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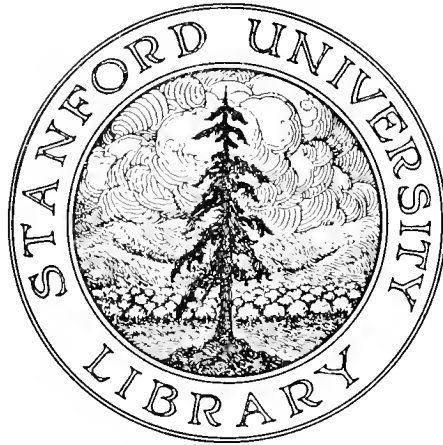
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REPORT  
  
TO THE  
  
LIVESTOCK SANITARY BOARD  
  
July 1, 1955 - June 30, 1956

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MONTANA LIVESTOCK SANITARY BOARD

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HADLEIGH MARSH  
Executive Officer and State Veterinarian

---

JOHN W. SAFFORD  
Assistant State Veterinarian

---

H. F. WILKINS  
In Charge of Brucellosis Eradication

---

DISTRICT DEPUTY STATE VETERINARIANS

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H. L. Nordell, Great Falls	H. W. Jacobson, Havre
W. E. Stahl, Missoula	S. D. Gates, Lewistown
G. M. Wright, Billings	E. W. Spratlin, Glasgow

---

DIAGNOSTIC LABORATORY

A. M. Jasmin, Bacteriologist & Pathologist, In Charge
Frank Peacock, Chemist

---

MEAT INSPECTION

J. W. Safford, In Charge

---

MILK SANITATION

J. D. C. Wipf, In Charge

Helena, Montana  
July 1, 1956

Honorable J. Hugo Aronson,  
Governor of Montana  
Helena, Montana

Dear Governor Aronson:

In compliance with Title 46, Section 242,  
Revised Codes of Montana, 1947, we transmit herewith report of  
the State Veterinary Surgeon to the Montana Livestock Sanitary  
Board for the period July 1, 1955, through June 30, 1956.

Respectfully submitted,

MONTANA LIVESTOCK SANITARY BOARD

  
HADLEIGH MARSH,

Secretary and Executive Officer

Helena, Montana  
July 1, 1956

Honorable Livestock Sanitary Board  
Helena, Montana

Gentlemen:

In compliance with Title 46, Section 242, R.C.M., 1947, I submit the report of the Executive Officer to the Livestock Sanitary Board for the year ending June 30, 1956.

There were five meetings of the Livestock Sanitary Board during the year.

A meeting was held in Billings, August 20, 1955.

A meeting was held in Helena, December 9 and 10, 1955.

The annual meeting was held in Helena, April 9 and 10, 1956.

A meeting was held in Billings, May 21, 1956, during the convention of the Montana Stockgrowers Association.

A meeting was held at Bozeman, June 15, 1956.

At these meetings, the varied activities and responsibilities of the Livestock Sanitary Board were discussed and acted upon. All actions taken, and regulations and orders issued, by the Executive Officer in interims between meetings of the Board, were approved.

The complete minutes of all meetings are on file in the State Veterinarian's office at the Livestock Building at the Capitol in Helena.

Respectfully submitted,

*Hadleigh Marsh*  
HADLEIGH MARSH,  
State Veterinarian and  
Executive Officer.

REPORT TO THE  
MONTANA LIVESTOCK SANITARY BOARD

GENERAL REMARKS

During the year ending June 30, 1956, the work of the Livestock Sanitary Board has gone forward in its many and varied phases along the lines established during recent years. The demands, both local and national, for increased services of several kinds are continually increasing, and we have attempted to meet these demands as far as possible with the staff and funds available. We, and the livestock industry, have been fortunate in that during the year there have been no serious or unusual disease developments demanding extraordinary regulatory action. A major activity has been the continuation of the large scale effort, in cooperation with the Animal Disease Eradication Branch of the U. S. Department of Agriculture, for the eradication of brucellosis in cattle.

PERSONNEL

On January 1, 1956, Dr. John W. Safford, who had been a member of the staff of the Livestock Sanitary Board from 1940 to 1951, and had been on the staff of the Veterinary Research Laboratory at Bozeman since January 1, 1952, became Assistant State Veterinarian.

At the beginning of the past fiscal year, three of our District Deputy State Veterinarians accepted a status in which they will devote their entire time and attention to supervision of the state work in their districts. It is planned to eventually set up all the district work on this basis.

Dr. I. A. Phinney, who was District Deputy State Veterinarian at Kalispell, retired on November 30, 1955.

Dr. F. M. Nelson, District Deputy State Veterinarian at Livingston, retired June 30, 1956.

LABORATORY BUILDING

The laboratory space and facilities of the Livestock Sanitary Board are entirely inadequate for the work which is being done and should be done. When the present new State Laboratory Building, designed for the use of all departments needing laboratory space was planned, a wing of the building was allocated to the Livestock Sanitary Board. When the building was finally constructed, the Livestock Sanitary Board wing was eliminated. During the past year we have been able to reactivate the State Laboratory Commission which was created by law to plan the building and supervise its use. The Commission has studied the situation and is preparing to ask the legislature to provide for completion of the building as originally planned, which would provide for our needs, and for needs of the other departments using the building.

## FINANCE

In summary, the financial report for the year ending June 30, 1956, is as follows:

<u>Income</u>		<u>Disbursements</u>	
General Fund (Appropriated):		General Fund:	
General operation	\$ 159,800.00	General operation	\$ 159,398.59
Brucellosis	<u>25,000.00</u>	Brucellosis	<u>24,975.66</u>
T O T A L	\$ 184,800.00		\$ 184,374.25
Livestock Sanitary Board Fund:		Livestock Sanitary Board Fund:	
Balance July 1, 1955	\$ 9,282.69	General operation	\$ 94,647.63
Livestock tax	130,764.13	Brucellosis	<u>\$ 105,276.02</u>
Interest on bonds	2,760.00		
Inspection fees, etc.	1,338.72		
Meat inspection fees	43,642.62		
Sale of bonds	<u>24,225.00</u>		
T O T A L	<u>\$ 212,013.16</u>		<u>\$ 199,943.65</u>
GRAND TOTAL	\$ 396,813.16		\$ 384,317.90
Balance on June 30, 1956			\$ 12,495.26
Reserve in bonds on July 1, 1956	\$ 75,000.00		

The income from the special livestock tax was \$130,764.13 as compared with \$68,932.79 in the previous fiscal year. This increase was the result of the increase in the levy from  $1\frac{1}{2}$  mills to 3 mills which became effective in 1955.

The income from meat inspection fees paid by the packers was \$43,642.62, which offset the expenditure of \$42,085 for salaries of meat inspectors, which is included in the general salary item.

In order to carry on the brucellosis work, it was necessary to cash bonds which produced an income of \$24,225. The amount remaining in the invested reserve is now \$75,000, part of which will have to be cashed during the year ending June 30, 1957, to supplement the small appropriation for brucellosis eradication.

## LIVESTOCK MARKETS

The sanitary supervision of the livestock auction markets was improved during the year. After a discussion of the problem at a meeting with the Livestock Auction Markets Association, an amendment to Regulation 36, governing disease control in livestock markets, was put into effect, providing that a veterinarian representing the Livestock Sanitary Board and paid by the Board, shall inspect all livestock coming into the markets, and shall be responsible for seeing that all livestock sold at the markets are in compliance with Montana regulations, and for maintaining sanitation in the yards.

