STATE OF MONTANA

ANNUAL REPORT

of the

STATE VETERINARY SURGEON

to the

LIVESTOCK SANITARY BOARD

July 1, 1967 through June 30, 1968

THURBER'S HELENA

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STATE OF MONTANA
LIVESTOCK SANITARY BOARD
Helena, Montana 59601

July 1, 1968

The Honorable Tim Babcock
Governor of the State of Montana
Helena, Montana 59601

Dear Governor Babcock:

In compliance with Title 46, Section 242, R.C.M. 1947, we are transmitting to you the "Annual Report of the State Veterinary Surgeon to the Livestock Sanitary Board" for the fiscal year July 1, 1967 through June 30, 1968.

There were four meetings of the Livestock Sanitary Board during the fiscal year:

September 11 and 13, 1967..... Helena
December 4 and 5, 1967..... Billings
March 4, 5 and 7, 1968..... Helena
May 20 and 22, 1968..... Helena

The complete Minutes of all the above meetings are recorded in the "Official Minute Book of the Montana Livestock Sanitary Board" and are on file in the Office of the State Veterinary Surgeon, Livestock Building, Capitol Grounds, Helena, Montana.

Respectfully submitted,

J. W. SAFFORD, D.V.M.
Executive Officer
MONTANA LIVESTOCK SANITARY BOARD

STATE OF MONTANA
LIVESTOCK SANITARY BOARD
Helena, Montana 59601

July 1, 1968

The Honorable Livestock Sanitary Board
Helena, Montana 59601

Dear Sirs:

In compliance with Title 46, Section 242, R.C.M. 1947, I submit to you the "Annual Report of the State Veterinary Surgeon to the Livestock Sanitary Board" for the fiscal year July 1, 1967 through June 30, 1968.

The work, interest and time you give serving on the Montana Livestock Sanitary Board can only be that of dedication to the best interests of the people of Montana, as each of you serves without pay. To each of you, my sincere appreciation for your most valuable counsel, advice and assistance.

It is hoped that this "Annual Report" will adequately reflect the good work accomplished by the full-time staff of the Livestock Sanitary Board and all the Deputy State Veterinarians in Montana. I commend their accomplishments to the Board.

Respectfully submitted,

J. W. SAFFORD
State Veterinary Surgeon
STATE OF MONTANA

JWS/jc

MEMBERS

of the

MONTANA LIVESTOCK SANITARY BOARD

MR. ARCHIE O. WILSON, Chairman..... Hysham

MR. F. T. SAYLOR, Vice-Chairman..... Choteau

MR. JOHN W. BLACK..... Hinsdale

MR. WILFORD JOHNSON..... Hall

MR. MANLY A. MCORE..... Powderville

MR. MELVIN PETERSON..... Wisdom

J. W. SAFFORD, D.V.M.

Executive Officer

DIVISIONS

of the

MONTANA LIVESTOCK SANITARY BOARD

ADMINISTRATION..... J. W. Safford, D.V.M.

DIAGNOSTIC LABORATORY..... Beckwith Hubbell, Jr., D.V.M.

DISEASE CONTROL..... Glenn C. Halver, D.V.M.

DAIRY & MILK INSPECTION..... Herb Ballou, M.S.

MEAT INSPECTION..... Herb Brosz, D.V.M.

HISTORY AND DUTIES

of the

MONTANA LIVESTOCK SANITARY BOARD

The Livestock Sanitary Board was created by Chapter 152 of the 1907 Laws of Montana and re-enacted by Chapter 262 of the 1921 Laws of Montana.

The duties of the Livestock Sanitary Board are set out in the following Sections of the Revised Codes of Montana, 1947:

46-201 through 46-246
46-301 through 46-303
46-401 through 46-415
46-902 through 46-921
46-2401 through 46-2406
46-2501 through 46-2515
46-2601 through 46-2611
82-2901 through 82-2903
84-5209 through 84-5213
84-6012
94-3559
94-3593 through 94-3594
94-35-172
94-35-189 through 94-35-194

The duties of the Livestock Sanitary Board are to confine, eradicate, control or prevent diseases of livestock and poultry; prevent the introduction of livestock and poultry diseases into the State of Montana; maintain a Diagnostic Laboratory; license, establish and maintain a system of inspection of meat and meat plants, slaughterhouses, dairies, milk and milk plants, rendering plants, garbage feeding and garbage cooking establishments and animal artificial insemination.

In addition, duties of the Livestock Sanitary Board are to obtain samples of meat and milk offered for human consumption and carry out bacteriological and chemical analyses of these samples; provide for safety of manufactured or refined foods for livestock; and provide for the control and safety of remedies and biological products used for treatment of animals.

PREFACE

As the population continues to increase and higher standards of living are achieved, the importance of animal agriculture will continue to increase because livestock products are essential in a well-balanced diet. Higher animal productivity throughout the world will be demanded as a source of essential food.

Food energy is unequivocally of prime importance to national survival and national productivity. There seems to be a dangerous trend in the United States among non-agricultural planners to anticipate the increasing demand for food energy for this nation will be solved - somehow - by some miraculous technical innovations. This simply will not be so.... at least for quite a number of decades. The high productivity of animal agriculture will continue to be the major source of essential food items in the United States for many decades.

Sixty per cent of the world's livestock numbers are in the developing countries of the world, yet they produce only 30% of the world's livestock products of meat, milk and eggs. Why? *"Inadequate animal nutrition, along with animal diseases and pests, are the major limitations to world animal productivity."

The rancher and farmer in the United States represents less than 1 per cent of the world population.... yet, they produce about 25% of the meat and over 33 1/3% of the fluid milk in the world.

The effective implementation of state and federal laws and regulations pertaining to animal health and interstate movement has been of immeasurable value in preventing the spread and in the eradication of many animal diseases and pests thus increasing productivity.

Science has provided many chemicals and therapeutic agents which have assisted tremendously in the control and eradication of livestock diseases and pests. Specific animal diseases and pests which have heretofore had either limited or ineffective measures of control can now be eliminated.

With the introduction of the newer chemicals and drugs, many scientists have warned that much caution is to be exercised in their use. **"For the last fifty years we have lived in the age of chemicals; now, we enter the age of toxicology."

State and federal laws and regulations have been passed regulating the use of many of the newer chemicals and drugs. More laws and regulations are being formulated with the ultimate object of.... consumer health protection.

Now..... as always..... high animal productivity and consumer health protection must coexist in harmony.

It is the duty and responsibility of the staff of the Montana Livestock Sanitary Board to prevent animal diseases and pests from becoming major limitations on animal production in Montana, as is occurring in so many areas of the world; and through enforcement of existing laws and regulations in animal agriculture, assure the consumer a safe and wholesome product. To this work we are dedicated.

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*The World Food Problem; President's Science Advisory Committee; Vol. 1, May, 1967; The White House.

**Proceedings Seventieth Annual Meeting of the United States Livestock Sanitary Association; 1966; page 425.

LIVESTOCK SANITARY BOARD STAFF

The varied functions assigned to the Montana Livestock Sanitary Board are carried out by five separate but closely coordinated and interrelated Divisions of operation. The five Divisions are: Administration, Diagnostic Laboratory, Disease Control, Dairy & Milk Inspection and Meat Inspection.

Following is a chart showing the number of "full-time equivalent" employees hired to carry-out the duties and responsibilities of the Livestock Sanitary Board for the past six fiscal years:

	FISCAL YEAR					
DIVISION	1963	1964	1965	1966	1967	1968
Administration.....	7.9	7.0	7.0	5.0	5.0	5.0
Diagnostic Laboratory.....	12.0	10.0	11.6	10.1	11.0	12.0
Disease Control.....	9.0	11.2	12.7	9.6	11.6	9.9
Dairy & Milk Inspection.....	3.0	3.5	3.9	3.6	3.0	3.3
*Meat Inspection.....	7.0	8.3	10.7	14.8	17.9	19.2
TOTAL.....	38.9	40.5	45.9	43.1	48.5	49.4

*Increase represents expanded program and increased state-wide inspection services.

The inflationary effect of competitive veterinarian salaries, the nation-wide shortage of veterinarians and the unexpected loss of District Deputy State Veterinarians resulted, during the 1968 fiscal year, in reassignment of geographical areas and reorganization of duties to obtain maximum utilization of the veterinary medical and scientific manpower available in Montana.

Six District Deputy State Veterinarian positions were reduced to four, with three positions filled at the end of the fiscal year. Prior assignments of routine dairy and milk plant inspection, milk sample collection, slaughterhouse and rendering plant inspections have been removed from the responsibility of the District Deputy State Veterinarian. The District Deputy State Veterinarians' primary function will be in the area of livestock disease control and investigations. More reliance will be placed upon the private veterinary practitioners (Resident Deputy State Veterinarians) in the area of disease investigation and control whose services will be paid for on a per diem pay basis. This will permit the District Deputy State Veterinarians to specialize in livestock disease control problems and coordinate the activities of Resident Deputy State Veterinarians on state-wide and regional disease control problems.

The slaughterhouse and rendering plant inspection and sampling procedures have been assigned to the staff of the Meat Inspection Division who are specialists in this field.

Dairy and milk plant inspections and milk sample collections have been assigned to the staff of the Dairy & Milk Inspection Division. Additional specialists have been appointed, thus relieving the District Deputy State Veterinarian of the ever-increasing routine work required in this area.

The basic organization of the livestock disease control staff remains and organizational plans provide for immediate expansion to handle any serious disease threat by fully utilizing the services of Resident Deputy State Veterinarians and the specialists at the Diagnostic Laboratory.

Livestock Sanitary Board Staff (Continued)

Special recognition is given to the many Resident Deputy State Veterinarians who have assisted in the field on special assignments of disease control work, investigations and inspections.

It is a pleasure for me to report to the Montana Livestock Sanitary Board that they have a most capable staff in each of the Divisions. This past year, specifically, they are to be commended for the outstanding work they have done, which the following Division Reports will amply demonstrate.

ARTIFICIAL INSEMINATION

On behalf of the Montana Livestock Sanitary Board, the Animal and Range Sciences Department of Montana State University held two courses on artificial insemination and sanitation during the fiscal year to assist individuals in qualifying for a license. Duly appointed representatives of the Livestock Sanitary Board, who serve on the staff of Montana State University, conducted licensing examinations twice during the fiscal year to determine qualifications of license applicants.

In accordance with Chapter 37,Laws of 1953, 308 licenses were issued to individuals during the fiscal year to practice artificial insemination in Montana. The growth in the practice of artificial insemination in Montana has been from 24 licenses issued ten years ago (1957/58 fiscal year) to 308 licenses issued this fiscal year.

GRANT TO THE VETERINARY RESEARCH LABORATORY

The Montana Livestock Sanitary Board approved a grant of $10,000 for the fiscal year to the Montana Veterinary Research Laboratory, specifying that the entire amount was to be used to assist in the research project of improving diagnostic tests for bovine and ovine vibriosis.

