Biennial report of the state veterinarian of the state of Wisconsin for the period ending October 31, 1890. 1890

Wisconsin. State Veterinarian
Madison, Wisconsin: Democrat Printing Company, State Printer, 1890

BIENNIAL REPORT

OF THE

STATE VETERINARIAN

OF

WISCONSIN

For the Period ending October 31, 1890.

1888-90.

By V. T. ATKINSON, V. S.,

MILWAUKEE.

MADISON, WISCONSIN:
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LETTER OF TRANSMITTAL.

OFFICE OF STATE VETERINARIAN.

To His Excellency, WILLIAM D. HOARD,
Governor of Wisconsin:

As required by law I have the honor to submit herewith the biennial report of this office, which is for the two years ending October 31st, 1890.

Very respectfully,

State Veterinarian,
563 Milwaukee St., Milwaukee.

REPORT

OF THE

STATE VETERINARIAN.

From my observation during the last two years, I feel warranted in congratulating the owners and breeders of live stock of this state on the general health of our animals. For although a number of reports of contagious diseases have been made, which investigation has, in many instances, proved to be the fact. The outbreaks have, in most instances, been easily controlled, and when we take into consideration the great number of our animals and their value, the loss sustained from contagious diseases by comparison becomes insignificant.

I am acquainted with nearly all the state and territorial veterinarians of the western states and have compared our system with others and am satisfied that in many respects it is superior to any; though in one particular it is sadly deficient. It very difficult for an officer who is traveling nearly all the time to give such attention to office work as will be satisfactory. During this, as in former years of my service in this office, much trouble has been experienced from lack of understanding on the part of owners, of the law in relation to contagious diseases among animals. And in some cases an unreasonable disposition to expect more of the officer than he is physically able to perform, or the law allows. For it must be borne in mind that the state is a very large territory to be held under the supervision of one officer, when he is expected to personally investigate all cases.

General View.

An endeavor has been made to as far as possible take the cases in the order in which they are reported, and as a great many reports upon investigation prove the suspicion to be unfounded, it has been found necessary to exact a description of the symptoms shown by the suspected cases, so that some idea of the necessity for personal investigation may be formed. An exception to this rule is made when the report of disease is sufficiently clear to indicate with reasonable certainty probable serious loss or rapid spread.

In this, as in previous reports, I shall endeavor in connection with a statement of the work done, to give a description of the symptoms shown in the more common diseases, but it should not be expected that such a report could be so clearly made that a person without experience would be able to recognize contagious disease with the same facility as a specialist in that particular branch of the profession. On the other hand, not a few of those reporting cases are disposed to be over confident and expect that the veterinarian should be able on a meagre and unsystematic presentation of symptoms to diagnose the case at once and prescribe measures that will effect a speedy cure. Such people, however, generally belong to a class who have in their possession an obsolete and empirical work, the study of which is likely to do more harm than good, though it generally leaves its student in a condition ready to contradict or criticise in matters about which he is practically uninformed.

There are another class of people who seem to wholly misunderstand the duties of this office, as evidenced by the large number of letters received, which as they do not relate to any form of contagious disease but belong to private practice, are not within the duties of the State Veterinarian. Out of courtesy, I have as far as time would permit, answered them.

Glanders.

GLANDERS.

The reports of suspected cases of this disease have as in previous years been more numerous than any other. And the investigations have constituted a large part of the work. Cases have been discovered and the animals ordered destroyed as follows:

COUNTIES.	CASES.	
	Year ending Oct. 31,1889.	Year ending Oct. 31,1890.
Ashland	7	
Barron	1	
Bayfield	3	
Calumet		2
Chippewa	16	2
Crawford	2	
Dane	2	1
Dodge	4	3
Door	2	
Eau Claire		1
Fond du Lac	1	10
Jefferson		2
Lafayette		3
Marathon	4	
Marquette	3	
Milwaukee	6	4
Monroe	2	
Oconto		2
Outagamie	2	2
Ozaukee	1	
Pierce	1	
Polk		2
Racine		1
Sauk	4	2
St. Croix		4
Sheboygan		4
Trempealeau	2	
Walworth		1
Waupaca	2	4
Winnebago	2	
Total	67	50

Glanders.