Also, after discussion with market operators, Chapter 20, of the Regulations, was adopted, providing for approved quarantined feed lots, where cattle from herds in which certain diseases exist or may exist, particularly brucellosis, may be fed for slaughter. During the year, 8 such quarantined feed lots were approved.

MEAT INSPECTION  
by  
J. W. Safford

Eighteen slaughtering plants were operating under state meat inspection at the beginning of the fiscal year. Fifteen were in operation at the end of the fiscal year, June 30, 1956. One plant closed during the year. Meat inspection was withdrawn and the license revoked from one plant because of gross unsanitary conditions, and from another because of a complete lack of proper sanitary slaughtering and meat inspection facilities.

There are four federally-inspected slaughtering plants in Montana. Forty-six slaughterhouses are operating under a license from the Montana Livestock Sanitary Board without meat inspection.

New slaughtering establishments that have been, and are being built, and the remodeling and improvements on several plants, have given Montana a number of very modern and sanitary establishments in which meat and meat products for human consumption are prepared. There are a few slaughtering establishments without meat inspection in which considerable sanitary improvement will have to be made.

The following table shows the distribution of off-farm animals slaughtered in Montana during the fiscal year ending June 30, 1956:

(From Montana Livestock Sanitary Board meat inspection reports and the U. S. Agricultural Marketing Service reports.)

	46 Plants without meat inspection	18 Plants with state meat inspection	4 Plants with federal meat inspection
Cattle	6,835 - 8%	32,785 - 39%	44,380 - 53%
Calves	1,083 - 15%	5,057 - 70%	1,060 - 15%
Swine	4,371 - 2%	49,589 - 22%	174,040 - 76%
Sheep	982 - 9%	6,208 - 60%	3,290 - 31%
TOTAL	12,271 - 4%	93,639 - 29%	222,770 - 68%

The above table indicates that 96% of the off-farm animals slaughtered in Montana are slaughtered under either federal or state meat inspection. All plants having either state or federal meat inspection are west of Billings, Lewistown, and Havre. No slaughtering establishments east of this line have meat inspection; therefore, it can be assumed that the majority of the animals slaughtered without meat inspection (the 4% in the above table) are slaughtered in eastern Montana. Assuming that there would be about the same proportion of entire carcass, parts, and liver condemnations in eastern Montana as in western Montana (based upon the Montana Livestock Sanitary Board meat inspection condemnations as tabulated in this annual report), the people in this area might have had the meat from 20 cattle, 2 calves, 6 swine, and one-third sheep, which was totally unfit for human consumption. They might have had meat from 274 cattle parts, 1,435 cattle livers, 10 calf parts, 306 swine parts, and 108 sheep parts, that were diseased or otherwise unfit for human consumption. It is recommended that meat inspection be established in slaughtering establishments in eastern Montana.



The cost of meat inspection service is paid by fees paid to the Livestock Sanitary Board by the establishments maintaining the state meat inspection. The 18 plants paid in \$43,642.62 for this service during the fiscal year ending June 30, 1956. The Montana meat packers and others are sponsoring a movement to establish by legislative action and appropriation a more complete state-wide meat inspection service.

### MILK SANITATION

by

J. D. C. Wipf

Chapter 1 of the Montana Livestock Sanitary Board regulations covers dairies, milk depots, milk, and milk products, from the producer to the processor, and the ultimate delivery to the consumer.

The personnel who are charged with the duty of enforcing the regulations have been faced with increased work due to changes in production, processing, and delivery of milk and milk products.

Milking barns and pipelines combined with bulk farm tanks and tank pick-up have resulted in rebuilding numerous producer dairies, and also in the installation of new equipment in pasteurization plants.

The examination of milk is more complicated as far as the pick-up of samples from bulk farm tanks is concerned.

The approval of bulk tanks and pipeline installations to comply with 3A Standards takes extra time. Changes in cleanup methods due to in-place cleaning methods also complicates inspections. The inspection of pasteurization plants, and the various new pieces of equipment connected with the modern methods of processing, are necessary for compliance.

Plants are checked as sources for products used by interstate carriers and compliance ratings of interstate milk shippers are made, both for incoming and outgoing milk.

The health of herds producing milk is supervised and all necessary tests are made.

We plan to make surveys of all producing dairies and plants in Montana on an individual plant-producer basis. The addition of various vitamins and minerals or anti-oxidants to milk has to be investigated and approved, or not, according to existing regulations. Milk vendors are also coming into use. Briefly, while the consuming public is getting a better milk supply, both from the sanitary and the quality standpoint, more supervision is necessary.

The Livestock Sanitary Board employs two full-time sanitarians, who travel over the state, keeping in close contact with all milk plants, and with individual dairies when necessary. Under the supervision of the Chief Milk Sanitarian, the district veterinarians are responsible for dairy work in their areas, and selected practicing veterinarians do dairy and milk plant inspections. Sanitarians of city and county health departments also cooperate with the Livestock Sanitary Board in making dairy inspections and collecting milk samples. Bacteriological and chemical examination of milk samples is made in the Livestock

Sanitary Board laboratory in Helena, and bacterial counts, accepted as official by the Livestock Sanitary Board are made in health department and hospital laboratories in nine cities in the state.

In 1956, the Livestock Sanitary Board licensed 1,033 dairies and 65 milk plants.

#### COOPERATING AGENCIES AND ORGANIZATIONS

The Livestock Sanitary Board staff has been fortunate in its relations with several different agencies and organizations with which it has cooperated in control of animal and human disease. The Montana office of the Animal Disease Eradication Branch of the Agricultural Research Service, under the direction of Dr. J. L. Wilbur, Jr., works very closely with the Livestock Sanitary Board in several major disease-control projects which are of national significance, including the control of bovine tuberculosis and brucellosis, Johne's disease in cattle, vesicular exanthema in swine, scrapie in sheep, cattle and sheep scab, and others. The State Board of Health, U. S. Public Health Service, and the city and county health officials cooperate with the Livestock Sanitary Board, particularly in the field of milk sanitation. The men in charge of federal meat inspection at Montana plants have been very helpful, particularly in training state meat inspectors. The Montana Livestock Commission has been very helpful through its brand inspectors. The Agriculture Extension Service and the livestock organizations are cooperating in disease-control work.

#### VETERINARY RESEARCH LABORATORY

The close relationship between the office of the State Veterinarian and the Veterinary Research Laboratory at Bozeman continues. About \$10,000 of Livestock Sanitary Board funds are allocated each year for payment of portions of the salaries of three men on the staff of the Research Laboratory.

During the past year, Wallis Huidekoper gave his 100-acre ranch, on the Yellowstone River just east of Big Timber, to the Research Foundation of Montana State College for the use of the Veterinary Research Laboratory.

The laboratory's current projects include vibriosis of sheep, urinary calculi in range cattle, white muscle disease of calves and lambs, redwater of cattle, coccidiosis of cattle, and the thread-necked roundworm (*Nematodirus*) of the intestine of sheep. Several articles reporting results of these projects have been published during the year.

The Research Laboratory assists in the diagnostic work of the Livestock Sanitary Board Laboratory, particularly in virus diseases of poultry, anaplasmosis of cattle, and vibriosis.

#### MORBIDITY REPORTS

In the annual report for the year ending June 30, 1955, we reported the inauguration of monthly tabulated reports of the diseases reported in livestock in Montana. During the past year the disease-reporting service has been expanded. Cards listing the principal reportable diseases and providing space for others are sent out each month to all veterinarians in the state. When these are returned, the information on them is combined with reports of disease investigations by Livestock Sanitary Board veterinarians, and a monthly tabulated

morbidity report is prepared. In addition to this report, the laboratory diagnoses for the month are tabulated separately.