OFFICIAL REGULATIONS

Revised:

The following Official Regulations were revised and adopted during the fiscal year:

1. Chapter 3, Regulation 301. "Definition of Terms Used Herein".

2. Chapter 3, Regulation 302. "Quarantine of Infected or Reactor Animals and Herds Containing Such Animals".

3. Chapter 23, Regulations 2301 through 2321. "Meat Inspection".

OFFICIAL ORDERS

The following Official Orders were issued during the fiscal year:

1. Official Order No. 212. "An Order Placing Cows and/or Goats Affected with Mastitis Under Quarantine".

2. Official Order No. 213. "An Order Requiring Prior Permit and Dipping of Cattle to be Imported from the State of Washington".

3. Official Order No. 214. "An Order Placing Cattle Under Quarantine for Sarcoptic Scabies".

4. Official Order No. 215. "An Order on All Cattle on Premises of Farms and Dairies from Which the Sale of Milk is Prohibited because of High Pesticide Content".

5. Official Order No. 216. "An Order Requiring Mandatory Meat Inspection in the State of Montana".

LICENSES AND PERMITS ISSUED

*Licenses

Artificial Inseminators	308	
Dairies:		
Producer	392	
Retail Raw	10	
Garbage Feeding	11	
Meat Depots	4	
Meat Packing Houses	20	
Milk Plants	26	
Rendering Plants	12	
Slaughterhouses:		
Poultry	5	
Rabbit	4	
Red Meat	66	
Total Licenses Issued		858

Permits

Milk Distributors	118	
Poultry Shipping (Chicks and hatching eggs)	66	
Semen for Artificial Insemination	606	
Total Permits Issued		790
TOTAL LICENSES AND PERMITS ISSUED		1,648

*License fees collected during the fiscal year and submitted to the State of Montana General Fund..... $2,509

COOPERATING AGENCIES, DEPARTMENTS AND ASSOCIATIONS

The Montana Livestock Sanitary Board's duties and responsibilities are accomplished through the cooperation, advice and assistance of many. To the following we express our sincere thanks:

Montana Attorney General's Office

Montana City and County Health Departments

Montana Fish & Game Commission

Montana Horse Racing Commission

Montana Independent Meat Packers Association

Montana Livestock Commission

Montana State Department of Health

Montana State University:

- Animal and Range Sciences Department
- Cooperative Extension Service
- Veterinary Research Laboratory

Montana Stockgrowers Association

Montana Swine Growers Association

Montana Veterinary Medical Association

Montana Wool Growers Association

Rocky Mountain Laboratory

U. S. Bureau of Sports Fisheries and Wildlife

U. S. Department of Agriculture:

- Agricultural Research Service, Animal Health Division, Montana
- Consumer and Marketing Service, Meat Inspection Division

U. S. Food and Drug Administration

U. S. Public Health Service

FINANCIAL STATEMENTS

STATEMENT OF APPROPRIATED FUNDS

FUNDS AVAILABLE 7/1/67

General Funds

Personal Services - - Excluding Part-time.....	$227,550	
Part-time Employees - Meat Inspection.....	21,850	
Operation & Capital - Encumbered.....	13,438	
Operation & Capital.....	35,000	
Veterinary Research Grant.....	10,000	
Total General Funds Available.....		$307,838

LSB Earmarked Revenue Fund 215100

Personal Services - - Excluding Part-time.....	$156,200	
Part-time Salaries - Disease Control.....	28,800	
Operation & Capital.....	44,500	
Total LSB Emkd. Rev. Fund 215100 Available.....		229,500
TOTAL ALL FUNDS AVAILABLE 7/1/67.....		$537,338

FUNDS EXPENDED

General Funds

Personal Services - - Excluding Part-time.....	$216,236	
Part-time Employees - Meat Inspection.....	13,972	
Operation & Capital.....	44,769	
Veterinary Research Grant.....	10,000	
Total General Funds Expended.....		$284,977

LSB Earmarked Revenue Fund 215100

Personal Services - - Excluding Part-time.....	$134,853	
Part-time Salaries - Disease Control.....	27,234	
Operation & Capital.....	35,195	
Total LSB Emkd. Rev. Fund 215100 Expended.....		197,282
TOTAL ALL FUNDS EXPENDED 6/30/68.....		$482,259

CASH BALANCE 6/30/68..... $ 55,079

Financial Statements (Continued)

STATEMENT OF LSB EARMARKED REVENUE FUND 215100

CASH BALANCE 7/1/67		$ 68,654
Income		
Livestock Taxes (4½ mills)	216,749	
Cancelled Warrant	12	
Total Cash Balance and Income		$285,415
Funds Expended		
Appropriated Funds	$197,282	
Total Funds Expended	197,282	
CASH BALANCE 6/30/68		$ 88,133

*STATEMENT OF LSB EARMARKED REVENUE FUND 215000

FUNDS AVAILABLE		
Fund Balance 7/1/67		
U. S. Govt. Bonds (Face Value)	$101,000	
Accrued Interest (U. S. Govt. Bonds)	1,386	
Income		
Accrued Interest (U. S. Govt. Bonds)	3,929	
TOTAL FUNDS AVAILABLE		$106,315
FUNDS EXPENDED		
Investment of Accrued Interest (U. S. Govt. Bonds)	$ 4,500	
TOTAL FUNDS EXPENDED	4,500	
FUND BALANCE 6/30/68		$101,815

*Reserve for Emergency Use in Controlling Dangerous Disease Outbreaks.

COMMENTS ON THE DIAGNOSTIC LABORATORY

Each year there is increased dependence upon the Diagnostic Laboratory for diagnosis of livestock diseases and testing to assure a safe milk and meat supply. Laboratory equipment and techniques become more sophisticated and refined at a rather rapid pace in our scientific and technological era.

The rapid development and massive application of a great number of chemicals for innumerable uses in agriculture has resulted in acute toxicity and death in animals. There is great and growing concern over the long-range effects of continued intake of low-level chemicals, singly or in combination, on the health of animals; and in some instances, upon the capability of an animal specie to continue to reproduce its kind. Domestic livestock, being a most important source of essential food for man, carrying various amounts of these chemicals and their metabolites in their tissues (singly or in combination), poses the same serious concern for the long-range effects on the health of man. There has been a two-fold increase of work in the chemistry section of the laboratory to assure that milk and meat for human consumption do not contain chemicals or their metabolites in excess of the amounts established by law and regulation. It can be anticipated that refined chemical analyses on foods of animal origin will continue to increase.

The chemistry section continued to perform a service for the Montana Horse Racing Commission by running official drug detection tests on horses from all races operating under the supervision of the Horse Racing Commission. This work requires a concentrated effort during the summer months.

The virology section has made good progress in assisting in the diagnosis of the increasing number of virus-caused diseases in domestic and wild animals.

The consultation, advice and assistance from the staff of the Montana Veterinary Research Laboratory has been invaluable to the Livestock Sanitary Board Diagnostic Laboratory during the year. This excellent cooperation between the research and diagnostic laboratories results in a greater service to the people of Montana in this most important area of endeavor.

DISTRIBUTION OF LABORATORY TESTS
BY
TYPE OF TEST

TYPE OF TEST			NUMBER
Autopsies			917
Bacteriology and Chemical Tests on Buttermilk, Cottage Cheese Cream and Milk (including Wisconsin Mastitis Tests):			
In Compliance		16,526	
Not in Compliance		1,284	
Total			17,810
Bacteriology, Pathology, Parasitology and Virology:			
Positive		2,561	
Negative		1,754	
Total			4,315
Chemical:			
Blood		552	
Drug Detection on Race Horses		492	
Meat		248	
Pesticide Residue		355	
Toxicology		389	
Water:			
Mineral content for livestock consumption	87		
Nitrate content	40		
Total		127	
Miscellaneous		8	
Total			2,171
Serology (field tests excluded)			72,390
SUB-TOTAL			97,603
PLUS:			
Serology Field Tests			22,495
Tests Performed by Other Laboratories:			
Pesticide Residue		135	
Serology (Equine Encephalitis)		20	
Total			155
TOTAL ALL TESTS			120,253

DISTRIBUTION OF LABORATORY TESTS BY SPECIE, PRODUCT OR MATERIAL

SPECIE, PRODUCT OR MATERIAL		NUMBER	PERCENT
Cattle		70,202	58.38
Dairy Products:			
Buttermilk	311		
Cottage cheese	69		
Cream	6,431		
Milk	17,657		
Total		24,468	20.35
Chickens		19,725	16.40
Swine		1,457	1.21
Elk		1,368	1.14
Horses		664	.55
Sheep		308	.25
Deer		306	.25
Meat		284	.24
Dogs		260	.22
Meat meal		166	.14
Water		142	.12
Skunks		111	.09
Cats		97	
Bison		85	
Birds		77	
Mountain sheep		56	
Bats		55	
Chinchillas		47	
Rats		44	
Rabbits		31	
Raccoons		21	
Feed		16	
Hamsters		16	
Mice		16	
Muskrats		16	
Turkeys		13	.66
Gophers		12	
Eagles		11	
Dog food		9	
Bears		8	
Coyotes		8	
Squirrels		8	
Foxes		7	
Mink		7	
Fish		6	
Goats		6	
Parakeets		6	
Oil		5	
Miscellaneous		109	
TOTAL ALL TESTS		120,253	100.00

AUTOPSIES PERFORMED REPORT

SPECIE	NUMBER
Bats	2
Birds	2
Bison	2
Bobcat	1
Cats	28
Cattle	112
Chickens	75
Chinchillas	26
Coyotes	2
Dogs	34
Duck	1
Eagles	11
Fetuses:	
Bovine	309
Equine	1
Reindeer	1
Fox	1
Goat	1
Gophers	3
Hamsters	7
Horses	3
Magpies	3
Mice	9
Mink	2
Muskrats	5
Parakeets	2
Parrot	1
Peacock	1
Pheasants	12
Pigeons	6
Prairie chicken	1
Rabbits	12
Raccoons	7
Rats	10

SPECIE	NUMBER
Sheep	58
Skunks	28
Squirrel	1
Swine	127
Turkeys	10
TOTAL AUTOPSIES PERFORMED	917

BACTERIOLOGY AND CHEMICAL TESTS ON BUTTERMILK, COTTAGE CHEESE, CREAM AND MILK

TYPE OF TEST	IN COMPLIANCE	NOT IN COMPLIANCE
BACTERIOLOGY TESTS		
Buttermilk		
(Antibiotic detection tests)	103	-0-
Coliform counts	101	2
Cottage Cheese		
(Antibiotic detection tests)	22	-0-
Coliform counts	19	3
Cream		
(Antibiotic detection tests)	430	1
Bacterial counts	366	62
Brucella abortus ring tests	2	-0-
Coliform counts	391	39
Milk		
(Antibiotic detection tests)	3,496	9
Bacterial counts	3,158	338
Brucella abortus ring tests	2,502	6
Coliform counts	2,944	558
TOTAL BACTERIOLOGY TESTS	13,534	1,018
CHEMICAL TESTS		
Buttermilk	105	-0-
Cottage Cheese	25	-0-
Cream	410	21
Milk:		
General chemical	1,043	59
*Wisconsin Mastitis Tests	1,409	186
TOTAL CHEMICAL TESTS	2,992	266
TOTAL BACTERIOLOGY AND CHEMICAL TESTS ON BUTTERMILK, COTTAGE CHEESE, CREAM & MILK	16,526	1,284

