Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

Section 89, Pages 2641 - 2670

This collection contains correspondence regarding indemnities for cattle killed by tuberculosis, concerns over the findings of veterinary inspection, discussion of an outbreak of rabies among Kansas dogs that affected cattle, complaints of veterinary treatments killing animals, and general discussion about livestock diseases. The correspondence is mostly between the Livestock Sanitary Commissioner and various livestock owners throughout Kansas.

Creator: Kansas. Livestock Sanitary Commission

Date: June 1926-September 1929

Callnumber: Livestock Sanitary Commissioner, Correspondence, 1926-1929

KSHS Identifier: DaRT ID: 310296

Item Identifier: 310296

www.kansasmemory.org/item/310296

State of Kansas

J. H. MERCER
COMMISSIONER

OFFICE OF
LIVE STOCK SANITARY COMMISSIONER
TOPEKA

Kansas City, Mo.
May 2, 1929

Mr. J. H. Mercer,
Topeka, Kansas.

Dear Sir:-

We have yours of the 26th relative to the administration of serum and bacterin by our department here in the yards. This is the procedure followed by the representatives here in this department when administering serum and bacterin to live stock for the Franklin Blackleg Serum Co. We wash and disinfect the syringes used in the administration of serum and bacterin, but have not used a disinfected needle on an individual basis. The load in question received the same careful treatment in the administeration of these products as is always our custom.

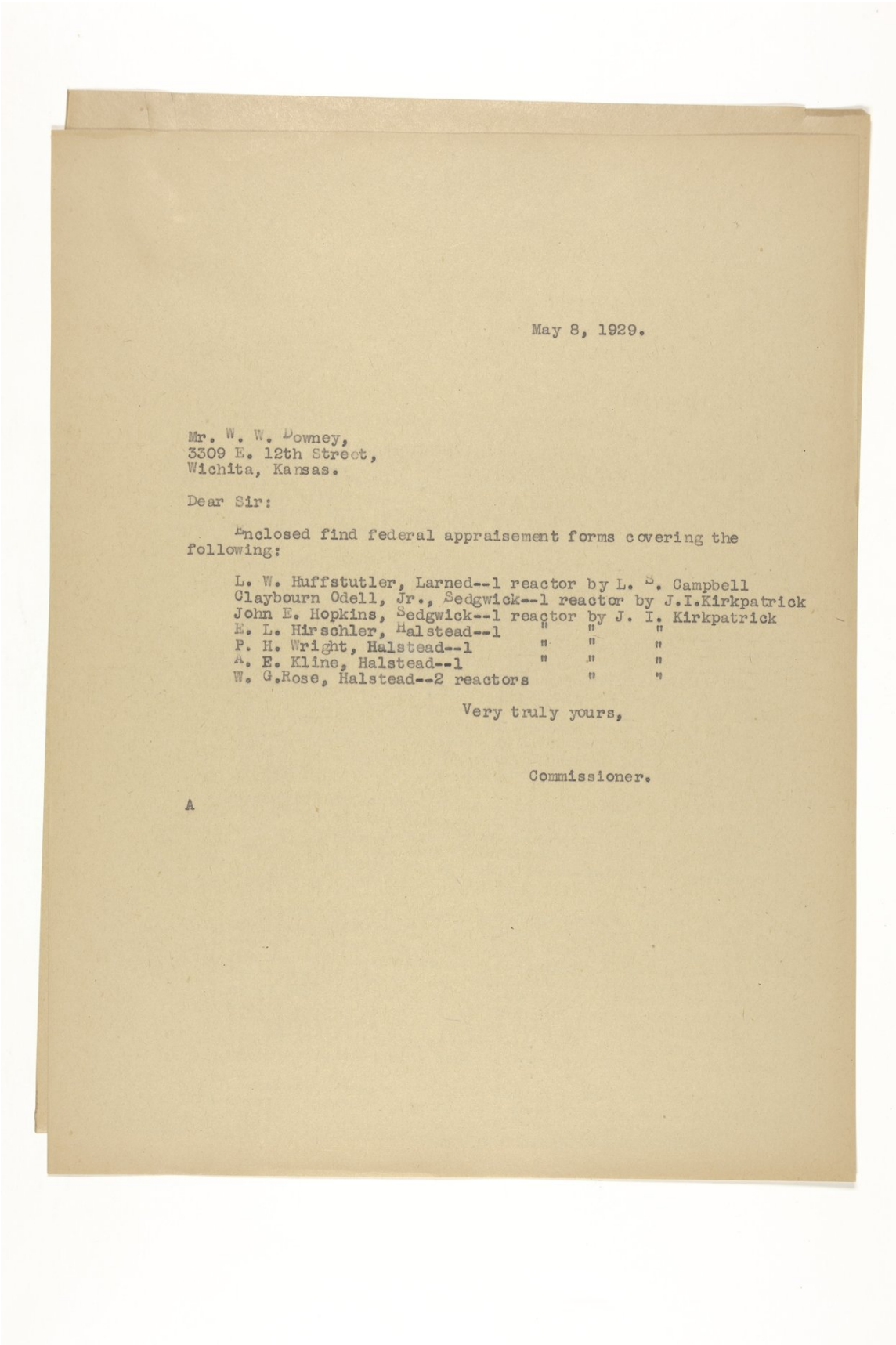
It is our policy now and has been for a long time to use a needle with a short canula (½ inch in length) which little more than passes thru the skin of an animal which in our judgement is an advantage in that it does not irritate or disturb the deeper structures and lessens the chance of causing abscess formation brought about by the pressure on the tissues thru the sudden piercing and discharge of a foreign substance into these deeper tissues.

We have written you very frankly on this matter as our teaching, experience and observation has led us to conclude. We have treated many thousands of cattle here on the yards in the manner discribed above and you know the results we have obtained and to say that one individual died from the use of an infected needle is a statement that in our opinion cannot be substantiated.

Yours truly,

Thos A. Fowler
Robt B. Grimes
Don C. Williams

F-G-W :C



May 8, 1929.

Mr. W. W. Downey,
3309 E. 12th Street,
Wichita, Kansas.

Dear Sir:

Enclosed find federal appraisement forms covering the following:

L. W. Huffstutler, Larned--1 reactor by L. S. Campbell
Claybourn Odell, Jr., Sedgwick--1 reactor by J.I.Kirkpatrick
John E. Hopkins, Sedgwick--1 reactor by J. I. Kirkpatrick
E. L. Hirschler, Halstead--1 " " "
P. H. Wright, Halstead--1 " " "
A. E. Kline, Halstead--1 " " "
W. G.Rose, Halstead--2 reactors " "

Very truly yours,

Commissioner.

A

May 9, 1929

Mr. Leonard Rees,
Abilene, Kansas.

Dear Sir:

Answering your letter of the 30th ult.