### REVISION OF REGULATIONS

Much work has been done during the year on revising the regulations of the Livestock Sanitary Board, but the revisions are not yet completed. On August 30, 1955, Chapter 20 of the Livestock Sanitary Board Regulations was issued, providing for approved quarantined feed lots. On the same date, an amendment to Regulation 36, governing disease control in livestock markets was issued, providing for inspection of livestock markets by veterinarians employed by the Livestock Sanitary Board.

On June 1, 1956, Chapter 15 of the Livestock Sanitary Board Regulations was issued, constituting a revised set of regulations governing the importation of animals, semen, and biologicals into Montana.

### BRUCELLOSIS ERADICATION

by

H. F. Wilkins

The success of Montana's brucellosis program speaks for itself and is an excellent example of the results of cooperation. Our thanks go to the Animal Disease Eradication Branch, U. S. Department of Agriculture, our county agents, cattlemen, members of the state and county brucellosis committees, veterinarians, technicians and others.

As of July 1, 1956, twenty-two counties are classed as modified-certified brucellosis-free areas. To qualify as a certified area, according to national standards, all herds of breeding cattle must be blood tested and infection found in less than 5% of the herds and 1% of the cattle. Thirty other counties are brucellosis-control areas, which are being tested. The initial test has either been completed or is nearing completion in twenty of these counties. Two of the four remaining counties are circulating petitions, and it is anticipated that all four counties will request area testing sometime this fall. From July 1, 1943, through June 1, 1953, 37,659 herds were tested, comprising 508,489 cattle, of which 17,986 were reactors, giving a 3.5% rate of infection. The following chart gives a summary of what has been done during the past three years, except for the rate of infection which has been determined to be about 1.25%.

	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>Totals</u>
Total no. calves vac.	205,270	315,257	317,676	838,203
No. calves vac. at owner's expense	<u>124,550</u>	<u>22,075</u>	<u>3,925</u>	<u>150,550</u>
No. calves vac. at state-fed. expense	80,720	293,182	313,751	687,653
No. cattle blood tested	<u>255,512</u>	<u>482,805</u>	<u>470,342</u>	<u>1,208,659</u>
Total brucellosis units at state-fed. expense	336,232	775,987	784,093	1,896,312

Cost of the Brucellosis-Eradication Program in Montana

	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>Totals</u>
State of Montana expended	\$135,041.00	\$242,305.85	\$240,744.60	\$618,091.46
U.S.A.D.E. Branch "	<u>136,260.85</u>	<u>365,552.40</u>	<u>424,261.68</u>	<u>926,074.93</u>
Total - state and federal	\$271,301.85	\$607,858.26	\$665,006.28	\$1,544,166.39
 Avg. cost for each animal tested or vaccinated	78 cents	78 cents	81 cents	79 cents avg.

Breakdown of Average Cost

	<u>1954</u>	<u>1955</u>	<u>1956</u>
Avg. cost to take blood sample or vaccinate a calf	40.4¢	40.4¢	49.1¢
Avg. cost for all other expenses (includes laboratory expense, cost of vaccine, all other supplies, travel expense, and administration)	37.6¢	37.6¢	35.9¢
Avg. total cost to test or vaccinate one animal	78.0¢	78.0¢	81.0¢

It is to be noted that the expenditure made by the Animal Disease Eradication Branch, U. S. Department of Agriculture, was greatly in excess of that made by the State. Previous to launching the program in 1953, it was mutually agreed that the State and the Animal Disease Eradication Branch would match funds as long as such was possible, which was done the first year. However, the tide turned in favor of the State with the advent of non-matching federal funds in October 1954, which were made available by the 81st Congress to hasten brucellosis eradication. It was made clear though that in order for a state to receive money from this federal allotment that the state would be expected to provide a satisfactory budget for eradication purposes. Since we were in a position to greatly increase our testing and vaccinating program because of preparations made the previous year and were able to increase our expenditure from Fund 151, which was authorized by the Livestock Sanitary Board, we were able to carry a fair share of the load and to accomplish far more than had been anticipated. When this additional money became available it was thought desirable to make use of it by testing and vaccinating as many cattle as soon as possible by enlarging our previously planned program for the year. This was done by sending word to our district deputy state veterinarians and to the county agents that we could service additional counties. The response to the offer was much greater than expected but every effort was made, and we were very successful, in taking care of the added work and responsibilities. Considerable difficulty was met in securing much of the laboratory and testing equipment needed to carry on this extra work and to train additional help for the field, laboratory, and office.

Following authorization by the Board to step up our program, the Extension Service arranged for a meeting to discuss plans and to organize a state brucellosis committee. The committee was organized at a meeting on October 23, 1954, at which there was a representative group of cattlemen who helped formulate policies. It was their recommendation that no indemnity be paid but that vaccination on a state-wide basis be substituted and carried on as long as possible or necessary. This was considered a very sound request, which was immediately adopted. It will be observed that the number of calves vaccinated on a state-federal basis increased from 80,720 in 1954 to 293,182 in 1955, and to 313,751 in

1956. This additional vaccination has added marked stability to the program and with its continuation assures relative freedom from the disease following certification of the state.

It should be pointed out here that the drain on the State's general fund has been insignificant up to this time, but additional funds will be required in the future if the job is to be finished and maintained as it should be and the overall investment properly protected. In 1953, a \$20,000 appropriation was made to prepare and start a brucellosis-eradication program in a small way, which was supplemented in 1955 with an annual appropriation of \$25,000 to cover the fiscal years 1955 and 1956.

Up to this time only \$65,000 from the general fund has been appropriated and spent specifically for brucellosis control during the past three years as compared with the total of \$618,091.46 shown in the tabulation as expended by the State during that period. A part of the difference between \$65,000 and the total has been charged to brucellosis from the general fund because a part of the salaries and expenses of the regular staff have been used for brucellosis work, but a large portion of this difference has been paid from current operating funds and reserve funds supplied by the stockmen of the state through the special livestock tax.

It is therefore evident that the stockmen have borne the major part of the expense of the state's share of the federal-state brucellosis program to date, with about 75% completion of the work necessary to declare Montana as a modified-certified brucellosis-free state. In so doing they have not only benefited their own industry, but have contributed in a very important way to protecting the health of all the people of the state.

In order to maintain this status it will be necessary to vaccinate all heifers for a number of years, to establish a program of testing dry and cull cows shipped for slaughter, to continue a certain amount of field testing, and to expand the use of the milk ring test. To carry on this work, the state should assume its just responsibility to the livestock people and appropriate adequate funds to complete this job.

#### CATTLE DISEASES

Anthrax - The past fiscal year completes a three-year period in which no case of anthrax has been reported in Montana.

Anaplasmosis - continues to be an unsolved problem. During the past year there was no known extension into new areas, and the known losses were not serious.

Again antigen for the complement-fixation test was supplied to us by the Animal Disease and Parasite Research Branch of the Agricultural Research Service and the Research Laboratory at Bozeman was equipped to run fairly large numbers of samples. The test was applied to 6,072 samples from 11 herds. In all but one of these herds, anaplasmosis was known to be present or suspected.

In 5 of the herds, no positive reactors were found, while the reactors and suspects in the other 6 herds ranged from 5% to 67%.

The North Montana Experiment Station herd was tested again in December 1955, with no significant reactions. This was the result two years after the clinical cases and reactors had been removed from the herd in December 1953.

Blackleg - The Research Laboratory is continuing work with various strains of the blackleg organism, with the objective of improving the vaccines available to prevent losses which have occurred in the past few years in vaccinated cattle.

