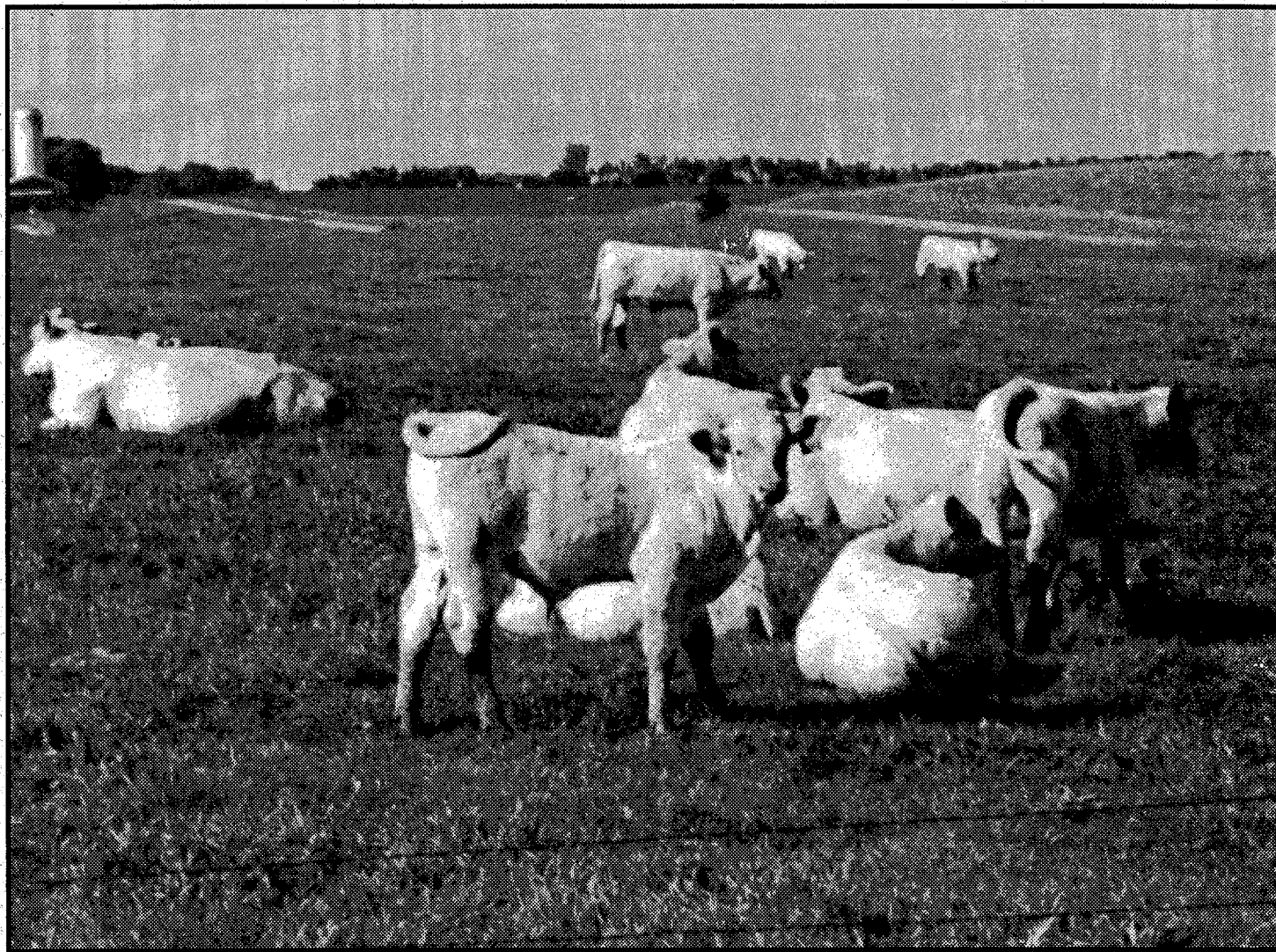


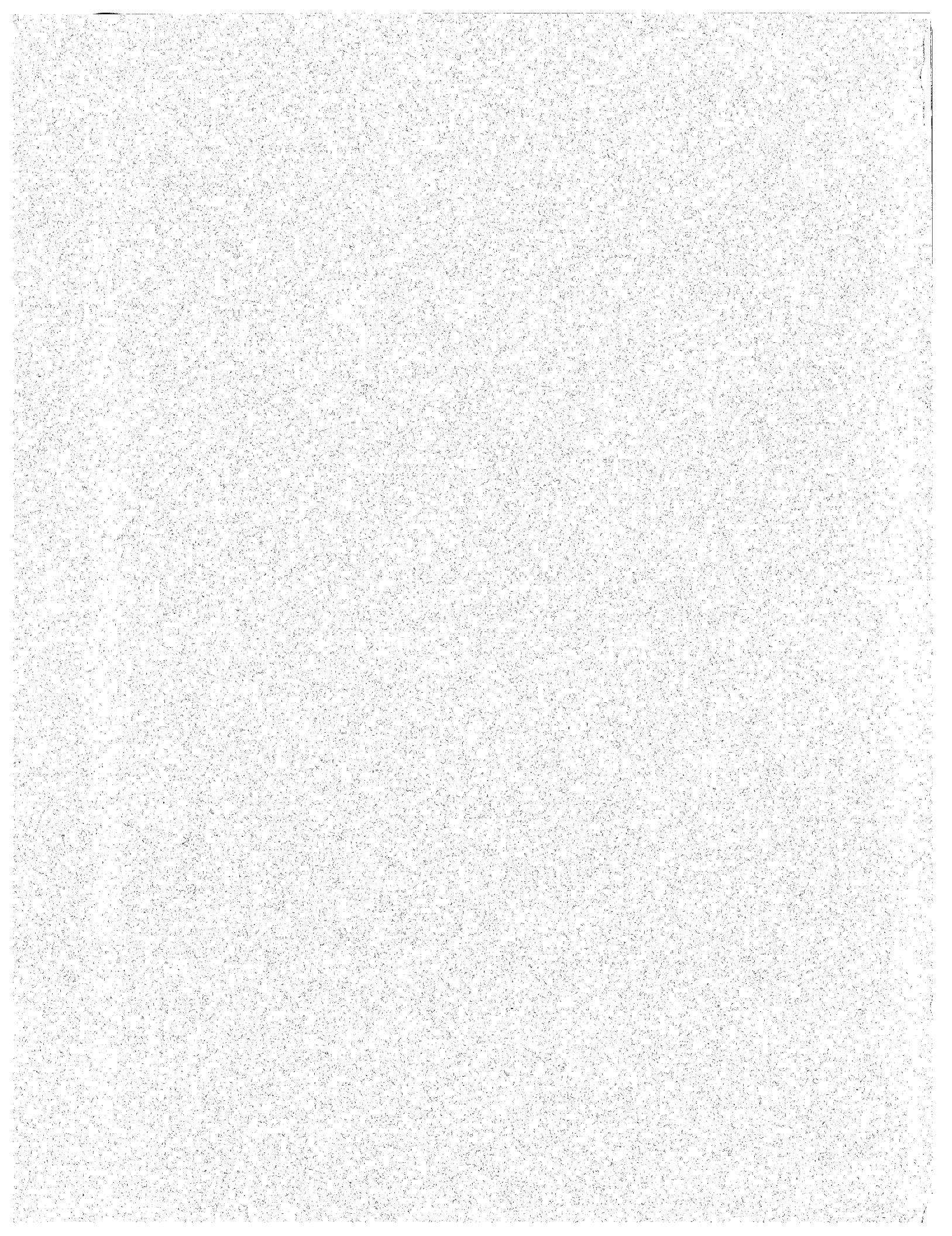
Annual Report of the Minnesota Veterinary Diagnostic Laboratory – 1992

Animal Health in Minnesota



UNIVERSITY OF MINNESOTA

Miscellaneous Publication 77-1992
Minnesota Agricultural Experiment Station



Animal Health in Minnesota

**Annual Report of the Minnesota
Veterinary Diagnostic Laboratory
1992**

**Department of Veterinary Diagnostic Medicine
College of Veterinary Medicine
University of Minnesota**

and

The Minnesota Board of Animal Health

**Miscellaneous Report 77-1992
Minnesota Agricultural Experiment Station
University of Minnesota**

St. Paul, Minnesota

The University of Minnesota, including the Minnesota Agricultural Experiment Station, is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

**Department of Veterinary Diagnostic Medicine
College of Veterinary Medicine
University of Minnesota**

DEPARTMENTAL MISSION

The faculty and staff of the Department have the following responsibilities ranked in order of priority.

1. Help reduce loss from disease in Minnesota's livestock, poultry, wildlife, and companion animals and help protect the public health by providing accurate and timely discipline-related animal health diagnostic services through the Minnesota Veterinary Diagnostic Laboratory, and by providing official laboratory services for the Minnesota Board of Animal Health and the Minnesota Racing Commission.
2. Teach veterinary students the principles of diagnostic medicine and prepare them to utilize the Diagnostic Laboratory as a resource for diagnostic assistance and continuing education throughout their professional careers.
3. Advance knowledge in veterinary medicine by conducting animal health research and communicating the results through publications in scientific journals and presentations at scientific meetings.
4. Provide continuing education for veterinary practitioners and animal owners by consultation, diagnostic investigation, and participation in continuing education programs of professional organizations and the College of Veterinary Medicine.
5. Prepare students for a career in diagnostic medicine through residency and graduate training programs.
6. Support other programs of the University by providing various laboratory services for the Veterinary Teaching Hospital, research projects, and other University departments.
7. Serve the veterinary profession by participating in local, state, national, and international professional organizations and by providing consultation to local, state and federal governments.
8. Serve the University community through committees and other activities.

Approved by the VDM faculty December 19, 1985

FOREWORD

This report is a summary of activities of the Minnesota Veterinary Diagnostic Laboratory for July 1, 1990 through June 30, 1991. Its main purpose is to provide a record of the animal diseases for which diagnostic assistance was requested by veterinary practitioners and animal owners. The information presented here in brief summary is maintained in a computer-based data system, which enables analysis of the information to monitor changing patterns of animal disease and to detect new animal health problems as they emerge.

The Veterinary Diagnostic Laboratory was established in 1904 in the Agricultural Experiment Station of the University of Minnesota to satisfy the need for accurate diagnosis of animal diseases that threaten Minnesota's livestock and poultry industries, wildlife and human health. As the official laboratory of the Minnesota Board of Animal Health, it provides laboratory support to the state's animal disease control programs.

The laboratory was integrated with the College of Veterinary Medicine in 1947. In 1982, the Department of Veterinary Diagnostic Medicine was established in the College. The faculty and staff of the department have maintained a diagnostic medical program that is focused on public service, but with an appropriate balance of research and education. The department also has provided diagnostic services for the Minnesota Racing Commission since 1985.

Many people from other departments of the college participate in this program. Among the contributions of collaborating faculty and staff are clinical chemistry, hematology, endocrinology, cytogenetics, immunopathology, urolith analysis, dermatopathology, parasitology, avian microbiology, avian health consultation and porcine microbiology.

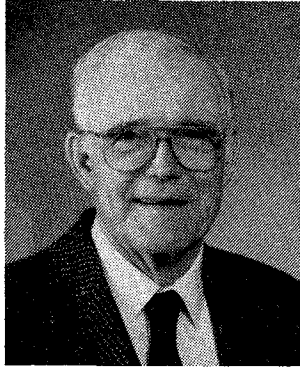
Drs. Donald M. Barnes and Glen H. Nelson retired from regular appointment on our faculty in June, 1992, after providing public service, education and research through the diagnostic laboratory for a combined total of 68 years. This report is dedicated to these distinguished Emeritus Professors.

Acknowledgement is given to Mary Thurn and Dr. James Collins for compiling the data for the report, and to Larry Etkin of Educational Development System for editorial assistance.

Martin E. Bergeland
Director

Correspondence related to this publication, to the Department or to the Veterinary Diagnostic Laboratory should be addressed to: Minnesota Veterinary Diagnostic Laboratory, University of Minnesota, 1333 Gortner Avenue, St. Paul, MN 55108, Phone: 612-625-8787

**IN DEDICATION TO
EMERITUS PROFESSORS DONALD M. BARNES AND GLEN H. NELSON**



Donald M. Barnes



Glen H. Nelson

On June 3, 1992 family, friends and colleagues gathered to celebrate the lives and careers of Drs. Donald Barnes and Glen Nelson, who together have served the College for more than 66 years. Both retired from the Department of Veterinary Diagnostic Medicine on June 30.

Born on a hog-dairy farm in Wisconsin, Barnes had a natural interest in livestock and cropping. As a child, he developed a lifelong love of horses through traveling with his grandfather, who purchased large numbers of heavy horses under contract with logging companies. After graduating from high school, Barnes was employed in the logging woods during his youthful years.

Beginning with the initial purchase of eight registered Guernsey calves, Barnes developed a herd and moved to southern Wisconsin where he operated a farm while taking a course or two at the University of Wisconsin-Madison when time permitted. It was there he met and married Sarabeth Taylor.

In 1955, upon graduation from veterinary college, he accepted employment in the Minnesota Veterinary Diagnostic Laboratory, a University department that at the time had only two faculty members, Drs. Reuel Fenstermacher and Charles Gale. The lab was located in a temporary frame building long since demolished.

In 1960, Barnes, with a two-year leave from the University, took his wife and two children to Bozeman, Mont., where he studied blackleg in range cattle for his Ph.D., which he was granted in 1963. In 1965, he passed the board-certifying examination for the American College of Veterinary Pathologists. Barnes also is a member of the American Association of Veterinary Laboratory Diagnosticians, American Association of Zoo Veterinarians, Wildlife Disease Association, American Association of Avian Veterinarians, American Veterinary Medical Association, and Sigma Xi. He received the Distinguished Service Award from the Minnesota Veterinary Medical Association.

After years in the necropsy room, Barnes became more involved in teaching. Helping livestock owners with their problems and teaching graduate students have been very rewarding for him. "There's no substitute for energetic, enthusiastic graduate students; they make teaching easy," Barnes says. "I've also learned a great deal from these students. They take advanced courses and they find chinks in my armor. That's fine. They help me stay current."

For the past two decades, Barnes has used his weekends to pursue his early interest in woodlands. He personally has planted tens of thousands of trees. After retirement, he and Sarabeth will move to their woods home in Aitkin County. Barnes' new work is his old work: improving the forest, milking quality dairy cattle, and ecologically logging with heavy horses.

Born in Brainerd, Minn., Glen Nelson created his own educational and professional path, and in so doing helped pave the way for future veterinarians. Honorably discharged from the National Guard in 1945 after having served in the Philippines, Africa, and Italy, Nelson returned to Minnesota with the goal of becoming a veterinarian. Unfortunately, however, Minnesota had no veterinary school, and those in other states were overloaded with returning veterans.

Undaunted, Nelson teamed up with others sharing his goal, formed a Pre-Veterinary Club, and became active in starting a veterinary school in Minnesota. With the support of farmers, livestock groups, and prominent legislators, they succeeded: In 1947, the legislature created a veterinary school at the University of Minnesota. Nelson was admitted to the first class, and in 1951 he and 22 others became the first Minnesota veterinary graduates.

Nelson rejoined the military after graduation and served as a U.S. Army Veterinary Corps officer from 1951 to 1952. He then entered a private large animal practice in New Richland, Minn., became active in public service, and was elected mayor. In 1961 he took a position as assistant professor in the Diagnostic Laboratory; in 1972 he was promoted to full professor. In addition to diagnostic work, Nelson was interested in mycotoxins in feeds and foods and their significance on public health and the health of animals. He has supervised the serology labs since 1980 and has been assistant department chair since 1989.

Nelson served as president and board member of the Minnesota Veterinary Medical Association, as executive secretary of the Minnesota Board of Veterinary Medicine, as president of the American Association of Veterinary Laboratory Diagnosticians, as president of the American Association of Veterinary State Boards, and as executive secretary of the Minnesota Veterinary Medical Council. He also has served on the board of directors of the College of Veterinary Medicine Alumni Society and is the coordinator of alumni relations in the College. He has served on 20 College and eight University committees.

His years of service have been recognized by his peers, and he has received distinguished service awards from several groups, including the Minnesota State Board of Veterinary Medicine in 1986; the College of Veterinary Medicine Alumni Society in 1990; and the Minnesota Veterinary Medical Association in 1992.

After retirement Nelson plans to continue to serve on many College, alumni, and veterinary association committees. He and his wife, Mary, will divide their time between their homes in Roseville and Florida, and their cabin on Gull Lake.

Reprinted from an article by Dr. Barbara O'Leary for *The University of Minnesota Health Sciences-Veterinary Medicine*, Summer, 1992 Issue

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Personnel

Martin E. Bergeland, DVM, PhD (ACVP)	Director, Department Chair
Donald M. Barnes, DVM, PhD (ACVP)	Professor
Sagar M. Goyal, BVSc, PhD (SM-AAM)	Professor
Harold J. Kurtz, DVM, PhD (ACVP)	Professor
Glen H. Nelson, DVM	Professor, Assistant Chair
George R. Ruth, DVM, PhD (ACVP)	Professor
Ronald E. Werdin, DVM, PhD	Professor
James E. Collins, DVM, PhD (ACVP)	Associate Professor
Lawrence J. Felice, MS, PhD	Associate Professor
Ashok K. Singh, MS, PhD	Associate Professor
Barbara Greig, BS, DVM (ACVP)	Assistant Professor
Michael J. Murphy, DVM, PhD (ABVT)	Assistant Professor
Daniel P. Shaw, DVM, PhD (ACVP)	Assistant Professor
Kurt Rossow, BS, DVM	Vet. Med. Assoc./Research Assistant
Elida Bautista, BS	Research Assistant
Yin Jiang, BS, MS	Research Assistant
Rafique Tahir, DVM	Research Assistant
Lance Buoen, BA	Senior Scientist
Kem Pomeroy, BS, PhD	Scientist
Jerome Fahrman, BS	Sr. Med. Tech./Sr. Cl. Lab. Tech.
Mary Ito, BS, MT (ASCP)	Med. Tech./Cl. Lab. Tech.
Tom Arendt, BS	Junior Scientist
Menglan Chen, BS	Junior Scientist
Pin King, BS, MS	Junior Scientist
Cynthia Lindeman, BS	Assistant Scientist
Usha Mishra, BS, MS	Assistant Scientist
Beverly Braun, VT	Principal Laboratory Technician
Douglas Chech, CLT	Principal Laboratory Technician
Elizabeth Ellert, CLA	Principal Laboratory Technician
Wendy Hogetvedt, AA, BES, HT (ASCP)	Principal Laboratory Technician
Kae Granley	Principal Laboratory Technician
Christine Johnston, HT	Principal Laboratory Technician
Londa Kroone, CLA	Principal Laboratory Technician
Beth Lokensgard, BA	Principal Laboratory Technician
Karen Olsen, BS	Principal Laboratory Technician
Gauri Singh, BVSc, AH	Principal Laboratory Technician
Christopher Thurn, BA	Principal Laboratory Technician
Bharati Acharya	Principal Laboratory Technician
Deb Bell	Senior Laboratory Technician
Judith Brees	Senior Laboratory Technician
Alan Ducommun, BA	Senior Laboratory Technician
James Glenn, B.S.	Senior Laboratory Technician
Angela Guiliani, BS	Senior Laboratory Technician
Donal Holohan, BS	Senior Laboratory Technician
Cheryl Oeljenbruns, BS	Senior Laboratory Technician
Ann Pohl, CVT	Senior Laboratory Technician
Rebecca White, BA	Laboratory Technician
Anita Franson, AHT	Laboratory Animal Care Technician
Ron Joki, BA	Laboratory Animal Care Technician
Richard Roback, AA	Laboratory Animal Care Technician
Connie Strand, BS, MA	Accounts Supervisor
Jean Paavala	Senior Accounts Specialist
Kimberly Lueck, BS	Senior Accounts Assistant
Monica Murray	Senior Accounts Assistant
Laura Rosenzweig, BS	Senior Accounts Assistant
Bonnie Steinbeck	Senior Accounts Assistant

Personnel (continued)

Mary Thurn	Executive Secretary
Bonnie Gagne	Principal Secretary
Janelle Gerlach	Senior Secretary
Jeri Walseth, BS	Senior Secretary
Patricia Smith, AA	Office Specialist
Dorene Coles	Senior Office Assistant
Toni Adams	Office Assistant
Jennifer Fox	Office Assistant