According to the records in connection with the purchase of cows from you by J. H. Iliff you complied with the rules and regulations of the department by having your cattle tested by an accredited veterinarian before the sale. The rule you refer to in connection with paying the full appraised value on live stock has been changed and reads as follows;

"Rule 18. Since the Bureau of Animal Industry, U.S. Department of Agriculture, and other biological-research institutions, have fully determined that an animal reacting to the tuberculin test is infected with tuberculosis, regardless of whether or not tubercular lesions are found upon post-mortem examinations, therefore, on and after December 15, 1926, all cattle in Kansas reacting to the tuberculin test will be classed as tubercular diseased, and when appraisement is made only one-half of the appraised value, will be allowed to the owner. (This rule will not apply to reactor cattle which are found in accredited herds, or in modified free-area territory in Kansas.) This rule is issued under authority of section 615, ch. 47, Revised Statutes of 1923."

Of course, happenings of this kind are unfortunate from the fact that when a man purchases a dairy animal and it reacts to the test in a short time he feels that he did not get a clean healthy animal and in all such cases I usually suggest a compromise settlement. I am quoting you a paragraph from a letter I wrote to Mr. Iliff under date of April 29th:

"If I were in your place I would go to Mrs. Reese and see if I could not reach a settlement with her on a basis of a 50-50 proposition. You do not say what you paid her for the cow but as a reasonable adjustment if you would subtract what you got for the cow from what you paid her and then split the difference on a 50-50 basis, it would be a good way to settle an affair of this kind and in all probability if you will take this up with this lady along this line that she would be willing to settle a part of the loss. I have no objections to your showing her this letter if you wish."

In answer to your question -"Can an animal contract TB within 46 days after exposure?" The records show that it would be possible

Rees -2-

for the animal to contract tuberculosis within 46 days after exposure, especially if it was extensive exposure. But we do not have very much information on such subjects that is positive.

It seems to me that you and Mr. Iliff ought to have no trouble in adjusting this trouble since there are not a very large number of dollars and cents involved. Any further information we can give you we will be glad to have you write us.

Very truly yours,

Commissioner.

JHM/M

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

State of Kansas

OFFICE OF
LIVE STOCK SANITARY COMMISSIONER
TOPEKA

J. H. MERCER
COMMISSIONER

Kansas City, Mo.
May 13, 1929

Mr. J. H. Mercer,
Topeka, Kansas.

Dear Sir:-

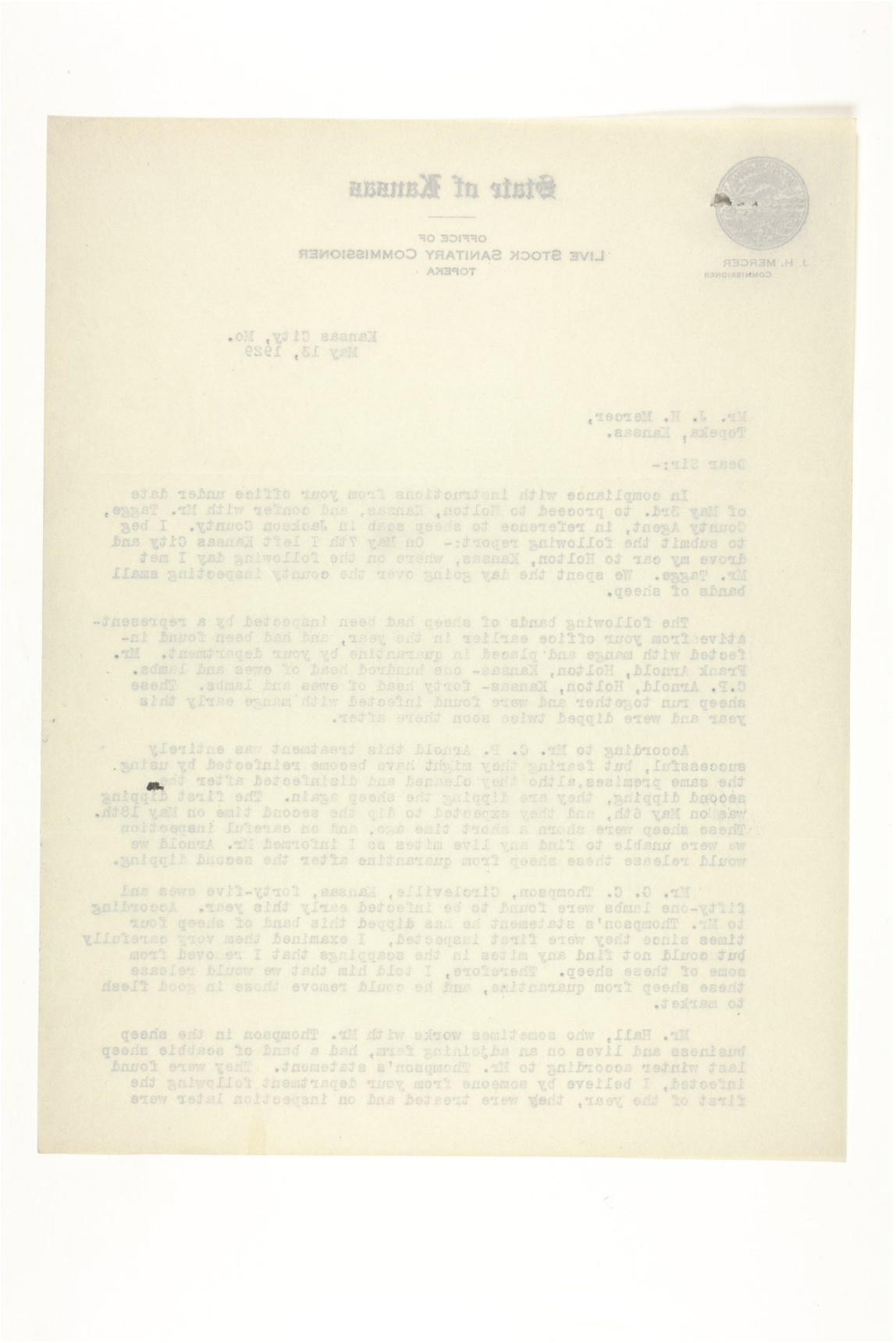
In compliance with instructions from your office under date of May 3rd. to proceed to Holton, Kansas, and confer with Mr. Tagge, County Agent, in reference to sheep scab in Jackson County. I beg to submit the following report:- On May 7th I left Kansas City and drove my car to Holton, Kansas, where on the following day I met Mr. Tagge. We spent the day going over the county inspecting small bands of sheep.

The following bands of sheep had been inspected by a representative from your office earlier in the year, and had been found infected with mange and placed in quarantine by your department. Mr. Frank Arnold, Holton, Kansas- one hundred head of ewes and lambs. C.P. Arnold, Holton, Kansas- forty head of ewes and lambs. These sheep run together and were found infected with mange early this year and were dipped twice soon there after.

According to Mr. C. P. Arnold this treatment was entirely successful, but fearing they might have become reinfected by using the same premises,altho they cleaned and disinfected after the second dipping, they are dipping the sheep again. The first dipping was on May 6th, and they expected to dip the second time on May 18th. These sheep were shorn a short time ago, and on careful inspection we were unable to find any live mites so I informed Mr. Arnold we would release these sheep from quarantine after the second dipping.