It will be noticed from the foregoing, that this disease is more prevalent in the counties of the northern and central part of the state than in the southern part. In proportion to the number of horses owned, Chippewa county more than any other. This may be explained in two ways:

First — The logging in the pineries of the northern part of the state furnishes work during the winter for many horses and mules that are used on the farm during the summer, thus the massing of a large force of men and teams in the camps during the winter and then scattering again in the spring when the camps are broken up, affording abundant opportunity for the dissemination of the contagion. Besides this, as the work is necessarily very hard with exposure to severe weather and the stables generally badly ventilated and otherwise unsanitary, the conditions of susceptibility are increased.

Second — The constant association of the man and his team tends to create a feeling akin to friendship which makes him loth to report his suspicion, when he knows that to establish the existence of Glanders means the certain death of one or both of his old friends. Especially is this so when he owns them and they represent all or nearly all of his possessions.

Concerning the nature of the disease and methods of controlling it there is nothing to add to the Bulletin contained in the Third Annual Report.

The law as applied to this particular disease seems to work admirably. The only difficulty experienced results from misunderstanding of its provision and impatience on the part of local boards of health. The power to order quarantine, conferred on such boards by sect. 2, chap. 76, laws of 1887, is sufficient to hold suspected animal so that there need be no danger of the disease spreading till official inspection can be made. That such inspection can not be made immediately upon the report of a case can easily be understood for it frequently happens that such reports are

received in my absence, and are often so vague that the expense of the necessary trip does not seem warranted.

In order to as far as possible secure information and be able to determine the necessity for investigation, a blank, with a series of questions is furnished, for use of the local health officer, which when intelligently answered, gives a very fair idea of the case and frequently saves the trouble and expense of a long trip.

ANTHRAX.

What were probable outbreaks of this disease have occurred among cattle in the following counties: Monroe, Columbia, Juneau, Shawano and Sauk. In all about twenty animals died during the year ending October 31, 1889. The outbreak in Monroe county was the only one in which I had opportunity to make careful investigation. There I found the disease in the form known as Glossar Anthrax or more commonly Black Tongue. Microscopic examination of the blood revealed the Anthrax bacilli. In none of the outbreaks did the disease show much disposition to spread beyond the herd in which it first appeared. During the year ending October 31, 1890, outbreaks occurred in Dodge, Green Lake, Juneau, Marquette and Monroe counties with a loss of about ninety animals.

As the nature of the disease is not generally understood and when it appears in a neighborhood it is likely to cause considerable loss and much alarm, it was deemed to issue the following, which was accordingly done:

BULLETIN ON ANTHRAX.

This disease appears in several different forms, and although they are all due to the same micro-organism. Each outbreak generally assumes the same characteristics in all

Anthrax.

the animals affected, though likely to be very different from other outbreaks of the same disease.

It generally appears in early autumn following a hot summer. It is apt to appear among cattle that have pastured on soil rich in organic matter with impervious subsoil, preventing natural drainage, particularly if it has at any time been cultivated and again allowed to become wild, or in districts that have been inundated with drying up pools, leaving organic matter in their basin.

Continuous warm dry weather favoring emanatious from such places, and tending to contaminate the water supply, also debilitating the animal and predisposing to the reception and growth of germs.

In its most accute forms they fall suddenly and die in the midst of convulsions, blood-colored foam issuing from the mouth and nostrils.

In other cases swelling of the throat, offensive discharge from the mouth, which is sometimes bloody, fever, and in some cases bloody diarrhœa and occasionally delirium and convulsions before death.

In this as in the other form the disease runs its course to a fatal termination so rapidly, that the discovery of a dead animal is frequently the first indication of anything amiss in the herd.

Though terribly fatal in its tendency, and the germ has shown to have remarkable vitality, in the climate of this state, it seems to exert its worst influence only when the unfavorable conditions under which it is produced are all continued, so that a complete change of pasture and water are usualy sufficient to arrest the further spread of the disease. In making such change, the animals of the infected herd should not be associated with others. Those that die should be either burned or buried deeply. The skin should not be removed for fear of personal innoculation, as such an accident would be likely to terminate fatally. Though

more common among cattle than among other animals, all are susceptible to it.