Student Assistants

Christian Affeldt	Student Laboratory Technician
Maryann Anderson	Student Laboratory Technician
Mark Christenson	Student Laboratory Technician
Trisha Delhamer	Student Laboratory Technician
Kristin Doss	Student Laboratory Technician
Vipin Goyal	Student Laboratory Attendant
Jennifer Heath	Student Laboratory Technician
Janet Helms	Student Laboratory Technician
Esther Hope	Student Senior Laboratory Technician
Thomas Hudson	Student Laboratory Technician
Iftikhar Hussain	Graduate Student Laboratory Attendant
Joan Khassen	Student Senior Laboratory Technician
Scott Likely	Student Laboratory Attendant
Robert Orr	Student Laboratory Animal Technician
Myhang Phan	Student Office Assistant
Suzanne Piela	Senior Laboratory Animal Technician
K. Radmanesh	Student Laboratory Technician
Gurdial Randhawa	Student Laboratory Attendant
Tracy Rubietta	Student Laboratory Technician
Paul Sorenson	Student Office Assistant
David Stagg	Student Office Assistant
Stephanie Stevens	Student Office Assistant
Kelly Tisher	Student Laboratory Technician
Katherine Toft	Student Laboratory Technician
Terri Tyson	Student Laboratory Technician
Lisa Udland	Student Laboratory Attendant
Phillip Wahlberg	Student Laboratory Technician
Thomas White	Student Laboratory Technician
Tingqing Zhang	Student Senior Laboratory Technician

Accessions by Month			
July	4,799	February	3,480
August	4,181	March	3,799
September	3,530	April	3,788
October	3,551	May	3,133
November	2,694	June	3,626
December	2,867		
January	3,352	FY 1992 Total	42,800

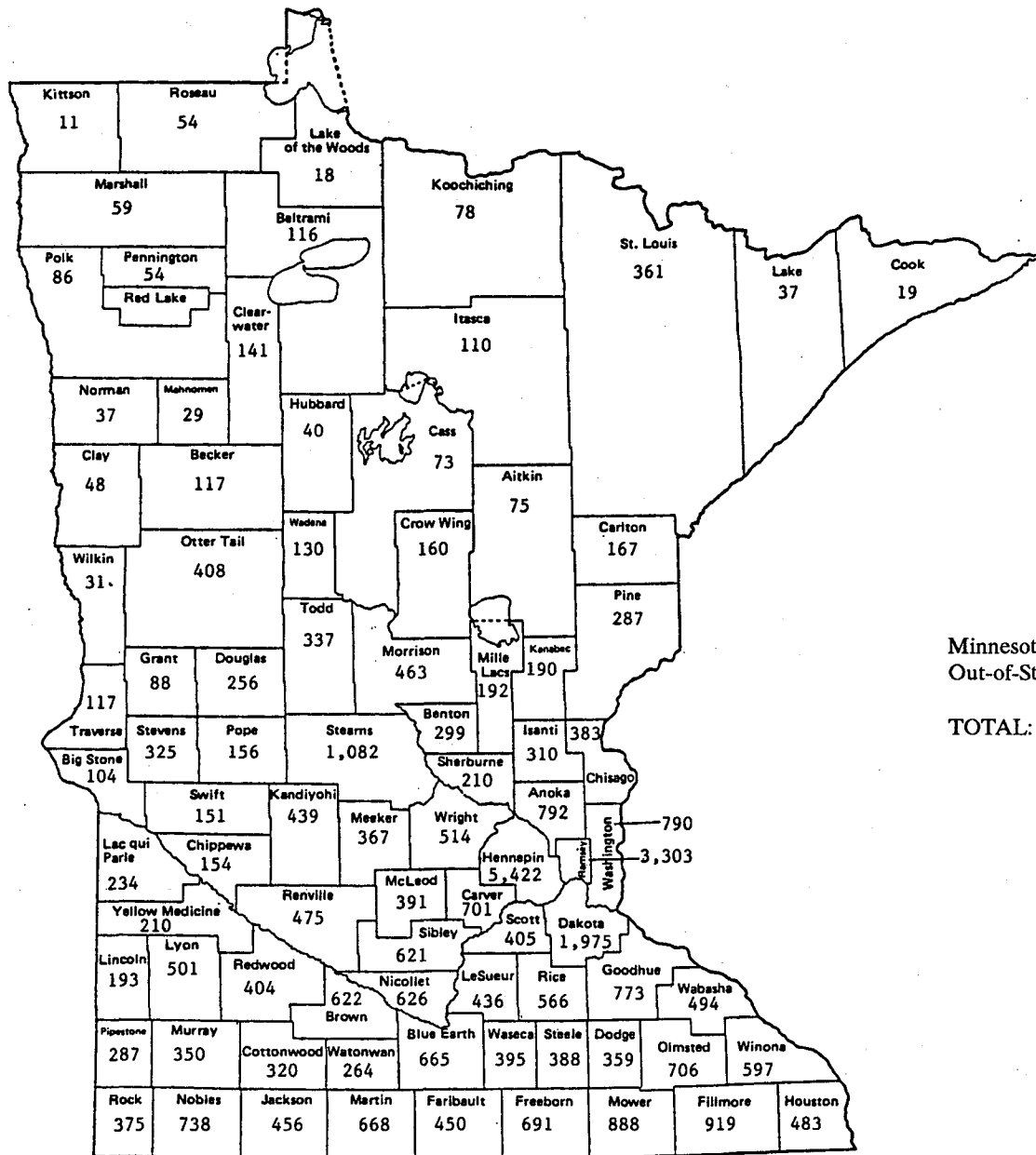
Accessions - Prior Fiscal Years			
1960	3,277	1976	8,782
1961	3,450	1977	8,953
1962	3,285	1978	10,591
1963	2,635	1979	12,803
1964	4,225	1980	14,668
1965	2,635	1981	15,580
1966	3,166	1982	18,064
1967	3,680	1983	20,668
1968	4,581	1984	20,184
1969	5,552	1985	22,836
1970	6,451	1986	21,748
1971	6,926	1987	24,390
1972	7,951	1988	30,899
1973	10,527	1989	35,233
1974	8,635	1990	37,093
1975	7,593	1991	43,421

Accessions by Species by Month

Species	July	August	September	October	November	December	January
Avian- Chicken	18	15	17	11	15	10	20
Avian- Miscellaneous	67	70	58	72	46	45	49
Avian- Turkey	19	21	12	13	13	6	14
Bovine	650	750	674	653	520	578	666
Canine	1,029	981	876	977	742	809	930
Caprine	22	14	11	10	8	8	14
Equine	244	189	179	201	74	67	115
Feline	337	252	229	280	214	212	243
Fish-Amphibian-Reptile	11	10	3	2	3	4	7
Miscellaneous Mammal	149	186	145	114	83	96	94
Miscellaneous Specimen	11	27	23	6	3	7	10
Ovine	24	27	24	9	20	9	19
Porcine	2,218	1,639	1,279	1,203	953	1,016	1,171
TOTAL	4,799	4,181	3,530	3,551	2,694	2,867	3,352

Species	February	March	April	May	June	Total	Percent Total
Avian- Chicken	10	23	19	15	19	192	0.4
Avian- Miscellaneous	49	53	62	55	46	672	1.6
Avian- Turkey	16	14	19	21	28	196	0.5
Bovine	596	765	663	519	510	7,544	17.6
Canine	848	900	939	923	966	10,920	25.5
Caprine	16	17	16	14	14	164	0.4
Equine	127	265	281	212	254	2,208	5.2
Feline	224	262	239	191	227	2,910	6.8
Fish-Amphibian-Reptile	5	2	3	4	5	59	0.1
Miscellaneous Mammal	74	79	119	103	133	1375	3.2
Miscellaneous Specimen	11	6	12	5	12	133	0.3
Ovine	30	34	23	27	12	258	0.6
Porcine	1,474	1,379	1,393	1,044	1,400	16,169	37.8
TOTAL	3,480	3,799	3,788	3,133	3,626	42,800	100.0

Accessions by County



Minnesota Total 38,841
Out-of-State Total 3,959

TOTAL: 42,800

OUT OF STATE:

Alaska 8	Indiana 33	Nevada 9	Tennessee 2
Alabama 4	Iowa 748	New Hampshire 5	Texas 8
Arizona 3	Kansas 56	New Jersey 1	Utah 1
Arkansas 3	Kentucky 3	New York 7	Vermont 45
California 34	Maine 1	North Carolina 8	Virginia 14
Colorado 13	Maryland 11	North Dakota 80	Washington 2
Connecticut 21	Massachusetts 1	Ohio 10	West Virginia 2
Delaware 2	Michigan 36	Oklahoma 77	Wisconsin 2,090
Florida 11	Mississippi 1	Oregon 1	Wyoming 4
Georgia 4	Missouri 66	Pennsylvania 12	
Idaho 2	Montana 18	South Carolina 2	
Illinois 149	Nebraska 28	South Dakota 255	

INTERNATIONAL: Canada 68

Disease Diagnoses by Animal Species

Diagnoses for each animal species are listed in alphabetical order under various organ systems, which are arranged as follows in accordance with *Standard International Veterinary Nomenclature*:

- 0 Body as a Whole (multisystemic diseases and all toxicoses)
- 1 Integumentary (including mammary gland)
- 2 Musculoskeletal
- 3 Respiratory (including nasal passages)
- 4 Cardiovascular
- 5 Hemic and Lymphatic
- 6 Digestive (including lip, oral structures, liver, and pancreas)
- 7 Urogenital (including prepuce, scrotum, and vulva)
- 8 Endocrine
- 9 Nervous
- X Special Senses (including eyelid and pinna)

*NOS = Not otherwise specified

AVIAN

CHICKEN	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>0 Body as a Whole</u>													
Amyloidosis	1	-	-	-	-	-	-	-	-	1	-	-	-
Cannibalism	6	-	1	-	-	-	-	2	-	1	-	-	2
Effusion, Peritoneal	3	-	-	-	-	-	-	-	-	-	-	1	2
Emaciation	4	-	-	-	-	-	2	2	-	-	-	-	-
Gout	21	1	1	1	-	2	-	2	1	2	3	5	3
Health Evaluation, Normal	4	-	-	-	1	-	-	-	-	-	-	2	1
Marek's Disease	9	2	1	-	2	1	-	1	1	-	1	-	-
Mortality, Increased	9	-	-	1	-	-	2	-	1	2	-	-	3
Neoplasm, Carcinoma	1	-	-	1	-	-	-	-	-	-	-	-	-
Obesity	3	-	2	-	1	-	-	-	-	-	-	-	-
Peritonitis	5	-	1	2	-	-	-	1	-	-	-	-	1
Peritonitis, Egg Yolk	12	1	3	1	1	-	2	2	-	-	1	-	1
Septicemia, <i>Escherichia coli</i>	8	-	-	2	1	-	-	-	2	2	1	-	-
Septicemia, <i>Pasteurella hemolytica</i>	4	-	1	-	1	-	-	-	-	2	-	-	-
Septicemia, <i>Pasteurella multocida</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Septicemia, <i>Pasteurella sp.</i>	1	-	-	-	-	-	-	-	-	1	-	-	-
Septicemia, <i>Salmonella sp.</i>	9	2	1	1	1	-	-	-	-	3	-	-	1
Septicemia, <i>Staphylococcus sp.</i>	4	1	-	-	-	2	-	-	-	1	-	-	-
Septicemia, <i>Streptococcus sp.</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Starvation	3	-	-	-	-	-	-	1	-	1	-	-	1
Sudden Unexpected Death	2	-	1	-	-	-	-	-	-	-	1	-	-
Tuberculosis	1	-	-	-	1	-	-	-	-	-	-	-	-
Yolk Sac Infection	8	1	-	1	-	-	-	-	-	1	2	1	2
<u>1 Integumentary</u>													
Cellulitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Dermatitis, Focal	1	1	-	-	-	-	-	-	-	-	-	-	-
Dermatitis, Granulomatous	1	-	-	-	-	-	-	1	-	-	-	-	-
Dermatitis, Podo	2	-	-	1	-	-	-	1	-	-	-	-	-
Virus Infection, Pox	8	1	2	1	1	1	-	2	-	-	-	-	-
<u>2 Musculoskeletal</u>													
Arthritis, <i>Staphylococcus aureus</i>	1	1	-	-	-	-	-	-	-	-	-	-	-
Bone-Malformation	1	-	-	-	-	-	-	-	-	1	-	-	-
Bone-Osteomalacia	9	-	2	1	-	-	2	-	-	2	1	-	1
Bone-Osteomyelitis	2	-	-	1	1	-	-	-	-	-	-	-	-
Bone-Perosis	4	1	-	-	2	-	-	-	-	-	1	-	-

CHICKEN (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
3 Respiratory													
Air Sac-Airsacculitis	1	-	-	1	-	-	-	-	-	-	-	-	-
Aspergillosis	1	1	-	-	-	-	-	-	-	-	-	-	-
Infectious Laryngotracheitis	6	-	-	-	1	3	-	-	-	-	1	-	1
Lung-Pneumonia	1	-	-	-	-	-	-	-	-	-	1	-	-
Lung-Pneumonia, Broncho	1	-	-	-	-	-	-	-	-	-	-	1	-
Lung-Pneumonia, <i>Pasteurella hemolytica</i>	1	-	-	1	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Pasteurella multocida</i>	1	-	-	1	-	-	-	-	-	-	-	-	-
Trachea-Parasitism (NOS)	1	-	-	-	-	-	-	-	-	-	-	-	1
Trachea-Tracheitis	4	-	-	-	-	1	-	1	-	1	-	-	1
4 Cardiovascular													
Heart-Myocardial Degeneration	1	-	-	-	-	-	-	-	-	1	-	-	-
Heart-Pericarditis	2	-	-	-	-	-	-	1	-	1	-	-	-
5 Hemic and Lymphatic													
Infectious Bursal Disease	1	-	-	-	-	-	-	-	-	-	-	-	1
Neoplasm, Leukosis	8	-	-	-	-	-	-	3	-	3	2	-	-
6 Digestive													
Cloaca-Prolapse	8	-	-	-	-	-	1	2	-	-	3	-	2
Feces-Microbiologic Examination	1	-	-	-	-	-	-	-	1	-	-	-	-
Intestine-Enteritis, Idiopathic	1	-	-	-	-	-	-	-	-	-	1	-	-
Intestine-Enteritis, Rotavirus	2	-	-	1	1	-	-	-	-	-	-	-	-
Intestine-Enteritis, <i>Salmonella sp.</i>	3	-	1	-	-	1	-	-	-	-	-	-	1
Intestine-Obstruction	2	-	-	2	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, Coccidia	11	1	3	4	-	1	-	1	-	-	-	1	-
Intestine-Parasitism, Nematode	1	-	-	-	-	-	-	-	1	-	-	-	-
Liver-Abscess	2	-	-	-	-	1	-	-	-	-	-	-	1
Liver-Hepatitis	6	-	-	1	-	-	-	-	1	1	1	2	-
Liver-Hepatositis	1	1	-	-	-	-	-	-	-	-	-	-	-
7 Urogenital													
Egg Production Decreased	2	-	-	-	-	-	-	-	-	1	1	-	-
Kidney-Nephrosis	19	1	2	1	-	2	-	4	-	2	2	3	2
Kidney-Urolithiasis	2	1	-	-	-	-	-	1	-	-	-	-	-
Ovary-Neoplasm (NOS)	2	-	-	-	-	-	-	-	1	-	-	1	-
Oviduct-Impaction	1	-	-	-	-	-	-	-	-	1	-	-	-
X Special Senses													
Eye-Conjunctivitis	2	-	1	1	-	1	-	-	-	-	1	-	-
Eyelid-Blepharitis	2	-	1	-	-	1	-	-	-	-	-	-	-

TURKEY	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>0 Body as a Whole</u>													
Amyloidosis	1	-	-	-	-	-	-	-	1	-	-	-	-
Effusion, Peritoneal	1	-	-	-	-	-	-	-	-	-	-	-	1
Emaciation	1	-	-	-	-	-	-	-	-	-	1	-	-
Gout	1	-	1	-	-	-	-	-	-	-	-	-	-
Growth Retardation	1	1	-	-	-	-	-	-	-	-	-	-	-
Mortality, Increased	3	2	-	-	-	-	1	-	-	-	-	-	-
Omphalitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Parasitism, Histomonas	3	1	1	-	-	-	-	-	-	-	1	-	-
Peritonitis	2	-	1	-	1	-	-	-	-	-	-	-	-
Peritonitis, Egg Yolk	1	-	-	-	-	-	-	-	-	1	-	-	-
Polyserositis	1	-	-	-	-	-	-	-	-	-	-	1	-
Septicemia, <i>Erysipelothrix sp.</i>	2	1	-	-	-	1	-	-	-	-	-	-	-
Septicemia, <i>Escherichia coli</i>	25	3	5	1	1	1	-	-	1	-	2	7	4
Septicemia, <i>Pasteurella hemolytica</i>	3	-	-	-	1	-	-	-	-	-	-	-	2
Septicemia, <i>Pasteurella multocida</i>	10	3	1	-	-	1	-	1	2	-	-	-	2
Septicemia, <i>Salmonella sp.</i>	18	2	2	4	3	1	-	-	1	-	-	2	3
Septicemia, <i>Staphylococcus sp.</i>	1	-	-	-	-	-	1	-	-	-	-	-	-
Starvation	6	1	-	-	-	-	-	2	-	-	-	-	3
Sudden Unexpected Death	2	-	-	-	-	-	-	-	-	-	1	-	1
Toxicosis, Ionophore	1	-	-	-	-	-	-	-	-	-	1	-	-
Trauma	3	-	-	-	-	-	-	1	1	-	-	-	1
Virus Infection, Adenovirus	4	-	1	1	1	-	-	-	-	-	1	-	-
Yolk Sac Infection	2	1	-	-	1	-	-	-	-	-	-	-	-
<u>1 Integumentary</u>													
Cellulitis	1	-	-	-	-	-	-	-	-	-	-	1	-
Dermatitis, Focal	1	-	-	-	-	-	-	-	1	-	-	-	-
Dermatitis, Podo	1	-	-	-	-	-	-	1	-	-	-	-	-
Virus Infection, Pox	1	-	-	-	1	-	-	-	-	-	-	-	-
<u>2 Musculoskeletal</u>													
Bone-Dyschondroplasia	4	-	-	-	-	-	-	-	1	-	1	-	2
Bone-Fracture	3	-	-	-	1	-	-	-	-	-	1	1	-
Bone-Malformation	3	-	-	-	-	-	-	1	1	-	-	1	-
Bone-Osteomalacia	3	-	1	-	-	-	-	1	-	-	1	-	-
Bone-Osteomyelitis	5	-	1	-	-	-	-	-	3	-	1	-	-
Synovitis	5	1	-	-	1	-	-	-	1	-	-	-	2
<u>3 Respiratory</u>													
Air Sac-Airsacculitis	8	1	2	-	-	1	-	-	1	1	1	-	1
Aspergillosis	4	1	-	-	-	-	-	-	2	-	-	1	-
Lung-Abscess	1	-	-	-	1	-	-	-	-	-	-	-	-

TURKEY (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Lung-Pneumonia, Broncho	4	1	2	-	-	-	-	-	1	-	-	-	-
Lung-Pneumonia, <i>Escherichia coli</i>	1	-	-	-	1	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Pasteurella multocida</i>	1	-	-	-	1	-	-	-	-	-	-	-	-
Sinus-Sinusitis	4	-	1	2	-	-	-	1	-	-	-	-	-
Trachea-Tracheitis	3	1	1	-	1	-	-	-	-	-	-	-	-
<u>4 Cardiovascular</u>													
Blood Vessel-Aortic Rupture	3	-	2	-	-	-	-	-	-	-	-	-	1
Blood Vessel-Hypertensive Angiopathy	11	-	2	-	-	-	-	2	1	-	4	2	-
Heart-Cardiomyopathy	6	-	-	-	-	-	-	2	1	1	1	-	1
Heart-Pericarditis	1	-	1	-	-	-	-	-	-	-	-	-	-
Heart-Round Heart Disease	1	-	-	-	-	-	-	1	-	-	-	-	-
<u>5 Hemic and Lymphatic</u>													
Blood-Coagulation Disorder	1	-	-	-	-	-	-	-	-	-	-	-	1
<u>6 Digestive</u>													
Intestine-Enteritis, Adenovirus	9	-	3	-	-	1	-	-	-	-	1	1	3
Intestine-Enteritis, Necrotic	3	-	1	1	-	-	-	-	-	-	1	-	-
Intestine-Enteritis, Rotavirus	21	1	-	-	1	2	1	1	1	1	2	6	5
Intestine-Enteritis, <i>Salmonella sp.</i>	8	-	-	1	1	2	-	-	-	-	-	1	3
Intestine-Enteritis, Atrophic	1	-	-	-	-	-	-	-	1	-	-	-	-
Intestine-Parasitism (NOS)	1	-	-	-	1	-	-	-	-	-	-	-	-
Intestine-Parasitism, Ascaris	2	-	1	-	1	-	-	-	-	-	-	-	-
Intestine-Parasitism, Coccidia	33	2	1	2	2	1	1	3	2	1	7	6	5
Liver-Hepatitis	3	-	1	-	-	-	-	-	-	-	-	2	-
Liver-Hepatositis	1	-	-	-	-	-	-	1	-	-	-	-	-
<u>7 Urogenital</u>													
Kidney-Nephrosis	4	-	1	-	-	-	-	1	1	-	1	-	-
<u>9 Nervous</u>													
Brain-Encephalitis, Granulomatous	2	-	-	-	-	-	-	-	1	-	-	-	1
Brain-Encephalomalacia	1	-	-	1	-	-	-	-	-	-	-	-	-
Meninges-Meningitis, <i>Escherichia coli</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Meninges-Meningitis, Suppurative	1	-	-	1	-	-	-	-	-	-	-	-	-