Mr. G. C. Thompson, Circleville, Kansas, forty-five ewes and fifty-one lambs were found to be infected early this year. According to Mr. Thompson's statement he has dipped this band of sheep four times since they were first inspected, I examined them very carefully but could not find any mites in the scappings that I removed from some of these sheep. Therefore, I told him that we would release these sheep from quarantine, and he could remove those in good flesh to market.

Mr. Hall, who sometimes works with Mr. Thompson in the sheep business and lives on an adjoining farm, had a band of scabbie sheep last winter according to Mr. Thompson's statement. They were found infected, I believe by someone from your department following the first of the year, they were treated and on inspection later were



State of Kansas

OFFICE OF
LIVE STOCK SANITARY COMMISSIONER
TOPEKA

J. H. MERCER
COMMISSIONER

Mercer-2-

released from quarantine. I inspected the sheep on his farm, and they are apparently free of mange at the present time.

These bands constitute all the sheep found infected last winter in Jackson County so far as Mr. Tagge's records would reveal, however, we inspected two other small bands of sheep finding them badly infected with Mange.

Mr. E. S. May, Soldier, Kansas has twelve ewes and six lambs. These sheep were reported infected to Mr. Tagge by neighbors of Mr. May last fall. Mr. Tagge talked to him about his sheep, but they have not received the proper treatment and in the meantime he has lost several of his ewes and most all his lambs. While he has sheared his sheep I understand he had less than three pounds of wool to the fleece. I explained to him the importance of proper treatment, and he assured me he would proceed at once to clean them up, however, I believe a letter from your office would be a good thing in this case.

Mr. Floyd H. Kadky, Emmett, Kansas, Route #1 also has a small band of twenty-three head of ewes and lambs which are scabbie. He noticed something wrong with them last fall according to his statement, and took one to the College at Manhattan, where it was examined. They pronounced it scab, and told him to go home and treat them, this he has been doing by hand application until recently when he dipped them by using a barrel. They now show signs of improvement.

In closing I wish to say that Mr. Tagge, Holton, Kansas, co-operated with us most heartily and seemed very much interested in cleaning up this condition in Jackson county. We used his car in making these inspections and investigations, we drove more than one hundred miles.

Very Respectfully,
R B Grimes

RBG:C

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

J. H. MERCER
COMMISSIONER

State of Kansas

OFFICE OF
LIVE STOCK SANITARY COMMISSIONER
TOPEKA

Wichita, Kans., May 16, 1929

Mr J.H.Mercer,

Topeka, Kans.

Dear Mr Mercer:

Herewith appraisements on Harvey County reactors:

J.E.Hopkins	Sedgwick	1 reactor
E.L.Hirschler	Halstead	1 "
P.H.Wright	Halstead	1 "
J.H.Keller	Halstead	1 "
W.C.Rose	Halstead	2 "
C.DO'Dell	Sedgwick	1 "
A.F.Klein	Halstead	1 "

These reactors were appraised by the Harvey County Commissioners, and Dr Dotson's office has been notified.

The Caounty Commissioners give the number of the A.F.Klein animal as 4751 but the federal appraisement blank showed it as being 4757. I talked with Miss Lemmon today, and she said this animal had not been reported in. Am sending the federal appraisements direct to Dr Townsend.

Very truly,

W. W. Downey

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

May 17, 1929

Mr. Paul B. Gwin,
County Agent,
Junction City, Kansas.

Dear Sir:

On receipt of your letter of the 14th, I took the matter up with Dr. Townsend with respect to having Geary county placed on the accredited list as of June 1st. He advises me that the percentage of reactors is very close to the one-half of one- percent and delayed sending the report into the Washington office until the Wm Horne herd of cattle were tested. According to our records, the Horne herd of cattle is the only herd of dairy and breeding cattle in the county that have not been tested and I have granted extention of time to Mr. Horne for the testing of his herd - setting the date as of June 12th.

However, we have decided to send the records of Geary county to the Washington office and ask that the county be put on the accredited list. I know of no reason why it should not be certified as an accredited county by June 1st. If you happen to know of any untested cattle in the county I wish you would let me know.

The Andrew Amthauer herd of cattle have been tested and we have given him the privilege to pasture the reactor cows until September 1st. They are isolated and are in a pasture by themselves and are not to be disposed of in any other way excepting for immediate slaughter under our direction.

We will send you the 10¢ premium cards as soon as we have the official information from washington that the county has been classed as an accredited county.

I expect to be in Manhattan on the 25th and if you are there I would like to see you there for a few minutes talk with you.

Very truly yours

JHM/M

Commissioner.

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

OFFICE DAY, SATURDAY — OFFICE--CHAMBER OF COMMERCE, 605 NORTH WASHINGTON STREET — TELEPHONE 283

CO-OPERATIVE EXTENSION WORK IN

AGRICULTURE AND HOME ECONOMICS

STATE OF KANSAS

KANSAS STATE AGRICULTURAL COLLEGE
U. S. DEPARTMENT OF AGRICULTURE AND
GEARY COUNTY FARM BUREAU CO-OPERATING

EXTENSION SERVICE
COUNTY AGENT WORK

JUNCTION CITY, KANSAS

May 14, 1929

Mr. J. H. Mercer
State Livestock Sanitary Commissioner
Topeka, Kansas

Dear Mr. Mercer:-

Am wondering how about the accrediting of Geary County. We have not yet heard that we are an accredited county. Had hoped to be on May 1 and now sure want to be by June 1.

If it is the Wm. Horne deal that is holding us up, I think he should be tested and things cleaned up. He simply is a stuborn fellow that has absolutely no more reason for not testing than any of the other 800 farmers already tested. Also Mr. Andrew Amthauer is merely kicking over the traces without a cause. Merely because they were leaders in the opposition to the test is the cause of their stubornness.

We lost at least $300.00 premiums this month by not being accredited and have many hogs to ship during June and all farmers are asking why we are not accredited and eligible to get premiums and I am telling them it will start June 1 and I hope it will even tho the two above men be forced to come to time.

Hoping to hear soon that we are accredited, I am

Yours very truly
Paul B. Gwin

Paul B. Gwin
County Agent

P.S. Will you please send us the necessary blanks to distribute to farmers to use when shipping hogs on which they certify hogs are from a "Free Area."

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

May 20, 1929

Dr. R. R. Dykstra,
Dean, Division of Veterinary Medicine,
K.S.A.C.,
Manhattan, Kansas.

Dear Sir:

Referring to your letter of the 13th instant, in answer to my letter with respect to Experiment Station Circular No. 126, which has to do with rabies. You ask if the modified circular as you suggest meets with my approval. I am sorry to say it does not. As stated to you in my former letter the circular #126 is a useful circular with the exception of the subject - "Prevention of Rabies" which should be stricken out, and if any mention is made of this subject it should be that all such matters should be referred to the live stock sanitary commissioner's department.

I certainly could not approve of a suggestion that all animals bitten by a rabid animal should be destroyed. Our records show many cases where it has been positively known that dogs have bitten live stock and the live stock never developed rabies. The bulletin has my approval if the subject - "Prevention of Rabies is stricken out. I am certain that you will agree with me that such matters should not go out from the college unless they have the approval of the regulatory department of the state handling same.