SYMTOMATIC ANTHRAX.

Black Quarter or Black Leg is a disease closely allied to Anthrax in its nature, though believed not to be transmissible from one animal to another. It is most frequent in calves and young stock, and the strongest, finest and most rapidly thriving are the first attacked.

It appears under the same conditions as are likely to produce other forms of Anthrax.

As in other forms of this disease it runs its course so rapidly that the discovery of a dead animal is frequently the first indication of anything amis. If seen during life, the first noticeable symptoms is lameness in one limb, tenderness or pressure over the shoulder or hip of the affected quarter, which is soon followed by swelling of the quarter, with oozing from the surface of yellow or bloody fluid. The swelling becomes firm, tense, insensibile and even cold, and if pressed upon a crackling feeling is noticeable as if air was imprisoned beneath the skin. If the subject survives the acute stage, large pieces slough off leaving unhealthy sores. Recoveries are the exception and are always tedious.

When this form appears all the animals in the herd should be immediately removed to another pasture and have complete change of water. The feed should be so regulated that the disposition to fatten will be checked, and as tending to further reduce the system, it is well to give a dose of physic to each.

Hog Cholera.

HOG CHOLERA

has prevailed in Dane, Green, Iowa, Rock, Sauk and Washburn counties, with an estimated loss of about one thousand hogs and pigs during the year ending October 31st, 1889, and in Clark, Dane and Jefferson counties during the year ending October 31st, 1890. The disease has not shown a disposition to spread as rapidly as it has heretofore, nor do the affected animals seem to succumb to it so quickly, or with the same certainty, recoveries being quite frequent. The greatest difficulty experienced in attempting to control it, arise from carelessness on the part of the owners. In many instances hogs are permitted to run at large, so that the disease is given every chance to spread through a locality, and for some inexplanable reason owners in infected localities will frequently hold their stock hogs until the disease appears among them, then rush them into market at a great risk of loss and danger of spreading the disease. When it is possible, the safest plan is always to dispose of all hogs as soon as there is any danger of them becoming infected, even though not quite ready for market. If such a course were pursued, the disease would soon die out from lack of material to further sustain it.

Though many able scientists have been diligently at work on the disease and their experiments and observations have thrown a great deal of light on many of its peculiarities, very little of practical utility has been discovered during last year. Too much emphasis cannot be placed on caution against introduction of hogs that have passed through any of the large stock yards, particularly Chicago, where the disease has become so common that commission merchants frequently quote a price for cholera hogs. A more complete treatise on this disease will be found on page 15 of my Third Annual Report.

Lump Jaw.

LUMP JAW.

(*Actinomycosis.*)

This disease does not seem to prevail to any great extent in this state, a few isolated cases only have been reported to this office. It has been variously described as Lump Jaw, Swelled Head, Wooden Tongue, etc. It is malignant and contagious to the extent of being transmissible from one animal to another by inoculation, though its disposition to spread is not well marked, some authors even asserting that it should not properly be classed as a contagious disease. Cattle seem to be the only animals affected by it in this state, though it is transmissible to mankind and other animals.

It generally first appears as a disease of the lower jaw, and adjacent soft tissue. A swelling and tumified condition at first attract attention. Upon examination the tumor will frequently be found to be fixed to the bone, in fact that the bone itself is enlarged. When the enlargement attains its growth (which is generally in the shape of a ridge from three to four inches in thickness and from seven to ten inches in length running along one side of the jaw) one or more fistulous openings appear on its surface and there is discharged a creamy pus.

In other cases the upper jaw and occasionally the tongue are the principal seats of the disease. When the latter is the case there is generally a flow of saliva mixed with pus from the mouth. When once established the disposition is to spread. The structure of the bone gradually gives way so that the teeth become loosened and drop out. From inability to take proper nourishment, the animal loses flesh and ultimately dies. When cases do occur treatment is so tedious and uncertain of good results that the best course is generally to destroy the animal.