Leptospirosis - The number of diagnoses of leptospirosis has increased markedly during the past year, the disease having been found in 17 herds. The laboratory has run blood tests on 860 cattle, with 153 reported as positive and 32 as suspicious. In a number of herds abortions have occurred as a result of leptospirosis in herds known to be free of brucellosis. Fairly effective control measures are available, including a vaccine which is of some help.

Redwater - (bacillary icterohemoglobinuria) showed a rather alarming increase during the year in Lake and Ravalli Counties, cases having been reported in 90 herds. Vaccination of 1,618 cattle was reported during the year. In Lake County a program of vaccination is being set up, with the objective of vaccinating all cattle in the area during the summer of 1956.

The Veterinary Research Laboratory is continuing its research project on this disease, with the hope of producing a vaccine which will give a longer immunity than the vaccines now available.

Rhinotracheitis - For the first time in Montana a respiratory disease of cattle sometimes called "red nose" has been diagnosed in 11 lots of feed lot cattle, with 117 cases reported. This is a disease which has appeared in the last few years in the Colorado feed lots, where this disease has appeared in rather large numbers of feed lot cattle about four weeks after they have been put on feed. The death loss has not been high, but the loss in gains has been great. The disease is being investigated at the Colorado Experiment Station, but as yet we do not have a satisfactory method of controlling it.

Scabies - No cattle scab has been reported in Montana during the year.

Tuberculosis - The tuberculin test was applied during the year to 4,040 dairy cattle and 16,377 beef cattle, resulting in finding 3 reactors in dairy cattle, and 6 in beef cattle. Of the total of 20,417 cattle tested, 9 animals reacted, a percentage of 44/1000 or 1%. Of the 9 reactors, only 3 were reported as showing lesions on post-mortem examination.

Six cattle from 5 herds were reported from slaughtering establishments as showing lesions of tuberculosis. Four of the reactors reported above were found in 2 herds from which the cattle found as tuberculous at slaughter originated. No reactors were found in three of the herds represented by animals found showing lesions when slaughtered.

In all cases, the lesions were limited to a few lymph nodes in the cervical or mesenteric regions. It is not known whether any of these infections were caused by the bovine type of the organism. Typing was completed in only one case, and in this case the type was avian.

Miscellaneous Cattle Diseases - Outside of the small number of rhinotracheitis cases in feed lot cattle, no new or unusual conditions have been recognized during the past year. Some of the more important conditions observed were coccidiosis, pink eye, urinary calculi, foot rot, and pulmonary emphysema ("asthma").

#### SHEEP DISEASES

Bluetongue - We have not yet seen bluetongue in Montana. It has occurred during the past year in California, Utah, Nevada, Arizona, New Mexico, Colorado, Texas, Oklahoma, and Missouri. An order has been issued by the Livestock Sanitary Board placing restrictions on the movement of sheep from those states into Montana. A permit is required, and the sheep must come from a clean flock, must be vaccinated at least 30 days before shipment, and must be dipped.

Scrapie - The Animal Disease Eradication Branch has 60,000 sheep in 61 flocks under periodic inspection in Montana for scrapie, because of importations in the past two years which may have been exposed to the disease. There have been no cases of the disease in Montana as yet.

Foot Rot - We continue to keep the state practically free from foot rot in sheep. It was diagnosed in only two flocks during the past year, and these flocks were cleaned up.

Vibriosis - Vibronic abortion was reported in 9 flocks during the past year, but losses have not been serious. The Research Laboratory is continuing research on this disease as a part of a regional project. The Laboratory has made important contributions to the knowledge of the disease, but effective preventive methods have not yet been developed.

Scabies - Montana has been free from sheep scab since 1919, but sheep scab still exists to a considerable extent in the central, eastern, and southern states. Our revised regulations governing importations into the state require that sheep coming from any state in which sheep scab exists must be dipped before entering Montana. The new regulation does not require the 90-day quarantine on sheep coming into Montana, as was required for many years.

Miscellaneous Sheep Diseases - As in cattle, there have been no new or unusual outbreaks of disease in sheep in Montana during the past year. Some of the more important conditions with which Montana sheepmen and veterinarians have had to contend are sore-mouth, enterotoxemia in lambs, mastitis (bluebag), pneumonia, lip-and-leg ulceration, tetanus, and intestinal parasites. Fortunately, we have treatments or preventive immunization for several of these conditions.

#### SWINE DISEASES

Hog Cholera - No hog cholera was reported during the year. Montana has always been relatively free of hog cholera, and when it has occurred it was usually the result of feeding garbage. All garbage fed to hogs now is cooked, and the operation is checked frequently by inspectors from the Animal Disease Eradication Branch and the Livestock Sanitary Board. Garbage cooking was introduced several years ago with the primary objective of eradicating vesicular exanthema, which has been accomplished.

Under the revised regulations governing the importation of livestock and biological products into Montana, the sale and use of virulent hog cholera virus in the vaccination of swine against hog cholera is prohibited. There are now vaccines available which are prepared from modified virus which is much safer than the old virus.

Atrophic Rhinitis - was diagnosed in two herds of swine during the year. This is an infectious condition affecting the nasal passages of swine and causing deformities of the face and nasal passages. Control measures have been put into effect to prevent the movement of hogs from infected herds for breeding purposes.

The hogs are fed out for slaughter and the premises cleaned up before re-stocking.

Swine Erysipelas - was reported in 32 herds. The death loss from this disease is not great, but the chronic form of the infection causes arthritis, and some condemnations at slaughter. The organisms that cause the disease are rather widespread, which makes control rather difficult.

#### POULTRY

Pullorum Disease - The pullorum-typhoid testing of all flocks producing hatching eggs has been continued under the supervision of John Ferguson, Executive Officer of the Poultry Improvement Board, who is also an agent of the Livestock Sanitary Board. Where reactors are found, the results of the test are checked in the laboratory by culture methods. As a result of the flock testing and elimination of reactors, all hatcheries in the state were rated as pullorum-typhoid clean.

There were 46,732 birds tested in 152 flocks. Pullorum reactors were found in 22 flocks, which were retested until they were clean.

In January 1956, Regulation 1520 went into effect, requiring that all imported baby chicks or poults or hatching eggs must originate in flocks and hatcheries classified as pullorum-typhoid clean or of equal status. Provision was made for season permits, which would be granted on the basis of National Poultry Improvement Plan rating as pullorum-typhoid clean, or a certificate from the state livestock sanitary official that the flock or hatchery was tested and free of pullorum-typhoid infection.

Newcastle Disease - As far as we know, Montana was free from Newcastle disease during the past year. The laboratory tested 40 blood samples, all of which were negative.

Chronic Respiratory Disease - was found in six flocks, one of which involved a hatchery. In the case of the hatchery flock, the diagnosis was made after the hatching season started, and the Livestock Sanitary Board condemned the eggs and chicks in the hatchery, and took that flock out of hatching-egg production.

Coccidiosis and Leukosis - continued to be the diseases most frequently found to be the cause of losses in chickens.

Psittacosis (ornithosis) - Six positive diagnoses of psittacosis were made in parakeets, with the assistance of the Rocky Mountain Laboratory of the U. S. Public Health Service. As yet, this infection has not appeared in turkeys in Montana.



REPORT OF THE BACTERIOLOGIST AND PATHOLOGIST

During the period July 1, 1955 through June 30, 1956, there were 224,163 diagnoses made in the bacteriological and pathological laboratory at Helena.

The material examined consisted of blood, smears, skin scrapings, exudates, pus, feces, plants, parasites, insects, tissues, vaccines, milk, cream, water, meat and meat products, and various birds and animals for autopsy.

