

# Kansas State Agricultural College.

EXPERIMENT STATION.—Circular No. 14.

DEPARTMENT OF VETERINARY SCIENCE.

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## *Contagious Abortion.*

BY  
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Many terms are used in discussing this trouble, such as “slinking,” “casting,” “losing,” “aborting,” etc., the idea being conveyed that the young is cast out of the womb before it is fully developed and capable of separate existence.

CAUSES. Abortion may be brought about in many ways. The principal causes probably are injuries to the mother from fighting, falling, kicks from other animals, drinking excessively of very cold water, exposure to severe or sudden changes in the weather, and the eating of spoiled, frozen or moldy foods, especially wheat or rye, which contain ergot or smut. Improper hygienic surroundings also contribute, especially in stabling, breeding too young, inbreeding, and severe constitutional diseases. The death of the foetus itself is at times responsible.

When any of the accidental or explainable causes cannot be assigned to the case, contagious abortion is always to be suspected, for it is common in this state and easily spread from one animal to another. The failure of many mares and cows to breed may often be attributed to this trouble. The diseased animals are often able to infect those with which they associate, so it is readily seen that the immediate loss of the young animal is not the only loss sustained by a herd in which this disease may get a foothold. It frequently results in many months of sterility or possible loss of increase completely, as well as infection of new herds or animals replacing the old herd.

There can be no doubt of the fact that the disease is of germ origin, or infectious, as we more properly say. The fact that it

spreads rapidly from one animal to another, and that, experimentally, it can be produced by the introduction of the discharge of an affected animal into the vagina of a pregnant animal, both conclusively prove this point.

The germs of the disease are found in the vagina and uterus of affected animals and are passed out with the discharge from these organs, therefore the membranes and discharges from a case of abortion should always be buried, burned or thoroughly covered with strong and efficient disinfectant.

This is one disease where it is obvious that prevention is worth vastly more than an attempt to cure, mainly because the trouble is as a rule not suspected to be present till it has occurred, therefore treatment is directed to those animals supposed or known to be affected, and the known exposed ones, applying those sanitary measures necessary to check its spread.

Considerable experimental work has been done in attempting to control the disease and various methods have been more or less successful in herds that were affected in a mild form. This Station carried on a series of experiments by using locally, at various periods of time, capsules filled with ichtyol and other disinfectants. Also giving salol internally. None of these methods proved as satisfactory in controlling the disease as the following:

TREATMENT. Burn the foetus and membranes, together with all litter soiled with the fluids. Clean out the barn and burn the refuse. Whitewash the walls with spray or brush with a solution of corrosive sublimate, one ounce in eight gallons of water and lime. Repeat this process often and get all drains and floors well covered with the antiseptic fluids.

Separate aborting animals from those supposed not to be affected and keep them separate until they are entirely well. Wash off the tail and surrounding parts of all animals with a solution of creolin or phenol, two per cent in water, and irrigate the uterus with a two per cent solution of phenol in water kept thoroughly mixed. This is best performed by using a funnel and hose five or six feet long, inserting one end in the uterus, and pouring the antiseptic solution into, the funnel, allowing it to run in gradually.

Many animals, even those which have persistently refused to breed, can be made profitable breeding animals again by the following method:

Boil and cool one quart of soft water. Add to it five drams of pure crystals of phenol. Keep this solution in a well corked,

sterilized bottle, shaking it vigorously each time before using any of it. Get a hypodermic syringe, similar to those used in vaccinating for blackleg, and treat the affected animals by injecting under the skin about one to one and one-half ounces of this solution, putting one to two drams at different points of the body. Repeat every seven to ten days till about six treatments are given. After about two treatments, increase the dose to all the animal will stand. To do this, give one or two extra syringes full and wait a little while, all the time watching the eyes. If the pupil dilates, enough has been given. An overdose makes some animals quite sleepy, or they stagger a little, but these symptoms are not dangerous and soon wear off. To give all the animal will stand without staggering is good practice after about the second treatment.

If faithfully followed, the above directions should rid any herd of contagious abortion in a short time and place it in a profitable condition from a breeder's standpoint.

If any of the animals show signs of aborting at any time, give two to four drams every day for a time and it will probably check the tendency. To herds suspected of possible trouble, thoroughly mix one pound of phenol with five pounds of salt, and give to each animal a tablespoonful of the mixture in a bran mash every other day for a week. This will probably prevent the threatened abortion.

Bulls which have served aborting cows can spread the disease, so the sheath should be irrigated before and after each service, the same as was directed for the irrigation of the vagina in the female. The bulls should also be given the hypodermic treatment and should be isolated and kept from associating with herds wherein the disease has not been found.

Some cows and mares have repeatedly failed to conceive after service, and this condition is often due to an acidity of the fluids of the uterus which prevents conception. This difficulty is best overcome by soaking a cake of ordinary yeast in about a quart of lukewarm water over night, keeping it at about body temperature all the time; this solution should be strained through a clean muslin cloth and injected into the vagina of an animal a few hours before service. It neutralizes the acids and overcomes the trouble in many cases.

Approved:

ED. H. WEBSTER, *Director.*

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