*

Values in mms	5	10	15	16	17	18	19	20	21	22	23	24	25	30
Samples tested	337	563	341	39	34	42	48	79	29	18	10	5	32	13

BACTERIOLOGY, PATHOLOGY, PARASITOLCGY AND VIROLOGY REPORT

POSITIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Abomasum, perforated....			1																		
Actinomucor sp.....												4									
Actinomyces sp.....		1	2															1			
Adenocarcinoma.....			1																		
Aerobacter aerogenes....			6	1							4					1		4		Mink	1
" cloacae.....			2																		
" liquefaciens.			1																		
" sp.....			2	1	1	1					3	5						2			
" " , Group A.			2	2						1	12										
" " , Group B.			1								3										
" " , Group C.			2								5										
Alcaligenes faecalis....						1						1									
Alternaria sp.....			1			1			2											Feed	1
Anaplasma marginale.....			7																		
Anomaly.....			1																		
Arizona sp.....			1							1	1							1			
Ascaris equi.....									1												
Aspergillus fumigatus...			1																		
" restrictus..		1	1																		
" sp.....			8	1					1												
Atrophic rhinitis.....																		1			
Bacillus cereus.....		1	10						1			1				1		1			
" circulans.....			1															1			
" macerans.....																				Peacock	1
" megaterium.....				3																	
" sp.....		1	176	2		3			12		2	51		2	1	20		35	1	Beaver	1
" ".....																				Muskrat	1
" ".....																				Reindeer	1
Blackleg.....			1																		
Blood.....																				Box	1
".....																				Mule deer	1

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

POSITIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Bovicola bovis.....			1																		
" sp.....			1																		
Bovine Virus Diarrhea..			18																		
Brachygnathous.....			1																		
Brevibacterium healii..																		1			
" imperiale			1																		
Brisket edema.....			1																		
Br. abortus, Strain 19.			1																		
" sp.....									1												
Calcinosis, visceral...														1							
Candida parapsilosis...			2																		
" sp.....				1																	
Carcinoma.....		1				1															
Cephalosporium sp.....			1																		
Cerebellar ataxia.....			1																		
Cerebellar neuropathy..			2																		
Chabertia sp.....																3					
Chajara sp.....			1																		
Chorioptes sp.....			3																		
Citrobacter sp.....			5		1				2		20							5	1		
Clostridium bifermentans			1																		
" beijerinckii			2																		
" butyricum..			5																		
" capitovale.			3																		
" chauvei....			11													2					
" chromogenes			1																		
" fallax.....			2																		
" flabelliferum			1															1			
" hemolyticum			1																		
" histolyticum			1																		
" novyii			5																		

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

POSITIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Clostridium paraputrificum			1																		
Clostridium perfringens			64						1							6		10			
" " , Type C			5													1					
" perfringens, Type D			4													1					
" perfringens, Type E			1																		
" septicum			7													1					
" sordellii			6													1					
" sp			11													1		3			
" sporogenes			3															1			
" tertium			9													1		1			
" tetanomorphum			3																		
Clostridium tyrobutyricum			1																		
Coccidia oocytes																2					
Coccodium sp			13	2										1		3					
Colitis									1												
Complete blood count			1			1															
Corynebacterium agropyri			1																		
" bovis			5									1									
" equi									1												
" renale			1																		
" pseudotuberculosis				2																	
Corynebacterium pyogenes			1																		
" sp			8				1		2							1		3			
Cyst, intestinal		1																			

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

POSITIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Cysticercus sp.....																1					
Damalinea ovis.....																67					
Dehydration.....			1	1																	
Dermatitis.....						1															
Dictyocaulus filaria...																2					
Diplococcus pneumoniae.																		1			
" sp.....			7			1						1				1		1		Bison	1
Distemper.....						2															
Double muscling.....			1																		
Eimeria auburrin.....			1																		
" bovis.....			9																		
" bukidnonensis..			1																		
" stiedae.....														2							
" zurni.....			5																		
Encephalitis.....									1												
Encephalomyelitis,Western Equine.....									1												
Encephalopathy, cerebellar.....																1					
Endocardial thickening.			1																		
Enteritis.....																		1			
Enterobacter - VP+.....				1																	
Enterotoxemia.....			1													1					
Epicarditis.....																		1			
Epitheliogenesis imperfecta neonatorum bovis			1																		
Erysipelothrix insidiosa			1															4			
" sp.....									1									2		Parakeet	1
Escherichia coli.....		1	142	12	2	4		2	12		17	121		5	5	7		85	1	Mink	2
" "																				Muskrat	1
" "																				Peacock	1

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

POSITIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Escherichia coli.....																				Prairie chkn	1
" "																				Reindeer	1
" "																				Turkey	1
" freundi...																		1			
" intermedium											3										
Fibroma.....			1						1												
Fibrosarcoma.....			1																		
Founder, grass.....									1												
Fusarium sp.....									1												
Gaffkya sp.....																		1			
Geotrichum sp.....									1												
Giant water bug.....																				Identification	1
Gravid proglottid.....						1															
Haemonchus sp.....			1																		
Haematopinus eurysternus			2																		
Hair, mammalian.....																				Wig	1
Hemobartonellosis.....		1																			
Hepatopathy.....						1															
Hormodendrum pedrosoi...			1			1															
Hydrocephalus.....			1																		
IBR.....			2																		
Indiella masoni.....			1																		
Inflammation, chronic, suppurative.....			1																		
Intestinal tissue, inflammation & ulceration			1																		
Ketosis.....																1					
Klebsiella aerogenes....																		3			
" sp.....											9	2						2			
Lacellina sp.....			1																		
Lactobacillus sp.....			44			4			3			64				7		11			

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

POSITIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Leptospira sp.(Krajian).		1	44			1										1		12			
Leucosis				24																	
Leukodysplasia, congenital			1																		
Linognathus vituli			2																		
Lipoma						1															
Liposarcoma						1															
Listeria monocytogenes			3																		
Liver, fatty			1																		
Lung congestion															1						
Lung worms			1													2					
Lymphadenitis																		3			
Malnutrition																				Magpie	1
Mastocytoma					1																
Meningiopericytoma						1															
Meningocele			1																		
Meningocephalitis			1																		
Metritis			1													1					
Microbacterium lacterium																		1			
Micrococcus sp			1																		
Moniezia sp			2													2					
Monilia sitophilia			1															1			
" sp			1			1															
Mucormycosis			1																		
Mucor sp		1	8	2																	
Mycobacterium paratuberculosis			1																		
Mycobacterium sp			1																		
Mycobacterium tuberculosis			1																		
Myocarditis									1												
Necropherous infection			1																		

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

POSITIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Necrosis, hepatic.....						1															
Neisseria sp.....			2															1			
Nematodirus sp.....			2						2							7					
Nephritis.....			3			2															
Newcastle Disease.....				1																	
Nocardia sp.....			6													1		1			
Ostertagia circumcincta.			1																		
" trichostrongylus																1					
Ova, ascarid.....									1												
" parasite.....			1			1															
Parasites.....			1																		
Penicillium sp.....		1	1	1		1															
Peptococcus sp.....			1																		
Peptostreptococcus magnus.....			1																		
Peritonitis.....			1	1														1			
Phycomycosis.....			1																		
Physaloptera sp.....																				Raccoon	1
PI3.....			1																		
Pneumonia.....		1	4			1	1								5	2		6			
Poison: Lead.....			1																		
" Pitch.....																		1			
" Salt.....			1															2			
" Strychnine.....						2															
Polioencephalomalacia...			5																		
Proteus inconstans.....			1															2			
" mirabilis.....		1	22	3	8	1					21	4		1	4			25		Mink	1
" "																				Prairie chkn	1
" "																				Weasel	1
" morgani.....											1							2			
" rettgeri.....			3						1		2							6			

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

POSITIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Proteus sp.			1															1			
" vulgaris			11		1				2		2							29			
Providence sp.			1																		
" " , Group A.											1										
Pseudomonas aeruginosa			9	10							1			1		1				Parrot	1
" pseudomallei																				Parrot	1
" sp.			2		3						1	7			4			8	1	Parrot	1
Ptinus brunneus																				Feed	1
Pulmonary edema			1															1			
" emphysema			1																		
Rabies	4																6			Badger	1
Reticulo-endothelial hyperplasia of spleen						1															
Rhizopus sp.			2	2					2											Feed	1
Riboflavin deficiency													4								
Rubifera sp.																				Worm	1
Salmonella eimsbuttel											10										
" montevideo											6										
" senftenberg											1										
" siegberg											1										
" sp.											6										
Sarcoid									1												
Sarcoma						1			1												
Sarcoptes scabiei			1																		
Scopulariopsis sp.			2	1																	
Shipping fever			1																		
Spherophorus necrophorous			1																		
Splenomegaly						1															
Sporogenes sp.			1																		
Staphylococcus albus			3																		
" aureus			127	14	1	5		1	8			233	5	3	5	12		42		Peacock	1

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

POSITIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Staphylococcus aureus...																				Reindeer	1
" durans...			1						2			5						4			
" epidermidis			7						1									1			
" faecalis.									1												
Stemphylium sp.....																				Identification	1
Strawberry root weevil..																					
Streptococcus bovis.....			1																		
" durans....			1													1					
" faecalis..				1																	
" lactis....			1						3									1			
" mitis.....																		1			
" pyogenes..			4			1			1									3			
" sp.....			4	1					1												
Streptomyces sp.....									1												
Strongylus sp.....						1										1					
Testicular hypoplasia...									1												
Thysanosoma actinioides.																					
Tissue granulation.....		1																			
Trauma.....									1												
Trichophyton sp.....			16						3							6					
Trichostrongyloides-type eggs.....			1																		
Trichostrongylus ostertagia.....			6																		
Trichostrongylus sp.....																1					
Trichuris sp.....				4																	
Tuberculosis.....																				Coyote	1
Uncinaria sp.....			1																		
Vibrio bubulus.....			1													1					
" faecalis.....			4																		
" fetus.....																					