I will be very glad to have you present this to the director of the experiment station and then advise me as to the action taken. Thanking you for your interest, I am

Very truly yours,

JHM/M

Commissioner.

P.S. Just received a letter from Washington advising that all the senior students taking the accredited herd examination passed.

J.H.M.

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

AUGUST, 1926 CIRCULAR 126

AGRICULTURAL EXPERIMENT STATION
KANSAS STATE AGRICULTURAL COLLEGE
MANHATTAN, KANSAS

DEPARTMENT OF VETERINARY MEDICINE

RABIES—HYDROPHOBIA—DOG MADNESS[1]

R. R. DYKSTRA, H. F. LIENHARDT, AND E. J. FRICK

TABLE OF CONTENTS

Rabies is an acute infectious and almost always fatal disease. It is characterized by increased irritability, disturbance of consciousness, and finally by symptoms of paralysis.

HISTORY

This disease and the danger connected with the bites of mad dogs have been well known since the time of Aristotle, who, in the fourth century B. C., wrote: "Dogs suffer from a madness which puts them in a state of fury, and all animals that they bite when in this condition become also attacked by rabies." The very extensive investigations of Pasteur and his collaborators proved that the purest and most concentrated virus of rabies was contained in the central nervous system; they also established a method of attenuation of the virus, and solved the important question of protective vaccination against the disease. Negri (1903), through the demonstration of specific cell inclusions in the nervous system of the infected animals, has greatly facilitated the post-mortem diagnosis.

To show more recent history of rabies in Kansas and to give an

1. Contribution No. 35 from the Department of Veterinary Medicine.

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

idea of the increase in rabies throughout the state the following figures from the veterinary laboratories of the Kansas State Agricultural College are given:

Rabies examinations made during biennium ending June 30, 1920..... 40
Rabies examinations made during biennium ending June 30, 1922..... 66
Rabies examinations made during biennium ending June 30, 1924..... 270
Rabies examinations made during biennium ending June 30, 1926..... 728

CAUSE

Rabies is caused by what is known as a filterable virus (poison), which means that the causative factor is a substance so small that it will pass through a fairly porous porcelain filter. It is present in greatest concentration in the saliva of mad animals. The virus is readily killed by the common disinfectants, drying, sunlight, etc. Fluid saliva is capable of infecting for a period of 24 hours after leaving the gland of the diseased animal, while dried saliva will not infect after 14 hours. Natural gastric juice kills the virus of rabies in 4½ to 5 hours, and bile kills it in a few minutes. The poison of rabies travels only in the nervous tissue, and is eliminated through the nerve supply by glands into the saliva, the tears from the eyes, milk, and the secretions of other glands. The virus or poison of rabies may be present in the saliva of an animal as many as 15 days before it shows any signs of the disease, but 2 to 5 days is the usual period. The virus is transmitted from animal to animal by means of the bite, in which infectious saliva is carried into the resulting wound and into the nerves of the part wounded.

There are many false ideas prevalent among people regarding this disease, such as the belief that the warm "dog days" of July and August are the only time that dog madness develops; or that the so-called "madstone" will prevent or cure it. The season of the year makes very little difference, as the virus of rabies will cause the disease as readily in the winter as in the summer.

SUSCEPTIBILITY

There is no considerable difference in susceptibility among mammals. The veterinary laboratory of Kansas State Agricultural College has examined brains from rats, squirrels, mice, coyotes, skunks, etc., and found positive cases of rabies. These animals may be responsible for cases of rabies developing in dogs or cats that have not been in contact with other dogs or cats.

SYMPTOMS

The symptoms seldom develop in less than two weeks after the animal has been bitten, usually they appear in six weeks, but sometimes delay as long as six months or a year. This variation depends on where the person or animal was bitten; in general, the nearer the brain the sooner the symptoms will develop. Bites through heavy clothing are less dangerous than when inflicted on bare skin.

There are two forms of symptoms of rabies—the furious and the dumb.

Furious Rabies.—A dog developing furious rabies will act about as follows: He will be noticed to have changed his usual disposition, becoming more friendly or very shy. He will hunt dark, secluded corners. He will make sudden starts toward objects; snap at the air as if catching flies. This stage may last for a day or two, when he becomes restless and will wander many miles over the countryside. While wandering he is likely to bite cattle, horses, hogs, and strange dogs. Unless he happens to be killed, he usually returns home. He is very irritable; will not eat or drink. He is not afraid of water; but because his throat is paralyzed, he cannot swallow. Sometimes he bites his own leg or body. In two or three days his legs become paralyzed, and then his entire body, with resultant death. This chain of symptoms may last four to ten days.

Dumb Rabies.—A dog developing the dumb form of rabies seeks the company of his master, or tries to hide in dark places. Soon his lower jaw becomes paralyzed and hangs down, leaving the mouth open. He is unable to eat or drink. He acts as if he had a bone in his throat. This condition is followed by complete paralysis of the entire body, and then death in four to ten days after the first symptom was noticed. A dog may develop either form of rabies or change from one to the other.

Rabies in cats resembles the disease in dogs; but cats, being of a less confiding nature, generally seek seclusion in the early stage. Then they become more aggressive, and attack persons and animals, including dogs, jumping at their faces and inflicting severe wounds with their teeth and claws. Their voice, like that of the dog, becomes hoarse. In two to four days paralysis sets in.

Cattle developing rabies often chase chickens, or any other moving object about the farm. They may fall down from no apparent cause; show symptoms of great excitement, during which they may

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

rush about and break their horns while attacking a post or building. They often show signs of increased sexual excitement, even though pregnant. These manifestations are followed by paralysis and death.

In general the symptoms of rabies are ushered in by a first stage of melancholia lasting about two days, followed by a period of excitement which lasts two or three days and then a period of paralysis, with termination in death. The entire attack occurs inside of ten days after the first symptoms are observed.

Diseases Having Symptoms Somewhat Similar to Rabies.— There are a number of diseases of animals that appear to resemble rabies at various stages. Dogs that froth at the mouth and go into convulsions, due to poisoning from intestinal worms, might be thought rabid by an untrained person. Nervous attacks due to brain disturbances, caused by the nervous form of canine distemper, may be mistaken for rabies. Attacks of indigestion due to wrong feeding come in this class of errors. If a dog should get a bone or other foreign body caught in its throat it might simulate the dumb form of rabies. Hot, thirsty dogs anxious for a drink have been accused of being "mad" by misguided people. Brain disturbances of various other kinds also show symptoms similar to those observed in rabies.

DIAGNOSIS

The first step in an attempt to diagnose rabies is to pen up the animal securely, if possible, and keep it under close observation. The observation should be by one skilled in diagnosing rabies and closely allied diseases. The graduate veterinarian is best qualified to serve in this capacity, because if the animal's brain is finally sent in for laboratory diagnosis the laboratorian should be given the precise clinical symptoms shown by the dog before death.