Hydrophobia, Texas Fever, Enzootic Abortion.

HYDROPHOBIA.

About the 28th of March, 1889, a dog believed to have been mad passed through part of the town of Trenton in Pierce county, and bit a number of animals, sixteen of which died or were killed while believed to have been suffering from rabies. Fortunately no persons were bitten, and as the local board of health promptly ordered all dogs secured, the trouble did not spread. About the same time similar trouble was experienced on the opposite side of the Mississippi river in Minnesota.

TEXAS FEVER.

An outbreak of this disease in the latter part of September, 1889, which occurred in the town of Wauwatosa in Milwaukee county resulted in the death of four animals which had recently been brought into the state, having contracted the disease while in transit. As none of the imported lot came from south of the Texas fever line, the disease disappeared with the death of the last of the infected.

ENZOOTIC ABORTION

IN COWS.

The recent experiments and observations of Prof. Norcard of the Alfort college, prove that this trouble is due to a micro-organism and belongs to the list of Contagious Diseases.

Although the theories advanced have so far received no test in this country.

The reputation of the experimenter and the thoroughness with which the work has been done, I feel, warrants me in giving his views in relation to the preventative treatment.

Enzootic Abortion.

When the disease has prevailed.

1st. The floors and walls of the stable should be kept scrupulously clean, and every week sprinkled with a solution of Sulphate of Copper (Blue Vitrol), 1½ oz. to a quart of water.

2d. Every week inject thoroughly the Vagina of every cow that is with calf with a horse syringe, filled with the following solution luke warm.

Distilled water	4½ gallons.
Glycerine	3½ ounces.
Alcohol 36°	3½ ounces.
Bichloride of mercury	2½ drachms.

Dissolve the chloride of mercury in the alcohol and glycerine, mix with the water and stir briskly.

This solution should be kept in a wooden vessel, out of the reach of children and animals.

3d. Each morning the vulva, anus and lower surface of the tail of all cows in calf should be carefully bathed with the same solution.

These measures should be entered upon as soon as the animal has been served and continued till calving. It would even be wise to inject two or three days before service, to remove any danger of introduction of the germ on the penis of the male.

4th. When abortions occur the after-birth should be removed at once, and it and the fœtus destroyed by burning and the stall at once disinfected, the uterus washed out with the disinfecting solution before described. This last operation is so delicate that it would hardly be safe for any one not familiar with the organ to attempt it. If it is not performed the animal should be kept isolated for a long time and the vagina carefully disinfected before bull service.

INDIGESTION IN CATTLE.

IMPACTION OF THE THIRD STOMACH

Frequently occurs in the fall of the year and is often mistaken for contagious disease and the cause of alarm as was the case in Green Lake, Sauk and Dane counties last fall.

It may result from the use of any dry, fibrous and indigestible food as dead or over-ripe marsh grasses, smutty corn-stalks, etc. The symptoms are not likely to attract attention except in acute cases. If the herd be carefully observed the breathing is slightly more rapid, the eyes dull, the muzzle dry. There is failure to chew the cud and an occasional moan. In more acute cases death occurs suddenly, apparently healthy animals dying in from a few minutes to six or eight hours. Such cases are characterized muscular tremors, drowsiness, stupor and delirium and convulsions. The breathing is quickened, bowels may be loose or torpid. There is hardness and tenderness under the short ribs on the right side.

On post mortem examination the third compartment of the stomach will be found impacted with a dry, woody mass, tense and solid, which when cut into reveals the folds of the organ with layers of ingesta between, so firmly wedged in that when removed the membranes are stripped off with it.

When such cases occur the remainder of the herd should at once have change of feed and if any are noticed ill a dose of physic should be given at once. The name of Corn-stalk Disease has recently been applied to this malady, and a micro-organism, believed to be the cause of it, has been discovered.

Ergotism.

ERGOTISM.