The species of animal and bird life represented include horses, cattle, sheep, swine, goats, dogs, cats, deer, elk, skunk, rabbit, chinchilla, mink, chipmunks, canaries, ducks, geese, turkeys, songbirds and fish.

The above total includes 218,882 samples of sera and milk which were tested for brucellosis. This year we have revised the method of recording the specimens received by consolidating all negative and miscellaneous diagnoses and recording them at the end of the specimen report. All serological tests have been combined and recorded at the end of the report as well. Following the final total of the diagnoses made in the bacteriological and pathological laboratory at Helena, we have also recorded the number of brucellosis samples tested by the three branch laboratories and auction market laboratories. The total of all brucellosis samples tested by all laboratories is 461,282.

It will also be noted that the Veterinary Research Laboratory at Bozeman, tested a total of 6,173 samples for anaplasmosis, which ordinarily should have been tested at the Helena laboratory as this is definitely a diagnostic test; however, our lack of facilities and space will not permit this operation at present.

The following is a list of diagnoses made:

<u>DIAGNOSES</u>	<u>SPECIES</u>	
Abscesses, Corynebacterium	Cattle	2
" mixed	Cattle	2
" "	Dog	1
" "	Swine	1
" Pyocyaneous	Cattle	2
Actinobacillosis	Cattle	6
Ammonia burn	Chickens	6
Anaplasmosis, blood smears	Cattle	17
Arthritis, staphylococcic	Chicken	1
" "	Turkey	1
Aspergillosis	Chickens	7
"	Turkeys	3
Atrophic rhinitis	Swine	2
Blackhead	Chickens	4
"	Turkeys	5
Blackleg	Cattle	5
Bumblefoot	Chicken	1
Cholera	Chickens	2
"	Swine	1
Chronic respiratory disease	Chickens	11
Coccidiosis	Cattle	7
"	Chickens	40
"	Turkeys	4

DIAGNOSES continued:SPECIES

Colibacillosis	Turkey	1
Curled toe deformity	Chickens	9
Cysts	Deer	1
"	Swine	1
Diphtheria	Cattle	3
Emphysema	Cattle	1
"	Swine	1
Encephalitis	Sheep	1
Enteritis	Cattle	2
" toxic coli	Cattle	3
" necrotic	Swine	1
" streptococcic	Cattle	1
Enterotoxemia, Type A	Cattle	4
" Type A	Sheep	5
" Type C	Cattle	2
" Type C	Sheep	3
" Type D	Sheep	8
" Type unknown	Cattle	6
Erysipelas	Swine	2
Hepatic coccidiosis	Rabbit	1
Hepatitis	Dogs	6
Infection, Corynebacterium	Cattle	1
" mixed	Cattle	7
" "	Sheep	4
" "	Swine	1
" staphylococcic	Chickens	9
" streptococcic	Cattle	2
Leukosis	Chickens	33
Listeriosis	Sheep	5
Malignant edema	Cattle	6
"	Horse	1
Mandibular phlegmon	Cattle	1
Microsporium	Dog	1
Mucormycosis	Cattle	1
"	Ducks	2
"	Swine	1
Mucosal disease	Cattle	1
Muscular dystrophy	Cattle	3
Myocardial degeneration	Cattle	2
"	Swine	1
Navel ill	Sheep	1
Necrobacillosis	Cattle	4
Necrotic dental alveoli	Sheep	1
Necrotic laryngitis	Cattle	1
Neoplasms	Cattle	5
"	Dogs	11
"	Swine	2
Nutritional deficiency	Chickens	27
"	Turkey	1
Occlusion of gallbladder	Cattle	1
Omphalitis	Chickens	10
"	Turkeys	6
Osteoma	Deer	1
Otitis	Dog	1

<u>DIAGNOSES continued:</u>	<u>SPECIES</u>	
Over-treatment (sulpha drugs)	Chickens	7
Panleukopenia	Cat	1
Paracolon	Chickens	2
Parasites, external:		
Ear mites	Rabbit	1
Lice	Various	3
Parasites, internal:		
(Fecal examination)	Various	21
"(Intestinal examination)	Various	25
Paratyphoid	Chickens	2
"	Geese	3
Peritonitis	Various	4
Pneumonia	Sheep	1
"  pasteurella	Cattle	17
"  "	Rabbits	6
"  "	Sheep	7
"  "	Swine	8
"  "	Deer	4
Pseudotuberculosis	Deer	4
Psittacosis	Parakeets	6
Pullet disease	Chickens	5
"	Turkeys	3
Pullorum disease	Chickens	56
"	Turkeys	10
Pyelonephritis	Cattle	2
"	Dog	1
Redwater	Cattle	3
Ringworm	Cattle	5
"	Dog	1
"	Horses	2
"	Sheep	1
Sarcosporidiosis	Cattle	1
"	Duck	1
Salmonellosis	Swine	3
Spirochetosis	Chickens	18
Spondylitis	Cattle	1
Strangles	Horse	1
Suffocation	Chickens	54
Tetany, grass	Cattle	1
Trauma	Various	16
Tremor, epidemic	Chicken	1
Tuberculosis	Cattle	3
"	Chickens	4
"	Goose	1
"	Swine	3
Typhoid	Pigeon	1
Urinary calculi	Cattle	1
Vibriosis	Cattle	2
"	Sheep	9
Identification of specimens:		
Bedbugs		3
Electric light bugs		2
Nematode		1
Shawberry weevils		2
Miscellaneous negative specimens	Various	406
Unsatisfactory specimens	Various	48
Rabies examinations (negative)	Various	25
Viability of vaccines		52

MILK, CREAM AND WATER ANALYSES

	<u>POSITIVE</u>	<u>NEGATIVE</u>	<u>SUSP.</u>
Milk samples, bacterial count	1,390		
" " coliform determination (plate)	125	429	
" " mastitis determination (smear)	365	399	
Cream samples, bacterial count	186		
" " coliform determination (plate)	41	142	
Water samples, bacterial count	3		
" " coliform determination (plate)	3		

SEROLOGICAL EXAMINATIONS

Brucellosis (serum agglutination)	Cattle	2,438	210,600	4,466
" " "	Goats		16	
" " "	Horses	2	5	3
" " "	Swine		13	2
" (milk whey)		2	47	
" (ring test)			1,234	54
Erysipelas	Swine	17	2	1
Leptospirosis	Cattle	153	675	32
"	Dog		1	
"	Swine		8	
Newcastle disease	Chickens		40	
"	Turkeys		3	
Pullorum disease	Chickens	25	20	
Redwater	Cattle		3	
Total samples in Bacteriological & Pathological Laboratory:		<u>5,968</u>	<u>213,637</u>	<u>4,558</u>
Anaplasmosis (complement-fixation) tested in*V.R.L.B. Lab.)		730	4,124	1,319
Brucellosis samples (tested in 3 branch laboratories)		1,794	200,294	4,307
" " (tested at auction market laboratories)		196	35,431	378
Pullorum disease (tested in field)		124	81,621	
Vibriosis (tested in Vet.Res.Lab.-Bozeman)			<u>7</u>	<u>2</u>
TOTAL:		2,844	321,477	6,006

\*Veterinary Research Laboratory-Bozeman

With the present increase in veterinarians, coupled with their increased demand for service from the stockmen and the contemplated future testing of all brucellosis samples for leptospirosis, and the additional demands of the poultry industry, our present physical plant and personnel are grossly inadequate.