A microscopical examination is of value only when the dog has died of the disease, or has been killed after it has shown well-developed symptoms of suspected rabies. The microscopic diagnosis of rabies is based upon the presence or absence in the brain of Negri-bodies, and those bodies are generally lacking in the initial stages of the disease. Therefore, if an animal is kept under observation by a graduate veterinarian and the symptoms permitted to develop, this will guide the practitioner in the proper disposal of the animal and render it easy for him to get a confirmatory microscopic examination of a positive or negative nature. If an animal is killed

in the initial stages of the disease it is impossible to make a negative diagnosis for rabies unless one inoculates a rabbit with brain emulsion from the suspected case. This method of diagnosis (inoculation method) will demonstrate whether or not the animal had rabies, but it is necessary to wait 15 to 21 days or longer for the rabbit to develop the disease. This method, while sure, is too dangerous, for if at the end of 21 days the rabbit showed indications of rabies there would be the danger that the individual bitten may not have sufficient time left in which to take the treatment for rabies. Thus, this method is expensive and impractical in all but experimental work.

The method of procedure for the owner to use with rabies suspects should follow this summarized outline:

1. Do not shoot.
2. Securely confine or "pen up" the animal.
3. Call your veterinarian.

PREPARATION OF DISEASED SPECIMENS FOR SHIPMENT

The rules and regulations governing the shipments of heads of dogs or other animals by express to laboratories of the State Board of Health, to the Veterinary Laboratory of the Kansas State Agricultural College, or to other laboratories, are:

1. Agents must not accept for transportation the head of a dog or any other animal sent to the state boards of health for rabies examination unless it shall have been prepared for shipment as hereinafter provided.
2. The head of a dog or other animal so shipped must be placed in a tin or other metal container which will not permit the leakage of fluids; such container shall then be placed in a wooden or other container with ice and sawdust packed around it. Such outside container must be so constructed that it will not permit the leakage of ice water.
3. All such packages must be labeled: "CAUTION.—This package contains the head of a dog (or name of other animal) suspected of having died of hydrophobia."
4. Such shipments tendered on Saturday, which cannot reach destination early enough for delivery on that day, and would, therefore, remain in the express office over Sunday, must be refused, and shipper requested to pack in ice and hold until Monday, so that they can be delivered without delay at destination.
5. Require prepayment of charges on shipments of this kind.

TREATMENT FOR RABIES

When an animal develops symptoms of rabies there is no curative treatment, and because of the infectiousness and dangerous nature of the disease no treatment should be attempted.

PREVENTION OF RABIES

All animals bitten by a rabid animal should be destroyed and all that may be in the immediate vicinity of known rabid animals should be immunized by an injection of *rabies vaccine*. The single-injection method is most practical with animals. It is reasonably certain to protect unbitten animals, and may be of considerable protective value to those animals that are contaminated with the virus. When a rabies outbreak occurs in a community that area should be quarantined.[2] An effective quarantine would embrace: (1) the destruction of all stray dogs, and the muzzling of all others (2) the immunization of all dogs, this to be evidenced by a vaccination tag worn on the collar. Unvaccinated dogs must be effectively muzzled for a period of 60 days, or confined on a chain to their owner's property. ~~These latter methods are not always practical or safe, and inflict misery on the dogs.~~ Immunization lasts for one year.

TREATMENT OF BITTEN PERSON

All wounds caused by the bite of a dog or other animal should be cauterized as quickly as possible by the family physician. This applies to bites from either rabid or nonrabid animals. If bitten by an animal having rabies, in addition to the cauterization mentioned, the individual should also immediately be given the Pasteur treatment by the family physician. The Pasteur treatment for people is a series of injections varying in number from 14 to 21. These injections are administered beneath the skin at daily intervals, with the exception of the first day, when two injections are usually given. A Pasteur treatment is shipped complete to the family physician, and it is not necessary for one to leave home to be given the treatment.

When persons are bitten on the face it is recommended that the Pasteur treatment be started immediately, because rabies virus or poison travels very rapidly to the central nervous system under these conditions. It is absolutely essential that, to be effective, the treatment be started before any symptoms appear. Therefore, the patient must not wait for a report from a laboratory before starting the Pasteur treatment when bitten on the head or face.

2. In Kansas all animal quarantine regulations are formulated and enforced by the State Live Stock Sanitary Commissioner, whose office is in Topeka.

PRINTED BY KANSAS STATE PRINTING PLANT
B. P. WALKER, STATE PRINTER
TOPEKA 1926
11-4185

KANSAS STATE AGRICULTURAL COLLEGE
MANHATTAN, KANSAS
DIVISION OF VETERINARY MEDICINE

May 13, 1929.

Hon. J. H. Mercer,
State Live Stock Sanitary Commissioner,
Topeka, Kansas.

Dear Mr. Mercer:

I have your letter of May 9 relative to a statement made in Agricultural Experiment Station Circular #126 and under the paragraph heading of "Prevention of Rabies."

I am agreed with you that the statements made in the paragraph on "Prevention of Rabies" should be modified, and I am therefore enclosing herewith a copy of circular #126, together with the modifications that in our opinion can be fully substantiated. Please let me know whether the modified statement has the approval of the Live Stock Sanitary Commissioner.

When circular #126 was issued, to the best of my knowledge the only experimental data available as to the effectiveness of the single injection method against rabies was of Japanese origin. You doubtless are familiar with the experimental work done in Japan by Umeno and Doi, and Kondo. Their work seemed to indicate the value of the single injection method, but later research work by others has cast a doubt upon the absolute effectiveness of the single injection method.

I believe that there is no controversy at all in regard to the fouteen injection method or the old Pasteur twenty-one injection method. As you will recall, when Pasteur first developed his highly effective method of vaccination against rabies in humans he had done all his research work on dogs. I believe that all scientists in animal diseases as well as practicing physicians and veterinarians are firmly convinced of the almost 100% reliability of the fourteen or twenty-one injection method as a preventive of rabies.

The value of the single injection method as a preventive of rabies has not been so firmly established. At the present time there are recognized at least three types of rabies street virus. As near as I can gather, the single injection method as a preventive of rabies is quite successful against two of these types, but seems to give very little if any protection against the third type. We cannot of course clinically distinguich between the three types, and therefore an animal

immunized by the single injection method might still fall a prey to rabies as a result of being inoculated with the third type of street virus.

Having the facts stated in the foregoing paragraph in mind, I feel that the control of the spread of rabies in the state should not rest upon immunization with the single method, but at the same time I feel that we cannot take the viewpoint that the single injection method is to be entirely condemned. My conviction is that as a measure supplementary to the destruction of stray dogs and bitten animals, and the muzzling of dogs, the single injection method might well be recommended.

Some very interesting and recent data on "Experimental and Field Results of the Single Injection Canine Rabies Vaccine" were reported by H. W. Schoening, Pathological Division, United States Bureau of Animal Industry. If you do not happen to have this report and if you care for it, I shall be glad to have a copy struck off in our office.

Please let me know whether the modified circular #126 meets with your approval and if it does, I shall be glad to recommend these changes to the Director of the Agricultural Experiment Station.