MISCELLANEOUS AVIAN SPECIES	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>Canary</u>													
Liver-Hepatitis	1	-	-	-	-	1	-	-	-	-	-	-	-
Mineralization, Soft Tissue	1	-	-	-	-	1	-	-	-	-	-	-	-
Spleen-Splenitis	1	-	-	-	-	1	-	-	-	-	-	-	-
<u>Cockatoo</u>													
Bone-Fracture	1	-	-	-	-	-	-	-	-	-	-	-	1
Brain-Encephalitis, Non-Suppurative	1	-	-	-	-	-	-	-	-	1	-	-	-
Feather Loss	1	-	-	-	-	-	-	-	1	-	-	-	-
Feces-Microbiologic Examination	9	1	1	-	2	-	1	-	-	1	1	1	1
Heart-Myocardial Degeneration	1	-	1	-	-	-	-	-	-	-	-	-	-
Heart-Myocarditis	1	-	-	-	-	-	-	-	-	-	-	1	-
Liver-Hepatitis	2	-	-	-	-	-	-	-	-	-	-	1	1
Liver-Hepatosi	1	-	-	-	-	-	1	-	-	-	-	-	-
Lung-Hemorrhage	1	-	-	-	-	-	-	-	-	-	-	-	1
Peritonitis	1	-	1	-	-	-	-	-	-	-	-	-	-
Psittacine Wasting Disease	2	-	1	1	-	-	-	-	-	-	-	-	-
Sinus-Sinusitis	1	-	-	-	-	-	1	-	-	-	-	-	-
Sudden Unexpected Death	1	1	-	-	-	-	-	-	-	-	-	-	-
Virus Infection, Herpesvirus	1	-	1	-	-	-	-	-	-	-	-	-	-
Virus Infection, Papovavirus	1	-	1	-	-	-	-	-	-	-	-	-	-
<u>Cormorant</u>													
Gout	1	-	-	-	1	-	-	-	-	-	-	-	-
Intestine-Parasitism, Nematode	1	-	-	-	1	-	-	-	-	-	-	-	-
Kidney-Parasitism, Coccidia	1	-	-	-	1	-	-	-	-	-	-	-	-
<u>Crane</u>													
Emaciation	1	-	-	-	-	-	-	-	-	-	1	-	-
Feces-Microbiologic Examination	1	-	-	-	-	-	-	-	-	-	-	-	1
Traumatic Injury	1	-	-	-	-	-	-	-	-	-	1	-	-
<u>Duck (Domestic)</u>													
Blood-Parasitism	1	-	-	-	-	-	-	-	-	1	-	-	-
Bone-Osteomalacia	1	-	-	-	1	-	-	-	-	-	-	-	-
Botulism	1	-	-	-	-	-	-	-	-	-	-	-	1
Dermatitis, Podo	1	-	1	-	-	-	-	-	-	-	-	-	-
Esophagus-Obstruction	1	-	1	-	-	-	-	-	-	-	-	-	-
Gout	1	-	-	-	-	-	-	-	-	1	-	-	-
Liver-Lipidosis	1	-	1	-	-	-	-	-	-	-	-	-	-
Muscle-Myositis	1	-	-	-	-	-	-	-	-	1	-	-	-
Septicemia, <i>Pasteurella multocida</i>	1	-	-	-	-	-	1	-	-	-	-	-	-

MISCELLANEOUS AVIAN (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>Duck (Wild)</u>													
Aspergillosis	2	-	-	-	-	-	-	-	-	1	1	-	-
Bone-Osteomalacia	3	1	-	1	-	1	-	-	-	-	-	-	-
Brain-Encephalitis, Granulomatous	1	-	1	-	-	-	-	-	-	-	-	-	-
Heart-Myocardial Degeneration	1	1	-	-	-	-	-	-	-	-	-	-	-
Kidney-Nephrosis	1	-	-	-	-	-	1	-	-	-	-	-	-
Liver-Hepatitis	1	-	-	-	-	-	1	-	-	-	-	-	-
Liver-Lipidosis	1	1	-	-	-	-	-	-	-	-	-	-	-
Septicemia, <i>Staphylococcus sp.</i>	1	-	-	-	-	-	1	-	-	-	-	-	-
<u>Eagle</u>													
Anomaly	1	-	-	-	-	-	-	-	-	-	1	-	-
Aspergillosis	1	1	-	-	-	-	-	-	-	-	-	-	-
Bone Fracture	1	-	-	-	-	-	-	-	-	-	-	1	-
Dermatitis, Focal	1	-	-	-	1	-	-	-	-	-	-	-	-
Heart-Myocardial Degeneration	1	-	-	-	1	-	-	-	-	-	-	-	-
Liver-Hepatitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Spinal Cord-Myelomalacia	1	-	-	-	-	-	-	-	-	-	-	1	-
Stomach-Ventriculitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Sudden Unexpected Death	1	1	-	-	-	-	-	-	-	-	-	-	-
Toxicosis, Organophosphate	1	-	-	-	-	-	-	-	-	1	-	-	-
<u>Falcon</u>													
Air Sac-Airsacculitis	2	1	-	-	-	-	-	-	-	-	-	-	1
Aspergillosis	2	-	1	1	-	-	-	-	-	-	-	-	-
Blood Vessel-Arteriosclerosis	1	-	-	-	-	-	-	-	-	-	-	1	-
Blood-Coagulation Disorder	1	-	-	-	-	-	-	-	-	-	-	-	1
Cellulitis	1	-	-	-	1	-	-	-	-	-	-	-	-
Feces-Microbiologic Examination	1	-	1	-	-	-	-	-	-	-	-	-	-
Heart-Myocardial Degeneration	1	-	-	-	-	-	-	-	-	-	-	1	-
Intestine-Enteritis, Necrotic	1	1	-	-	-	-	-	-	-	-	-	-	-
Kidney-Nephritis, Interstitial	2	2	-	-	-	-	-	-	-	-	-	-	-
Liver-Hepatitis	3	2	1	-	-	-	-	-	-	-	-	-	-
Meninges-Meningitis, Non-Suppurative	1	-	1	-	-	-	-	-	-	-	-	-	-
Muscle-Myositis	1	-	-	-	1	-	-	-	-	-	-	-	-
Pancreas-Pancreatitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Paralysis	1	-	-	-	-	-	-	-	-	-	-	1	-
Peritonitis, Egg Yolk	1	-	-	-	-	-	-	-	-	-	-	1	-
Septicemia, Bacterial (NOS)	1	-	-	-	-	-	-	-	-	-	-	-	1
Spleen-Splenitis	1	-	1	-	-	-	-	-	-	-	-	-	-
Sudden Unexpected Death	4	-	1	1	-	-	-	-	-	-	-	1	1

MISCELLANEOUS AVIAN (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>Falcon (cont.)</u>													
Thyroid-Neoplasm, Adenoma	1	-	1	-	-	-	-	-	-	-	-	-	-
Traumatic Injury	1	-	-	-	-	-	-	-	-	-	-	-	1
<u>Goose</u>													
Amyloidosis	1	-	-	-	-	-	-	-	1	-	-	-	-
Gout	1	-	-	-	-	-	-	-	1	-	-	-	-
Intestine-Enteritis, Necrotic	2	-	-	-	-	-	-	1	1	-	-	-	-
Intestine-Parasitism, Ascaris	1	-	-	-	-	-	-	-	-	-	-	-	1
Intestine-Parasitism, Coccidia	1	-	-	-	-	-	-	-	-	-	-	-	1
Kidney-Nephrosis	2	-	-	-	-	-	-	-	1	-	1	-	-
Kidney-Parasitism, Coccidia	1	-	-	-	-	-	-	-	-	-	-	-	1
Liver-Hepatitis	2	-	1	-	1	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Pasteurella sp.</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Muscle-Myopathy	1	-	-	-	-	-	-	-	-	-	-	-	1
Parasitism, NOS	1	1	-	-	-	-	-	-	-	-	-	-	-
Peritonitis, Egg Yolk	1	-	-	-	-	-	-	-	1	-	-	-	-
Septicemia, <i>Pasteurella anatipestifer</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Sudden Unexpected Death	1	-	-	-	-	-	-	-	-	-	-	-	1
Toxicosis, Lead	1	-	-	-	-	-	-	-	1	-	-	-	-
Trachea-Parasitism, <i>Syngamus trachea</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
<u>Gull</u>													
Aspergillosis	1	-	-	-	1	-	-	-	-	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	1	-	-	-	1	-	-	-	-	-	-	-	-
<u>Hawk</u>													
Air Sac-Airsacculitis	1	-	-	-	-	-	-	-	-	-	-	1	-
Bone-Fracture	1	-	-	-	-	-	-	-	1	-	-	-	-
Brain-Encephalitis, Granulomatous	1	-	-	1	-	-	-	-	-	-	-	-	-
Brain-Encephalitis, Non-Suppurative	1	-	-	-	-	-	-	-	-	-	1	-	-
Gout	1	-	-	1	-	-	-	-	-	-	-	-	-
Kidney-Nephrosis	2	-	-	2	-	-	-	-	-	-	-	-	-
Liver-Hepatitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Lung-Abscess	1	-	-	-	1	-	-	-	-	-	-	-	-
Septicemia, Bacterial (NOS)	1	-	-	-	-	-	-	-	-	-	-	-	1
Sudden Unexpected Death	2	-	-	-	-	-	-	2	-	-	-	-	-
<u>Loon</u>													
Intestine-Parasitism (NOS)	1	-	1	-	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, <i>Capillaria sp.</i>	1	-	1	-	-	-	-	-	-	-	-	-	-
Kidney-Nephritis	1	-	-	-	-	-	-	-	-	-	1	-	-

MISCELLANEOUS AVIAN (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>Loon (cont.)</u>													
Liver-Hepatitis	1	-	-	-	-	-	-	-	-	-	1	-	-
Liver-Lipidosis	1	-	-	-	-	-	-	-	-	-	1	-	-
Virus Infection, Pox	1	-	-	-	1	-	-	-	-	-	-	-	-
<u>Miscellaneous Avian Species (NOS)</u>													
Air Sac-Airsacculitis	1	-	-	-	1	-	-	-	-	-	-	-	-
Amyloidosis	1	-	-	-	-	-	-	-	-	1	-	-	-
Aspergillosis	4	1	-	-	1	1	-	-	-	-	1	-	-
Blood-Anemia, Hemolytic	1	-	-	-	-	-	-	-	-	-	-	-	1
Blood-Coagulation Disorder	1	-	-	-	-	-	-	-	-	-	-	-	1
Bone-Osteomalacia	2	1	-	-	-	-	-	-	-	-	-	-	1
Brain-Encephalomalacia	1	-	-	-	-	1	-	-	-	-	-	-	-
Dermatitis, Focal	2	-	-	-	1	-	-	-	-	-	-	1	-
Emaciation	1	-	-	-	-	-	1	-	-	-	-	-	-
Feces-Microbiologic Examination	14	-	-	-	4	1	1	2	1	-	1	4	-
Heart-Myocardial Degeneration	2	-	-	-	1	1	-	-	-	-	-	-	-
Intestine-Enteritis, <i>Salmonella sp.</i>	1	-	-	1	-	-	-	-	-	-	-	-	-
Kidney-Nephrosis	3	-	-	-	-	1	-	-	-	1	-	-	1
Kidney-Parasitism, Coccidia	1	-	-	-	-	-	-	-	-	-	-	1	-
Liver-Hemosiderosis	2	-	-	1	-	-	-	1	-	-	-	-	-
Liver-Hepatitis	3	-	-	-	-	2	-	1	-	-	-	-	-
Liver-Hepatositis	1	-	1	-	-	-	-	-	-	-	-	-	-
Liver-Lipidosis	1	-	-	-	-	-	1	-	-	-	-	-	-
Lung-Bronchitis	1	-	-	-	-	-	-	-	-	1	-	-	-
Lung-Parasitism (NOS)	1	-	-	-	-	1	-	-	-	-	-	-	-
Lung-Pneumonia, Broncho	1	-	-	-	-	-	-	-	-	1	-	-	-
Mineralization	1	-	-	-	-	1	-	-	-	-	-	-	-
Muscle-Degeneration	1	-	-	-	1	-	-	-	-	-	-	-	-
Nasal-Rhinitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Neurologic Disorder, Idiopathic	2	-	-	-	-	-	-	-	-	-	1	-	1
Oral Cavity-Stomatitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Pleura-Pleuritis	1	-	-	-	-	1	-	-	-	-	-	-	-
Respiratory Infection (NOS)	1	-	-	-	-	1	-	-	-	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	1	-	-	-	1	-	-	-	-	-	-	-	-
Spleen-Splenitis	1	-	-	-	-	-	-	1	-	-	-	-	-
Sudden Unexpected Death	6	-	1	-	1	1	1	2	-	-	-	-	-
Toxicosis, Anticoagulant	1	-	-	-	-	-	1	-	-	-	-	-	-
Trachea-Tracheitis	2	-	-	-	-	1	-	-	-	-	1	-	-
Traumatic Injury	1	-	-	-	-	-	-	1	-	-	-	-	-
Virus Infection, Herpesvirus	1	-	-	-	-	-	-	-	-	-	-	1	-
Virus Infection, Papovavirus	1	-	-	-	-	1	-	-	-	-	-	-	-

MISCELLANEOUS AVIAN (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>Ostrich</u>													
Air Sac-Airsacculitis	1	-	-	-	-	-	-	1	-	-	-	-	-
Amyloidosis	1	-	-	-	-	-	1	-	-	-	-	-	-
Bone-Osteomalacia	1	-	-	-	-	-	1	-	-	-	-	-	-
Emaciation	4	-	-	1	-	1	1	-	1	-	-	-	-
Gout	1	-	-	-	-	-	-	1	-	-	-	-	-
Intestine-Obstruction	1	-	-	1	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, Nematode	1	-	-	-	-	-	1	-	-	-	-	-	-
Kidney-Nephrosis	1	-	-	-	-	-	-	1	-	-	-	-	-
Liver-Lipidosis	1	-	-	-	-	-	-	1	-	-	-	-	-
Ventriculus-Impaction	1	-	-	-	-	-	-	1	-	-	-	-	-
Sudden Unexpected Death	2	-	-	-	-	-	-	-	1	-	-	-	1
<u>Owl</u>													
Blood Vessel-Arteriosclerosis	1	-	-	-	-	-	-	1	-	-	-	-	-
Blood-Coagulation Disorder	1	-	-	-	-	-	-	1	-	-	-	-	-
Bone-Osteomyelitis	1	-	1	-	-	-	-	-	-	-	-	-	-
Heart-Epicarditis	1	-	-	-	-	-	-	1	-	-	-	-	-
Intestine-Parasitism, Nematode	1	-	-	-	-	-	-	-	-	1	-	-	-
Kidney-Cyst	1	-	-	-	-	-	-	-	-	1	-	-	-
Beak-Cheilitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Liver-Hemosiderosis	1	-	-	-	-	-	-	1	-	-	-	-	-
Liver-Hepatitis	1	-	-	-	-	-	-	-	-	1	-	-	-
Lung-Abscess	1	-	-	-	-	-	-	1	-	-	-	-	-
Neurological Disorder, Idiopathic	1	-	-	-	-	1	-	-	-	-	-	-	-
Paralysis	1	-	-	-	1	-	-	-	-	-	-	-	-
Skin-Hyperkeratosis	1	-	-	-	-	-	-	-	-	1	-	-	-
Spleen-Splenitis	1	-	-	1	-	-	-	-	-	-	-	-	-
Sudden Unexpected Death	1	-	-	-	-	-	-	1	-	-	-	-	-
Traumatic Injury	1	-	-	-	-	-	-	-	-	-	-	1	-
<u>Partridge</u>													
Aspergillosis	2	2	-	-	-	-	-	-	-	-	-	-	-
Crop-Ingluvitis, Mycotic	1	-	-	-	-	-	-	-	-	1	-	-	-
Effusion, Pericardial	1	-	-	-	-	-	-	-	-	1	-	-	-
Eye-Conjunctivitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Intestine-Parasitism (NOS)	1	-	-	1	-	-	-	-	-	-	-	-	-
Mycosis (NOS)	2	-	-	-	-	-	-	-	-	2	-	-	-
Sinus-Sinusitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Sudden Unexpected Death	2	-	-	-	-	-	-	1	-	1	-	-	-
Trachea-Tracheitis	1	1	-	-	-	-	-	-	-	-	-	-	-

MISCELLANEOUS AVIAN (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>Partiridge (cont.)</u>													
Traumatic Injury	1	1	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis	1	-	-	-	-	-	-	-	-	1	-	-	-
<u>Peacock</u>													
Liver-Hepatitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Neoplasm, Leukosis	1	-	-	-	-	-	-	-	-	-	-	1	-
Oviduct-Impaction	1	-	-	-	-	-	-	-	-	-	-	1	-
Pancreas-Pancreatitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Toxicosis, Lead	1	-	-	1	-	-	-	-	-	-	-	-	-
<u>Pelican</u>													
Lung-Hemorrhage	1	1	-	-	-	-	-	-	-	-	-	-	-
Neoplasm, Sarcoma	1	1	-	-	-	-	-	-	-	-	-	-	-
Sudden Unexpected Death	1	-	1	-	-	-	-	-	-	-	-	-	-
<u>Penguin</u>													
Aspergillosis	2	1	1	-	-	-	-	-	-	-	-	-	-
Ear-Otitis	1	-	-	-	1	-	-	-	-	-	-	-	-
<u>Pheasant</u>													
Amyloidosis	1	-	-	-	-	-	1	-	-	-	-	-	-
Infectious Laryngotracheitis	1	-	-	-	1	-	-	-	-	-	-	-	-
Intestine-Enteritis, Rotavirus	3	1	1	-	-	-	-	-	-	-	-	-	1
Intestine-Parasitism, Coccidia	4	3	1	-	-	-	-	-	-	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	2	-	2	-	-	-	-	-	-	-	-	-	-
Sinus-Sinusitis	1	-	-	-	1	-	-	-	-	-	-	-	-
<u>Pigeon/Dove</u>													
Air Sac-Airsacculitis	1	-	-	-	-	-	-	-	1	-	-	-	-
Arthritis	1	-	-	-	-	-	-	-	-	1	-	-	-
Aspergillosis	2	-	-	-	1	-	-	-	-	-	1	-	-
Gout	3	1	-	-	-	-	-	-	-	-	-	-	2
Intestine-Enteritis, Rotavirus	1	-	-	1	-	-	-	-	-	-	-	-	-
Intestine-Enteritis, <i>Salmonella sp.</i>	1	-	1	-	-	-	-	-	-	-	-	-	-
Intestine-Obstruction	1	-	1	-	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, Coccidia	2	-	-	-	-	-	-	-	-	-	-	2	-
Intestine-Parasitism, Nematode	1	-	-	-	1	-	-	-	-	-	-	-	-
Kidney-Nephritis	1	-	-	-	1	-	-	-	-	-	-	-	-
Liver-Hepatitis	1	-	-	-	1	-	-	-	-	-	-	-	-
Neurologic Disorder, Idiopathic	1	-	-	-	-	-	-	-	-	-	1	-	-
Oral Cavity-Stomatitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	8	-	1	-	-	-	1	3	-	-	1	1	1
Sinus-Sinusitis	1	-	1	-	-	-	-	-	-	-	-	-	-