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

POSITIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Vibrio fetus intestinalis.			6													3		1			
" " venerealis.			25																		
" sp.....			2													1					
Virus diarrhea.....			1																		
White Muscle Disease....			2																		
TOTAL POSITIVE FINDINGS.	4	13	1,053	94	18	47	2	3	81	2	132	500	9	16	25	177	6	340	4		35

TOTAL ALL POSITIVE FINDINGS..... 2,561

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

NEGATIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Acid-fast organisms.....			1																		
Anaplasma sp.....			12													3					
Ascarids.....																		1			
Atrophic rhinitis.....																		2			
Bacillus anthracis.....			2															1			
Bacterial growth.....			107	2	2	3			1						3	1		2		Bird	2
" "																				Fish	6
" "																				Pigeon	6
Bile salts, dehydrated..																1					
Blood clot.....			1																		
Bluetongue.....																1					
Brucella ovis.....																1					
" sp.....			49						1			2						1			
BVD.....			19																		
Caecal worms.....																				Turkey	1
Candida sp.....									1												
Clostridium novyi.....			1																		
" sp.....			3													1		1			
Coccidia sp.....			11	7																Turkey	1
Damalinia ovis.....																7					
Encephalitis.....									1												
Enterotoxemia.....			32						1							8		1			
Enzootic bovine abortion			5																		
Erysipelothrix insidiosa																		1			
Glucose.....																1					
Growth.....		1	39			4			2		1					3		2			
Hog cholera.....																		1			
Hydrocephalus.....			1																		
Hydrocyanic acid.....																				Hay	1
IBR.....			41																		
Leptospira sp.(Krajian).			396			2			1							7	1	20			

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

NEGATIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Lesions				1		1												1		Parakeet	1
Lice			4																		
Listeria sp																		2		Goat	1
Lung worms			4																		
Mastitis			1																		
Microfilaria sp						3															
Mites			122			2			1												
Necrotic foci			1																		
Nitrates, high			1																1		
Ova			36	1		2			6							1		5			
Ovine Virus Abortion																4					
Parasites			5			1			2									2		Guinea pig	1
Pathogenic bacteria			128	3	1	3			2		2				3	8		3			
Pathology																1					
PI3			10																		
Pneumonia																		1			
Poison: Ergot																				Barley	1
PPLO			3													1		1			
Psittacosis																				Parakeet	2
Rabies	49	52	2			49		6	1					2	3	1	76			Badger	2
"																				Bear	4
"																				Bobcat	1
"																				Coyote	5
"																				Fox	6
"																				Gopher	9
"																				Guinea pig	1
"																				Mink	1
"																				Mouse	7
"																				Muskrat	8
"																				Raccoon	13
"																				Squirrel	7

Bacteriology, Pathology, Parasitology and Virology Report (Continued)

NEGATIVE FINDINGS	BAT	CAT	CATTLE	CHICKEN	CHINCHILLA	DOG	ELK	HAMSTER	HORSE	MEAT	MEAT MEAL	MILK	PHEASANT	RABBIT	RAT	SHEEP	SKUNK	SWINE	WATER	MISCELLANEOUS Specimen	MISCELLANEOUS No.
Rabies																				Weasel	1
"																				Woodchuck	1
Rhizopus sp			1																		
Salmonella sp			5	2		1				1	31							1			
Shigella sp			1						1												
Trichomonas sp			5																		
Trichostrongyloides-type eggs			3													2					
Tuberculosis			2	1														1			
Tularemia														1						Muskrat	1
Vibrio fetus			2																		
" sp			102													2					
Virus pig pneumonia																		4			
White Muscle Disease			3																		
Unsatisfactory specimens																				Various	48
TOTAL NEGATIVE FINDINGS.	49	53	1,161	17	3	71	-0-	6	21	1	34	2	-0-	3	9	54	77	54	1		138

TOTAL ALL NEGATIVE FINDINGS..... 1,754

CHEMICAL REPORT

BLOOD ANALYSES

	CALCIUM			PHOSPHORUS			MAGNESIUM			CAROTENE			VITAMIN A		
	High	Norm.	Low	High	Norm.	Low	High	Norm.	Low	High	Norm.	Low	High	Norm.	Low
Avian		13				1					8			3	
Bovine	19	27	29	25	19	44	5	3		9	78	6	44	51	6
Equine		5	1		3	3					2		2		
Ovine	1				1			1							
Porcine	10	2	2	8	7						3	1		8	
Other:															
Mountain sheep		18			18						10			10	
Mule deer		16			16						3	4		7	
TOTAL BLOOD ANALYSES	30	81	32	33	64	48	5	4	-0-	9	104	11	46	79	6

DRUG DETECTION ON RACE HORSES

	POSITIVE	SUSPICIOUS	NEGATIVE
Saliva	2	7	105
Urine	3	2	373
TOTAL DRUG DETECTION ON RACE HORSES	5	9	478

MEAT ANALYSES

	TOTAL PROTEIN	MEAT PROTEIN	SOY PROTEIN	WATER	ADDED WATER	NITRITES	NON - FAT DRY MILK	CEREAL
Bologna	12	6	4	12	10		6	4
Braunschweiger	2	2	1	2	2		2	2
Salami	2	2	1	2	2		2	2
Sausage	13	12	5	13	13	3	10	3
Thuringer	2	2	1	2	2	1	2	2
Wieners	16	12	7	16	15	1	10	5
TOTAL MEAT ANALYSES	47	36	19	47	44	5	32	18

Chemical Report (Continued)

PESTICIDE RESIDUE ANALYSES

	POSITIVE	TRACE	NEGATIVE
Beef fat	4		
Milk	224	22	105
*Milk	89	4	42
TOTAL PESTICIDE RESIDUE ANALYSES	317	26	147

*Tested at Food & Drug Administration Laboratory, Seattle, Washington.

TOXICOLOGY ANALYSES

	ARSENIC		COPPER		CYANIDE		LEAD		MERCURY		STRYCHNINE		WARFARIN	
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
Bovine:														
Feces		2					1	1						
Hair		1						1						
Kidney		1					1	3						
Liver		8					2	5						
Stomach contents	5	40				1	6	42		2	1	1		
Urine		1					1							
Canine:														
Intestine contents												1		
Liver		1												
Stomach contents		19				6		16		8	15	35		2
Equine:														
Feces		1						1						
Stomach contents		5				1	1	4						
Urine		1						1						
Feline:														
Stomach contents												3		
Ovine:														
Kidney		1						1						
Liver		1						1						
Stomach contents		5		2				5						
Porcine:														
Intestine contents		2						2						

Chemical Report (Continued)

Toxicology Analyses (Continued)	ARSENIC		COPPER		CYANIDE		LEAD		MERCURY		STRYCHNINE		WARFARIN	
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
Porcine: (Continued)														
Kidney		1						1						
Liver								1						
Stomach contents		9						9		1		2		
Other:														
Bran	1													
Corn cobs		1						1		1		1		
Dog food		2				1		2		1		3		
Dried milk		1						1						
Feed pellets		1						1						
Grain		1						1		1				
Hamburger		1						1		1	1	2		
Hay	1							1						
Intestines, Misc. species												1		
Meat and meat scraps		6				3		5		3	1	8		
Oats		1						1				1		
Oil		1					1	1						
Oil well drillings		1						1						
Paint scales							1							
Poison		1						1		1		1		
Powders		1						1						
Stomach contents, misc. species		5					2	3		5				
Water		5						5						
Well packing							1							
Wiener												1		
TOTAL TOXICOLOGY ANALYSES	7	127	-0-	2	-0-	12	17	120	-0-	24	18	60	-0-	2

Chemical Report (Continued)

WATER ANALYSES

	FIT	QUESTIONABLE	UNFIT
Mineral content for livestock consumption	45	12	30
Nitrate content	28	10	2
TOTAL WATER ANALYSES	73	22	32

MISCELLANEOUS ANALYSES

Bovine rumen fluid for nitrates	1
Ground feed for sodium chloride	6
Urinary calculi	1
TOTAL MISCELLANEOUS ANALYSES	8

TOTAL ALL CHEMICAL ANALYSES	2,306

SEROLOGY REPORT

TEST	SPECIE	POSITIVE	NEGATIVE	SUSPICIOUS	TOTAL
Anaplasma CA	Bison	-0-	12	5	17
" "	Cattle	16	109	85	210
" CF	Cattle	2	97	4	103
Brucella abortus agglutination	Antelope	-0-	1	-0-	1
" " "	Bison	-0-	44	1	45
" " "	Bear	-0-	2	-0-	2
" " "	Cattle	239	60,755	1,740	62,734
" " "	Deer	-0-	129	-0-	129
" " "	Elk	-0-	690	-0-	690
" " "	Goat	-0-	4	-0-	4
" " "	Horse	-0-	3	2	5
" " "	Swine	-0-	408	6	414
" " " card test (field)	Cattle	179	2,451	-0-	2,630
" " " " " "	Swine	-0-	268	-0-	268
" " " (field)	Cattle	-0-	58	-0-	58
" " " ring test	Cream	-0-	4,706	3	4,709
" " " " "	Milk	-0-	943	18	961
Leptospira canicola agglutination plate test	Dog	-0-	1	-0-	1
" grippotyphosa agglutination plate test	Horse	-0-	1	-0-	1
" " " " " "	Swine	1	-0-	-0-	1
" hardjo agglutination plate test	Horse	-0-	1	-0-	1
" icterohaemorrhagiae agglutination plate test	Dog	-0-	1	-0-	1
" pomona agglutination plate test	Antelope	-0-	1	-0-	1
" " " " "	Bear	-0-	2	-0-	2
" " " " "	Bison	-0-	18	2	20
" " " " "	Cattle	42	1,226	69	1,337
" " " " "	Deer	1	129	-0-	130
" " " " "	Dog	-0-	3	-0-	3
" " " " "	Elk	-0-	675	1	676
" " " " "	Horse	-0-	6	2	8
" " " " "	Swine	1	172	11	184
* Western Equine Encephalitis CF	Horse	2	8	-0-	10
* St. Louis Equine Encephalitis CF	Horse	-0-	10	-0-	10
Salmonella pullorum agglutination (field)	Chicken	-0-	19,539	-0-	19,539
TOTAL SEROLOGY TESTS		483	92,473	1,949	94,905

*Tested at Rocky Mountain Laboratory, Hamilton, Montana.

COMMENTS ON DISEASE CONTROL

A complete review of livestock disease problems for the fiscal year requires a review and study of the clinical disease reports of Montana veterinarians, the report of the Diagnostic Laboratory, the ante-mortem and post-mortem findings during meat inspection and the disease problems associated with maintaining a safe milk supply.... all of which are included in this "Annual Report".

Montana veterinarians reported 71 diseases in 41,977 domestic animals during the fiscal year.

CATTLE DISEASES

Forty-three cattle diseases were reported in 20,420 cattle on 6,604 ranches. This is the same number of diseases reported last fiscal year, but there was an increase of 3,446 diseased cattle and a decrease of 152 ranches with animal disease problems.

Anaplasmosis

A total of 125 cases on 55 ranches was reported. The laboratory tested 103 blood samples from cattle for anaplasmosis, using the complement fixation test; and 6% showed a positive or suspicious reaction. The CA test was made on 210 bovine blood samples with 8% giving a positive reaction.