Very truly yours,

R. R. Dykstra

R. R. Dykstra,
Dean of Division.

RRD:PEP
CC: Director Call

May 9, 1929

Dr. R. R. Dykstra,
Dean, Division of Veterinary Medicine,
K.S.A.C.,
Manhattan, Kansas.

Dear Sir:

Some time ago I wrote to Dr. Lienhardt and asked him to send me Agricultural Experiment Station circular 126, which has to do with rabies. I received the bulletin in due time and have read same carefully. It is a useful bulletin and I approve all that is in it with the exception of the reference to the subject -Prevention of Rabies-, or more especially the point I have in mind is the recommendation on the bulletin for the vaccination and immunization of dogs exposed to rabies. The experience we have had in the use of rabies vaccine is that it is of no consequence whatever so far as immunizing dogs is concerned. I am wondering if you had conducted an experiment and if so to what extent.

I am very much interested in this for the reason that rabies is getting to be very prevalent all over the state and it would be so much easier for this department to handle and control an outbreak of rabies if we could depend on the use of rabies vaccine. I am calling your attention to this matter for the reason that a bulletin of this kind going out from the college is in absolute conflict with the orders of this department in the control of an outbreak of rabies, and should not prevail. If you can assure me of the efficiency of the vaccination method preventing a spread of rabies I will be pleased to adopt it.

Very truly yours,

Commissioner.

JHM/M

AUGUST, 1926 CIRCULAR 126

AGRICULTURAL EXPERIMENT STATION
KANSAS STATE AGRICULTURAL COLLEGE
MANHATTAN, KANSAS

DEPARTMENT OF VETERINARY MEDICINE

RABIES—HYDROPHOBIA—DOG MADNESS[1]

R. R. DYKSTRA, H. F. LIENHARDT, AND E. J. FRICK

TABLE OF CONTENTS

Rabies is an acute infectious and almost always fatal disease. It is characterized by increased irritability, disturbance of consciousness, and finally by symptoms of paralysis.

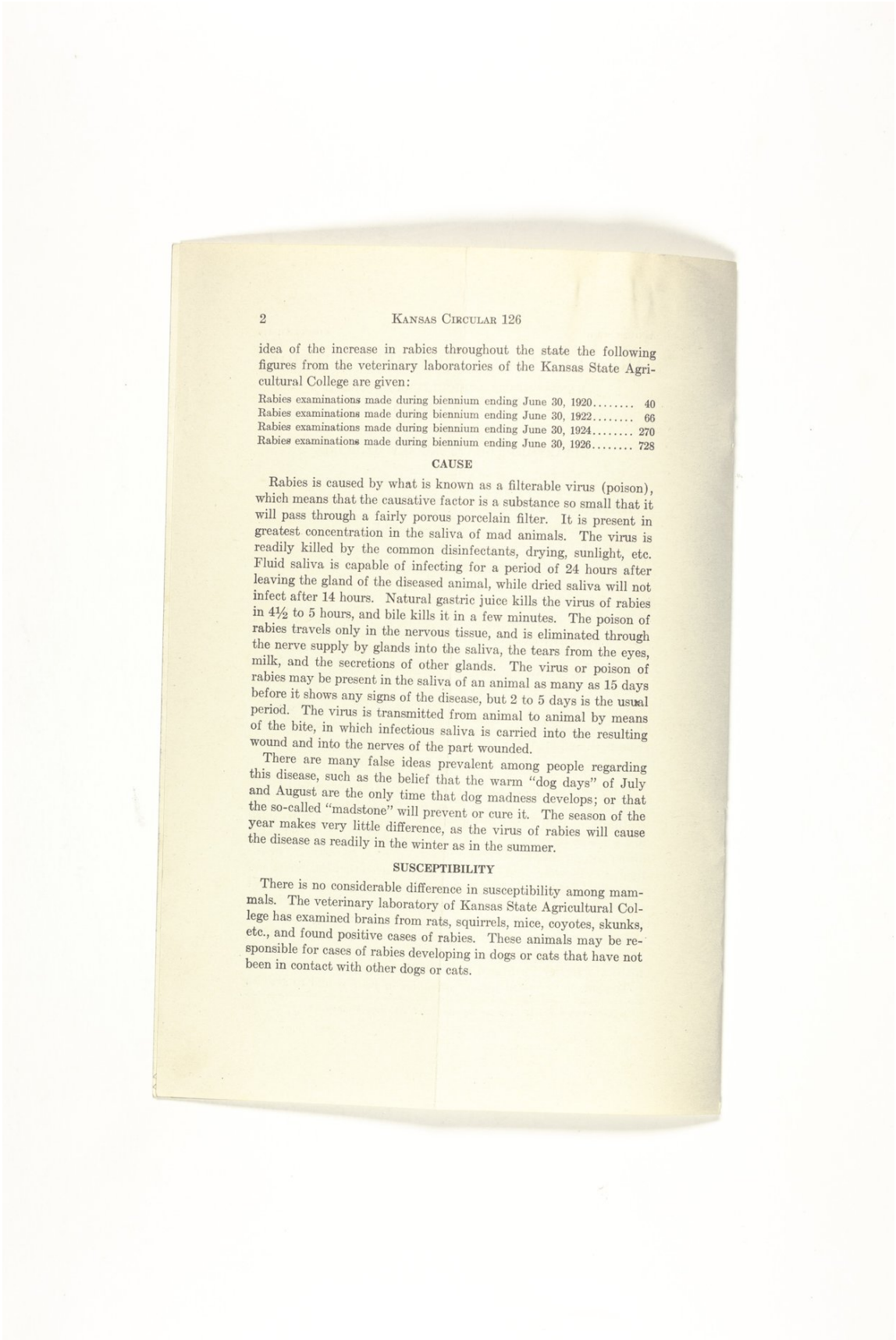
HISTORY

This disease and the danger connected with the bites of mad dogs have been well known since the time of Aristotle, who, in the fourth century B. C., wrote: "Dogs suffer from a madness which puts them in a state of fury, and all animals that they bite when in this condition become also attacked by rabies." The very extensive investigations of Pasteur and his collaborators proved that the purest and most concentrated virus of rabies was contained in the central nervous system; they also established a method of attenuation of the virus, and solved the important question of protective vaccination against the disease. Negri (1903), through the demonstration of specific cell inclusions in the nervous system of the infected animals, has greatly facilitated the post-mortem diagnosis.

To show more recent history of rabies in Kansas and to give an

1. Contribution No. 35 from the Department of Veterinary Medicine.

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929



idea of the increase in rabies throughout the state the following figures from the veterinary laboratories of the Kansas State Agricultural College are given:

Rabies examinations made during biennium ending June 30, 1920..... 40
Rabies examinations made during biennium ending June 30, 1922..... 66
Rabies examinations made during biennium ending June 30, 1924..... 270
Rabies examinations made during biennium ending June 30, 1926..... 728

CAUSE

Rabies is caused by what is known as a filterable virus (poison), which means that the causative factor is a substance so small that it will pass through a fairly porous porcelain filter. It is present in greatest concentration in the saliva of mad animals. The virus is readily killed by the common disinfectants, drying, sunlight, etc. Fluid saliva is capable of infecting for a period of 24 hours after leaving the gland of the diseased animal, while dried saliva will not infect after 14 hours. Natural gastric juice kills the virus of rabies in 4½ to 5 hours, and bile kills it in a few minutes. The poison of rabies travels only in the nervous tissue, and is eliminated through the nerve supply by glands into the saliva, the tears from the eyes, milk, and the secretions of other glands. The virus or poison of rabies may be present in the saliva of an animal as many as 15 days before it shows any signs of the disease, but 2 to 5 days is the usual period. The virus is transmitted from animal to animal by means of the bite, in which infectious saliva is carried into the resulting wound and into the nerves of the part wounded.

