

# Kansas State Agricultural College

## EXPERIMENT STATION VETERINARY DEPARTMENT



### Swamp Fever or Infectious Anemia of Horses

This disease has caused considerable loss in the last three years in the southeastern and central portions of Kansas, and is still present in some sections. It seems to be most prevalent during wet seasons, in low lying, badly drained sections, and during the summer months.

The cause of the disease as given by Dr. John R. Mohler, Chief of the Pathological Division of the Bureau of Animal Industry at Washington, is as follows:

"It has been conclusively proven that infectious anemia is produced by an invisible, filterable organism which is transmissible to horses, mules and asses by subcutaneous inoculation of blood serum. The virus which is present in the blood may be transmitted to a number of equines in a series of inoculations by injecting either the whole blood, the defibrinated blood, or the blood serum which has been passed through a fine Pasteur filter, thus eliminating all the visible forms of organismal life, including bacteria, trypanosoma, piroplasma, etc. This virus has also been found to be active in the carcass of an affected animal twenty-four hours after death. (See page 2.)

*Diagnoses.* — It is quite easy to recognize the trouble, especially in the advanced stages. The slow progress at the beginning, remittent fever, progressive emaciation and anemia, unimpaired or ravenous appetite, staggering gait, and excessive urination are usually all present to a greater or less degree.

*Prognosis.* — Is very unfavorable, death occurring in from 60 to 80 per cent of the cases. Recovery takes place only when treatment is begun early and when the disease is not too acute.

*Treatment.* — Is not satisfactory. Absolute rest until fully recovered is one of the primary requisites, and purgatives are to be avoided. For the fever the B. A. I. recommends an antipyretic of quinine 40 grains, acetanilid 2 drams, and powdered nux vomica 30 grains, four times daily. Cold water sponge baths and frequent copious rectal injections of cold water also aid in reducing the fever. After the fever subsides the following is recommended:

	Grams.
"Arsenious acid . . . . .	2
Powdered nux vomica . . . . .	28
Powdered cinchona bark . . . . .	85
Powdered gentian root . . . . .	110

"Following the injection of the infectious principle there is a period of incubation which may extend from ten days to one and one-half months, at the end of which time the onset of the disease is manifested by a rise of temperature. If uncomplicated, the infection runs a chronic course, terminating in death in from two months to one and one-half years, or even longer. The probability of the virus being spread by an intermediate host, such as flies, mosquitoes, internal parasites, etc., is now receiving careful investigation,"

*Symptoms.* — About the first symptoms noticed are a general weakness of the animal, it tires very easily and is not able to do any work. The loss of flesh is apparent in spite of the voracious appetite which the animal has at times. The appetite usually remains good until death, but the feed seems to do the animal no good. The temperature is very irregular. Some days it runs quite high, at times to 107 degrees; again it is below normal. It frequently remains high toward the end of the disease. An animal may have several attacks of the trouble, but each succeeding attack seems to be more severe.

The blood becomes thin and the circulation impaired, and frequently there appears a swelling under the chest or abdomen or an enlargement of one or more legs. (See page 1.)

Approved:  
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"These should be well mixed and one-half tablespoonful given at each feed to the affected animal.

"As in the case of all other infectious diseases, the healthy should be separated from the sick horses, and thorough disinfection of the infected stable, stalls, litter and stable utensils should be carried out in order to prevent the recurrence of the disease. As a disinfectant the compound solution of cresol, carbolic acid or chlorid of lime may be used by mixing six ounces of any one of these chemicals with one gallon of water. One of the approved coal-tar sheep-dips might also be used to advantage in a five per cent solution (six ounces of dip to one gallon of water). The disinfectant solution should be applied liberally to all parts of the stable, and sufficient lime may be added to the solution to make the disinfectant area conspicuous."

*Precautions.* —From the fact that the disease is more prevalent during wet seasons, it is always best to guard against allowing the animals to graze upon swampy lands or to drink from ponds of stagnant water. The spread of the disease has been traced along creeks from one farm to another, which would suggest avoiding these places also. The draining of low, swampy lands is especially recommended.

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