Brucellosis

One cattle herd in Glacier County has remained brucellosis infected since discovered to be infected 12 years ago. Another herd has been infected since 1965. The past year has seen an increase of the infection within the two herds. The two herds are a constant threat to neighboring herds and to herds that go to Glacier County for summer grazing. Because relatively simple disease control principles of brucellosis control and eradication are continuously ignored, the two herds are a threat to every clean herd in Montana. It is recommended to the Montana Livestock Sanitary Board that if a careful and intensive effort is not made within fiscal year 1969 to completely eradicate brucellosis from the two infected herds in Glacier County that, in the best interests of the entire cattle industry in the state, the Board request a federal quarantine be placed upon all cattle on the Blackfoot Indian Reservation in Glacier County prohibiting the movement of all cattle from the Blackfoot Indian Reservation until it can be proved that the herds of origin have passed a negative brucellosis herd test within 60 days of the date of movement of the cattle from the area.

COUNTY DISTRIBUTION OF REMAINING BRUCELLOSIS INFECTED HERDS
AS OF JUNE 30, 1968

COUNTY	NUMBER OF HERDS
Blaine	1
Cascade	2
Custer	1
Dawson	1
Fergus	1
Glacier	2
Hill	1
Meagher	1
Pondera	1
Ravalli	1
Richland	1
Yellowstone	1
TOTAL	14

Brucellosis (Continued)

The fiscal year started with 26 brucellosis infected herds. Fourteen additional infected herds were found during the year. A total of 26 herds eliminated brucellosis, leaving 14 herds under quarantine at the end of the fiscal year.

REDUCTION OF BRUCELLOSIS-INFECTED HERDS

FISCAL YEAR	NUMBER OF INFECTED HERDS	PERCENT INFECTED HERDS IN MONTANA
First Area Test in Montana	2,434	7.96%
July 1, 1957	666	2.36%
July 1, 1958	357	1.24%
July 1, 1959	238	0.92%
July 1, 1960	135	0.56%
July 1, 1961	93	0.34%
July 1, 1962	49	0.16%
July 1, 1963	44	0.15%
July 1, 1964	36	0.14%
July 1, 1965	37	0.14%
July 1, 1966	30	0.12%
July 1, 1967	26	0.11%
July 1, 1968	14	0.07%

*CALVES OFFICIALLY VACCINATED WITH BRUCELLA ABORTUS VACCINE - STRAIN 19

YEAR DOSES	YEAR DOSES	YEAR DOSES	YEAR DOSES	YEAR DOSES
1959..294,265	1961..224,576	1963..250,899	1965..267,367	1967..282,686
1960..215,043	1962..209,472	1964..297,002	1966..287,642	1968..240,890

*In addition, reports were received that 6,786 doses of Brucella abortus vaccine were sold, indicating that many calves were unofficially vaccinated.

120,643 cattle were tested for brucellosis, revealing 376 reactors (0.31%) and 3,863 suspects (3.20%). Of the total tested, 55,571 were tested out-of-state and 39,170 were tested in the state from blood samples collected at packing plants from backtagged animals.

There were 8,180 brucellosis ring tests made on milk and cream samples. Twenty-seven (0.3%) were suspicious to the test.

Ten counties were recertified as Modified-Certified Brucellosis Areas during the fiscal year.

Listeriosis

Montana veterinarians reported 43 cases in cattle on 5 ranches and 6 cases on 4 ranches in sheep during the fiscal year. The disease usually manifests itself by the animal showing central nervous system disturbance. This year Listeria monocytogenes was determined to be the cause of abortions in cattle following the feeding of silage that was contaminated with the organism. This same organism can affect man; therefore, precautions must be observed in and around contaminated silage, animals and other materials.

Mucosal Disease - Virus Diarrhea

This virus disease complex showed a marked increase in fiscal year 1968. Montana veterinarians reported 1,026 cases on 91 ranches. This equals the incidence reported in fiscal year 1966.

Rhinotracheitis

This disease was reported in 1,381 cattle on 40 ranches; 50 cases of vulvovaginitis were reported. Many veterinarians feel that the I.B.R. virus is also responsible for a conjunctivitis in cattle which is being observed with increased frequency. It is strongly suspected that many abortions are caused by this virus. The I.B.R. vaccine is proving to be effective in preventing those losses attributed to the I.B.R. virus.

Scabies:

Chorioptic scabies was diagnosed in a herd of cattle in western Montana. The herd contained a show "string" that had been on tour in the central and western states for several months and the chorioptic mange mite was first demonstrated in one of the show bulls. The disease had spread to quite a number of animals within the herd.

A new dipping vat was built and the entire herd, along with two neighboring contact herds, was dipped twice under supervision in approved Toxaphene dips.

Sarcoptic scabies (Sarcoptes scabiei) was demonstrated in a Hereford bull in southeastern Montana showing advanced lesions on February 13, 1968. The bull had been in the herd for about three years and originated from a herd in which no scabies lesions could be found. A number of lesions were observed in other cattle in the herd, but approximately 111 skin scrapings proved negative. An intensive investigation and inspection of 148 herds containing 37,661 cattle failed to reveal the source of infestation of the badly infected bull.

It was determined that 20 herds containing 10,178 head of cattle had contact with the herd containing the infected bull within the past year. The 20 herds and 10,178 cattle were dipped twice under supervision in approved dips. Although we are certain sarcoptic scabies has been eliminated, follow-up inspections of herds in the area will be made this winter. This intensive action to take no chances to let scabies "get away" resulted in only 2 states placing embargos on Montana cattle. The embargos were lifted upon completion of the dipping. We can again say that scabies does not exist in Montana.

Sarcoptic scabies (Continued)

The last rather extensive outbreak of sarcoptic scabies,which was promptly eradicated, was in 1943. In 1953 bulls imported into Montana were found infested, but eradication measures were taken before they could expose any other cattle.

Shipping Fever

Veterinarians reported 7,565 cases of shipping fever on 511 ranches during the fiscal year. This disease continues to remain the most frequently reported and widespread disease occurring in Montana. It is sincerely hoped the newly developed vaccines containing Parainfluenza 3 virus will prove effective in reducing the incidence of the disease. Every attempt should be made to minimize stress factors on young cattle which are known to predispose them to this disease.

Tuberculosis

The tuberculin test was applied to 5,834 dairy cattle and 11,451 beef cattle. One cow in one herd gave a positive reaction to the test.

There were 259,206 cattle slaughtered under backtag or brand identification. Eighteen cattle were reported to have lesions compatible with tuberculosis.

The entire state was again declared a Modified-Accredited-Tuberculosis Area for a period of one year.

Vibriosis

Both veterinarians in the field and at the laboratory diagnosed an increased amount of vibriosis. 1,268 cases were reported on 56 ranches. The laboratory isolated Vibrio fetus from 37 cattle specimens. A ten-year compilation of reports on vibriosis definitely shows vibriosis to be state-wide in distribution.

The second year's use of the commercially available Vibrio fetus bacterin indicates it is being effective in reducing the infertility caused by this infection. It is hoped that the bacterin will continue to help prevent serious losses from the disease.

Vibriosis in cattle should be noted because of increased indications of transmissability to man.

HORSE DISEASES

There were 12 diseases in 1,379 horses reported on 769 ranches.

Encephalitis

Montana veterinarians reported 57 cases of equine encephalitis on 57 premises.

SHEEP DISEASES

There were 17 sheep diseases reported on 283 ranches in 9,259 sheep.

Epididymitis

Montana veterinarians reported 161 cases of ram epididymitis on 30 ranches. This is a considerable decrease from the previous fiscal year. The careful physical examination of rams, screening out those showing lesions, and the proper use of the R.E.O. bacterin is proving effective in controlling the disease.

Infectious Foot Rot

There were 114 cases of foot rot reported in 4 flocks.

Listeriosis - See comments under this disease in cattle, page 35.

Pediculosis

The reports of lice in 7,094 sheep in 149 flocks is a considerable increase from the 8 flocks with 1,844 sheep reported the previous fiscal year.

Sheep owners could do much to get rid of lice once-and-for-all if they would be alert to the very small louse (Damalinia ovis) causing the problem. Identification of this louse from sheep over the past several years indicates that this is the only louse causing lice infestation in Montana. Many sheep owners are, apparently, looking for a large louse, similar to the "blue louse" found on cattle, and overlook the very small sheep louse.

SWINE DISEASES

Fourteen swine diseases in 946 swine on 111 premises were reported during the fiscal year.

Brucellosis

No clinical evidence of swine brucellosis was reported in the field. No isolations of Brucella organisms were made by the laboratory from swine specimens. Serological tests made on 682 swine samples did not disclose reactors.

Ten swine herds were officially validated or revalidated as brucellosis-free during the fiscal year.

Hog Cholera

No hog cholera was reported during the fiscal year. Montana remains an officially recognized hog cholera-free state.

POULTRY DISEASES

Four poultry diseases were reported on 11 premises in 166 chickens.

Salmonella

All breeding flocks supplying hatchery eggs were tested for pullorum-typhoid. There were 19,539 chickens tested and no reactors were found. Under present conditions and if breeding flock owners would assure flock addition from pullorum-typhoid clean sources, annual flock testing seems no longer necessary.

WILD ANIMAL DISEASES

Fifteen rabid skunks were detected in southeastern Montana in fiscal year 1966, which was followed by an intensive skunk reduction program. It is noteworthy that no rabid skunks have been observed in this area during the succeeding fiscal years of 1967 and 1968.

All rabid skunks and the one rabid badger reported this fiscal year have been located in northeastern Montana. It is hoped that the activities of the predator control agencies will be as successful this year in eliminating this most serious threat to livestock and human lives in northeastern Montana and in halting the spread of the disease in wildlife across Montana.

Dog vaccination and stray dog elimination programs in the area have played an important part in preventing spread of rabies to this specie of animal and to man.

If skunk rabies is permitted to increase, most assuredly rabies in domestic animals, especially cattle, will increase calling for increased post-exposure rabies treatment. With increased incidence of rabies in animals there is the increased possibility of human death from the disease. Therefore, any effort to reduce the incidence of rabies in any animal specie is most worthwhile.

The continual isolation of the rabies virus from insectivorous bats from all over Montana poses a most interesting situation. Why hasn't rabies from bats been transmitted to such other animals as cats and dogs in Montana? Insectivorous rabid bat bites have been known to produce fatal rabies in man. It is essential, to offer proper livestock and public health protection, to know more about the ecology of insectivorous bats and the life cycle of the rabies virus within that group of flying mammals.