MISCELLANEOUS AVIAN (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>Pigeon/Dove (cont.)</u>													
Sudden Unexpected Death	1	-	-	-	-	-	-	-	1	-	-	-	-
Thyroid-Goiter	1	1	-	-	-	-	-	-	-	-	-	-	-
Traumatic Injury	1	-	-	-	-	-	-	-	-	-	-	1	-
<u>Psittacine-Miscellaneous</u>													
Air Sac-Airsacculitis	1	-	-	-	-	-	-	1	-	-	-	-	-
Arthritis	1	-	-	-	1	-	-	-	-	-	-	-	-
Bone-Fracture	1	-	-	-	-	-	1	-	-	-	-	-	-
Brain-Hemorrhage	1	-	-	1	-	-	-	-	-	-	-	-	-
Cellulitis	2	-	1	-	-	-	-	-	-	-	1	-	-
Chlamydiosis	2	-	-	1	1	-	-	-	-	-	-	-	-
Crop-Ingluvitis	2	-	-	-	-	-	-	-	-	1	1	-	-
Crop-Ingluvitis, Mycotic	2	-	-	1	-	-	-	-	1	-	-	-	-
Emaciation	5	-	-	1	1	-	-	-	1	-	1	-	1
Feather Loss	1	-	1	-	-	-	-	-	-	-	-	-	-
Feces-Microbiologic Examination	30	1	1	2	4	2	3	3	3	2	4	1	4
Gout	5	-	1	-	2	-	1	-	-	-	1	-	-
Granulomas, Generalized	1	-	-	-	-	-	-	-	-	1	-	-	-
Heart-Cardiomyopathy	2	-	2	-	-	-	-	-	-	-	-	-	-
Heart-Myocardial Degeneration	4	-	1	2	-	-	-	-	-	-	-	-	1
Intestine-Obstruction	1	-	-	-	-	-	1	-	-	-	-	-	-
Intestine-Parasitism, <i>Giardia sp.</i>	1	-	-	1	-	-	-	-	-	-	-	-	-
Kidney-Neoplasm, Carcinoma	1	-	-	-	-	-	-	-	1	-	-	-	-
Kidney-Nephritis, Interstitial	2	-	-	-	1	-	-	-	1	-	-	-	-
Kidney-Nephrosis	5	1	1	-	1	-	1	1	-	-	-	-	-
Liver-Cirrhosis	3	-	-	-	1	1	-	-	-	-	-	1	-
Liver-Hemosiderosis	2	-	1	-	-	-	-	-	-	-	-	1	-
Liver-Hepatitis	3	-	-	-	-	-	-	-	-	1	1	1	-
Liver-Hepatositis	6	1	-	1	1	-	-	-	-	-	3	-	-
Liver-Lipidosis	4	1	1	-	1	-	1	-	-	-	-	-	-
Lung-Bronchitis	1	-	-	-	-	-	1	-	-	-	-	-	-
Lung-Pneumonia, Broncho	2	1	-	1	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, Foreign Body	1	-	-	-	-	-	-	-	-	-	-	1	-
Metabolic Imbalance, Serum Electrolytes	1	-	-	-	-	-	-	-	-	1	-	-	-
Mineralization, Soft Tissue	1	-	1	-	-	-	-	-	-	-	-	-	-
Mortality, Increased	1	-	-	-	-	-	-	-	1	-	-	-	-
Neoplasm, Lymphoma	2	1	-	-	-	1	-	-	-	-	-	-	-
Neoplasm, Sarcoma	2	-	1	-	-	-	-	1	-	-	-	-	-
Neurologic Disorder, Idiopathic	1	-	-	-	-	-	-	-	-	1	-	-	-
Oral Cavity-Parasitism, <i>Trichomonas sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Peritonitis	2	1	-	-	-	-	-	1	-	-	-	-	-

MISCELLANEOUS AVIAN (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>Psittacine-Miscellaneous (cont.)</u>													
Psittacine Wasting Disease	3	-	1	1	-	-	-	-	-	-	-	1	-
Septicemia, <i>Escherichia coli</i>	1	-	-	-	1	-	-	-	-	-	-	-	-
Septicemia, <i>Klebsiella sp.</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Septicemia, <i>Pasteurella sp.</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Septicemia, <i>Pseudomonas sp.</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	1	-	-	1	-	-	-	-	-	-	-	-	-
Sinus-Sinusitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Spleen-Splenitis	2	-	-	-	-	-	-	-	1	1	-	-	-
Ventriculus Foreign Body	1	-	-	-	-	-	-	-	-	-	1	-	-
Ventriculitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Sudden Unexpected Death	8	-	-	-	2	-	-	3	1	1	-	1	-
Testicle-Neoplasm, Seminoma	1	1	-	-	-	-	-	-	-	-	-	-	-
Toxicosis, Lead	3	-	-	-	-	1	-	-	-	-	1	1	-
Trachea-Tracheitis	2	-	-	1	-	-	-	-	-	-	-	-	1
Trachea-Tracheitis, <i>Bordetella avium</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Virus Infection, Herpesvirus	2	-	-	1	-	-	-	-	1	-	-	-	-
Virus Infection, Papovavirus	1	-	-	-	-	-	-	-	-	1	-	-	-
<u>Quail</u>													
Intestine-Enteritis, <i>Clostridium colinum</i>	1	-	1	-	-	-	-	-	-	-	-	-	-
Trachea-Tracheitis	1	-	-	1	-	-	-	-	-	-	-	-	-
Virus Infection, Adenovirus	1	-	-	1	-	-	-	-	-	-	-	-	-
<u>Swan</u>													
Abscess	1	-	-	-	1	-	-	-	-	-	-	-	-
Amyloidosis	1	-	-	-	1	-	-	-	-	-	-	-	-
Emaciation	1	-	-	-	-	-	-	-	-	-	1	-	-
Intestine-Enteritis, Necrotic	1	-	-	-	-	-	-	-	-	-	1	-	-
Intestine-Parasitism (NOS)	1	-	1	-	-	-	-	-	-	-	-	-	-
Intestine-Rupture	1	-	1	-	-	-	-	-	-	-	-	-	-
Liver-Hepatitis	1	-	-	-	-	-	-	-	-	-	1	-	-
Peritonitis	1	-	1	-	-	-	-	-	-	-	-	-	-
Septicemia, <i>Actinobacillus sp.</i>	1	-	-	-	-	-	-	-	-	-	-	1	-
Septicemia, <i>Staphylococcus sp.</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Virus Infection, Pox	1	1	-	-	-	-	-	-	-	-	-	-	-
<u>Toucan</u>													
Aspergillosis	1	-	-	-	-	-	-	-	-	-	-	1	-
Blood-Anemia	1	-	-	-	-	-	-	-	1	-	-	-	-
Bone-Osteomyelitis	1	-	-	1	-	-	-	-	-	-	-	-	-

MISCELLANEOUS AVIAN (continued) Total JI Ag Sp Oc Nv Dc Jn Fb Mr Ap My Jn

Toucan (cont.)

Hemosiderosis	2	-	-	-	-	-	-	-	1	-	1	-	-
Liver-Hemosiderosis	1	-	-	1	-	-	-	-	-	-	-	-	-
Spinal Cord-Myelomalacia	1	-	-	1	-	-	-	-	-	-	-	-	-
Spleen-Splenitis	1	-	-	-	-	-	-	-	-	-	1	-	-

BOVINE

O Body as a Whole

Abscess	1	-	-	-	-	-	-	-	-	1	-	-	-
Anomaly	5	1	-	-	-	-	-	-	1	-	1	1	1
Bovine Viral Diarrhea	24	1	1	3	6	4	2	-	1	4	1	-	1
Deficiency, Copper	10	-	-	-	-	-	1	1	2	4	1	-	1
Deficiency, Zinc	1	-	-	-	-	-	-	-	-	1	-	-	-
Emaciation	20	1	-	-	-	1	4	6	1	4	2	-	1
Grass Tetany	1	-	-	-	-	-	-	-	-	-	-	1	-
Growth Retardation	1	-	-	-	-	1	-	-	-	-	-	-	-
Icterus	3	-	-	-	1	1	-	-	1	-	-	-	-
Metabolic Imbalance, Serum Eletrolytes	4	1	-	2	-	-	-	1	-	-	-	-	-
Mortality, Increased	1	-	-	-	-	-	-	-	-	-	1	-	-
Neonatal Death	7	-	-	-	-	-	1	-	-	1	1	1	3
Neonatal Weakness	9	-	1	-	-	-	-	-	2	3	2	-	1
Neoplasm, Mesothelioma	1	1	-	-	-	-	-	-	-	-	-	-	-
Omphalitis	5	-	1	-	-	-	1	-	1	-	1	1	-
Peritonitis	12	-	4	1	-	1	-	1	-	1	1	2	1
Polyserositis	1	-	1	-	-	-	-	-	-	-	-	-	-
Septicemia, <i>Actinobacillus sp.</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Septicemia, <i>Actinomyces pyogenes</i>	2	-	1	-	-	-	1	-	-	-	-	-	-
Septicemia, <i>Clostridium chauvoei</i>	8	-	-	1	3	1	-	-	-	1	2	-	-
Septicemia, <i>Clostridium novyi</i>	1	1	-	-	-	-	-	-	-	-	-	-	-
Septicemia, <i>Clostridium septicum</i>	5	2	1	-	-	-	1	-	-	-	1	-	-
Septicemia, <i>Escherichia coli</i>	16	1	-	-	3	1	-	1	1	3	5	1	-
Septicemia, <i>Haemophilus somnus</i>	3	-	-	-	1	-	2	-	-	-	-	-	-
Septicemia, <i>Klebsiella sp.</i>	2	-	-	-	-	-	-	1	-	-	-	1	-
Septicemia, <i>Listeria sp.</i>	4	-	-	-	-	-	-	-	-	2	2	-	-
Septicemia, <i>Pasteurella haemolytica</i>	2	-	-	-	-	-	-	-	-	-	2	-	-
Septicemia, <i>Pasteurella multocida</i>	3	-	-	-	-	-	-	1	-	1	1	-	-
Septicemia, <i>Salmonella sp.</i>	120	5	21	16	16	15	9	8	4	6	7	8	5
Starvation	33	1	1	-	2	7	6	7	5	-	4	-	-

BOVINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Sudden Unexpected Death	114	6	7	10	11	7	19	8	4	13	8	11	10
Tetanus	1	-	-	-	1	-	-	-	-	-	-	-	-
Toxicosis (NOS)	2	1	-	-	-	-	-	-	1	-	-	-	-
Toxicosis, Arsenic	2	2	-	-	-	-	-	-	-	-	-	-	-
Toxicosis, Copper	1	-	-	1	-	-	-	-	-	-	-	-	-
Toxicosis, Lead	16	-	1	1	1	-	-	1	5	1	2	-	4
Toxicosis, Nitrate	1	-	-	-	-	-	-	-	-	-	-	-	1
Toxicosis, Organophosphate	3	1	-	-	-	-	-	1	-	1	-	-	-
Toxicosis, Urea	1	1	-	-	-	-	-	-	-	-	-	-	-
Traumatic Injury	7	-	1	1	-	-	1	-	3	-	1	-	-
Virus Infection, Herpes	1	-	-	-	-	-	-	-	1	-	-	-	-
Virus Infection, Pox	1	-	-	-	-	-	-	-	-	-	1	-	-
1 Integumentary													
Abscess	2	-	-	-	-	-	2	-	-	-	-	-	-
Cellulitis	4	-	1	-	-	1	-	-	1	-	-	-	1
Dermatitis, Bacterial (NOS)	1	-	-	-	-	-	-	-	-	-	-	-	1
Dermatitis, Diffuse	1	1	-	-	-	-	-	-	-	-	-	-	-
Dermatitis, Focal	3	-	-	1	-	-	-	1	-	-	-	-	1
Dermatitis, Gangrenous	2	-	-	-	-	-	-	-	1	-	-	1	-
Dermatitis, Granulomatous	1	-	1	-	-	-	-	-	-	-	-	-	-
Dermatitis, Mycotic	1	1	-	-	-	-	-	-	-	-	-	-	-
Mammary-Mammitis	7	-	-	-	1	-	1	3	-	1	-	1	-
Mammary-Mastitis	180	26	27	17	14	-	4	14	18	18	15	12	15
Mammary-Mastitis, <i>Actinomyces pyogenes</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Mammary-Neoplasm (NOS)	2	1	-	-	1	-	-	-	-	-	-	-	-
Milk-Bulk Tank, Bacteriologic Examination	309	28	36	24	38	8	15	34	35	25	24	18	24
Neoplasm, Fibroma	1	-	-	-	-	-	-	-	-	-	-	1	-
Neoplasm, Mastocytoma	1	-	-	-	-	-	-	-	1	-	-	-	-
Neoplasm, Papilloma	3	-	-	1	-	-	-	-	-	-	1	1	-
Parasitism, Lice	1	-	-	-	-	-	-	-	-	1	-	-	-
Parasitism, Mites	1	-	-	-	-	-	1	-	-	-	-	-	-
2 Musculoskeletal													
Arthritis	1	-	-	-	-	1	-	-	-	-	-	-	-
Arthritis, <i>Actinomyces pyogenes</i>	4	-	1	1	1	-	-	1	-	-	-	-	-
Arthritis, <i>Streptococcus suis</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Arthritis, Suppurative	2	-	1	-	-	-	-	-	-	-	-	1	-
Bone-Actinomycosis	2	-	-	-	-	-	-	1	-	-	-	1	-
Bone-Fracture	2	-	-	-	-	-	-	1	1	-	-	-	-
Muscle-Degeneration	2	-	-	-	-	-	-	-	1	-	-	1	-
Muscle-Myositis	5	-	-	-	-	1	-	-	3	-	-	-	1
Muscle-White Muscle Disease	4	-	-	-	-	-	-	1	1	-	1	1	-

BOVINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
3 Respiratory													
Respiratory Disorders, Total Cases	379	16	34	27	44	33	57	40	29	26	27	28	18
Infectious Bovine Rhinotracheitis	1	-	-	-	-	-	1	-	-	-	-	-	-
Lung-Abscess	5	-	-	-	-	1	-	1	-	-	2	1	-
Lung-Bronchitis	6	-	-	-	-	1	2	1	-	1	-	1	-
Lung-Edema	18	3	1	1	2	2	1	1	-	4	1	1	1
Lung-Emphysema	3	-	-	-	-	1	1	-	1	-	-	-	-
Lung-Hemorrhage	5	-	-	1	-	-	1	-	-	1	1	1	-
Lung-Pneumonia, <i>Actinomyces pyogenes</i>	27	3	1	2	2	1	4	3	4	1	1	2	3
Lung-Pneumonia, Atypical Interstitial	9	-	-	-	2	2	2	1	-	1	1	-	-
Lung-Pneumonia, Bovine Respiratory Syncytial Virus	28	1	1	2	3	1	9	2	1	1	3	4	-
Lung-Pneumonia, Broncho	71	1	11	8	8	6	8	5	7	4	4	6	3
Lung-Pneumonia, <i>Escherichia coli</i>	2	-	-	-	-	-	-	1	-	-	-	1	-
Lung-Pneumonia, Foreign Body	8	-	-	-	-	-	2	-	1	2	1	1	1
Lung-Pneumonia, <i>Haemophilus somnus</i>	35	2	4	2	3	4	7	3	-	2	3	2	3
Lung-Pneumonia, IBR	2	-	-	-	1	-	1	-	-	-	-	-	-
Lung-Pneumonia, Interstitial	18	-	4	3	1	1	2	2	1	1	1	-	2
Lung-Pneumonia, <i>Pasteurella hemolytica</i>	89	4	7	4	14	14	9	13	7	2	8	3	4
Lung-Pneumonia, <i>Pasteurella multocida</i>	87	4	11	8	11	4	12	13	5	5	7	4	3
Lung-Thrombosis	6	-	-	-	-	-	1	1	1	1	-	2	-
Nasal-Rhinitis	1	-	-	-	-	-	-	-	-	1	-	-	-
Respiratory Infection (NOS)	1	-	-	-	-	-	-	-	-	-	-	1	-
Respiratory Infection, <i>Haemophilus somnus</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Respiratory Infection, <i>Pasteurella haemolytica</i>	10	2	1	-	1	-	2	2	1	1	-	-	-
Respiratory Infection, <i>Pasteurella multocida</i>	21	-	-	-	4	-	4	3	4	1	2	2	1
Trachea-Tracheitis	3	-	-	1	-	1	1	-	-	-	-	-	-
4 Cardiovascular													
Blood Vessel-Arteritis	1	-	-	-	-	-	-	-	-	1	-	-	-
Heart-Anomaly	1	1	-	-	-	-	-	-	-	-	-	-	-
Heart-Cardiomyopathy	2	-	-	-	-	-	-	-	1	-	-	1	-
Heart-Endocarditis	3	1	-	-	-	-	-	1	-	1	-	-	-
Heart-Epicarditis	2	-	-	-	2	-	-	-	-	-	-	-	-
Heart-Heart Failure, Chronic	4	-	1	-	-	-	-	-	1	-	-	1	1
Heart-Myocardial Degeneration	13	1	1	1	-	1	1	2	-	3	2	1	-
Heart-Myocarditis	5	-	-	1	1	-	-	2	-	-	-	1	-
Heart-Pericarditis	1	-	-	-	1	-	-	-	-	-	-	-	-

BOVINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
5 Hemic and Lymphatic													
Blood-Anemia	4	-	-	-	1	-	-	-	1	-	1	-	1
Blood-Anemia, Hemolytic	1	-	-	-	-	-	-	-	-	-	-	-	1
Blood-Coagulation Disorder	3	-	1	-	-	-	-	-	1	1	-	-	-
Blood-Hemorrhage, Generalized	2	-	-	-	-	1	-	-	-	-	-	1	-
Blood-Parasitism, <i>Anaplasma sp.</i>	3	1	-	1	1	-	-	-	-	-	-	-	-
Immune System-Hypogammaglobulinemia	1	-	-	-	-	-	-	-	-	1	-	-	-
Lymph Node-Hyperplasia	2	-	-	1	-	-	1	-	-	-	-	-	-
Lymph Node-Lymphadenitis	1	-	-	-	-	1	-	-	-	-	-	-	-
Lymph Node-Neoplasm, Lymphosarcoma	8	1	2	1	-	-	2	1	-	-	-	-	1
Spleen-Splenitis	1	-	-	-	-	-	-	-	-	-	-	-	1
6 Digestive													
Esophagus-Esophagitis	8	-	1	-	-	-	1	1	2	1	-	2	-
Feces-Microbiologic Examination	274	19	27	27	28	12	25	28	19	30	29	14	16
Intestine-Colitis	4	-	2	-	-	-	-	1	-	-	-	1	-
Intestine-Enteritis, Total Cases	562	39	37	22	33	39	61	74	55	73	71	36	22
Intestine-Enteritis, Adenovirus	1	-	-	-	-	-	-	-	-	-	-	1	-
Intestine-Enteritis, Bovine Viral Diarrhea	10	4	-	2	3	1	-	-	-	-	-	-	-
Intestine-Enteritis, Coronavirus	109	-	1	-	4	9	12	14	9	30	21	7	2
Intestine-Enteritis, <i>Escherichia coli</i>	66	9	9	9	3	2	6	9	2	6	8	2	1
Intestine-Enteritis, Hemorrhagic	3	1	-	-	1	-	1	-	-	-	-	-	-
Intestine-Enteritis, Idiopathic	39	1	5	2	3	1	1	8	4	3	5	3	3
Intestine-Enteritis, <i>Klebsiella sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Intestine-Enteritis, <i>Mycobacterium paratuberculosis</i> (Johne's)	30	3	2	1	2	1	3	3	2	1	4	2	4
Intestine-Enteritis, Necrotic	46	7	8	2	-	6	4	6	3	1	3	6	-
Intestine-Enteritis, Reovirus	1	-	-	-	-	-	-	-	1	-	-	-	-
Intestine-Enteritis, Rotavirus	236	8	6	4	10	14	30	38	34	38	34	12	8
Intestine-Enteritis, <i>Salmonella sp.</i>	43	3	2	2	8	8	5	2	3	2	3	3	2
Intestine-Enteritis, Specimen Unsuitable	22	3	2	-	1	1	3	3	2	2	3	1	1
Intestine-Enteritis, <i>Streptococcus sp.</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Intestine-Enteropathy, Atrophic	2	1	-	-	-	-	-	-	-	-	-	-	1
Intestine-Hemorrhage	5	1	-	-	-	-	1	1	-	2	-	-	-
Intestine-Infarction	2	-	-	-	-	-	-	1	-	-	-	-	-
Intestine-Neoplasm, Carcinoma	1	-	-	-	-	-	-	1	-	-	-	-	-
Intestine-Obstruction	1	-	-	-	-	-	-	-	-	1	-	-	-
Intestine-Parasitism, Cestode	4	-	-	-	-	1	-	-	-	1	-	-	-
Intestine-Parasitism, Coccidia	54	4	5	2	6	6	5	2	5	4	5	3	7
Intestine-Parasitism, <i>Cryptosporidium sp.</i>	296	17	17	15	15	22	37	32	24	34	38	27	18
Intestine-Parasitism, Nematode	5	1	-	-	2	1	-	-	1	-	-	-	-

BOVINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Intestine-Parasitism, Strongyle-type Ova	23	2	1	1	4	2	2	2	-	4	1	2	1
Intestine-Parasitism, <i>Trichuris sp.</i>	3	-	1	-	-	1	-	-	-	1	-	-	-
Intestine-Rupture	3	-	2	-	-	-	-	-	-	1	-	-	-
Intestine-Volvulus	3	-	-	-	-	-	1	-	1	-	1	-	-
Liver-Abscess	4	1	-1	-	1	1	-	-	-	-	-	-	-
Liver-Cirrhosis	2	-	-	-	-	-	-	-	-	1	-	1	-
Liver-Hepatitis	13	1	1	-	-	1	-	3	-	1	2	2	2
Liver-Hepatositis	10	2	-	2	1	-	-	-	2	1	-	1	1
Liver-Lipidosis	21	2	1	1	2	-	2	3	3	-	3	2	2
Liver-Parasitism, <i>Fascioloides sp.</i>	8	-	-	2	-	-	-	2	1	2	-	1	-
Oral Cavity-Stomatitis	7	2	1	-	-	-	2	-	-	1	-	-	1
Stomach-Abomasal Ulcer	7	-	-	1	-	1	2	-	1	-	-	-	2
Stomach-Abomasal Volvulus	3	-	1	-	-	-	-	1	-	-	-	-	1
Stomach-Abomasitis	18	-	-	5	1	1	1	1	-	2	4	3	-
Stomach-Abomasitis, Mycotic	5	1	1	-	1	-	-	1	-	-	-	1	-
Stomach-Gastritis, Mycotic	2	-	-	-	-	-	-	-	2	-	-	-	-
Stomach-Grain Overload	1	-	-	-	-	-	-	-	-	1	-	-	-
Stomach-Rumen Tympany (Bloat)	4	-	-	1	-	-	-	-	-	1	2	-	-
Stomach-Rumenitis	15	-	4	-	2	1	1	-	2	1	2	1	1
Stomach-Rupture	2	-	-	-	-	-	-	-	-	2	-	-	-
Stomach-Traumatic Reticulitis	1	-	-	-	-	-	-	-	-	1	-	-	-
7 Urogenital													
Reproductive Disorders, Total Cases	593	61	53	32	54	33	39	60	62	58	66	38	37
Abortion, Anomaly	10	-	2	2	-	1	-	-	1	2	1	-	1
Abortion, Bacterial (NOS)	6	-	1	-	1	-	-	-	3	-	-	1	-
Abortion, Bacterial, <i>Actinomyces pyogenes</i>	37	3	5	2	3	2	2	2	3	5	3	2	5
Abortion, Bacterial, <i>Bacillus sp.</i>	16	2	2	-	1	1	2	2	2	3	1	-	-
Abortion, Bacterial, <i>Campylobacter sp.</i>	4	2	-	-	1	-	-	-	1	-	-	-	-
Abortion, Bacterial, <i>Escherichia coli</i>	9	1	2	-	1	1	-	1	-	-	1	1	1
Abortion, Bacterial, <i>Listeria sp.</i>	10	-	3	-	-	2	-	-	1	-	2	2	-
Abortion, Bacterial, <i>Pasteurella multocida</i>	1	-	-	-	-	-	-	-	-	1	-	-	-
Abortion, Bacterial, <i>Pasteurella haemolytica</i>	1	1	-	-	-	-	-	-	-	-	-	-	-
Abortion, Bacterial, <i>Salmonella sp.</i>	1	1	-	-	-	-	-	-	-	-	-	-	-
Abortion, Bacterial, <i>Staphylococcus aureus</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Abortion, Bacterial, <i>Staphylococcus sp.</i>	2	-	1	-	-	-	-	-	-	1	-	-	-
Abortion, Bacterial, <i>Streptococcus sp.</i>	2	-	-	-	-	-	-	1	1	-	-	-	-
Abortion, Circulatory Failure	9	2	-	-	1	1	-	-	1	-	1	1	2
Abortion, Encephalitis	7	-	-	-	1	1	-	1	1	3	-	-	-
Abortion, Hepatitis	6	-	1	-	-	-	1	1	1	1	1	-	-
Abortion, Idiopathic	255	28	23	19	27	12	23	23	21	23	22	18	16

BOVINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Abortion, Mummified Fetus	6	-	-	1	-	-	1	1	-	1	-	1	1
Abortion, Mycotic Placentitis	24	2	3	1	2	-	2	3	5	1	3	1	1
Abortion, Myocarditis	54	8	5	3	4	1	1	9	4	9	5	4	1
Abortion, Parasitism, <i>Neospora sp.</i>	8	-	-	-	-	-	-	1	1	-	3	-	3
Abortion, Placentitis	42	2	-	2	4	3	2	9	6	-	5	6	3
Abortion, Pneumonia	14	1	4	-	1	2	-	1	1	3	1	-	-
Abortion, Specimen Unsuitable	6	-	-	-	-	1	-	-	3	-	1	-	-
Abortion, Twins	4	-	-	-	-	1	-	-	2	1	-	-	-
Abortion, Viral, Bovine Viral Diarrhea	13	4	1	1	-	2	1	1	-	2	1	-	-
Abortion, Viral, Infectious Bovine Rhinotracheitis	11	-	-	-	-	-	2	3	1	2	1	1	1
Dystocia	1	-	-	-	-	-	-	-	-	-	1	-	-
Genital Anomaly, Freemartin	3	-	1	-	-	-	1	-	-	-	-	-	1
Genital-Bacteriologic Examination	22	2	-	-	7	-	-	2	3	-	5	2	1
Genital-Infertility	2	-	-	-	-	-	-	1	-	-	1	-	-
Kidney-Hydronephrosis	1	-	1	-	-	-	-	-	-	-	-	-	-
Kidney-Infarction	3	-	-	-	-	1	-	-	-	-	-	1	1
Kidney-Nephritis	12	-	1	1	4	1	1	-	1	-	1	2	-
Kidney-Nephritis, Glomerulo	1	-	1	-	-	-	-	-	-	-	-	-	-
Kidney-Nephritis, Pyelo	4	-	-	2	-	-	-	-	-	-	1	1	-
Kidney-Nephrosis	10	2	1	-	-	-	-	1	-	-	2	4	-
Ovary-Neoplasm, Granulosa Cell Tumor	1	-	-	-	-	-	-	-	1	-	-	-	-
Stillbirth, Idiopathic	14	1	-	1	-	2	1	2	1	2	3	-	1
Urinary Bladder-Rupture	2	-	-	-	1	-	-	-	-	-	1	-	-
Urinary Bladder-Urocystitis	2	-	-	-	-	1	-	-	-	-	-	1	-
Urine-Bacteriologic Examination	2	-	-	-	-	-	-	-	-	-	-	1	1
Uterus-Metritis	7	-	1	1	-	-	-	2	-	1	2	-	-
Vagina-Neoplasm (NOS)	1	-	-	-	1	-	-	-	-	-	-	-	-
Vas Deferens-Normal	1	-	-	-	-	-	-	-	-	-	1	-	-
Vulva-Neoplasm (NOS)	1	-	-	-	-	-	-	-	1	-	-	-	-
8 Endocrine													
Thyroid-Goiter	5	-	-	-	-	-	-	-	-	1	3	1	-
9 Nervous													
Neurological Disorders, Total Cases	94	6	8	9	4	6	4	11	5	8	10	13	10
Brain-Abscess	2	-	-	-	1	-	1	-	-	-	-	-	-
Brain-Anomaly	1	-	-	-	-	-	-	-	1	-	-	-	-
Brain-Encephalitis, <i>Haemophilus somnus</i>	4	-	-	-	-	3	-	-	-	-	1	-	-
Brain-Encephalitis, <i>Listeria sp.</i>	6	-	-	-	-	-	-	1	-	1	1	3	-
Brain-Encephalitis, Non-Suppurative	3	-	-	-	1	-	-	1	-	-	-	-	1

BOVINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Brain-Encephalitis, Rabies	18	2	-	4	-	-	-	5	-	1	3	1	2
Brain-Encephalomalacia	5	-	2	2	1	-	-	-	-	-	-	-	-
Brain-Polioencephalomalacia	17	1	1	-	1	1	2	2	1	2	1	5	-
Meninges-Meningitis, <i>Actinomyces pyogenes</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Meninges-Meningitis, <i>Escherichia coli</i>	2	-	-	1	-	-	-	-	-	1	-	-	-
Meninges-Meningitis, Suppurative	7	-	1	-	-	-	-	1	1	-	2	2	-
Neurological Disorder, Idiopathic	29	3	4	1	-	2	1	1	3	3	3	2	6
X Special Senses													
Eye-Conjunctivitis	11	1	-	2	3	-	1	-	1	-	1	-	2
Eye-Keratitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Eye-Neoplasm, Squamous Cell Carcinoma	1	-	-	-	-	1	-	-	-	-	-	-	-
Eye-Ophthalmitis	1	-	1	-	-	-	-	-	-	-	-	-	-
Eyelid-Neoplasm, Squamous Cell Carcinoma	1	-	1	-	-	-	-	-	-	-	-	-	-

CANINE

O Body as a Whole

Abdomen-Hematoma	2	-	-	1	-	-	-	-	1	-	-	-	-
Abscess	1	-	-	-	-	-	-	-	-	-	1	-	-
Amyloidosis	7	-	3	-	-	1	-	1	-	1	-	1	-
Anomaly	10	2	1	0	0	1	2	0	0	0	1	1	2
Canine Distemper	3	1	1	-	1	-	-	-	-	-	-	-	-
Effusion, Pericardial	1	-	-	-	-	-	-	-	-	-	-	1	-
Effusion, Peritoneal	1	-	-	-	-	-	-	-	-	-	1	-	-
Effusion, Pyothorax	4	-	-	-	-	-	1	1	1	-	-	-	1
Emaciation	2	-	-	-	-	-	1	-	-	-	1	-	-
Growth Retardation	2	-	-	-	-	-	2	-	-	-	-	-	-
Heat Exhaustion/Stroke	1	-	-	1	-	-	-	-	-	-	-	-	-
Icterus	2	-	-	1	-	-	-	-	-	1	-	-	-
Mineralization, Soft Tissue	1	-	-	-	-	-	-	-	-	-	1	-	-
Mycosis, <i>Blastomyces sp.</i>	11	-	2	2	-	-	-	-	2	2	2	-	1
Mycosis, <i>Histoplasma sp.</i>	1	-	-	-	1	-	-	-	-	-	-	-	-
Neonatal Death	6	2	1	-	-	-	-	-	-	1	1	1	-
Neoplasm (NOS)	2	-	-	-	-	-	-	-	1	-	-	-	1
Neoplasm, Carcinoma, Metastatic	9	2	-	-	3	1	-	-	-	1	-	-	2
Neoplasm, Fibrosarcoma	1	-	-	-	-	-	-	-	-	-	1	-	-
Neoplasm, Hemangiosarcoma	2	-	1	-	-	-	-	-	-	-	-	-	1
Neoplasm, Mastocytoma, Metastatic	2	-	-	-	2	-	-	-	-	-	-	-	-

CANINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Neoplasm, Mesothelioma	1	-	-	-	1	-	-	-	-	-	-	-	-
Neoplasm, Sarcoma, Metastatic	4	1	-	-	1	-	-	-	1	-	1	-	-
Paralysis	1	-	-	-	1	-	-	-	-	-	-	-	-
Peritonitis	2	1	-	-	-	1	-	-	-	-	-	-	-
Septicemia, <i>Escherichia coli</i>	6	1	-	-	-	-	1	1	1	-	1	-	1
Septicemia, <i>Pasteurella multocida</i>	2	-	-	-	-	-	-	1	-	1	-	-	-
Septicemia, <i>Salmonella sp.</i>	2	1	1	-	-	-	-	-	-	-	-	-	-
Septicemia, <i>Staphylococcus sp.</i>	1	-	-	-	-	-	1	-	-	-	-	-	-
Septicemia, <i>Streptococcus sp.</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Starvation	7	-	1	1	-	1	1	1	-	1	-	1	-
Sudden Unexpected Death	63	8	4	9	5	2	5	3	8	5	5	4	5
Toxicosis (NOS)	3	-	-	-	-	-	-	-	-	1	1	1	-
Toxicosis, Anticoagulant	12	1	-	1	2	2	-	1	1	3	-	-	1
Toxicosis, Carbon Monoxide	2	-	-	-	-	1	-	1	-	-	-	-	-
Toxicosis, Ethylene Glycol	7	-	-	-	1	1	1	-	1	1	-	-	2
Toxicosis, Lead	8	1	1	1	1	1	-	1	1	-	-	1	-
Toxicosis, Organophosphate	3	-	-	-	-	2	-	-	-	-	-	1	-
Toxicosis, Strychnine	13	3	1	1	2	1	1	-	-	-	2	2	-
Traumatic Injury	11	2	-	-	2	-	-	-	4	2	-	-	1
Virus Infection, Herpesvirus	2	-	-	-	-	-	-	-	1	-	1	-	-
Virus Infection, Pseudorabies	1	-	-	-	-	-	-	-	-	1	-	-	-
1 Integumentary													
Abscess	9	1	1	-	1	-	2	2	-	-	1	1	-
Alopecia	3	-	1	1	-	-	-	-	1	-	-	-	-
Calcinosis Circumscripta	13	1	1	2	1	-	3	-	-	-	1	-	4
Cellulitis	22	1	5	-	-	3	3	1	2	2	3	1	1
Cyst, Adnexal	84	9	5	9	7	7	5	9	6	5	7	8	7
Cyst, Apocrine	12	-	-	-	-	-	-	1	1	-	2	5	3
Dermal Fibrosis	51	6	5	4	4	4	6	3	2	4	3	6	4
Dermatitis, Acral Lick Granuloma	4	-	-	-	-	1	1	-	-	1	-	1	-
Dermatitis, Allergic	59	6	5	3	2	7	5	3	3	7	5	4	9
Dermatitis, Bacterial (NOS)	7	-	1	2	-	2	-	-	-	1	-	1	-
Dermatitis, Diffuse	22	7	3	1	1	1	1	1	1	-	2	2	2
Dermatitis, Eosinophilic	4	2	-	-	1	-	1	-	-	-	-	-	-
Dermatitis, Eosinophilic Granuloma	3	1	-	-	1	-	-	1	-	-	-	-	-
Dermatitis, Focal	131	10	24	9	19	4	8	10	10	16	3	9	9
Dermatitis, Folliculitis	13	2	1	2	-	2	1	1	1	1	1	1	-
Dermatitis, Granulation Tissue	11	-	2	2	3	1	-	-	1	-	1	-	1
Dermatitis, Granulomatous	110	9	7	6	13	7	9	11	10	11	8	7	4
Dermatitis, Lupus Erythematosus	3	-	1	-	-	-	-	-	1	-	-	-	1

CANINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Dermatitis, Mycotic	3	-	-	-	1	-	1	-	1	-	-	-	-
Dermatitis, Pemphigus	8	-	1	-	2	2	-	1	-	-	-	1	1
Dermatitis, Podo	29	3	1	4	-	2	1	4	1	3	2	4	4
Dermatitis, Endocrine	13	1	-	3	2	1	3	-	1	-	-	2	-
Hematoma	3	-	1	-	1	-	1	-	-	-	-	-	-
Mammary-Duct Ectasia	11	2	-	-	2	2	-	2	1	-	1	1	-
Mammary-Hyperplasia	3	-	1	-	1	-	-	-	-	1	-	-	-
Mammary-Mamillitis	1	-	-	-	1	-	-	-	-	-	-	-	-
Mammary-Mastitis	3	2	-	-	-	-	-	-	-	-	-	1	-
Mammary-Neoplasm (NOS)	8	1	-	2	-	2	-	1	2	-	-	-	-
Mammary-Neoplasm, Adenocarcinoma	101	6	10	12	18	6	4	7	6	7	7	11	7
Mammary-Neoplasm, Adenoma	62	10	8	6	4	1	1	8	3	3	6	10	2
Mammary-Neoplasm, Duct Carcinoma	1	1	-	-	-	-	-	-	-	-	-	-	-
Mammary-Neoplasm, Mastocytoma	1	-	-	-	-	-	-	-	-	1	-	-	-
Mammary-Neoplasm, Mixed, Benign	42	1	1	5	6	3	2	4	1	7	5	-	7
Mammary-Neoplasm, Mixed, Malignant	15	5	-	2	1	-	-	2	-	1	2	-	2
Mammary-Neoplasm, Myoepithelioma	1	-	1	-	-	-	-	-	-	-	-	-	-
Mammary-Neoplasm, Osteosarcoma	1	-	-	-	-	-	-	-	-	-	1	-	-
Mammary-Neoplasm, Squamous Cell Carcinoma	1	-	-	-	-	-	-	1	-	-	-	-	-
Nail Bed-Neoplasm (NOS)	9	1	-	1	-	2	-	3	1	-	1	-	-
Nail Bed-Neoplasm, Melanoma	13	3	2	2	1	1	-	-	-	1	-	2	1
Neoplasm (NOS)	16	-	-	2	2	1	-	6	1	1	2	-	1
Neoplasm, Adenocarcinoma	4	-	1	-	-	-	1	-	-	-	1	-	1
Neoplasm, Adenoma	10	-	-	1	-	-	2	-	2	2	-	3	-
Neoplasm, Anal Sac Carcinoma	2	-	-	-	-	-	-	-	-	-	1	1	-
Neoplasm, Apocrine Adenocarcinoma	11	-	3	1	-	1	-	2	1	-	1	-	2
Neoplasm, Basal Cell Tumor	56	6	5	2	7	4	6	4	8	2	3	6	3
Neoplasm, Carcinoma	17	3	1	2	2	1	2	-	2	1	1	-	2
Neoplasm, Fibroma	46	3	4	4	5	3	4	5	2	2	5	3	6
Neoplasm, Fibropapilloma	5	2	1	-	1	1	-	-	-	-	-	-	-
Neoplasm, Fibrosarcoma	45	3	3	8	2	5	3	5	6	2	1	1	6
Neoplasm, Hemangioma	49	4	4	4	4	1	3	6	2	3	3	8	7
Neoplasm, Hemangiopericytoma	59	11	3	3	8	3	6	4	5	1	1	7	7
Neoplasm, Hemangiosarcoma	18	5	3	2	1	-	2	2	-	-	-	2	1
Neoplasm, Histiocytoma	191	14	26	13	20	14	19	14	22	12	19	8	10
Neoplasm, Intracutaneous Cornifying Epithelioma	28	-	2	5	1	1	1	8	2	2	3	1	2
Neoplasm, Lipoma	97	7	9	12	8	6	5	14	6	8	12	4	6
Neoplasm, Liposarcoma	6	-	-	-	1	1	-	-	1	-	-	2	1
Neoplasm, Lymphosarcoma	1	-	-	-	-	-	-	-	1	-	-	-	-

CANINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Neoplasm, Mastocytoma	154	15	18	11	13	7	11	18	18	10	6	15	12
Neoplasm, Melanoma	65	11	6	7	5	3	3	3	2	9	4	6	6
Neoplasm, Myxosarcoma	4	-	-	-	-	1	-	1	-	1	-	-	1
Neoplasm, Fibrosarcoma	1	-	1	-	-	-	-	-	-	-	-	-	-
Neoplasm, Papilloma	19	1	-	2	3	1	2	5	1	2	-	1	1
Neoplasm, Perianal Gland Adenoma	76	7	2	3	8	5	5	10	10	5	6	8	7
Neoplasm, Perianal Gland Carcinoma	13	-	1	-	1	1	4	3	-	3	-	-	-
Neoplasm, Pilomatrixoma	9	1	2	-	-	-	1	1	-	-	2	1	1
Neoplasm, Plasmacytoma	2	-	-	-	2	-	-	-	-	-	-	-	-
Neoplasm, Sarcoma, Anaplastic	28	4	1	1	3	1	1	3	1	-	5	5	3
Neoplasm, Sebaceous Gland Adenoma	77	9	3	9	2	3	4	7	8	9	9	6	8
Neoplasm, Sebaceous Gland Adenocarcinoma	1	-	-	-	-	-	-	-	-	-	-	-	1
Neoplasm, Squamous Cell Carcinoma	17	1	4	1	5	-	1	3	1	1	-	-	-
Neoplasm, Trichoepithelioma	53	5	4	3	6	8	2	7	1	6	4	4	3
Parasitism, Mites	9	-	-	2	-	-	1	-	1	-	3	2	-
Skin-Hyperkeratosis	4	-	-	-	-	-	1	1	-	-	2	-	-
Steatitis	17	3	1	1	1	-	2	1	1	1	2	3	1
2 Musculoskeletal													
Bone-Fracture	3	-	-	-	2	-	-	-	-	-	-	1	-
Bone-Neoplasm	1	-	-	-	-	-	-	-	-	-	1	-	-
Bone-Neoplasm, Chondroma	1	-	-	-	-	-	-	-	-	-	-	1	-
Bone-Neoplasm, Chondrosarcoma	5	-	-	-	1	-	-	-	-	2	-	2	-
Bone-Neoplasm, Fibrosarcoma	1	-	-	-	-	-	-	-	-	1	-	-	-
Bone-Neoplasm, Osteoma	1	-	-	-	-	-	-	-	-	-	1	-	-
Bone-Neoplasm, Osteosarcoma	31	2	2	1	4	3	5	3	1	2	3	4	1
Bone-Neoplasm, Sarcoma	4	-	-	1	-	1	-	-	-	1	1	-	-
Bone-Osteomyelitis	5	-	1	-	-	-	-	-	1	-	1	1	1
Joint-Neoplasm, Synoviosarcoma	3	-	-	-	-	1	-	1	-	1	-	-	-
Lameness	1	-	-	-	-	1	-	-	-	-	-	-	-
Muscle-Degeneration	2	-	1	1	-	-	-	-	-	-	-	-	-
Muscle-Myositis	5	1	-	-	-	-	1	1	-	2	-	-	-
Muscle-Neoplasm (NOS)	1	-	-	-	-	-	-	-	-	-	1	-	-
Synovitis	5	-	-	1	1	-	-	1	-	2	-	-	-
3 Respiratory													
Respiratory Disorders, Total Cases	76	14	9	6	7	3	12	4	5	8	6	5	6
Lung-Bronchitis	1	-	1	-	-	-	-	-	-	-	-	-	-
Lung-Congestion	1	-	-	-	-	-	-	-	-	-	-	1	-
Lung-Edema	7	1	1	2	1	-	-	-	-	1	-	1	-
Lung-Emphysema	1	-	1	-	-	-	-	-	-	-	-	-	-
Lung-Hemorrhage	3	1	-	1	-	-	-	-	-	1	-	-	-

CANINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Lung-Mineralization	1	-	1	-	-	-	-	-	-	-	-	-	-
Lung-Neoplasm, Carcinoma	2	-	-	-	-	1	-	-	-	-	-	-	1
Lung-Neoplasm, Carcinoma, Metastatic	1	-	-	-	-	-	-	-	-	-	-	1	-
Lung-Pneumonia	1	-	-	-	-	-	-	-	-	-	1	-	-
Lung-Pneumonia, Adenovirus	1	-	-	-	-	-	-	-	-	1	-	-	-
Lung-Pneumonia, <i>Bordetella bronchiseptica</i>	5	3	1	-	1	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Bordetella sp.</i>	3	-	-	-	-	-	2	-	-	-	-	1	-
Lung-Pneumonia, Broncho	14	3	1	-	2	1	1	1	2	1	2	-	-
Lung-Pneumonia, <i>Escherichia coli</i>	6	2	-	1	-	-	-	1	1	-	-	-	1
Lung-Pneumonia, Foreign Body	1	-	-	-	-	-	-	-	-	1	-	-	-
Lung-Pneumonia, Interstitial	3	-	1	-	-	-	1	-	-	1	-	-	-
Lung-Pneumonia, <i>Klebsiella sp.</i>	1	-	-	-	-	1	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Pasteurella multocida</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Lung-Pneumonia, <i>Staphylococcus sp.</i>	1	-	-	-	-	-	-	-	-	1	-	-	-
Lung-Pneumonia, <i>Streptococcus sp.</i>	2	2	-	-	-	-	-	-	-	-	-	-	-
Lung-Thrombosis	1	-	-	-	-	-	1	-	-	-	-	-	-
Nasal-Neoplasm (NOS)	7	1	-	1	1	1	1	2	-	-	-	-	-
Nasal-Neoplasm, Adenocarcinoma	1	1	-	-	-	-	-	-	-	-	-	-	-
Nasal-Neoplasm, Chondrosarcoma	1	-	-	-	-	-	-	-	-	-	1	-	-
Nasal-Rhinitis	4	-	1	-	1	-	-	-	-	-	-	1	1
Pleura, Pleuritis	1	-	-	-	-	-	-	-	1	-	-	-	-
Respiratory Infection (NOS)	2	-	1	-	1	-	-	-	-	-	-	-	-
Respiratory Infection, <i>Pasteurella multocida</i>	2	-	-	-	-	-	-	-	-	-	2	-	-
Sinus-Sinusitis	1	-	-	-	-	-	-	-	-	1	-	-	-
Trachea-Neoplasm (NOS)	1	-	-	-	-	-	1	-	-	-	-	-	-
Trachea-Tracheitis	1	-	-	1	-	-	-	-	-	-	-	-	-
4 Cardiovascular													
Blood Vessel-Arteriosclerosis	2	-	-	1	-	-	-	-	1	-	-	-	-
Blood Vessel-Arteritis	1	-	-	-	-	-	-	1	-	-	-	-	-
Blood Vessel-Artherosclerosis	1	-	-	-	-	-	-	-	-	1	-	-	-
Blood Vessel-Neoplasm, Chemodectoma	1	-	-	-	1	-	-	-	-	-	-	-	-
Heart-Anomaly	1	-	-	1	-	-	-	-	-	-	-	-	-
Heart-Cardiomyopathy	7	-	1	-	1	1	1	1	1	-	1	-	-
Heart-Endocardiosis	7	3	1	-	-	-	-	-	-	-	-	-	3
Heart-Endocarditis	3	-	-	-	-	-	-	-	-	2	1	-	-
Heart-Heart Failure, Acute	4	1	1	1	-	-	-	-	-	-	-	1	-
Heart-Heart Failure, Chronic	8	2	1	1	2	-	-	-	1	-	-	1	-
Heart-Myocardial Degeneration	5	-	-	-	-	-	1	2	-	1	-	1	-
Heart-Myocarditis	2	-	-	1	-	-	1	-	-	-	-	-	-
Heart-Neoplasm, Hemangiosarcoma	8	-	1	1	1	-	1	-	1	1	-	1	1
Heart-Parasitism, <i>Dirofilaria sp.</i>	4	-	-	-	1	-	-	-	1	-	-	1	1

CANINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
5 Hemic and Lymphatic													
Blood-Anemia	6	2	1	-	2	-	-	-	-	-	-	1	-
Blood-Anemia, Hemolytic	3	-	-	-	-	-	-	-	-	1	-	-	2
Blood-Coagulation Disorder	4	1	1	-	-	1	1	-	-	-	-	-	-
Blood-Hemorrhage, Focal	2	1	-	-	-	-	-	-	-	1	-	-	-
Blood-Hemorrhage, Generalized	8	-	-	3	-	-	-	-	1	1	1	2	-
Blood-Parasitism, <i>Ehrlichia sp.</i>	1	-	-	-	-	-	-	-	-	-	-	1	-
Bone Marrow-Neoplasm, Multiple Myeloma	1	-	-	-	-	-	1	-	-	-	-	-	-
Bone Marrow-Neoplasm, Myeloproliferative Disorder	3	-	1	-	-	-	-	-	2	-	-	-	-
Lymph Node-Hyperplasia	16	3	1	-	1	1	2	2	1	2	-	-	3
Lymph Node-Lymphadenitis	3	-	-	1	-	-	-	-	1	-	1	-	-
Lymph Node-Neoplasm, Lymphosarcoma	137	8	13	7	12	9	6	17	10	20	10	15	10
Lymph Node-Neoplasm, Mestastatic	4	-	-	-	-	-	-	-	2	-	-	2	-
Spleen-Hematoma	8	2	-	2	-	-	1	-	-	1	1	1	-
Spleen-Infarct	7	-	-	1	1	-	-	1	2	-	-	1	1
Spleen-Neoplasm (NOS)	5	1	1	-	-	-	1	1	1	-	-	-	-
Spleen-Neoplasm, Fibrosarcoma	1	-	-	-	-	-	-	-	-	1	-	-	-
Spleen-Neoplasm, Hemangioma	3	-	-	-	2	-	-	-	-	1	-	-	-
Spleen-Neoplasm, Hemangiosarcoma	12	-	4	1	1	1	2	-	-	2	-	1	-
Spleen-Neoplasm, Myelolipoma	2	-	-	-	-	-	-	-	-	1	-	1	-
Spleen-Nodular Hyperplasia	2	-	-	-	-	-	-	-	1	1	-	-	-
Spleen-Siderotic Nodule	2	1	-	-	-	-	-	-	-	-	1	-	-
Spleen-Splenitis	2	-	-	-	-	-	-	-	-	-	-	1	1
Tonsil-Hyperplasia	1	-	-	-	-	-	-	-	-	1	-	-	-
6 Digestive													
Bile Duct-Neoplasm	1	-	-	-	1	-	-	-	-	-	-	-	-
Bile Duct-Neoplasm, Carcinoma	3	-	-	-	-	-	1	1	1	-	-	-	-
Esophagus-Obstruction	1	-	-	-	-	-	-	1	-	-	-	-	-
Feces-Microbiologic Examination	80	7	3	18	5	5	6	5	7	3	10	4	7
Intestine-Colitis	5	-	-	2	-	-	-	-	2	-	-	-	1
Intestine-Enteritis, Coronavirus	1	-	-	-	-	-	-	-	-	-	-	1	-
Intestine-Enteritis, Eosinophilic	3	-	-	-	1	-	1	-	1	-	-	-	-
Intestine-Enteritis, Granulomatous	1	-	-	-	1	-	-	-	-	-	-	-	-
Intestine-Enteritis, Idiopathic	15	2	2	1	-	1	2	1	2	2	1	1	-
Intestine-Enteritis, Necrotic	2	-	-	-	-	-	-	-	1	-	1	-	-
Intestine-Enteritis, Parvovirus	68	11	7	11	4	3	4	2	4	3	5	3	11
Intestine-Enteritis, Rotavirus	1	1	-	-	-	-	-	-	-	-	-	-	-
Intestine-Enteritis, <i>Salmonella sp.</i>	4	-	1	-	1	-	-	-	1	-	1	-	-
Intestine-Enteritis, <i>Streptococcus sp.</i>	1	-	-	1	-	-	-	-	-	-	-	-	-
Intestine-Enteropathy, Atrophic	1	-	1	-	-	-	-	-	-	-	-	-	-

CANINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Intestine-Hemorrhage	2	-	1	-	-	-	-	-	-	-	1	-	-
Intestine-Infarction	1	-	-	-	-	-	-	-	-	1	-	-	-
Intestine-Intussusception	1	-	-	-	-	-	-	-	-	-	1	-	-
Intestine-Neoplasm (NOS)	1	-	-	-	-	-	-	-	-	-	-	1	-
Intestine-Neoplasm, Adenocarcinoma	3	-	1	-	-	-	1	1	-	-	-	-	-
Intestine-Neoplasm, Carcinoma	2	-	-	-	-	-	-	1	-	-	1	-	-
Intestine-Neoplasm, Leiomyoma	3	-	-	-	-	1	1	-	-	-	-	-	1
Intestine-Neoplasm, Leiomyosarcoma	2	-	-	-	-	-	-	-	-	-	2	-	-
Intestine-Neoplasm, Polyp	2	-	-	-	-	-	-	-	-	2	-	-	-
Intestine-Parasitism (NOS)	1	-	1	-	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, <i>Ancylostoma sp.</i>	2	-	-	1	-	-	-	-	-	-	-	1	-
Intestine-Parasitism, Ascaris	12	-	1	2	2	-	-	1	3	1	2	-	-
Intestine-Parasitism, Cestode	5	-	1	-	-	1	2	1	-	-	-	-	-
Intestine-Parasitism, Coccidia	11	-	1	2	3	-	-	-	1	1	-	1	2
Intestine-Parasitism, Trematode	2	-	-	-	-	-	-	-	1	-	-	1	-
Intestine-Volvulus	7	-	-	2	-	-	-	2	-	1	-	1	1
Lip-Cheilitis	15	-	-	1	2	1	1	2	1	1	4	2	-
Lip-Cheilitis, Eosinophilic Granuloma	1	-	-	-	-	-	-	-	1	-	-	-	-
Lip-Neoplasm (NOS)	5	1	1	-	1	2	-	-	-	-	-	-	-
Lip-Neoplasm, Fibroma	3	-	-	-	1	-	-	1	-	1	-	-	-
Lip-Neoplasm, Histiocytoma	17	2	1	1	3	1	2	-	1	-	3	3	-
Lip-Neoplasm, Melanoma	14	1	2	-	1	-	2	-	1	2	5	-	2
Lip-Neoplasm, Sarcoma	4	-	-	-	-	-	-	2	-	-	-	-	2
Lip-Neoplasm, Squamous Cell Carcinoma	1	-	-	1	-	-	-	-	-	-	-	-	-
Liver-Cirrhosis	6	-	-	-	1	-	2	-	1	1	-	-	1
Liver-Hepatitis	6	-	1	-	-	-	2	-	1	1	-	-	1
Liver-Hepatitis	30	1	5	2	4	1	2	2	2	-	6	3	2
Liver-Lipidosis	10	-	2	1	2	-	1	2	1	-	1	-	-
Liver-Neoplasm (NOS)	1	-	-	-	-	-	-	1	-	-	-	-	-
Liver-Neoplasm, Hepatoma	2	-	-	-	-	-	-	-	-	1	1	-	-
Oral Cavity-Gingivitis	4	-	-	-	1	1	-	-	2	-	-	-	-
Oral Cavity-Glossitis	4	-	-	-	-	-	3	1	-	-	-	-	-
Oral Cavity-Neoplasm (NOS)	17	-	1	-	2	-	1	3	1	2	3	1	3
Oral Cavity-Neoplasm, Carcinoma	2	-	-	-	-	-	1	-	-	-	-	1	-
Oral Cavity-Neoplasm, Epulis	90	12	13	8	7	5	9	8	1	9	4	9	5
Oral Cavity-Neoplasm, Fibroma	3	-	-	-	-	-	-	-	-	-	2	-	1
Oral Cavity-Neoplasm, Fibrosarcoma	8	-	2	1	2	1	-	-	-	1	-	1	-
Oral Cavity-Neoplasm, Hemangioma	1	-	-	-	-	-	-	-	-	-	-	1	-
Oral Cavity-Neoplasm, Mastocytoma	3	-	-	-	-	-	1	-	-	1	1	-	-
Oral Cavity-Neoplasm, Melanoma	32	4	2	1	5	1	2	3	2	4	3	1	4
Oral Cavity-Neoplasm, Odontoma	1	-	-	-	-	-	-	1	-	-	-	-	-
Oral Cavity-Neoplasm, Osteosarcoma	4	-	-	1	-	-	1	1	-	-	-	-	1

CANINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Oral Cavity-Neoplasm, Sarcoma	11	1	2	1	-	-	-	1	-	-	1	4	1
Oral Cavity-Neoplasm, Squamous Cell Carcinoma	12	1	1	1	4	-	1	-	2	-	1	-	1
Oral Cavity-Neoplasm, Squamous Papilloma	6	1	-	1	-	-	-	-	-	2	1	1	-
Oral Cavity-Stomatitis	34	2	4	6	-	-	4	1	-	4	5	4	4
Oral Cavity-Stomatitis, Eosinophilic Granuloma	1	-	-	-	-	1	-	-	-	-	-	-	-
Pancreas, Atrophy	1	-	-	-	-	1	-	-	-	-	-	-	-
Pancreas-Neoplasm, Adenocarcinoma	2	1	-	-	-	-	-	-	-	-	1	-	-
Pancreas-Pancreatitis	9	-	2	-	2	-	-	1	-	-	1	2	1
Rectum-Neoplasm, Adenocarcinoma	1	-	-	-	1	-	-	-	-	-	-	-	-
Rectum-Neoplasm, Polyp	1	-	-	-	-	-	1	-	-	-	-	-	-
Rectum-Proctitis	2	-	1	-	1	-	-	-	-	-	-	-	-
Salivary Gland-Cyst	4	1	1	-	-	-	-	-	-	1	-	1	-
Salivary Gland-Neoplasm, Carcinoma	2	-	-	-	-	1	-	-	1	-	-	-	-
Salivary Gland-Sialoadenitis	5	-	-	2	-	-	-	-	-	2	-	1	-
Stomach-Foreign Body	1	-	-	-	-	-	-	-	1	-	-	-	-
Stomach-Gastritis	7	1	-	-	-	1	2	-	-	1	-	1	1
Stomach-Rupture	1	-	-	-	-	-	-	-	-	-	-	1	-
Stomach-Ulcer	4	3	-	-	-	-	-	-	-	-	-	1	-
Stomach-Volvulus	9	1	3	1	-	-	1	-	-	-	1	1	1
<u>7 Urogenital</u>													
Abortion, Idiopathic	4	1	-	-	1	2	-	-	-	-	-	-	-
Abortion, Specimen Unsuitable	1	-	-	-	-	-	-	-	-	-	1	-	-
Genital-Bacteriologic Examination	87	7	8	6	4	5	8	9	5	7	9	10	9
Kidney-Cyst	2	-	-	-	1	1	-	-	-	-	-	-	-
Kidney-Dysplasia	1	-	-	-	-	1	-	-	-	-	-	-	-
Kidney-Hypoplasia	2	-	-	-	1	-	-	-	-	1	-	-	-
Kidney-Infarction	1	-	-	-	-	-	-	-	-	-	-	1	-
Kidney-Nephritis	5	-	-	-	2	-	-	-	-	1	1	1	-
Kidney-Nephritis, End Stage	7	1	-	1	-	-	2	1	-	-	1	-	1
Kidney-Nephritis, Glomerulo	12	1	2	1	-	-	-	1	1	1	1	2	2
Kidney-Nephritis, Interstitial	7	1	-	-	2	1	-	1	1	-	-	-	1
Kidney-Nephritis, Pyelo	1	-	-	1	-	-	-	-	-	-	-	-	-
Kidney-Nephrosis	15	-	2	1	1	1	2	-	2	1	1	1	3
Ovary-Neoplasm (NOS)	3	-	-	1	1	-	1	-	-	-	-	-	-
Penis-Neoplasm (NOS)	1	-	1	-	-	-	-	-	-	-	-	-	-
Penis-Neoplasm, Squamous Cell Carcinoma	1	-	-	-	-	-	-	1	-	-	-	-	-
Prepuce-Neoplasm (NOS)	2	-	-	-	-	-	2	-	-	-	-	-	-
Prostate-Hyperplasia	3	-	-	1	-	-	1	-	-	-	-	1	-

CANINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Prostate-Neoplasm, Adenocarcinoma	1	-	-	-	-	-	-	-	-	-	-	-	1
Prostate-Prostatitis	1	-	-	-	-	-	-	-	1	-	-	-	-
Stillbirth, Idiopathic	1	-	-	-	-	-	-	1	-	-	-	-	-
Testicle-Atrophy	2	-	-	-	1	-	-	-	-	-	1	-	-
Testicle-Neoplasm, Interstitial Cell Tumor	14	2	2	1	-	1	1	1	2	-	3	1	-
Testicle-Neoplasm, Seminoma	15	-	3	1	-	1	1	1	2	1	3	1	1
Testicle-Neoplasm, Sertoli Cell Tumor	10	1	1	-	2	-	-	-	1	1	2	1	1
Testicle-Orchitis	4	2	-	-	-	-	-	-	1	-	-	-	1
Urinary Bladder-Neoplasm (NOS)	3	-	-	-	1	-	-	1	-	-	-	1	-
Urinary Bladder-Neoplasm, Polyp	3	-	-	-	1	-	-	1	-	-	1	-	-
Urinary Bladder-Neoplasm, Transitional Cell Tumor	10	1	2	-	-	-	2	1	1	-	2	-	1
Urinary Bladder-Urocystitis	13	-	1	-	1	2	-	3	2	1	2	1	-
Urinary Bladder-Urolithiasis	2	-	-	-	-	-	1	-	-	-	-	1	-
Urine-Bacteriologic Examination	196	20	15	16	17	11	19	22	17	17	16	18	8
Uterus-Endometrial Biopsy	1	-	-	-	-	-	-	-	-	1	-	-	-
Uterus-Endometrial Hyperplasia	3	-	-	1	1	-	-	1	-	-	-	-	-
Uterus-Metritis	2	-	-	1	-	-	1	-	-	-	-	-	-
Uterus-Neoplasm (NOS)	2	-	-	-	-	-	-	1	1	-	-	-	-
Uterus-Neoplasm, Leiomyoma	1	-	-	-	-	1	-	-	-	-	-	-	-
Vagina-Neoplasm (NOS)	2	1	-	-	1	-	-	-	-	-	-	-	-
Vagina-Neoplasm, Carcinoma	2	-	-	-	-	1	1	-	-	-	-	-	-
Vagina-Neoplasm, Leiomyoma	5	-	-	-	1	-	-	1	1	1	-	-	1
Vagina-Vaginitis	1	-	-	-	1	-	-	-	-	-	-	-	-
Vulva-Neoplasm (NOS)	2	1	-	-	1	-	-	-	-	-	-	-	-
8 Endocrine													
Adrenal-Atrophy	2	-	1	-	-	-	-	-	-	-	-	1	-
Adrenal-Hyperplasia	1	-	-	-	-	1	-	-	-	-	-	-	-
Adrenal-Neoplasm, Pheochromocytoma	2	-	-	-	-	-	-	-	1	-	1	-	-
Pituitary-Neoplasm, Adenoma	1	-	-	-	-	-	-	-	-	1	-	-	-
Thyroid-Atrophy	2	1	-	-	-	-	-	-	-	-	-	-	1
Thyroid-Hypothyroidism	1	-	-	-	-	-	-	-	-	-	-	-	1
Thyroid-Neoplasm, Carcinoma	1	-	-	-	-	-	-	-	-	-	-	1	-
9 Nervous													
Neurological Disorders, Total Cases	68	6	6	3	5	6	3	6	10	7	6	4	6
Brain-Abscess	1	-	-	-	-	-	-	-	-	-	1	-	-
Brain-Anomaly	6	-	1	-	-	1	-	-	1	2	1	-	-
Brain-Encephalitis, Distemper	8	2	2	-	1	1	-	-	-	-	-	2	-
Brain-Encephalitis, Granulomatous	1	-	-	-	-	-	-	1	-	-	-	-	-
Brain-Encephalitis, Non-Suppurative	1	-	1	-	-	-	-	-	-	-	-	-	-

CANINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Brain-Encephalitis, Rabies	13	-	1	2	2	2	-	1	2	-	1	-	2
Brain-Encephalomalacia	2	-	-	-	-	-	-	1	-	1	-	-	-
Brain-Encephalopathy	3	-	-	-	-	-	-	-	2	1	-	-	-
Brain-Neoplasm (NOS)	5	1	1	-	-	1	-	-	1	-	1	-	-
Brain-Neoplasm, Ependymoma	1	1	-	-	-	-	-	-	-	-	-	-	-
Brain-Neoplasm, Meningioma	1	-	-	-	-	-	-	-	-	1	-	-	-
Meninges-Meningitis, Non-Suppurative	2	-	-	-	-	-	-	-	1	1	-	-	-
Meninges-Meningitis, <i>Streptococcus sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Meninges-Meningitis, Suppurative	1	-	-	-	-	-	1	-	-	-	-	-	-
Neurologic Disorder, Idiopathic	20	2	-	1	1	2	2	2	1	1	2	2	4
Spinal Cord-Myelomalacia	1	-	-	-	-	-	-	-	1	-	-	-	-
Spinal Cord-Neoplasm (NOS)	1	-	-	-	1	-	-	-	-	-	-	-	-
X Special Senses													
Ear-Dermatitis	4	-	-	-	-	-	-	1	1	1	1	-	-
Ear-Neoplasm (NOS)	5	1	-	1	2	-	-	-	-	-	1	-	-
Ear-Neoplasm, Basal Cell Tumor	5	-	-	1	-	1	-	-	1	1	-	-	1
Ear-Neoplasm, Ceruminous Gland Carcinoma	2	1	-	-	-	-	-	-	-	-	1	-	-
Ear-Neoplasm, Fibroma	1	-	-	-	1	-	-	-	-	-	-	-	-
Ear-Neoplasm, Hemangioma	1	-	-	-	1	-	-	-	-	-	-	-	-
Ear-Neoplasm, Histiocytoma	30	2	3	1	5	3	5	2	4	2	2	1	-
Ear-Neoplasm, Mastocytoma	3	-	-	2	-	-	-	-	-	1	-	-	-
Ear-Neoplasm, Melanoma	2	-	-	-	1	1	-	-	-	-	-	-	-
Ear-Neoplasm, Sebaceous Gland Adenoma	4	-	-	-	-	-	1	-	1	-	1	1	-
Ear-Neoplasm, Squamous Cell Carcinoma	1	1	-	-	-	-	-	-	-	-	-	-	-
Ear-Otitis	98	7	4	10	8	11	11	12	9	3	7	4	12
Ear-Polyp	2	1	-	-	1	-	-	-	-	-	-	-	-
Eye-Conjunctivitis	5	-	-	-	4	-	-	-	-	1	-	-	-
Eye-Keratitis	1	-	-	-	-	1	-	-	-	-	-	-	-
Eye-Neoplasm (NOS)	1	-	-	-	-	-	-	-	-	-	1	-	-
Eye-Neoplasm, Melanoma	3	-	-	1	-	-	1	-	-	1	-	-	-
Eye-Ophthalmitis	2	-	-	1	-	1	-	-	-	-	-	-	-
Eyelid-Blepharitis	6	1	2	-	1	-	-	1	-	1	-	-	-
Eyelid-Neoplasm (NOS)	4	-	-	-	1	-	-	2	1	-	-	-	-
Eyelid-Neoplasm, Basal Cell Tumor	1	-	-	-	-	1	-	-	-	-	-	-	-
Eyelid-Neoplasm, Hemangiosarcoma	1	-	-	-	-	-	-	-	-	-	-	-	1
Eyelid-Neoplasm, Histiocytoma	6	-	1	-	1	1	1	-	-	1	-	-	1
Eyelid-Neoplasm, Melanoma	7	1	1	1	3	-	1	-	-	-	-	-	-
Eyelid-Neoplasm, Papilloma	3	-	1	-	-	-	-	-	-	-	1	-	1
Eyelid-Neoplasm, Sebaceous Gland Adenoma	21	2	1	-	-	3	1	4	1	2	-	5	2
Eyelid-Neoplasm, Squamous Cell Carcinoma	1	-	-	-	-	-	-	1	-	-	-	-	-

CAPRINE

CAPRINE	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>0 Body as a Whole</u>													
Emaciation	3	-	-	1	-	-	-	-	-	1	1	-	-
Grain Overload	1	-	-	-	-	1	-	-	-	-	-	-	-
Neonatal Death	1	-	-	-	-	-	-	-	-	1	-	-	-
Sudden Unexpected Death	1	-	-	-	-	-	-	-	-	-	-	1	-
<u>1 Integumentary</u>													
Abscess	1	-	1	-	-	-	-	-	-	-	-	-	-
Dermatitis, Granulomatous	1	-	-	-	-	-	-	-	-	1	-	-	-
<u>2 Musculoskeletal</u>													
Muscle-Myositis	1	1	-	-	-	-	-	-	-	-	-	-	-
<u>3 Respiratory</u>													
Lung-Pneumonia, <i>Pasteurella hemolytica</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Lung-Pneumonia, <i>Pasteurella multocida</i>	1	-	-	-	-	1	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Staphylococcus sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
<u>5 Hemic and Lymphatic</u>													
Blood-Anemia	1	-	-	-	1	-	-	-	-	-	-	-	-
<u>6 Digestive</u>													
Feces-Microbiologic Examination	1	-	-	-	-	-	-	-	-	1	-	-	-
Intestine-Enteritis, Adenovirus	1	1	-	-	-	-	-	-	-	-	-	-	-
Intestine-Enteritis, <i>Mycobacterium paratuberculosis</i> (Johne's)	1	-	-	-	-	-	-	-	-	-	1	-	-
Intestine-Enteritis, <i>Salmonella sp.</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Intestine-Parasitism, Coccidia	13	3	1	2	1	1	-	1	-	-	-	2	2
Intestine-Parasitism, <i>Cryptosporidium sp.</i>	1	-	-	-	-	1	-	-	-	-	-	-	-
Intestine-Parasitism, Strongyle-type Ova	3	1	1	1	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, <i>Trichuris sp.</i>	1	-	-	-	1	-	-	-	-	-	-	-	-
Liver-Hepatitis	1	-	1	-	-	-	-	-	-	-	-	-	-
Liver-Lipidosis	1	-	1	-	-	-	-	-	-	-	-	-	-
Oral Cavity-Stomatitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Stomach-Rumenitis	1	-	-	1	-	-	-	-	-	-	-	-	-
<u>7 Urogenital</u>													
Abortion, Parasitism, <i>Toxoplasma sp.</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Kidney-Nephrosis	1	-	-	-	-	-	1	-	-	-	-	-	-

CAPRINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
<u>9 Nervous</u>													
Brain-Abscess	1	-	-	-	-	-	-	-	-	-	-	1	-
Meninges-Meningitis, Suppurative	1	-	-	-	-	-	-	1	-	-	-	-	-

EQUINE

<u>0 Body as a Whole</u>													
Dehydration	1	1	-	-	-	-	-	-	-	-	-	-	-
Emaciation	1	-	-	-	-	-	-	-	-	-	-	1	-
Icterus	2	-	-	-	1	1	-	-	-	-	-	-	-
Neonatal Death	1	-	-	-	-	-	-	-	-	-	1	-	-
Neonatal Weakness	1	-	-	-	-	-	-	-	-	-	-	1	-
Neoplasm, Sarcoma	1	-	1	-	-	-	-	-	-	-	-	-	-
Septicemia, <i>Actinobacillus sp.</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Septicemia, Bacterial (NOS)	1	-	-	-	-	-	-	-	-	-	-	1	-
Septicemia, <i>Salmonella sp.</i>	1	-	-	-	-	1	-	-	-	-	-	-	-
Septicemia, <i>Streptococcus sp.</i>	1	-	-	-	-	-	-	-	-	-	-	1	-
Sudden Unexpected Death	6	-	1	-	1	-	3	1	-	-	-	-	-
Toxicosis, Anticoagulant	1	-	-	-	-	-	-	-	-	-	1	-	-
<u>1 Integumentary</u>													
Abscess	1	-	-	-	-	1	-	-	-	-	-	-	-
Alopecia	1	-	-	1	-	-	-	-	-	-	-	-	-
Cellulitis	1	-	-	-	-	-	-	-	1	-	-	-	-
Cyst, Adnexal	3	1	-	-	-	1	-	-	-	-	-	1	-
Dermal Fibrosis	2	-	-	1	1	-	-	-	-	-	-	-	-
Dermatitis, Eosinophilic	4	1	2	-	-	-	-	-	1	-	-	-	-
Dermatitis, Focal	6	-	-	2	-	2	-	-	-	-	1	-	1
Dermatitis, Granulation Tissue	1	-	-	-	-	-	1	-	-	-	-	-	-
Dermatitis, Granulomatous	1	-	1	-	-	-	-	-	-	-	-	-	-
Dermatitis, Mycotic	1	-	-	-	1	-	-	-	-	-	-	-	-
Dermatitis, Nodular Necrobiosis	4	-	1	-	-	-	-	-	1	-	-	1	1
Mammary-Mammillitis	1	-	-	-	-	-	-	-	-	1	-	-	-
Neoplasm (NOS)	2	-	1	-	-	-	-	-	-	-	-	-	1
Neoplasm, Fibroma	1	-	-	-	-	-	-	-	-	1	-	-	-
Neoplasm, Fibrosarcoma	1	-	-	-	1	-	-	-	-	-	-	-	-
Neoplasm, Lipoma	1	-	-	-	-	-	-	-	-	-	-	-	1
Neoplasm, Mastocytoma	2	-	-	-	1	1	-	-	-	-	-	-	-
Neoplasm, Melanoma	5	1	1	-	1	-	-	-	1	-	-	1	-

EQUINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Neoplasm, Papilloma	1	1	-	-	-	-	-	-	-	-	-	-	-
Neoplasm, Sarcoid	22	3	4	2	3	-	-	2	2	3	1	-	2
Neoplasm, Squamous Cell Carcinoma	4	-	-	-	-	1	1	-	-	-	-	1	1
Skin-Hyperkeratosis	1	-	-	-	-	-	-	-	-	-	-	-	1
2 Musculoskeletal													
Arthritis	1	-	-	-	1	-	-	-	-	-	-	-	-
Bone-Fracture	1	-	1	-	-	-	-	-	-	-	-	-	-
Bone-Osteomyelitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Hoof-Laminitis	1	-	-	-	-	-	-	-	-	1	-	-	-
3 Respiratory													
Respiratory Disorders, Total Cases	12	4	2	-	-	2	-	-	1	-	2	1	-
Lung-Edema	1	-	-	-	-	-	-	-	-	-	1	-	-
Lung-Pneumonia	1	-	1	-	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Actinobacillus equuli</i>	1	-	-	-	-	1	-	-	-	-	-	-	-
Lung-Pneumonia, Broncho	3	1	1	-	-	-	-	-	-	-	-	1	-
Lung-Pneumonia, Foreign Body	1	1	-	-	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, Influenza	1	-	-	-	-	-	-	-	-	-	1	-	-
Lung-Pneumonia, Interstitial	1	-	-	-	-	1	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Klebsiella sp.</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Lung-Pneumonia, <i>Streptococcus sp.</i>	2	-	-	-	-	1	-	-	1	-	-	-	-
Nasal-Rhinitis, <i>Streptococcus sp.</i>	1	1	-	-	-	-	-	-	-	-	-	-	-
Pleura-Pleuritis	1	1	-	-	-	-	-	-	-	-	-	-	-
5 Hemic and Lymphatic													
Blood-Anemia	1	-	-	-	-	1	-	-	-	-	-	-	-
Lymph Node-Neoplasm, Lymphosarcoma	1	-	-	-	-	-	-	-	-	-	1	-	-
6 Digestive													
Feces-Microbiologic Examination	15	1	3	3	1	-	-	-	1	4	1	1	1
Intestine-Colitis	3	2	-	1	-	-	-	-	-	-	-	-	-
Intestine-Enteritis, Idiopathic	5	1	2	-	1	-	-	1	-	-	-	-	-
Intestine-Enteritis, Necrotic	1	-	-	1	-	-	-	-	-	-	-	-	-
Intestine-Intussuception	1	-	-	-	-	-	-	-	-	-	-	1	-
Intestine-Obstruction	1	-	-	-	-	-	-	-	-	-	-	1	-
Intestine-Parasitism, Ascaris	1	-	-	-	-	-	1	-	-	-	-	-	-
Intestine-Parasitism, Cestode	1	-	-	-	1	-	-	-	-	-	-	-	-
Intestine-Parasitism, Stongyle-type Ova	6	-	1	-	1	-	2	-	-	-	1	1	-
Liver-Cirrhosis	1	-	-	1	-	-	-	-	-	-	-	-	-
Liver-Hepatitis	2	-	-	1	-	-	-	-	-	-	-	-	1
Liver-Lipidosis	1	-	-	1	-	-	-	-	-	-	-	-	-

EQUINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Oral Cavity-Neoplasm, Epulis	1	-	-	1	-	-	-	-	-	-	-	-	-
Oral Cavity-Stomatitis	3	-	1	-	-	1	-	-	1	-	-	-	-
Rectum-Proctitis	1	-	1	-	-	-	-	-	-	-	-	-	-
Stomach-Gastritis	1	1	-	-	-	-	-	-	-	-	-	-	-
Stomach-Rupture	3	-	-	2	1	-	-	-	-	-	-	-	-
Stomach-Ulcer	1	-	-	-	-	1	-	-	-	-	-	-	-
7 Urogenital													
Reproductive Disorders, Total Cases	89	10	8	6	6	5	6	7	1	12	5	12	11
Abortion, Bacterial, <i>Streptococcus sp.</i>	3	-	1	-	-	-	2	-	-	-	-	-	-
Abortion, Bacterial, <i>Streptococcus zooepidemicus</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Abortion, Idiopathic	14	-	-	-	-	4	1	3	1	3	2	-	-
Abortion, Placentitis	3	-	-	-	-	-	1	1	-	1	-	-	-
Abortion, Viral (NOS)	1	-	-	-	-	-	-	-	-	-	-	-	1
Genital-Bacteriologic Examination	45	6	2	2	3	-	-	1	-	8	3	11	9
Kidney-Nephritis, Glomerulo	1	1	-	-	-	-	-	-	-	-	-	-	-
Penis-Neoplasm, Papilloma	1	1	-	-	-	-	-	-	-	-	-	-	-
Penis-Neoplasm, Squamous Cell Carcinoma	4	-	2	-	-	-	2	-	-	-	-	-	-
Prepuce-Neoplasm, Squamous Cell Carcinoma	1	-	-	-	-	1	-	-	-	-	-	-	-
Urine-Bacteriologic Examination	1	-	-	1	-	-	-	-	-	-	-	-	-
Uterus-Endometrial Biopsy	11	1	1	3	3	-	-	1	-	-	-	1	1
Uterus-Metritis	1	1	-	-	-	-	-	-	-	-	-	-	-
Vas Deferens-Normal	1	-	1	-	-	-	-	-	-	-	-	-	-
Vulva-Neoplasm, Squamous Cell Carcinoma	1	-	1	-	-	-	-	-	-	-	-	-	-
8 Endocrine													
Thyroid-Cyst	1	-	-	-	-	-	-	-	-	-	-	1	-
Thyroid-Neoplasm, Carcinoma	2	-	-	-	-	1	-	-	-	1	-	-	-
9 Nervous													
Neurological Disorders, Total Cases	15	-	1	1	-	1	-	2	-	3	1	5	1
Brain-Encephalitis, Rabies	6	-	-	-	-	-	-	-	-	2	1	3	-
Brain-Hemorrhage	1	-	-	-	-	-	-	-	-	-	-	-	1
Neurologic Disorder, Idiopathic	5	-	1	1	-	1	-	2	-	-	-	-	-
X Special Senses													
Ear-Neoplasm (NOS)	1	1	-	-	-	-	-	-	-	-	-	-	-
Ear-Neoplasm, Squamous Cell Carcinoma	2	-	-	-	1	-	-	-	1	-	-	-	-
Ear-Otitis	1	-	-	-	-	1	-	-	-	-	-	-	-
Eye-Keratitis	1	-	-	-	1	-	-	-	-	-	-	-	-
Eyelid-Neoplasm	1	1	-	-	-	-	-	-	-	-	-	-	-
Eyelid-Neoplasm, Sarcoid	1	-	1	-	-	-	-	-	-	-	-	-	-

EQUINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Eyelid-Neoplasm, Squamous Cell Carcinoma	4	-	-	-	1	1	-	1	-	-	-	-	1

FELINE

0 Body as a Whole

Abdomen-Hematoma	1	-	-	-	-	1	-	-	-	-	-	-	-
Amyloidosis	1	-	1	-	-	-	-	-	-	-	-	-	-
Anomaly	2	-	-	2	-	-	-	-	-	-	-	-	-
Effusion, Pleural	3	-	-	-	-	1	1	-	-	1	-	-	-
Effusion, Pyothorax	4	-	-	1	1	-	-	-	-	1	1	-	-
Emaciation	4	1	-	-	-	-	-	1	-	-	1	-	1
Feline Infectious Peritonitis	25	-	2	1	6	1	2	4	1	1	1	3	3
Feline Panleukopenia	22	4	4	2	2	1	2	2	1	1	1	1	1
Growth Retardation	2	-	1	-	-	-	1	-	-	-	-	-	-
Hernia (NOS)	1	-	1	-	-	-	-	-	-	-	-	-	-
Hernia, Diaphragmatic	1	-	-	-	1	-	-	-	-	-	-	-	-
Mycosis, <i>Blastomyces sp.</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Mycosis, <i>Cryptococcus sp.</i>	4	-	2	1	-	-	-	1	-	-	-	-	-
Neoplasm, Carcinoma, Metastatic	4	1	-	-	-	1	-	1	-	-	-	-	1
Neoplasm, Sarcoma, Metastatic	2	-	1	1	-	-	-	-	-	-	-	-	-
Omphalitis	1	-	-	-	-	-	-	-	-	1	-	-	-
Parasitism, Toxoplasma	3	-	-	-	-	-	-	1	-	-	2	-	-
Peritonitis	6	-	-	-	1	1	-	1	-	-	1	2	-
Protothecosis	1	-	-	-	1	-	-	-	-	-	-	-	-
Septicemia, Bacterial (NOS)	1	-	-	-	1	-	-	-	-	-	-	-	-
Septicemia, <i>Pasteurella multocida</i>	1	-	-	-	1	-	-	-	-	-	-	-	-
Septicemia, <i>Pseudomonas sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	3	-	-	-	1	-	-	-	-	-	2	-	-
Steatitis	1	-	-	-	-	-	-	-	-	1	-	-	-
Sudden Unexpected Death	16	-	-	-	3	1	-	-	5	-	4	1	2
Toxicosis, Ethylene Glycol	5	-	-	-	-	1	-	-	2	-	-	-	2
Toxicosis, Lead	3	2	-	-	-	-	-	-	-	1	-	-	-
Toxicosis, Organophosphate	3	1	-	-	1	-	-	-	-	-	-	1	-
Toxicosis, Plant	1	-	-	-	-	-	-	-	-	-	1	-	-
Trauma	12	3	-	1	1	-	1	1	-	-	1	2	2
Virus Infection, Pseudorabies	1	-	-	-	-	-	1	-	-	-	-	-	-

