause them to react to a blood test, and this is an inconvenience in case of the sale of breeding cattle.

The owner of a herd of cattle which is free of the disease must be continually on guard to prevent the infection getting into the herd.

The safest replacements are those raised on the home place. If it is necessary to bring in cattle from the outside they should be blood tested before they are bought and if their source is not definitely known to be from a clean herd they should be retested in 30 days before being allowed to run with the home herd. Animals may be exposed at fairs and livestock shows and should be blood



# Brucellosis

## Brucellosis in Cattle

DR. G. S. WEAVER\*

Brucellosis, commonly called "infectious abortion," is causing a greater loss to the cattle industry in South Dakota than any other disease. About 8 percent of all cattle which have been tested have shown infection. The percentage of dairy cattle which are infected with the disease is slightly higher than in beef cattle. This disease causes a loss of the use of the cow for at least a year, and also the loss of the calf. Prevention and control depend upon a strict sanitary program coupled with a proper vaccination program.

The disease is caused by a germ which is carried from one animal to another. The infection enters the animal by way of mouth on contaminated feed. These germs are easily killed by disinfectants, but may live around a farm for as long as six months if not exposed to sunlight.

The disease is generally introduced into a herd by bringing in a new bred heifer. The bull is not an important factor in the spread of the disease. After a cow has had the disease, she may carry the germs as long as six years, giving them off in the various excretions.

The most important symptom is the premature birth of the calf. This may occur at any stage of pregnancy, but most commonly between the fifth and seventh month. There is a much higher percentage of abortions among heifers than there is in older cows. Most heifers abort only once and rarely more than three times. The usual course of the disease covers a period of about four years in a herd of cattle providing no new suscep-

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\**Extension Veterinarian*

tested about 60 days after their return. Any animal showing a suspicious or positive reaction should be removed immediately from the herd. Care should be taken not to allow the cattle to mix with neighboring cattle.

## Brucellosis in Swine

While the loss from brucellosis in hogs may not be as great as in cattle, nevertheless, the disease is seriously interfering with the swine industry. It is a chronic infectious disease characterized by abortion, the birth of stillborn or weak pigs and temporary or permanent sterility.

The germ that causes swine brucellosis is not exactly the same as in cattle but it belongs to the same family. There are cases on record of this swine type infecting cattle although it is exceptional. Sows become infected by mating with an infected boar which is different from cattle. Also they may become infected through feed that has been contaminated by the excretions of other infected hogs. And the disease is usually brought on the place in the same manner as with cattle, that is, by bringing in infected bred sows.

The same blood test as used in cattle may be used for diagnostic purposes in hogs. While it is not as accurate as in cattle it has a practical application in determining herd infection. This test can be used to an advantage in conjunction with other methods of control from a sanitary standpoint.

No drug or medicine has been found that has any effect on brucellosis in swine. Neither does vaccination as used in cattle, give any resistance in hogs. The control and prevention of this disease must, therefore, rely on the isolation of the sick animals, quarantine of the herd and sanitary measures.

Under our present knowledge there are only two methods that offer a solution to this disease problem.

**Plan 1.** Dispose of the entire herd, clean and disinfect the hog barns and premises, and replace the herd with swine from herds which are free of the disease.



**Plan 2.** Wean the pigs at eight weeks, take them away from the infected herd and place them in a clean house and on clean ground. Have the pigs blood-tested and remove the reactors. Sell the infected sows and pigs as they become marketable but keep them away from the clean pigs at all times.

The first plan is preferable in small herds and commercial herds. The second may be used in purebred herds. When a clean herd is established, great care should be taken not to reintroduce infected sows or herd sires.

## **Brucellosis in Man**

People are susceptible to this disease and it is commonly called "undulant fever." All three types of brucellosis (cattle, swine and goat) may affect people. The goat type is most severe but there are not many cases in this northern area because there are not many goats. The swine type is the most common and medical authorities agree that over 50 percent of the undulant fever in people is the swine type of the disease. The cattle type of undulant fever is usually contracted by drinking raw milk from infected cows.

The disease in man is similar whether caused by anyone of these three types of the brucella organisms. The United States Public Health Service reports the following symptoms: Fever, headache, aches in various joints, fatigue, chills followed by a rise in temperature. The symptoms may disappear for a few days then a recurrence. Further information on the characteristics of this disease may be secured from any practicing physician or the State Public Health Service.

It is important to remember that undulant fever may be contracted by drinking raw or unpasteurized milk. People handling livestock at calving or farrowing time may be exposed. Butchers sometimes become infected by slaughtering infected animals. Whenever there is any suspicion of this disease being present a physician should be consulted immediately.