The laboratory conducted rabies tests on 315 animals of 24 different species during the fiscal year. Following is a chronological listing of the rabid positive animals found during the fiscal year:

Rabies (Continued)

POSITIVE RABIES

DATE	TOWN	COUNTY	SPECIE
6-26-67	Medicine Lake	Sheridan	Skunk
7-31-67	Forsyth	Rosebud	Bat
8-5-67	Glendive	Dawson	Bat
8-5-67	Dagmar	Sheridan	Skunk
8-15-67	Billings	Yellowstone	Bat
8-17-67	Hardin	Big Horn	Bat
1-23-68	Scobey	Daniels	Badger
5-9-68	Westby	Sheridan	Skunk
5-17-68	Froid	Roosevelt	Skunk
6-5-68	Oswego	Valley	Skunk
6-11-68	Oswego	Valley	Skunk

OFFICIAL ANIMAL INSPECTIONS REPORT

SPECIE		NUMBER INSPECTED
Cattle		
Inspected for interstate shipment	784,949	
Inspected at auction markets	961,704	
Inspected for scabies	77,133	
Backtagged	151,983	
Bled for brucellosis	20,122	
Tested for tuberculosis:		
Beef	11,451	
Dairy	5,834	
Miscellaneous inspections	4,850	
Total Cattle		2,018,026
Horses		
Inspected for interstate shipment	2,509	
Inspected at auction markets	13,048	
Miscellaneous inspections	1,168	
Total Horses		16,725
Sheep		
Inspected for interstate shipment	474,331	
Inspected at auction markets	193,698	
Miscellaneous inspections	51,754	
Total Sheep		719,783
Swine		
Inspected for interstate shipment	392	
Inspected at auction markets	154,851	
Miscellaneous inspections	4,059	
Total Swine		159,302
Poultry		
Inspected for interstate shipment	382	
Miscellaneous inspections	47,775	
Total Poultry		48,157
Dogs and Miscellaneous Animals		
Inspected for interstate shipment	3,205	
Miscellaneous inspections	352	
Total Dogs and Miscellaneous Animals		3,557
TOTAL OFFICIAL ANIMAL INSPECTIONS		2,965,550

IMPORTS INTO MONTANA

STATE OF ORIGIN	CATTLE	HORSES	SHEEP	SWINE	POULTRY	DOGS & MISC. ANIMALS	TOTAL
Alabama.....						2	2
Alaska.....						75	75
Arizona.....	1,295	64	100			33	1,492
Arkansas.....		8				16	24
California.....	10	63				151	224
Colorado.....	4,705	96	22			48	4,871
Florida.....	172	1				14	187
Idaho.....	10,971	204	8,074	2,727		42	22,018
Illinois.....	87					10	97
Indiana.....	2	3				6	11
Iowa.....	476	1		23,202		36	23,715
Kansas.....	16	7				45	68
Kentucky.....	1	1				1	3
Louisiana.....						2	2
Maryland.....	10						10
Michigan.....		8				6	14
Minnesota.....	889	16	440	1,920		61	3,326
Mississippi.....	2					1	3
Missouri.....	15	5		4		42	66
Nebraska.....	217	83	19	3,856		25	4,200
Nevada.....		3				8	11
New Jersey.....	18						18
New Mexico.....	240	32				2	274
New York.....	11					2	13
North Carolina..						2	2
North Dakota....	16,291	155	10,461	236		29	27,172
Ohio.....						9	9
Oklahoma.....	672	23				8	703
Oregon.....	832	52	4,349			93	5,326
Pennsylvania....		2					2
South Dakota....	6,674	98	21,269	24,321		23	52,385
Tennessee.....						3	3
Texas.....	19,633	86	3,329			25	23,073
Utah.....	829	43	35			35	942
Virginia.....						1	1
Washington.....	3,091	178	8,728	46	36,089	192	48,324
Wisconsin.....	866	4				25	895
Wyoming.....	16,085	204	10,042	122		48	26,501
FOREIGN COUNTRIES							
Canada.....	9,422	839	2,018	10	250	229	12,768
Mexico.....	239						239
TOTAL IMPORTS...	93,771	2,279	68,886	56,444	36,339	1,350	259,069

OUT-OF-STATE BREEDERS HOLDING PERMITS TO IMPORT SEMEN FOR ARTIFICIAL INSEMINATION

Upon receipt and review of official health certificates on each individual sire, certifying to required tests and clinical inspections proving freedom from infectious or communicable diseases, an annual permit is issued to ship bovine semen into Montana to be used for artificial insemination. Annual permits were granted to the following during the fiscal year:

PERMITS TO IMPORT SEMEN FOR ARTIFICIAL INSEMINATION

COMPANY	NUMBER OF SIRES
All West Breeders Burlington, Washington	67
American Breeders Service, Inc. DeForest, Wisconsin	213
Cache Valley Breeding Association Logan Utah	74
Carnation Farms Breeding Service Watertown, Wisconsin	68
Curtiss Breeding Service, Inc. Cary, Illinois	161
International Beef Breeders Denver, Colorado	23
TOTAL PERMITS ISSUED	606

OUT-OF-STATE HATCHERYMEN HOLDING PERMITS TO IMPORT BABY CHICKS AND HATCHING EGGS

Upon certified proof of freedom from pullorum and other infectious diseases, annual permits were issued to 66 hatcheries, located in fifteen states and Canada, to ship baby chicks and hatching eggs into Montana during the fiscal year.

OFFICIAL INSPECTIONS MADE AT MONTANA LIVESTOCK AUCTION MARKETS

MARKET LOCATION	CATTLE	HORSES	SHEEP	SWINE	TOTAL
Billings Commission....	173,634	1,703	53,138	-0-	228,475
Billings Public.....	83,504	2,416	58,341	75,476	219,737
Bozeman.....	35,572	202	17,715	10,463	63,952
Butte.....	68,180	498	248	5,579	74,505
Dillon.....	17,999	628	11,329	6,878	36,834
Glasgow.....	52,132	770	5,002	23,403	81,307
Glendive.....	45,786	164	1,592	6,762	54,304
Great Falls.....	69,251	612	242	17	70,122
Hamilton.....	8,955	211	610	2,321	12,097
Havre.....	50,439	378	1,248	-0-	52,065
Kalispell.....	23,108	357	250	12,237	35,952
Lewistown.....	69,598	893	9,825	4,559	84,875
Miles City.....	42,886	891	402	504	44,683
Missoula.....	74,932	2,606	6,260	6,651	90,449
Shelby.....	24,486	46	10	1	24,543
Sidney.....	121,242	673	27,486	-0-	149,401
TOTAL INSPECTIONS.....	961,704	13,048	193,698	154,851	1,323,301

GARBAGE FEEDING ESTABLISHMENTS

In accordance with Section 46-2602 (RCM 1947), eleven garbage feeding establishments were issued licenses during the fiscal year.

A total of 148 garbage feeding establishment inspections were made during the fiscal year with the cooperation of the U. S. Department of Agriculture.

MONTANA VETERINARIANS' ANIMAL DISEASE REPORT

BACTERIAL DISEASES	CATTLE		HORSES		SHEEP		SWINE		POULTRY		DOGS
	Cases	Herds	Cases	Herds	Cases	Herds	Cases	Herds	Cases	Herds	Cases
Actinomycosis bacillosis	2,515	1,882									
Bacillary hemoglobinuria	149	112									
Blackleg	80	46									
Botulism			1	1							
Brucellosis	239	23									
Clostridium perfringens, Type C							1	1			
" sordelli	1	1									
Diphtheria	62	43									
Distemper			1,024	597							
Enteritis: E. coli	121	8									
Enterotoxemia	43	26			146	30					
Epididymitis					161	30					
Erysipelas							474	73			
Foot-rot	1,831	254			114	4					
Leptospirosis	182	82	1	1			19	7			167
Listeriosis	43	5			6	4					
Malignant edema	4	4									
Mastitis	150	36			21	3					
" -metritis							32	4			
Paratuberculosis	3	1									
Pneumonia	20	14					56	2			
Salmonellosis							15	1			
Tetanus	2	2	2	2	24	2					
Tuberculosis	1	1							33	5	
Vibriosis	1,268	56			151	2					
Total Bacterial Diseases	6,714	2,596	1,028	601	623	75	597	88	33	5	167
MYCOTIC DISEASES											
Aspergillosis			1	1							
Total Mycotic Diseases	-0-	-0-	1	1	-0-	-0-	-0-	-0-	-0-	-0-	-0-

Montana Veterinarians' Animal Disease Report (Continued)

	CATTLE		HORSES		SHEEP		SWINE		POULTRY		DOGS
NUTRITIONAL DISEASES	Cases	Herds	Cases	Herds	Cases	Herds	Cases	Herds	Cases	Herds	Cases
Atrophic rhinitis							115	15			
Avitaminosis A	905	2									
Enteritis: necrotic							4	1			
Greasy pig disease							4	1			
Ketosis					3	1					
Photosensitization	20	12									
White muscle disease	100	36			46	4					
Total Nutritional Diseases	1,025	50	-0-	-0-	49	5	123	17	-0-	-0-	-0-
PARASITIC DISEASES											
Filarial dermatosis			6	1							
Helminthiasis	133	6			50	1					
Lung worms	40	1									
Pediculosis	256	1			7,094	149	100	1			
Scabies:											
Chorioptic	6	1									
Sarcoptic	1	1									
Total Parasitic Diseases	436	10	6	1	7,144	150	100	1	-0-	-0-	-0-
POISONING											
Fluorosis	2	1									
Lead	7	3									
Salt	8	3									
Strychnine											4
Total Poisoning	17	7	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	4

Montana Veterinarians' Animal Disease Report (Continued)

	CATTLE		HORSES		SHEEP		SWINE		POULTRY		DOGS
PROTOZOAN DISEASES	Cases	Herds	Cases	Herds	Cases	Herds	Cases	Herds	Cases	Herds	Cases
Coccidiosis	5,919	554			45	2			121	3	7
Total Protozoan Diseases	5,919	554	-0-	-0-	45	2	-0-	-0-	121	3	7
VIRAL AND RICKETTSIAL DISEASES											
Anaplasmosis	125	55									
Chronic respiratory disease									2	2	
Contagious ecthyma					1,018	19					
Distemper											1,460
Encephalitis			57	57							
Infectious anemia			6	6							
" hepatitis											161
Influenza			277	99	4	1	44	2			
Leukosis									10	1	
Lip and leg ulceration					295	5					
Malignant catarrhal fever	1	1									
Mucosal virus diarrhea	1,026	91									
Posthitis					67	16					
Rhinotracheitis	1,381	40									
Shipping fever	7,565	511									
TGE							2	1			
Virus pig pneumonia							60	1			
Vulvovaginitis	50	2									
Warts	14	7									
Total Viral and Rickettsial Diseases	10,162	707	340	163	1,384	41	106	4	12	3	1,621

Montana Veterinarians' Animal Disease Report (Continued)

UNKNOWN ETIOLOGY	CATTLE		HORSES		SHEEP		SWINE		POULTRY		DOGS
	Cases	Herds	Cases	Herds	Cases	Herds	Cases	Herds	Cases	Herds	Cases
Brisket edema	2	2									
Cancer eye	1,789	1,368									
Infectious keratitis	500	289									
Mandibular phlegmon	18	18									
Ophthalmia, periodic			2	1							
Pulmonary emphysema	883	295					20	1			
Purpura hemorrhagica			1	1							
Urolithiasis	963	708	1	1	14	10					
Total Unknown Etiology	4,155	2,680	4	3	14	10	20	1	-0-	-0-	-0-
TOTAL ALL DISEASES	28,428	6,604	1,379	769	9,259	283	946	111	166	11	1,799