There are many false ideas prevalent among people regarding this disease, such as the belief that the warm "dog days" of July and August are the only time that dog madness develops; or that the so-called "madstone" will prevent or cure it. The season of the year makes very little difference, as the virus of rabies will cause the disease as readily in the winter as in the summer.

SUSCEPTIBILITY

There is no considerable difference in susceptibility among mammals. The veterinary laboratory of Kansas State Agricultural College has examined brains from rats, squirrels, mice, coyotes, skunks, etc., and found positive cases of rabies. These animals may be responsible for cases of rabies developing in dogs or cats that have not been in contact with other dogs or cats.

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

SYMPTOMS

The symptoms seldom develop in less than two weeks after the animal has been bitten, usually they appear in six weeks, but sometimes delay as long as six months or a year. This variation depends on where the person or animal was bitten; in general, the nearer the brain the sooner the symptoms will develop. Bites through heavy clothing are less dangerous than when inflicted on bare skin.

There are two forms of symptoms of rabies—the furious and the dumb.

Furious Rabies.—A dog developing furious rabies will act about as follows: He will be noticed to have changed his usual disposition, becoming more friendly or very shy. He will hunt dark, secluded corners. He will make sudden starts toward objects; snap at the air as if catching flies. This stage may last for a day or two, when he becomes restless and will wander many miles over the countryside. While wandering he is likely to bite cattle, horses, hogs, and strange dogs. Unless he happens to be killed, he usually returns home. He is very irritable; will not eat or drink. He is not afraid of water; but because his throat is paralyzed, he cannot swallow. Sometimes he bites his own leg or body. In two or three days his legs become paralyzed, and then his entire body, with resultant death. This chain of symptoms may last four to ten days.

Dumb Rabies.—A dog developing the dumb form of rabies seeks the company of his master, or tries to hide in dark places. Soon his lower jaw becomes paralyzed and hangs down, leaving the mouth open. He is unable to eat or drink. He acts as if he had a bone in his throat. This condition is followed by complete paralysis of the entire body, and then death in four to ten days after the first symptom was noticed. A dog may develop either form of rabies or change from one to the other.

Rabies in cats resembles the disease in dogs; but cats, being of a less confiding nature, generally seek seclusion in the early stage. Then they become more aggressive, and attack persons and animals, including dogs, jumping at their faces and inflicting severe wounds with their teeth and claws. Their voice, like that of the dog, becomes hoarse. In two to four days paralysis sets in.

Cattle developing rabies often chase chickens, or any other moving object about the farm. They may fall down from no apparent cause; show symptoms of great excitement, during which they may

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

rush about and break their horns while attacking a post or building. They often show signs of increased sexual excitement, even though pregnant. These manifestations are followed by paralysis and death.

In general the symptoms of rabies are ushered in by a first stage of melancholia lasting about two days, followed by a period of excitement which lasts two or three days and then a period of paralysis, with termination in death. The entire attack occurs inside of ten days after the first symptoms are observed.

Diseases Having Symptoms Somewhat Similar to Rabies.— There are a number of diseases of animals that appear to resemble rabies at various stages. Dogs that froth at the mouth and go into convulsions, due to poisoning from intestinal worms, might be thought rabid by an untrained person. Nervous attacks due to brain disturbances, caused by the nervous form of canine distemper, may be mistaken for rabies. Attacks of indigestion due to wrong feeding come in this class of errors. If a dog should get a bone or other foreign body caught in its throat it might simulate the dumb form of rabies. Hot, thirsty dogs anxious for a drink have been accused of being "mad" by misguided people. Brain disturbances of various other kinds also show symptoms similar to those observed in rabies.

DIAGNOSIS

The first step in an attempt to diagnose rabies is to pen up the animal securely, if possible, and keep it under close observation. The observation should be by one skilled in diagnosing rabies and closely allied diseases. The graduate veterinarian is best qualified to serve in this capacity, because if the animal's brain is finally sent in for laboratory diagnosis the laboratorian should be given the precise clinical symptoms shown by the dog before death.

A microscopical examination is of value only when the dog has died of the disease, or has been killed after it has shown well-developed symptoms of suspected rabies. The microscopic diagnosis of rabies is based upon the presence or absence in the brain of Negri-bodies, and those bodies are generally lacking in the initial stages of the disease. Therefore, if an animal is kept under observation by a graduate veterinarian and the symptoms permitted to develop, this will guide the practitioner in the proper disposal of the animal and render it easy for him to get a confirmatory microscopic examination of a positive or negative nature. If an animal is killed

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

in the initial stages of the disease it is impossible to make a negative diagnosis for rabies unless one inoculates a rabbit with brain emulsion from the suspected case. This method of diagnosis (inoculation method) will demonstrate whether or not the animal had rabies, but it is necessary to wait 15 to 21 days or longer for the rabbit to develop the disease. This method, while sure, is too dangerous, for if at the end of 21 days the rabbit showed indications of rabies there would be the danger that the individual bitten may not have sufficient time left in which to take the treatment for rabies. Thus, this method is expensive and impractical in all but experimental work.

The method of procedure for the owner to use with rabies suspects should follow this summarized outline:

1. Do not shoot.
2. Securely confine or "pen up" the animal.
3. Call your veterinarian.

PREPARATION OF DISEASED SPECIMENS FOR SHIPMENT

The rules and regulations governing the shipments of heads of dogs or other animals by express to laboratories of the State Board of Health, to the Veterinary Laboratory of the Kansas State Agricultural College, or to other laboratories, are:

1. Agents must not accept for transportation the head of a dog or any other animal sent to the state boards of health for rabies examination unless it shall have been prepared for shipment as hereinafter provided.
2. The head of a dog or other animal so shipped must be placed in a tin or other metal container which will not permit the leakage of fluids; such container shall then be placed in a wooden or other container with ice and sawdust packed around it. Such outside container must be so constructed that it will not permit the leakage of ice water.
3. All such packages must be labeled: "CAUTION.—This package contains the head of a dog (or name of other animal) suspected of having died of hydrophobia."
4. Such shipments tendered on Saturday, which cannot reach destination early enough for delivery on that day, and would, therefore, remain in the express office over Sunday, must be refused, and shipper requested to pack in ice and hold until Monday, so that they can be delivered without delay at destination.
5. Require prepayment of charges on shipments of this kind.