The unfortunate exclusion of the Livestock Sanitary Board laboratory facilities from the new state laboratory building has of necessity curtailed the amount of service that could be rendered to the veterinarians, stockmen, and poultry industry of Montana, and will continue to curtail such service until some more satisfactory adequate space and personnel can be provided.

Respectfully submitted,

*A. M. JASMIN*

A. M. JASMIN

Bacteriologist & Pathologist

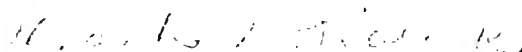
REPORT OF THE CHEMIST

In addition to the analyses reported in the following charts the chemical laboratory has prepared approximately 400 gallons of cattle marking dye. This dye was used by both State and federal employees to identify cattle in the brucellosis program. This laboratory also prepared eight gallons of meat inspection ink for use by meat inspectors at various packing plants and slaughterhouses throughout the State.

Of the 79 water samples taken from wells, springs and streams throughout the State, and forwarded to this laboratory for complete chemical analyses, 24 were found to be unfit for livestock consumption due to high concentrations of either Glauber or Epsom salts. These salts, when present in water in large quantities, have a laxative effect on cattle drinking the water.

One of the most important tests run on milk samples by this laboratory is the phosphatase test to indicate whether the milk has or has not been properly pasteurized. During the past year 470 milk and cream samples were tested for pasteurization and nine of these were found to be improperly pasteurized.

Respectfully submitted,



FRANK J. PEACOCK  
Chemist

STOMACH CONTENTS, TISSUES, ETC., FOR POISON  
July 1, 1955-June 30, 1956

<u>TYPE</u>	<u>ARSENIC</u>		<u>LEAD</u>		<u>STRYCHNINE</u>		<u>MISC.</u>		<u>TOTAL ANALYSES</u>	<u>TOTAL SAMPLES</u>
	<u>Pos.</u>	<u>Neg.</u>	<u>Pos.</u>	<u>Neg.</u>	<u>Pos.</u>	<u>Neg.</u>	<u>Pos.</u>	<u>Neg.</u>		
Bovine	4	61	5	56		4		14	144	65
Canine		13		8	6	28		1	56	39
Feline						2			2	2
Equine		3		3	1	2			9	3
Ovine		5		5					10	5
Avian		3		2				2	7	3
Porcine		6		6				2	14	6
<b>TOTAL:</b>	<b>4</b>	<b>91</b>	<b>5</b>	<b>80</b>	<b>7</b>	<b>36</b>		<b>19</b>	<b>242</b>	<b>123</b>

MISCELLANEOUS SAMPLES FOR POISON  
July 1, 1955-June 30, 1956

<u>TYPE</u>	<u>ARSENIC</u>		<u>LEAD</u>		<u>STRYCHNINE</u>		<u>MERCURY</u>		<u>TOTAL ANALYSES</u>	<u>TOTAL SAMPLES</u>
	<u>Pos.</u>	<u>Neg.</u>	<u>Pos.</u>	<u>Neg.</u>	<u>Pos.</u>	<u>Neg.</u>	<u>Pos.</u>	<u>Neg.</u>		
Water		1		1					2	1
Meat		2		1	1	8			12	9
Salt		1		1					2	2
Bran	1								1	1
Grain		2		1	1			3	7	3
<b>TOTAL:</b>	<b>1</b>	<b>6</b>		<b>4</b>	<b>2</b>	<b>8</b>		<b>3</b>	<b>24</b>	<b>16</b>

MISCELLANEOUS ANALYSES OTHER THAN POISONS  
July 1, 1955-June 30, 1956

Water samples for mineral analyses	79
Hay samples for nitrates	3
Hay samples for protein	3
pH on various substances	2
Alfalfa pellets for urea	1
Bovine urine for albumin	1
Bovine urine for acetone	1
Bovine blood for sugar	3
Bovine urine for sugar	1
TOTAL:	<u>94</u>

BLOOD SAMPLES FOR CHEMICAL ANALYSES  
July 1, 1955-June 30, 1956

<u>TYPE OF BLOOD</u>	<u>PHOSPHORUS</u>	<u>CALCIUM</u>	<u>MAGNESIUM</u>	<u>CAROTENE</u>	<u>VITAMIN A</u>	<u>TOTAL ANALYSES</u>	<u>TOTAL SAMPLES</u>
Bovine	40	27	7	41	41	156	46
Ovine					1	1	1
Porcine	1	1				2	1
<b>TOTAL:</b>	41	28	7	41	42	159	48

MILK  
July 1, 1955-June 30, 1956

MILK:

Butterfat content	449
Solids not fat	417
Solids not fat by formol titration method	4
Total solids	417
Lactometer reading	417
Sediment test	418
Phosphatase test indicating proper pasteurization	316
Phosphatase test indicating improper pasteurization	7

SKIM MILK:

Butterfat content	13
Lactometer reading	13
Sediment test	12
Phosphatase test indicating proper pasteurization	12

HALF & HALF:

Butterfat content	52
Phosphatase test indicating proper pasteurization	48
Phosphatase test indicating improper pasteurization	1

CREAM:

Butterfat content	133
Phosphatase test indicating proper pasteurization	85
Phosphatase test indicating improper pasteurization	1
TOTAL:	<u>2,815</u>

TOTAL SAMPLES ANALYZED BY CHEMICAL LABORATORY

Stomach contents, tissues, etc., for poison	123
Miscellaneous samples for poison	16
Miscellaneous analyses other than poisons	94
Blood samples for chemical analyses	48
Milk, cream samples for chemical analyses	<u>652</u>
TOTAL:	<u>933</u>



MORBIDITY REPORT  
July 1, 1955 - June 30, 1956

Diseases and species affected	Veterinary			Districts						11&		Cases	Herds
	1&2	3	4	5	6	7	8	9	10	11&	12		
<b>CATTLE:</b>													
Abscesses	1	2				2	1	2			5	13	13
Acetonemia									3	1	1	4	4
Actinobacillosis	11	55					1		10	1	73	26	26
Actinomycosis	249	1	3	23	4		155	23	10	10	473	477	477
Alveolar emphysema							2				2	2	2
Alveolitis, infectious										5	5	1	1
Anaplasmosis			10					3	5	2	20	12	12
Anemia										1	1	1	1
Arteriosclerosis										1	1	1	1
Arthritis		1								2	4	4	4
Avitaminosis	1								4	7	12	6	6
Bac. icterohemoglobinuria										91	91	90	90
Blackleg	2	8	2	3		2	27	3		5	52	32	32
Bloat	1									9	10	10	10
Bronchitis									1		1	1	1
Cancer							1		1		2	2	2
Catarrh, malig. head	1	1	1			1	1				5	5	5
Clostridial infection	1										1	1	1
Coccidiosis	43	19	3		17	6	83	80	24	35	310	60	60
Cow pox							10				10	1	1
Cystitis		1									1	1	1
Diarrhea	9	16			6	4	79		12	10	136	37	37
Diphtheria		20	2	2		1	3	7	20	7	62	29	29
Encephalitis							5	1		3	9	6	6
Enteritis	20	12	3	2	1	2	12		5	33	90	37	37
Enterotoxemia							3		7	2	15	10	10
Epithelioma, eye	312	10	9	40			129	27	25	16	568	562	562
Fascioliasis										2	2	2	2
Fibroma		1									1	1	1
Foot rot		90	26	5	241		154	16	35		569	59	59
Founder		2									2	2	2
Fungus infection			1					1			2	2	2
Gallstones							1				1	1	1
Gastritis										2	2	2	2
Grass tetany					6	7	5	2	1		21	8	8
Hematuria										1	1	1	1
Hemoglobinuria				1							1	1	1
Hemorrhagic septicemia	20				30	1	14	24	37	32	158	29	29
Hydrops amnii										1	1	1	1
Hypocalcemia		2								1	3	3	3
Keratitis, infectious	32	92			42		736	6	3	225	1136	34	34
Ketosis		2									2	2	2
Laryngitis	1	2				1	5	32	7		48	13	13
Leptospirosis	2	5	2	4			8		24		45	17	17
Listeriosis						1			5		6	4	4
Lymphangitis									1		1	1	1
Malignant edema	3				1	11	1	3	1	18	38	23	23
Mastitis	1	7	1	5		7	17	32	5	13	88	36	36
Meningitis	1										1	1	1
Metritis		2					1		6	4	13	13	13
Mixed infections	1	1			1	3	1	3	7	4	22	13	13
Mucormycosis					1	1					2	2	2
Mucosal disease			5		2	3		1			11	6	6

Morbidity Report - Page 2.