ETIOLOGICAL AGENTS RESPONSIBLE FOR DISEASES REPORTED BY MONTANA VETERINARIANS

Following is a percentage distribution of etiological agents responsible for the diseases reported by Montana Veterinarians during the 1968 fiscal year:

ETIOLOGICAL AGENT	CATTLE	HORSES	SHEEP	SWINE	POULTRY	DOGS
Bacteria	23.6%	74.6%	6.7%	63.1%	19.9%	9.3%
Mycoses	3.6	-0-	.5	13.0	-0-	-0-
Parasites	1.5	.4	77.2	10.6	-0-	-0-
Poisons	.1	-0-	-0-	-0-	-0-	.2
Protozoa	20.8	-0-	.5	-0-	72.9	.4
Viruses and Rickettsae	35.8	24.7	14.9	11.2	7.2	90.1
Unknown	14.6	.3	.2	2.1	-0-	-0-
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

COMMENTS ON DAIRY & MILK INSPECTION

Pesticides and "Adulterated" Milk

During the last half of this fiscal year, regulatory action was taken to restrain 31 licensed Grade A producer dairies from selling milk for human consumption. Laboratory tests on milk samples taken from their dairy cows revealed heptachlor epoxide and/or chlordane in excess of .3 parts per million, the "action level" at which the U. S. Food & Drug Administration will seize such milk going into interstate commerce. A finished milk product going into interstate commerce is also subject to seizure by the U. S. Food & Drug Administration if milk from one individual dairy containing heptachlor epoxide and/or chlordane in excess of .3 parts per million has been comingled with that finished product. The restraining orders remained in effect until subsequent laboratory tests confirmed that the level of pesticide had receded to below .3 parts per million.

Restraining orders were also issued on all cattle on the premises from which the sale of milk was prohibited because of high pesticide content.

Chlordane and its degradation product heptachlor epoxide are chlorinated hydrocarbon pesticides which were used to combat alfalfa weevil. The pesticides have a long residual in animals, forage and soil. The pesticides accumulate in the body fat of cows and are secreted in the milk of the dairy cows. The U. S. Public Health Service states: "The accumulation of these toxic agents in persons continually consuming contaminated milk may reach hazardous concentrations."

Pesticides in milk is - by U. S. Public Health Service, U. S. Food & Drug Administration and Montana Livestock Sanitary Board Regulations - an "adulterant". Adulterated milk is not permitted to be sold for human consumption.

Milk samples from all (392) Grade A Dairies and all (10) Retail Raw Dairies licensed by the Montana Livestock Sanitary Board are routinely laboratory tested for the presence of pesticides.

There is documented evidence that accidental contact, inhalation, over-consumption and over-application of a number of pesticides have been fatal to animals and man. There is at this time an intense nation-wide concern over the cummulative effects of these newer chemicals on the ecology of all living things that inhabit the Earth.

As the Montana Livestock Sanitary Board records reveal, the great majority of the Montana dairy producers have voluntarily and conscientiously avoided regulatory action by offering a product for sale which does not contain toxic substances.

Fortunately, far-sighted members of the Montana and national dairy industries have insisted and participated in the formulation of regulations to prevent individual members from jeopardizing the total industry.... not only concerning pesticides....

In the early 20's a high infant mortality rate from "summer complaint", caused by milk from an unclean dairy, or cases of typhoid fever contracted through milk from a dairy with a contaminated well, was not uncommon. Nor was it uncommon for innumerable people to contract tuberculosis from milk obtained from tubercular

Pesticides and "Adulterated" Milk (Continued)

cows. In the early 30's three to four cases of human brucellosis a month were contracted by drinking milk in a community in which 79% of the dairy herds were infected with brucellosis. These hazards to human health were eliminated and the dairy industry benefited by maintaining consumer confidence. This past fiscal year there were 31,496 official field inspections and laboratory tests made on Montana milk, milk products, dairy and milk plant facilities and dairy animals. (See page 51 of this "Annual Report".) It has been many years since a single, milk-borne disease outbreak could be traced to any dairy or milk plant licensed by the Montana Livestock Sanitary Board.

Mastitis

This past fiscal year the Wisconsin Mastitis Test has been routinely used on all milk samples to aid in the detection of mastitis. Laboratory tests indicate that most of the mastitis detected is caused by Staphylococcus aureus. Milk from individual cows found to have mastitis is not permitted to be sold for human consumption. Fortunately, the incidence of dairy herds having mastitis, as determined by the WMT screen test, is low in Montana. Only 3% to 4% of Montana dairies have required regulatory action to prevent the sale of mastitic or abnormal milk. There has been great success in this essential program to safeguard human health.

Sanitary Standards Violated - Licenses Revoked

According to U. S. Public Health Sanitation Standards, adopted by the dairy industry, a dairy or milk plant that maintains a sanitation rating of 90% or higher can be assured that they offer the consuming public a safe product and milk supply.

Attention is called to the June 30, 1968 sanitation ratings of all Montana milk plants licensed by the Board during the fiscal year. (See page 52 of this "Annual Report".) Overall, the sanitation ratings show clearly that Montana has an excellent, safe milk supply; however, one licensed producer dairy (also licensed as a milk plant) had both licenses revoked for repeated, gross violations of sanitary standards. Local health authorities obtained an injunction to prohibit the sale of milk. At the end of the fiscal year the producer dairy (and milk plant) was under the jurisdiction of the 18th Judicial District Court.

One other licensed producer dairy (also licensed as a milk plant) had both licenses revoked because of continued violations of sanitary standards.

SUMMARY OF WORK PERFORMED

Montana licensed Milk Plants distributed 207,345,550 pounds of pasteurized milk, cream and fluid milk products to Montana consumers during the fiscal year. This is a total of 568,070 pounds a day.

Montana licensed Retail Raw Dairies distributed 1,449,050 pounds of raw milk during the fiscal year. This is a total of 3,970 pounds a day.

Raw milk accounts for .7% of the total milk supply offered to Montana consumers; and 99.3% of the milk, cream and fluid milk products distributed in Montana has the added public health protection of pasteurization.

Following is a summary of sanitary inspections and laboratory tests made during the fiscal year to assure Montana consumers that their milk came from healthy cows and is produced, handled and processed under strictly sanitary conditions.

OFFICIAL INSPECTIONS AND LABORATORY TESTS OF MILK, MILK PRODUCTS, DAIRIES AND MILK PLANTS

OFFICIAL INSPECTIONS AND LABORATORY TESTS		NUMBER
Antibiotic detection tests		4,061
Bacterial counts		3,924
Bacterial identification		502
Brucella abortus ring tests		8,180
Chemical Analyses:		
General chemical	1,663	
Wisconsin Mastitis Tests	1,595	
Total Chemical Analyses		3,258
Coliform tests		4,057
Dairy inspections		1,131
Milk plant inspections		106
Milk plant equipment tests		88
Pesticide residue analyses		355
Tuberculosis tests		5,834
TOTAL OFFICIAL INSPECTIONS AND LABORATORY TESTS		31,496

MILK PLANT SANITATION COMPLIANCE RATINGS
WITH
MONTANA LIVESTOCK SANITARY BOARD REGULATIONS

MILK PLANT NUMBER	POUNDS SOLD DAILY	PLANT SCORE	PRODUCER'S SCORE	PASTEURIZED MILK RATING
25-1	28,000	94%	91%	93%
25-2	56,000	94%	92%	93%
25-7	11,500	90%	93%	92%
25-8	1,900	76%	67%	*72%
25-10	77,000	100%	86%	93%
25-11	1,500	88%	82%	86%
25-15	800	90%	91%	91%
25-16	32,000	93%	92%	93%
25-18	40,000	94%	92%	93%
25-19	16,000	95%	88%	92%
25-20	20,000	91%	92%	92%
25-21	58,000	91%	90%	91%
25-25	16,000	94%	89%	92%
25-28	5,000	90%	94%	92%
25-30	15,000	88%	94%	91%
25-31	20,000	93%	90%	92%
25-32	48,000	94%	91%	93%
25-33	1,900	93%	88%	91%
25-38	34,000	94%	93%	94%
25-39	13,000	97%	91%	94%
25-40	10,000	92%	88%	90%
25-43	800	90%	95%	93%
25-45	1,900	85%	81%	83%
25-46	170	100%	92%	96%
25-47	57,000	90%	93%	92%
25-49	2,600	97%	92%	95%
TOTAL	568,070	92%	90%	91%

*Under jurisdiction of the 18th Judicial District Court.

RETAIL RAW DAIRIES SANITATION COMPLIANCE RATINGS WITH MONTANA LIVESTOCK SANITARY BOARD REGULATIONS

RETAIL RAW DAIRY NUMBER	POUNDS SOLD DAILY	DAIRY SCORE
R-1	400	98%
R-2	960	100%
R-15	600	93%
R-21	240	85%
R-25	240	100%
R-32	800	82%
R-33	300	93%
R-34	430	97%
TOTAL	3,970	94%

COMMENTS ON MEAT INSPECTION

The Montana Meat Inspection Act of 1931 granted the Montana Livestock Sanitary Board authority to establish meat inspection in Montana "when considered necessary for the public health or welfare". In 1965 the Legislature appropriated funds to enable the Board to maintain a system of meat inspection without "users fees". This fiscal year, Montana meat inspection provided meat inspection for 17% of the slaughtered animals, federal meat inspection covered 77% and 6% of the animals were slaughtered "off-farm" and had no meat inspection. The reports in this "Annual Report", showing the causes of condemnation, express - clearly - the necessity for properly conducted meat inspection to safeguard human health.

The "Wholesome Meat Act of 1967"(Public Law 90-201) was signed into law on December 15, 1967 by the President. Public Law 90-201 makes it mandatory that all cattle, sheep, swine, goats and animals of the equine specie be slaughtered and prepared under federal meat inspection - or under a system of state meat inspection "at least equal to that of the U. S. Department of Agriculture meat inspection". Under Public Law 90-201, the states are given two, possibly three, years to accomplish state-wide, mandatory meat inspection or the U. S. Department of Agriculture, Consumer & Marketing Service, Meat Inspection Division, will provide and enforce mandatory meat inspection within the states.

The Board, in preparing to meet the requirements of Public Law 90-201 adopted "Order No. 216: An Order Requiring Mandatory Meat Inspection in the State of Montana" on May 20, 1968 to become effective July 1, 1969. The Montana Meat Inspection Act of 1931, Order No. 216, Montana Livestock Sanitary Board Official Regulations contained in Chapter 23 entitled "Meat Inspection" and related Montana laws have been sent to the Office of General Counsel of the U. S. Department of Agriculture, Consumer & Marketing Service, for their evaluation and approval, as required by Public Law 90-201. Requirements for meat inspection laboratory facilities and training periods for meat inspection personnel have been reviewed with representatives of the federal meat inspection service to prepare for compliance with Public Law 90-201.