TREATMENT FOR RABIES

When an animal develops symptoms of rabies there is no curative treatment, and because of the infectiousness and dangerous nature of the disease no treatment should be attempted.

PREVENTION OF RABIES

All animals bitten by a rabid animal, and all that may be in the immediate vicinity of known rabid animals should be immunized by an injection of *rabies vaccine*. The single-injection method is most practical with animals. It is reasonably certain to protect unbitten animals, and may be of considerable protective value to those animals that are contaminated with the virus. When a rabies outbreak occurs in a community that area should be quarantined.[2] An effective quarantine would embrace: (1) the destruction of all stray dogs; (2) the immunization of all dogs, this to be evidenced by a vaccination tag worn on the collar. Unvaccinated dogs must be effectively muzzled for a period of 60 days, or confined on a chain to their owner's property. These latter methods are not always practical or safe, and inflict misery on the dogs. Immunization lasts for one year.

TREATMENT OF BITTEN PERSON

All wounds caused by the bite of a dog or other animal should be cauterized as quickly as possible by the family physician. This applies to bites from either rabid or nonrabid animals. If bitten by an animal having rabies, in addition to the cauterization mentioned, the individual should also immediately be given the Pasteur treatment by the family physician. The Pasteur treatment for people is a series of injections varying in number from 14 to 21. These injections are administered beneath the skin at daily intervals, with the exception of the first day, when two injections are usually given. A Pasteur treatment is shipped complete to the family physician, and it is not necessary for one to leave home to be given the treatment.

When persons are bitten on the face it is recommended that the Pasteur treatment be started immediately, because rabies virus or poison travels very rapidly to the central nervous system under these conditions. It is absolutely essential that, to be effective, the treatment be started before any symptoms appear. Therefore, the patient must not wait for a report from a laboratory before starting the Pasteur treatment when bitten on the head or face.

2. In Kansas all animal quarantine regulations are formulated and enforced by the State Live Stock Sanitary Commissioner, whose office is in Topeka.

PRINTED BY KANSAS STATE PRINTING PLANT
B. P. WALKER, STATE PRINTER
TOPEKA 1926
11-4185

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

Geary County Health Department

Junction City, Kansas

May 21, 1929

Hon. J. H. Mercer
State Live Stock Sanitation Commissioner
Topeka, Kansas

Dear Sir:

I have another case of rabies, found this morning by Dr. C. E. Zollinger, the local Veterinary Surgeon, on the farm of Mr. C. E. Zumbrum, 8 miles south east of Junction City, on Humboldt Creek. It was of the furious type and had bitten his two dogs. The dog, a collie, was at his place yesterday evening and disappeared, but reappeared this morning, snapping and biting at whatever came in its way. Dr. Zollinger brought the head in, Mr. Zumbrum having shot the dog before the doctor arrived. A laboratory examination shows the negri bodies present. Mr. Zumbrum's address is R. F. D. # 2 , Junction City, Kans.

Most of the cases in this section previously have been of the dumb type and the disease has not spread rapidly, but more cases may show up from this contact as no one knows where the dog may have been or how wide the contacts.

Certainly wise action is in the prevention of the malady, and if you will let me know your wishes in the matter I will endeavor to carry them into execution.

I will endeavor to drive out to Mr. Zumbrum's this evening and learn what I can of any details in the case.

Very truly yours,

H. R. Ross, M. D.

H. R. Ross, M.D.,
Health Officer

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

J. H. MERCER
COMMISSIONER

State of Kansas

OFFICE OF
LIVE STOCK SANITARY COMMISSIONER
TOPEKA

Wichita, Kans., May 23, 1929

Mr J.H.Mercer,

Topeka, Kansas.

Dear Mr Mercer:

Herewith appraisemnts for reactors for owners namely:

J.W.McCreight	Lyons	one reactor
E.G.Simmosn Little River	Little River	" "
Mrs Will Custer	Great Bend	" "
A.J.Schmitt	Ellsworth	two "
Norman Gross	Russell	one "
Fred G. Ebel	LaCross	three

J.W.CcCreight,Lyons, and E.G.Simmons,Little River, will send their reactors to Wichita by truck, where they will be sold for immediate slaughter by the Paugh Commission Co.

Mrs Will Custer, Great Bend is holding her reactor in segregation for about 30 days when the calf that is running with her will be a veal, and she will sell the calf with the cow.

I left shipping permits with all of these parties and cautioned them to observe the shipping instructions very carefully. They will notify your office when the cattle are being shipped.

I left the appraisement for the C.R.Beer reactor

J. H. MERCER
COMMISSIONER

State of Kansas

OFFICE OF
LIVE STOCK SANITARY COMMISSIONER
TOPEKA

Larned, with County Commissioner, T.C.Wilson to make the appraissment and send it in.

Am enclosing also, an appraisement for one reactor belonging to L.W.Huffstettler, Larned. This appraisement was made by County Commissioner T.C.Wilson. Mr Wilson advised me that he will make the Beer appraisement right away and see that both his and the Huffstettler reactor will be shipped in the same load to the K.C.market.

Am leaving today for Hugoton where I will look after the Rabies situation.

Very truly,

W W Downey

Livestock Sanitary Commissioner's Office, correspondence, 1926-1929

May 27, 1929

Mr. Paul B. Gwin,
Co. Agent,
Junction City, Kansas.

Dear Sir:

About four years ago the four large packers volunteered to pay 10¢ a hundred premium on hogs originating in free area accredited counties in order to encourage tuberculosis work. They have paid the 10¢ a hundred premium in most all instances. In May 1928 they issued a rule effective July 1st, 1929, that on and after that date all hogs from clean area counties should be tattooed. I opposed the rule very strongly but since the 10¢ premium is purely a voluntary matter on the part of the packers makes it necessary to meet their demands in order to secure the premium. According to the information at hand it is not a great deal of trouble to comply with the rule calling for the tattooing of hogs.

R. L. Cuff, a representative of the Kansas City Live Stock Exchange has studied this branch of service and the Live Stock Exchange is willing for him to go out to any of the counties and demonstrate the use of the tattoo brand. Therefore, I would suggest that you write Mr. Cuff for information and as to where you can get the tattoo instruments. Also if you would like to have him visit your county and demonstrate the use of the tattoo brand and will advise me I will make every effort possible to get him to spend some time with you. It might be, however, that he would explain this fully to you without the need of a visit to your county. I might add that it will be necessary for the hogs to be tattooed before the 10¢ a hundred premium will be paid by the packer.

As a further requirement in order to secure the 10¢ a hundred premium, a premium card furnished by this department, as per enclosed, is required to be made up and accompany all shipments. All the shipper needs to do, however, is to hand the premium card to his commission men or to the packer purchasing his hogs. The usual way of handling these premium cards is to furnish the banks of the county a supply of the cards so that they can approve same for the shippers who might be their patrons and also to furnish the county agent a supply for his use.

If you will furnish us a list of the banks in your county that you think would take an interest in approving the cards we will send them a supply, or we will send a supply to you to distribute. Please advise me as to this at your earliest convenience and the premium cards will be sent out in line with your suggestion.

Very truly yours,

TUM/ar