Diseases and species affected	Veterinary Districts										11& 12	Cases	Herds
	1&2	3	4	5	6	7	8	9	10				
<b>CATTLE (Cont'd)</b>													
Navel ill							11					11	2
Necrobacillosis					1	1						2	2
Nephritis									2	1		3	3
Osteoperiostitis		1										1	1
Parasitism	3			5		2				2		12	6
Pasteurellosis			1					1		3		5	5
Perfringens, Type A	1								1	1		3	3
" Type C			1									1	1
Pericarditis									1			1	1
Peritonitis									3			3	3
Phleomon	15	2						5	9	2		33	20
Photosensitization	2	5	1		1	1				8		18	13
Pine needle abortion										24		24	4
Pneumonia	4	7	1	2	43	3	7	11	33	71		187	85
Poisoning					1					2		3	2
" , algae	1											1	1
" arsenic										3		2	1
" death camas										1		1	1
" DDT								6				6	1
" dicoumarin									1			1	1
" Dutch clover										1		1	1
" ergot		7							3			9	4
" grain									4			4	1
" lead			1					4	4			9	4
" oat hay							13		1			14	3
" "pinta"										2		2	1
" sweet clover		1							4			5	2
Pulmonary emphysema	9	1	1		5		29	1	11	8		65	36
Pyelonephritis	1					1				1		3	3
Pyometra								4				4	1
Rhinotracheitis	1		113			1			2			117	11
Ringworm	2		1					6	2	1		12	8
Sarcosporidiosis						1						1	1
Septicemia									1			1	1
Sinusitis, purulent		1										1	1
Stomatitis, necrotic		23							8			31	14
Tetanus									1	1		2	2
Tuberculosis			3									3	3
Tympanitis, acute										2		2	1
Urolithiasis	3	9					2	5	5	3		27	25
Vaginitis								11	1			12	2
Vibriosis									2	1		3	2
White muscle disease				2					1	24		27	19
<b>SHEEP:</b>													
Alveolitis, necrotic										1		1	1
Black disease										1		1	1
Coccidiosis			1									1	1
Contagious ecthyma	9			30						1		90	6
Encephalitis, Strept.			1									1	1
Enteritis	1								1			2	2
Enterotoxemia, Type C	20				2							22	2
" Type D	8			18		49	4	24	8			111	20
Foot rot						17				8		25	2
Goiter									2			2	1

Diseases and species affected	Veterinary Districts											Cases	Herds	
	1&2	3	4	5	6	7	8	9	10	11&12				
SHEEP (Cont'd)														
Lamb dysentery						10							10	2
Listeriosis	19		2										21	4
Mastitis								1					1	1
Metritis												3	3	1
Mixed infection	1												1	1
Necrotic dermatitis			20										20	1
Navel ill				20		1							21	2
Neoplasm								1					1	1
Parasitism	135			3						3		17	193	13
Paratuberculosis						5							5	1
Pasteurellosis	1					212					13		229	11
Poisoning, death camas						40							40	1
" lupine								50					50	1
Pregnancy disease		3									3	3	9	5
Tetanus	91			1							15		107	3
Ulcerative dermatosis	28			350						50			428	3
Urinary calculi	6												6	1
Vibriosis	54					104	12						170	9
White muscle disease												2	2	1
SWINE:														
Abscesses				1		4							5	2
Anemia, baby pig							1				10		11	2
Ascariasis								2					2	1
Atrophic rhinitis			6				1						7	2
Avitaminosis			2										2	1
Diarrhea												60	60	1
Emphysema, mesenteric												1	1	1
Enteritis		15	1					5	10	1	2		34	6
Erysipelas	16	13	4	5		3	8	6	3		24		82	32
Fibroma				1									1	1
Fungus										15			15	1
Influenza	56	8											64	4
Listeriosis										2			2	1
Mixed infection						1							1	1
Mycosis												1	1	1
Necrobacillosis												19	19	1
Necrotic dermatitis							1						1	1
Parasitism		15				2	200			21	15		253	7
Pasteurellosis	4					3				4	2		13	9
Poisoning, food												1	1	1
" salt								3					3	1
Salmonellosis		9	1										10	2
Sclerosis												1	1	1
Strept. infection										3			3	1
Swine pox			33										33	1
Tetanus										1			1	1
Tuberculosis								2					2	2
HORSES:														
Anemia												1	1	1
Azoturia										1			1	1
Distemper								20					20	1
Encephalomyelitis	2			1				3		1			7	7
Influenza	4												4	1
Parasitism							1			2			3	3

Morbidity Report - Page 4.

Diseases and species affected	Veterinary Districts											Cases	Herds
	1&2	3	4	5	6	7	8	9	10	11&12			
<u>HORSES (Cont'd)</u>													
Pneumonia									1			1	1
Respiratory infection				8								8	3
Sclerostomiasis											1	1	1
Strangles							3			1		4	3
Tetanus									1			1	1
<u>POULTRY:</u>													
Aspergillosis			7									7	1
" (turkeys)			3									3	1
Avitaminosis	2							3	1	2		8	7
" A	5							1			1	7	4
" D						1	2					3	2
Blackhead (turkeys)					1	1					2	4	3
Bronchitis											6	6	1
Cannibalism			1			1						2	2
Coccidiosis	42		1	3	16	19	2	55			4	142	21
Chronic respiratory disease			2	5		1						8	6
Enteritis (Salmonella)	1											1	1
Enterohepatitis						1				15		16	2
Fowl cholera											2	2	1
Histomoniasis						2						2	1
Infectious sinusitis (turkeys)										10		10	1
Leukosis	5				1	9	2	1	9	13		40	30
Lymphoma (turkeys)		1										1	1
Omphalitis	1		5					4				10	3
Oophoritis										1		1	1
Paracolon bacillus (turkeys)							2					2	1
Parasitism			1					9		1		11	6
Paratyphoid			4						1			5	2
Perosis				1		2	3					6	3
Pullet disease						3				1	1	5	3
" " (turkeys)											2	2	1
Pullorum		15	38	4			2	6	5	2		72	25
" (turkeys)						1	8					9	2
" agg. test (geese)			4									4	1
Roup							1					1	1
Shigellosis			2									2	1
" (geese)							2					2	1
Spirochetosis							1		2	11		14	4
Staph. infection	12							2				14	2
Tremor, epidemic						1						1	1
Tuberculosis						3			1			4	4
<u>PARAKEETS:</u>													
Psittacosis				5								5	5
<u>WILD ANIMALS:</u>													
Bighorn sheep													
Pscroptes scabies				2								2	1
Deer: Osteoma						1						1	1
Parasitism						1						1	1
Pseudotuberculosis						1						1	1
Wild ducks: Sarcosporidiosis						1						1	1
<b>TOTAL</b>												<b>7518</b>	<b>2384</b>