A joint survey has been conducted by state and federal meat inspection personnel to determine if Montana meat inspection complies with the standards of the U. S. Department of Agriculture and Public Law 90-201. The survey also determined the geographical locations, frequency and number of animals slaughtered in each of the "off-farm" operations now slaughtering animals without meat inspection (6%) .

The joint survey also provided an opportunity for inspectors to inform each slaughtering and processing establishment what sanitation and facilities requirements would have to be met to qualify their establishments for federal meat inspection (or state meat inspection equal to federal meat inspection) as required by Public Law 90-201.

Five(three this fiscal year)of the larger slaughtering and meat processing establishments operating under federal meat inspection and one operating under state meat inspection have discontinued business and these modern plants are sitting idle. Two of the larger plants which were operating under state meat inspection applied for and obtained federal meat inspection. With the larger plants obtaining federal meat inspection, leaving the Board the responsibility of providing

Comments on Meat Inspection (Continued)

meat inspection services for only the smaller plants, the animal unit cost for meat inspection will be high. The joint survey conducted on the 6% of off-farm animals slaughtered without meat inspection showed that the largest number of animals handled is 25 to 30 animals per week (not 25 to 30 animals per hour) to as low as 4 to 5 animals per month. This will require a maximum of proper organization and administration to supply meat inspection at a reasonable cost at such small volume operations which will not be exempt from meat inspection under the requirements of Public Law 90-201.

SUMMARY OF WORK PERFORMED

The Montana Livestock Sanitary Board maintained meat inspection in 20 slaughterhouses and 8 meat packing houses. The U. S. Department of Agriculture maintained meat inspection in 5 slaughterhouses. Forty-eight slaughtering establishments operated without meat inspection.

There were 538,558 animals slaughtered in licensed establishments this fiscal year. Of the total, 77% was slaughtered under federal meat inspection, 17% was slaughtered under state meat inspection and 6% was slaughtered in establishments without meat inspection.

An estimated 3,728,483 pounds of meat were found totally unfit for human consumption and removed from food channels in the State of Montana during the fiscal year.

Thirty-seven diseases and miscellaneous other conditions were found in animals slaughtered under state meat inspection, which caused the entire animal or part of animal to be unfit for human consumption and resulted in condemnation.

OFFICIAL ESTABLISHMENT INSPECTIONS

TYPE OF ESTABLISHMENT	NUMBER OF INSPECTIONS
Meat Depots	3
Meat Packing Houses	63
Poultry Slaughterhouses	4
Rendering Plants	40
Slaughterhouses	121
Slaughterhouses - Rabbit	4
Locker Plants (Federal-State Survey)	49
Retail Markets (Federal-State Survey)	70
TOTAL OFFICIAL ESTABLISHMENT INSPECTIONS	356

LABELS AND SKETCHES

ITEM	NUMBER
Labels temporarily approved	2
Labels approved	52
Sketches approved	31
TOTAL	85

ESTABLISHMENTS UNDER STATE MEAT INSPECTION

ESTABLISHMENT NAME	LOCATION	ESTABLISHMENT NO.
Slaughterhouses		
*Barsotti Bros. Meat Packing Plant, Inc.	Great Falls	8
*Biastoch Meats, Inc.	Butte	13
*Havre Abattoir	Havre	12
*Kalispell Meat Company	Kalispell	9
Mickey's Packing Plant	Great Falls	18
Miles City Packing Company	Miles City	26
#*Montana Meat Company of Helena	Helena	5
Montana State Prison	Deer Lodge	4
Montana State University	Bozeman	23
*Rahr Meat Service	Glendive	6
*Rick's Packing Plant	Livingston	10
Roberts Packing Plant	Dillon	16
*Rocky Mountain Packing Company, Inc.	Havre	21
Schramm Packing Company	Missoula	3
*Timberland Packing Company	Lewistown	22
Triangle Packing Company	Choteau	27
Vandevanter Meats	Columbia Falls	7
Vollmer & Sons, Inc.	Bozeman	14
Meat Packing Houses		
Ben's H & H Market	Missoula	29
Central Meat Market	Lewistown	32
Great Falls Meat Company	Great Falls	36
Hickory Kitchen	Great Falls	31
Montana Sausage Company	Great Falls	30
M & P Meat Company, Inc.	Great Falls	34
Snowy Mountain Meat Company	Lewistown	33
Triplett Meats	Kalispell	35

*Also does meat processing.
#Plant suspended operation.

ESTABLISHMENTS UNDER FEDERAL MEAT INSPECTION

ESTABLISHMENT NAME	LOCATION	ESTABLISHMENT NO.
Slaughterhouses		
#Austin's Packing Company	Glasgow	317
*Daily, John R., Inc.	Missoula	2450
Great Falls Meat Company	Great Falls	301
Midland Empire Packing Company, Inc.	Billings	339
#Needham Packing Corp. of Montana	Great Falls	857-G
**New Butte Butchering Company, Inc.	Butte	2439
Pierce Packing Company	Billings	691

*Went under federal inspection in June, 1968.
**Went under federal inspection in March, 1968.
#Plant suspended operation.

ANIMALS SLAUGHTERED UNDER STATE AND FEDERAL MEAT INSPECTION
AND
ANIMALS SLAUGHTERED WITHOUT MEAT INSPECTION

SPECIE	STATE	FEDERAL	WITHOUT
Cattle	38,686	164,949	13,920
Calves	1,115	45	240
Sheep	2,835	71	1,491
Swine	52,070	278,787	17,599
TOTAL	94,706	443,851	33,250

WHOLE CARCASSES FOUND UNFIT FOR HUMAN CONSUMPTION
UNDER STATE AND FEDERAL MEAT INSPECTION

SPECIE	STATE	FEDERAL
Cattle	95	581
Calves	8	-0-
Sheep	6	-0-
Swine	60	469
TOTAL	169	1,050

PARTS OF CARCASSES FOUND UNFIT FOR HUMAN CONSUMPTION
UNDER STATE AND FEDERAL MEAT INSPECTION

SPECIE	STATE	FEDERAL
Cattle	1,460	14,859
Calves	12	17
Sheep	856	72
Swine	5,836	34,842
TOTAL	8,164	49,790

BEEF AND SWINE LIVERS FOUND UNFIT FOR HUMAN CONSUMPTION
UNDER STATE AND FEDERAL MEAT INSPECTION

SPECIE	STATE	FEDERAL
Beef	12,776	53,206
Swine	25,153	51,628
TOTAL	37,929	104,834

POUNDS OF MEAT AND/OR MEAT BY-PRODUCTS PROCESSED UNDER STATE MEAT INSPECTION

TYPE OF PROCESSING	POUNDS
Compound Containing Animal Fat	54,300
Cooked Meat:	
Beef	991
Pork	25,919
Other	880
Edible Tallow	21,145
Hamburger	1,093,819
Lard Rendered	731,308
Loaf: Head Cheese, Chili, Jellied Product	699,671
Miscellaneous Meat Product	79,365
Oleo Stock	800
Placed in Cure:	
Beef	92,199
Pork	2,463,899
Other	21,535
Sausage Fresh Finished	670,239
Sausage Smoked or Cooked:	
Franks, Wieners	1,113,778
Other	606,689
Sliced Product:	
Bacon	335,759
Other	35,435
Smoked and/or Dried:	
Beef	24,676
Pork	2,515,529
Steaks, Chops, Roasts	2,560,085
TOTAL POUNDS PROCESSED	13,153,521

MEAT AND MEAT BY-PRODUCTS REINSPECTED AND REJECTED UNDER STATE MEAT INSPECTION

ITEM	POUNDS
Reinspected Meat and/or Meat By-Product	4,010,907
Rejected Meat and/or Meat By-Product	10,083
TOTAL POUNDS REINSPECTED AND REJECTED	4,020,990

DIAGNOSES OF WHOLE CARCASSES CONDEMNED AT SLAUGHTER UNDER STATE MEAT INSPECTION

DIAGNOSIS	CATTLE	CALVES	SHEEP	SWINE
Abscesses-Pyemia	6	0	0	8
Anasarca	8	0	0	0
Arthritis-Meningitis	1	0	0	0
" -Polyarthritis	0	0	0	4
Ascites	0	3	0	1
Bruises, Injuries, etc	6	1	0	5
Cachexia	9	4	0	3
Caseous Lymphadenitis	0	0	5	0
Edema	4	0	0	0
Enteritis-Gastritis-Peritonitis	6	0	0	1
Epithelioma	4	0	0	0
Erysipelas	0	0	0	1
Icterus	1	0	0	9
Lymphoma	1	0	0	0
Metritis	2	0	0	0
Pericarditis	4	0	0	0
Pleuritis	0	0	0	1
Pneumonia	12	0	0	6
Pyelonephritis	3	0	0	0
Sarcosporidiosis	2	0	0	0
Septicemia-Toxemia	19	0	1	11
Sex Odor	0	0	0	3
Systemic Infection	1	0	0	0
Uremia	2	0	0	0
Urine Odor	0	0	0	1
Urolithiasis	2	0	0	0
Miscellaneous diseases of liver	2	0	0	6
TOTAL WHOLE CARCASSES CONDEMNED	95	8	6	60

DIAGNOSES OF BEEF LIVERS CONDEMNED AT SLAUGHTER UNDER STATE MEAT INSPECTION

DIAGNOSIS	NUMBER
Abscesses	7,142
Carotinosis	12
Cirrhosis	131
Contamination	98
Distomiasis	3,204
Echinococcosis	17
Sawdust	529
Telangiectasis	473
Miscellaneous diseases	1,170
TOTAL BEEF LIVERS CONDEMNED	12,776

DIAGNOSES OF PARTS OF CARCASSES CONDEMNED AT SLAUGHTER
UNDER STATE MEAT INSPECTION

DIAGNOSIS	CATTLE	CALVES	SHEEP	SWINE
Abscesses	611	5	3	2,275
Actinomycosis-Actinobacillosis	103	0	0	0
Adhesions	20	0	0	14
Anasarca	0	1	1	0
Arthritis-Polyarthritis	16	1	1	73
Atrophic Rhinitis	0	0	0	1
Bruises, Injuries, etc	181	2	1	144
Caseous Lymphadenitis	12	0	18	1
Contemination	354	1	0	1,170
Cysticercus ovis	0	0	15	0
" tenuicollis	0	0	0	24
Epithelioma	74	0	4	25
Frostbite	1	0	0	0
Hydronephrosis	0	0	0	7
Icterus	0	0	0	23
Inflemmatory Tissue	3	0	0	0
Lump Jaw	2	0	0	0
Mange	0	0	0	4
Pericarditis	24	0	6	270
Pneumonia	1	0	0	3
Scirrhous Cord	0	0	0	1
Septicemia-Toxemia	0	0	0	156
Taeniasis	0	0	62	0
Thysanosoma actinioides	0	0	6	0
Tuberculosis	5	0	0	1,652
Miscellaneous diseases of:				
Heart	2	0	1	0
Liver	31	2	738	25,153
TOTAL PARTS OF CARCASSES CONDEMNED	1,440	12	856	30,996