Although not a contagious disease is apt to be so considered when it makes its appearance for the first time in a locality, and is always the cause of considerable alarm. It is rare, the only cases reported were in a herd in Waushara county, in May, 1889. At the time of my visit the owner had lost four head and five were then ill, all showing lameness in the hind legs, swelling at and below the ankle joint, one cow and two yearlings had lost a foot each of dry Gangreen. Of those that had died, one had lost all four feet and the other three had lost both hind feet. I was informed that they had been fed all winter on hay which had grown on an adjoining marsh. An examination of the mow disclosed a large amount of ergot among the seeds of blue grass, of which the hay was partly composed. The following explains the nation of the disease:

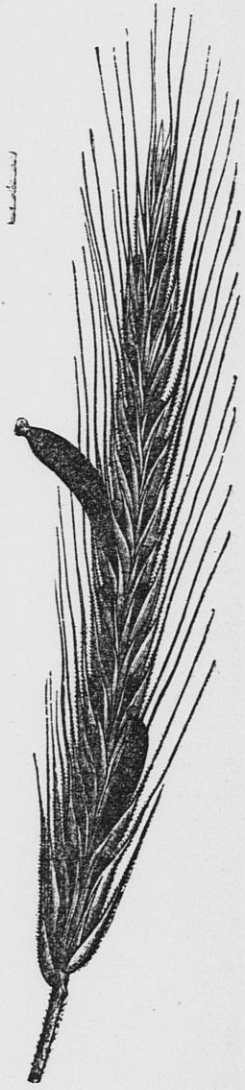
BULLETIN ON ERGOTISM.

Although not a contagious disease, is apt to be so considered when it makes its appearance for the first time in a herd, and is always the cause for considerable alarm. It has so far appeared only in the spring of the year and among cattle only, and only such as have been fed for a long time on the diseased hay which causes it. Such grasses are likely to be grown on rich soil in hot damp seasons. Rye seems to be more liable to ergotize than any of our other crops; of the grasses which enter into the composition of hay, blue grass seems most liable.

On the plant the disease manifests itself on the seeds, which are easily recognized when the hay is examined in the mow. The ergotized seeds are several times larger than the natural, hard, black colored, and generally curved in shape. The accompanying illustration shows a head of rye with two ergotized seeds and gives a fair idea of the relative size of the diseased and healthy grain.

Ergotism.

The effect of the protracted use of ergot in the food is pretty well understood to be that of lowering the powers of the circulation which, together with the action of gravitation is sufficient to completely arrest it in dependent parts of the body, such as are remote from the heart, as the tail and feet, particularly the hind feet. Cattle seem to be more susceptible to the influence of ergot than other animals, possibly on account of the slowness of the heart's action. When the effect of the poison has become sufficient to entirely arrest the circulation in any part, the structures soon die. The disorder manifests itself as lameness in one or more limbs, and swelling about the ankle which may result in only a small slough, but is more likely to circumscribe the limb at any point below the knee or hock, by an indented ring below which the tissues become dead. The indentation soon changes to a crack, which like it extends completely round the limb, forming the line of separation between the dead and living structures. The crack deepens till the parts below drop off without loss of blood and frequently with very little pus. This condition is known as dry gangrene and is the poisonous effect of ergot.



Regarding the treatment, change of food and local antiseptics are of course indicated. The former may be useful as a preventative, but when the symptoms have appeared the animal is necessarily so completely

saturated that recoveries are likely to be tedious. It has been observed by some writers that the feeding of corn with ergotized food neutralizes the poisonous effect.

SHEEP SCAB.

The rich pastures of Kenosha county lying so near the Chicago market, has rendered that district desirable as a stopping place for shippers of western sheep. A common practice now is to ship the sheep from the ranges before they are ready for the market, with stop over privileges at some point in Kenosha county, when they are rapidly prepared for market and disposed of without the deteriorating effect of a long journey.

In so far as the profit on the pasturage is considerable, the practice has worked to the advantage of the owners of pasture lands. Unfortunately, however, some of the sheep were affected with scab, so that the disease appeared in several places. The outbreaks fortunately were easily controlled and the loss comparatively small.

The danger of further importations of similar nature was averted by an arrangement with the officials of all the railway companies doing business in that vicinity, which was to the effect that no sheep should be received for shipment into that part of the state except such as were accompanied by certificate of health, signed by a competent inspector. Since that time no further complaints have been made.