SUMMARY OF INSPECTIONS & DISEASE INVESTIGATIONS  
INCLUDING COOPERATIVE WORK WITH THE AGRICULTURAL RESEARCH SERVICE, U.S.D.A.  
 July 1, 1955 - June 30, 1956

HORSES

Encephalomyelitis

Inspected	41
Cases	22

Miscellaneous Inspections

Total	115
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Inspected for Interstate Shipment

Total	788
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Total horses inspected	944
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CATTLE

Acetonemia

Inspected	3
Cases	3

Actinomycosis

Inspected	138
Cases	33

Asthma

Inspected	471
Cases	77

Blackleg

Inspected	1,144
Cases	59

Coccidiosis

Inspected	5,570
Cases	624

Foot rot

Inspected	3,236
Cases	498

Infectious Keratitis

Inspected	3,149
Cases	828

Johne's Disease

Tested	68
Cases	0

Malignant Head Catarrh

Inspected	4
Cases	3

Miscellaneous

Inspected	10,752
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Mucosal Disease

Inspected	924
Cases	5

Pneumonia

Inspected	2,859
Cases	172

Rhinotracheitis

Inspected	37
Cases	8

Shipping Fever

Inspected	3,661
Cases	257

Tuberculosis

Dairy cattle tested	4,040
Reactors	3
Range cattle tested	16,377
Reactors	6

Accredited Tuberculosis-free Herds

Herds tested	4
Cattle tested	355
Reactors	0

Tuberculin tested for Interstate Shipment

Tested	1,042
Reactors	0

Inspected at Destination

Total	3,332
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Inspected for Interstate Shipment

Total	314,000
Total cattle inspected	375,141

SHEEP

	<u>Contagious Ecthyma</u>	
Inspected Cases		1,471 86
	<u>Enterotoxemia</u>	
Inspected Cases		1,832 65
	<u>Foot Rot</u>	
Inspected Cases		4,535 503
	<u>Lip-and-leg Ulceration</u>	
Inspected Cases		2,935 400
	<u>Scabies</u>	
Inspected Cases		4 0
	<u>Scrapie</u>	
Inspected Cases		33 0
	<u>Miscellaneous Diseases</u>	
Inspected		29,639
	<u>Vibriosis</u>	
Inspected Cases		2,714 44
	<u>Imported Sheep</u>	
Reinspection imported sheep (includes contact native sheep and one or more reinspections)		188,237
	<u>Exported Sheep</u>	
Inspected		281,863
Total sheep inspected		513,263

SWINE

Inspected for various diseases		3,447
Premises infected with hog cholera		0
Inspected for interstate shipment		4,832
Inspected for erysipelas		441
Cases		55
Inspected for atrophic rhinitis		73
Cases		6
Total swine inspected		8,798

POULTRY

Total inspected		19,892
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GOATS

Inspected for various diseases		24
Inspected for interstate shipment		5
Total animals and fowls inspected		918,067

MONTANA LIVESTOCK SANITARY BOARD

SUMMARY OF POST-MORTEM INSPECTIONS  
7/1/55-6/30/56

TOTAL CARCASSES INSPECTED, AND DISPOSITION

Species	Cattle	Swine	Calves	Sheep
Food	4,274	4,511	5,046	6,205
Cooking	4	0	0	0
Condemned	107	70	11	3
Total	4,385	4,581	5,057	6,208

DISPOSITION OF CARCASSES AND PARTS

DIAGNOSIS	Cattle		Parts		Swine		Parts		Calves		Parts		Sheep		Parts	
	Food	Cooking	Condemned	Cooking	Condemned	Food	Cooking	Condemned	Cooking	Condemned	Food	Cooking	Condemned	Cooking	Condemned	
Tuberculosis				10	10											
Actinomyces	0		4	4										1		
Pneumonia			5					9	1		1					
Septicemia			11					7	1							
Cysticercosis																
Cachexia			15					2	1		3					
Bruises, Injuries, Etc.	4		4	21				1	3				2			
Abscesses	27		7	29				5	6		2		1			
Epithelioma of Eye	2		15	12					4							
Metritis			4													
Traumatic Pericarditis	3		15													
Livers, Misc. Lesions (Swine)				1	100			2	4				21	4		17
Contamination				70				1	3				5			9
Peritonitis			2					3								
Icterus		3	2					4	8		1				1	
Anthra	2															
Ephithoria				1												
Scapular						8		7								
Arthritis			2			1	3	18	15							
Parasitism																2
Leptosis			4					1								
Ileumtic				1				1								
Exeter								1	3							
Urinary calculi	1		2													
White muscle	2															
Pericarditis				3									1			
Ascites			2					1								
Mastitis			3													
Lymphadenitis														2		1
Malignant edema			1								1					
Trachea											1					
Eye nephritis	1	1	2													
Lung disease																1
Salmonella														13		18
Scruberculosis								1								
Granuloma			1													
Allegro			1													
Immaturity											1					
Langrene								1								
Atrophic rhinitis								6								
Stomatitis				1												
Pericarditis					1											
Enteritis				1												
Diarrhea				2												
Ascariasis								6								
Total	47	4	107	177	177	45	8	70	84	4	11	4	47	3		17

Beef Livers Condemned:

Abscess	4,325
Cirrhosis	36
Telangiectasis	48
Sandust	37
Carotenosis	41
Distomiasis	2,561
Echinococcosis	1
Parasites (flukes)	1
Miscellaneous	151

Note to Specimens: One Copy for  
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RECAPITULATION OF IMPORTATIONS

July 1, 1955 - June 30, 1956

STATE	H. TEST		HORSES	CATTLE		SHEEP	SWINE	DOGS
	CERT.	CHARTS		H. CERT.	TEST CHARTS			
Canada	117	48	303	215	219	372	49	1
Alaska	3			39				3
Arizona	21	1	21	4078	1			6
Arkansas	7	1			16			10
California	52	3	14	106	14			49
Colorado	49	89	10	725	328			35
Connecticut	1							1
Florida	1							1
Georgia		1			4			
Idaho	173	37	32	10,688	358	6,802		22
Illinois	20	11		1	69		1	22
Indiana	1	1			1			1
Iowa	100	11	4	313	86		3,008	74
Kansas	15	27	47	586	130			10
Kentucky	2		10					
Louisiana	1							1
Maryland	1					1		
Massachusetts	1							1
Michigan	3	2			2		1	2
Minnesota	84	47	7	39	557		490	61
Missouri	22	1	26	7	17		1	19
Nebraska	207	10	148	3,474	225		19,588	55
Nevada	2							2
New Mexico	16	6	3	1,954	57			1
New York	1			17				
North Dakota	124	324	10	3,559	2,177	6,581	4,548	22
Ohio	22						4	20
Oklahoma	7	2	8		11			4
Oregon	113	14	42	940	117	15,080	3	52
Pennsylvania	1							1
South Dakota	96	86	7	402	1,208	5,117	968	10
Tennessee	5	3		8	30			5
Texas	71	8	62	6,438	176	281		19
Utah	39	5	17	1,484	163	75		6
Washington	254	41	112	1,351	366	53,024	94	138
Wisconsin	25	19	4	82	125			37
Wyoming	253	342	180	4,181	3,841	13,911	143	19
<b>T O T A L</b>	<b>1,910</b>	<b>1,140</b>	<b>1,067</b>	<b>40,687</b>	<b>10,328</b>	<b>101,244</b>	<b>23,898</b>	<b>712</b>



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