1 Integumentary

Abscess	5	1	1	-	1	-	-	-	1	2	-	1	-
Alopecia	4	-	-	-	-	-	-	-	1	2	-	1	-
Cellulitis	6	2	-	-	-	-	-	1	-	1	2	-	-

FELINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Cyst, Adnexal	11	1	1	1	-	2	-	2	1	-	1	1	1
Dermal Fibrosis	2	-	-	1	-	1	-	-	-	-	-	-	-
Dermatitis, Allergic	10	-	-	1	-	1	-	1	-	2	-	1	4
Dermatitis, Diffuse	3	-	-	-	-	-	-	-	1	1	-	-	1
Dermatitis, Eosinophilic	8	1	-	-	-	-	2	-	2	-	2	-	1
Dermatitis, Eosinophilic Granuloma	7	-	-	1	2	-	-	1	-	2	1	-	-
Dermatitis, Focal	17	3	2	1	-	-	3	1	2	3	1	1	-
Dermatitis, Granulation Tissue	1	1	-	-	-	-	-	-	-	-	-	-	-
Dermatitis, Granulomatous	10	1	1	2	-	1	1	1	2	-	-	-	1
Dermatitis, Linear Granuloma	6	1	-	-	-	-	1	-	-	1	-	1	2
Dermatitis, Podo	4	1	-	-	-	-	-	-	-	-	1	2	-
Dermatosis, Endocrine	2	-	-	-	2	-	-	-	-	-	-	-	-
Hematoma	1	-	-	-	-	-	-	-	-	-	1	-	-
Mammary-Duct Ectasia	4	1	-	-	-	-	1	1	1	-	-	-	-
Mammary-Hyperplasia	3	-	-	-	-	-	-	-	2	-	-	1	-
Mammary-Mastitis	1	-	-	-	-	-	-	-	1	-	-	-	-
Mammary-Neoplasm (NOS)	3	-	-	-	-	-	1	1	1	-	-	-	-
Mammary-Neoplasm, Adenocarcinoma	50	4	5	3	5	1	6	7	4	6	2	3	4
Mammary-Neoplasm, Adenoma	1	-	-	-	-	-	-	-	-	-	-	-	1
Neoplasm, Adenoma	3	-	-	-	-	2	-	-	-	-	1	-	-
Neoplasm, Anal Sac Carcinoma	1	-	-	-	1	-	-	-	-	-	-	-	-
Neoplasm, Apocrine Adenocarcinoma	1	-	-	1	-	-	-	-	-	-	-	-	-
Neoplasm, Basal Cell Tumor	27	3	3	3	2	1	3	4	2	-	-	2	4
Neoplasm, Carcinoma	6	-	-	1	-	-	1	1	2	-	-	-	-
Neoplasm, Fibroma	7	2	2	-	2	1	-	-	-	-	-	-	-
Neoplasm, Fibrosarcoma	22	1	2	4	1	1	-	1	3	4	2	2	1
Neoplasm, Hemangioma	2	-	-	-	-	-	-	-	-	-	1	-	-
Neoplasm, Histiocytoma	1	-	-	-	-	-	-	-	-	-	1	-	-
Neoplasm, Lipoma	14	-	-	1	1	-	2	3	1	2	2	1	1
Neoplasm, Lymphangioma	1	-	-	-	-	-	-	-	-	-	-	1	-
Neoplasm, Mastocytoma	29	5	2	1	4	2	2	4	1	3	1	2	2
Neoplasm, Melanoma	2	-	-	-	-	1	-	1	-	-	-	-	-
Neoplasm, Myxosarcoma	2	-	-	-	-	-	-	1	-	1	-	-	-
Neoplasm, Papilloma	1	1	-	-	-	-	-	-	-	-	-	-	-
Neoplasm, Sarcoma, Anaplastic	5	1	-	-	1	-	1	-	-	1	1	-	-
Neoplasm, Sebaceous Gland Adenoma	9	1	3	-	1	1	-	-	-	-	2	-	1
Neoplasm, Sebaceous Gland Adenocarcinoma	1	-	-	-	-	-	-	1	-	-	-	-	-
Neoplasm, Squamous Cell Carcinoma	9	1	1	1	-	-	-	1	2	-	2	-	1
Neoplasm, Trichoepithelioma	1	-	-	-	-	-	-	1	-	-	-	-	-

FELINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Skin-Hyperkeratosis	2	-	-	-	1	-	-	-	1	-	-	-	-
Stenitis	6	-	-	-	2	1	-	1	1	-	1	-	-
2 Musculoskeletal													
Bone-Neoplasm, Osteosarcoma	2	-	-	-	-	-	-	-	-	1	-	-	1
Bone-Osteomyelitis	3	1	-	-	-	-	-	1	1	-	-	-	-
Joint-Neoplasm, Synoviosarcoma	1	-	-	-	-	-	-	-	-	-	-	1	-
Muscle-Myositis	2	-	-	2	-	-	-	-	-	-	-	-	-
Muscle-Neoplasm, Rhabdomyosarcoma	1	1	-	-	-	-	-	-	-	-	-	-	-
3 Respiratory													
Respiratory Disorders, Total Cases	52	3	7	4	9	4	6	4	5	3	1	1	5
Feline Viral Rhinotracheitis	4	-	-	-	1	-	-	1	1	-	1	-	-
Lung-Bronchitis	2	-	1	-	-	-	1	-	-	-	-	-	-
Lung-Edema	6	1	-	2	-	-	-	1	-	1	-	-	1
Lung-Hemorrhage	1	1	-	-	-	-	-	-	-	-	-	-	-
Lung-Neoplasm, Adenocarcinoma	1	-	-	-	-	-	-	-	1	-	-	-	-
Lung-Neoplasm, Carcinoma	1	1	-	-	-	-	-	-	-	-	-	-	-
Lung-Pneumonia	1	-	-	-	-	-	1	-	-	-	-	-	-
Lung-Pneumonia, <i>Bordetella bronchiseptica</i>	3	-	1	-	1	-	-	-	-	-	-	-	1
Lung-Pneumonia, Broncho	11	-	1	1	2	1	2	1	-	2	-	-	-
Lung-Pneumonia, Calicivirus	1	-	-	-	-	-	1	-	-	-	-	-	-
Lung-Pneumonia, <i>Escherichia coli</i>	5	-	-	-	1	1	-	-	-	-	-	1	2
Lung-Pneumonia, Foreign Body	2	-	-	-	1	1	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Pasteurella multocida</i>	5	-	2	-	1	-	-	-	1	-	-	-	1
Lung-Pneumonia, <i>Rhodococcus equi</i>	1	-	-	-	-	-	1	-	-	-	-	-	-
Lung-Thrombosis	2	-	-	-	1	-	-	-	1	-	-	-	-
Nasal-Neoplasm (NOS)	3	-	1	-	-	-	-	1	1	-	-	-	-
Nasal-Neoplasm, Squamous Cell Carcinoma	1	-	1	-	-	-	-	-	-	-	-	-	-
Nasal-Rhinitis, <i>Pasteurella multocida</i>	1	-	-	-	-	1	-	-	-	-	-	-	-
Sinus-Sinusitis	1	-	-	1	-	-	-	-	-	-	-	-	-
4 Cardiovascular													
Blood Vessel-Arteritis	3	-	-	1	-	-	-	-	-	-	2	-	-
Heart-Anomaly	1	-	-	-	-	-	-	-	-	1	-	-	-
Heart-Cardiomyopathy	21	-	-	-	1	3	2	2	5	3	3	1	1
Heart-Heart Failure, Chronic	4	1	-	-	1	-	-	1	-	1	-	-	-
Heart-Myocardial Degeneration	3	1	-	-	-	-	-	-	-	-	2	-	-
Heart-Myocarditis	2	-	1	-	-	-	-	-	-	1	-	-	-
5 Hemic and Lymphatic													
Blood-Anemia	3	-	-	-	1	-	2	-	-	-	-	-	-
Blood-Hemorrhage, Generalized	3	-	-	-	-	2	-	-	-	1	-	-	-
Blood-Parasitism, <i>Hemobartonella sp.</i>	1	-	1	-	-	-	-	-	-	-	-	-	-

FELINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Bone Marrow-Neoplasm, Myeloproliferative Disorder	6	-	-	-	2	-	-	-	3	-	1	-	-
Lymph Node-Hyperplasia	6	-	-	-	-	-	1	2	2	1	-	-	-
Lymph Node-Lymphadenitis	6	-	-	-	2	1	-	1	-	-	1	-	1
Lymph Node-Neoplasm, Lymphosarcoma	29	5	4	1	2	1	2	4	-	4	2	4	-
Lymph Node-Neoplasm, Metastatic	1	-	-	-	-	-	-	-	-	-	-	1	-
Spleen-Neoplasm, Hemangiosarcoma	1	1	-	-	-	-	-	-	-	-	-	-	-
Tonsil-Hyperplasia	1	-	-	-	-	-	-	1	-	-	-	-	-
Tonsil-Neoplasm, Squamous Cell Carcinoma	2	-	-	-	-	1	-	-	-	-	1	-	-
6 Digestive													
Bile Duct-Neoplasm	1	-	-	-	-	-	1	-	-	-	-	-	-
Feces-Microbiologic Examination	16	2	1	3	3	-	-	3	2	-	-	1	1
Intestine-Colitis	9	1	-	1	1	-	2	1	-	1	1	1	-
Intestine-Enteritis, Enterovirus	1	-	-	-	1	-	-	-	-	-	-	-	-
Intestine-Enteritis, Eosinophilic	1	-	-	-	-	-	1	-	-	-	-	-	-
Intestine-Enteritis, <i>Escherichia coli</i>	1	-	-	-	1	-	-	-	-	-	-	-	-
Intestine-Enteritis, Idiopathic	9	2	2	-	-	-	1	2	-	-	-	2	-
Intestine-Enteritis, Necrotic	2	-	-	-	-	1	-	-	-	-	1	-	-
Intestine-Enteritis, Parvovirus	3	-	1	-	-	-	-	-	-	-	-	-	2
Intestine-Enteritis, Rotavirus	1	-	-	-	-	-	-	-	-	-	1	-	-
Intestine-Enteritis, <i>Salmonella sp.</i>	4	-	-	2	-	-	-	-	-	1	-	-	1
Intestine-Enteropathy, Atrophic	1	-	-	-	-	-	1	-	-	-	-	-	-
Intestine-Neoplasm, Adenocarcinoma	4	-	1	-	-	1	2	-	-	-	-	-	-
Intestine-Neoplasm, Carcinoma	1	-	-	-	-	-	-	-	1	-	-	-	-
Intestine-Neoplasm, Polyp	1	-	-	-	-	-	1	-	-	-	-	-	-
Intestine-Neoplasm, Ascaris	2	-	1	1	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, <i>Capillaria sp.</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Intestine-Parasitism, Cestode	2	-	-	-	-	-	-	-	-	1	-	1	-
Intestine-Parasitism, Coccidia	4	-	-	2	-	-	-	-	-	-	-	1	1
Intestine-Parasitism, Nematode	1	-	-	1	-	-	-	-	-	-	-	-	-
Lip-Cheilitis	4	1	-	-	2	-	-	-	-	-	1	-	-
Lip-Cheilitis, Eosinophilic Granuloma	4	1	-	-	1	1	-	-	-	1	-	-	-
Lip-Neoplasm (NOS)	1	-	-	-	-	-	1	-	-	-	-	-	-
Lip-Neoplasm, Fibrosarcoma	1	-	-	-	-	-	1	-	-	-	-	-	-
Lip-Neoplasm, Mastocytoma	1	-	1	-	-	-	-	-	-	-	-	-	-
Liver-Cirrhosis	1	1	-	-	-	-	-	-	-	-	-	-	-
Liver-Cyst	1	-	-	-	-	-	-	-	-	-	-	1	-
Liver-Hemosiderosis	1	-	-	1	-	-	-	-	-	-	-	-	-
Liver-Hepatitis	5	-	1	1	1	-	1	-	1	-	-	-	-
Liver-Hepatositis	14	1	1	-	-	1	1	2	3	1	1	1	2

FELINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Liver-Infarction	1	-	-	-	-	-	-	-	-	-	-	1	-
Liver-Lipidosis	16	2	2	-	2	-	3	1	2	1	2	-	1
Liver-Neoplasm (NOS)	2	-	-	-	-	-	-	-	-	1	1	-	-
Oral Cavity-Cyst	1	-	-	-	-	-	1	-	-	-	-	-	-
Oral Cavity-Glossitis	2	-	-	-	-	-	-	1	-	1	-	-	-
Oral Cavity-Neoplasm (NOS)	1	1	-	-	-	-	-	-	-	-	-	-	-
Oral Cavity-Neoplasm, Epulis	5	-	-	-	-	-	1	1	-	1	2	-	-
Oral Cavity-Neoplasm, Fibrosarcoma	3	-	-	-	1	-	1	-	-	-	1	-	-
Oral Cavity-Neoplasm, Osteosarcoma	1	-	-	-	-	-	-	-	-	-	-	-	1
Oral Cavity-Neoplasm, Sarcoma	2	-	-	1	-	1	-	-	-	-	-	-	-
Oral Cavity-Neoplasm, Squamous Cell Carcinoma	26	2	2	4	1	2	5	1	2	1	4	1	1
Oral Cavity-Neoplasm, Squamous Papilloma	1	-	-	-	-	1	-	-	-	-	-	-	-
Oral Cavity-Stomatitis	16	1	1	3	2	-	-	3	-	1	1	2	2
Oral Cavity-Stomatitis, Eosinophilic Granuloma	5	1	-	1	-	-	-	2	-	-	-	-	1
Pancreas-Neoplasm (NOS)	1	-	-	-	-	-	-	-	1	-	-	-	-
Pancreas-Neoplasm, Adenocarcinoma	2	-	-	-	2	-	-	-	-	-	-	-	-
Pancreas-Pancreatitis	1	-	-	-	-	-	-	-	-	1	-	-	-
Salivary Gland-Cyst	3	-	-	-	-	-	1	1	-	1	-	-	-
Salivary Gland-Neoplasm, Carcinoma	2	-	2	-	-	-	-	-	-	-	-	-	-
Salivary Gland-Sialoadenitis	2	-	-	-	-	1	-	-	1	-	-	-	-
Stomach-Gastritis	1	-	-	-	-	-	-	-	-	-	-	-	1
7 Urogenital													
Abortion, Anomaly	1	-	1	-	-	-	-	-	-	-	-	-	-
Abortion, Bacterial, <i>Escherichia coli</i>	1	-	-	-	-	1	-	-	-	-	-	-	-
Abortion, Idiopathic	1	1	-	-	-	-	-	-	-	-	-	-	-
Kidney-Cyst	2	-	-	-	-	-	1	-	-	-	-	1	-
Kidney-Infarction	1	-	1	-	-	-	-	-	-	-	-	-	-
Kidney-Neoplasm, Carcinoma	1	-	-	-	1	-	-	-	-	-	-	-	-
Kidney-Nephritis	4	1	1	1	-	-	-	-	-	1	-	-	-
Kidney-Nephritis, End Stage	1	-	-	-	-	-	-	-	-	-	-	1	-
Kidney-Nephritis, Glomerulo	11	-	2	1	-	4	-	2	-	1	-	-	1
Kidney-Nephritis, Interstitial	2	-	-	-	1	-	-	-	1	-	-	-	-
Kidney-Nephrosis	15	2	1	1	-	1	-	1	2	1	3	-	3
Stillbirth, Idiopathic	1	-	-	-	-	-	-	-	1	-	-	-	-
Urinary Bladder-Neoplasm (NOS)	2	1	-	-	-	-	1	-	-	-	-	-	-
Urinary Bladder-Neoplasm, Transitional Cell Carcinoma	3	1	-	-	-	-	1	-	-	-	1	-	-
Urinary Bladder-Urocystitis	9	1	-	1	2	1	1	-	-	1	-	1	1
Urinary Bladder-Urolithiasis	7	-	-	-	1	-	1	1	-	1	-	1	2
Urine-Bacteriologic Examination	66	3	5	6	11	1	10	3	8	10	3	3	3
Uterus-Metritis	2	-	-	-	-	-	-	-	-	-	-	1	1

FELINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Vulva-Neoplasm, Squamous Cell Carcinoma	1	-	-	-	-	-	-	-	-	1	-	-	-
8 Endocrine													
Adrenal-Adrenolitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Adrenal-Neoplasm, Adenoma	1	-	-	-	1	-	-	-	-	-	-	-	-
Thyroid-Cyst	1	-	-	-	1	-	-	-	-	-	-	-	-
Thyroid-Goiter	1	-	-	-	-	-	-	-	-	-	1	-	-
Thyroid-Neoplasm, Adenoma	3	1	1	-	-	-	-	-	-	1	-	-	-
Thyroid-Neoplasm, Carcinoma	3	1	-	-	-	-	-	1	-	-	1	-	-
9 Nervous													
Neurological Disorders, Total Cases	32	4	3	-	4	3	4	2	3	1	3	2	3
Brain-Encephalitis, Eosinophilic	1	-	1	-	-	-	-	-	-	-	-	-	-
Brain-Encephalitis, Rabies	15	1	2	-	-	1	3	1	2	-	2	1	2
Brain-Encephalomalacia	3	1	-	-	1	-	-	-	-	-	-	-	-
Brain-Encephalopathy	1	-	-	-	-	-	-	1	-	-	-	-	-
Meninges-Meningitis, Non-Suppurative	2	1	-	-	-	-	-	-	1	-	-	-	-
Meninges-Meningitis, Suppurative	1	-	-	-	1	-	-	-	-	-	-	-	-
Neurologic Disorder, Idiopathic	8	1	-	-	2	1	1	-	-	1	1	-	1
Spinal Cord-Neoplasm (NOS)	1	-	-	-	-	1	-	-	-	-	-	-	-
X Special Senses													
Ear-Neoplasm, Ceruminous Gland Adenoma	1	-	-	-	-	-	-	-	-	-	-	-	1
Ear-Neoplasm, Ceruminous Gland Carcinoma	1	-	-	-	-	-	-	-	-	-	-	1	-
Ear-Neoplasm, Fibroma	1	-	-	-	-	-	-	1	-	-	-	-	-
Ear-Neoplasm, Mastocytoma	4	-	-	-	1	-	2	-	-	-	1	-	-
Ear-Neoplasm, Melanoma	1	-	-	-	-	-	1	-	-	-	-	-	-
Ear-Neoplasm, Papilloma	1	-	-	-	-	1	-	-	-	-	-	-	-
Ear-Neoplasm, Sebaceous Gland Adenoma	1	-	-	-	-	-	1	-	-	-	-	-	-
Ear-Neoplasm, Squamous Cell Carcinoma	2	1	1	-	-	-	-	-	-	-	-	-	-
Ear-Otitis	6	1	-	2	1	-	-	-	-	-	-	2	-
Ear-Polyp	3	1	-	1	-	-	-	-	-	-	-	2	-
Eye-Conjunctivitis	8	-	-	1	-	-	1	1	4	1	-	-	-
Eye-Neoplasm (NOS)	1	-	-	-	-	-	-	-	1	-	-	-	-
Eye-Neoplasm, Melanoma	2	-	-	-	-	1	-	-	1	-	-	-	-
Eye-Ophthalmitis	2	-	1	-	-	-	-	-	-	1	-	-	-
Eyelid-Blepharitis	3	-	1	1	-	-	-	-	1	-	-	-	-
Eyelid-Neoplasm	6	1	-	-	1	2	1	-	-	-	-	1	-
Eyelid-Neoplasm, Basal Cell Tumor	1	-	-	-	1	-	-	-	-	-	-	-	-
Eyelid-Neoplasm, Histiocytoma	1	-	-	-	1	-	-	-	-	-	-	-	-
Eyelid-Neoplasm, Sebaceous Gland Adenoma	1	-	-	-	-	-	-	-	-	-	-	-	1
Eyelid-Neoplasm, Squamous Cell Carcinoma	1	-	-	-	-	-	-	-	-	-	1	-	-

FISH, AMPHIBIANS & REPTILES

FISH, AMPHIBIANS & REPTILES	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
AQUARIUM FISH													
Gill-Branchitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Oral Cavity-Neoplasm, Squamous Cell Carcinoma	1	-	-	-	-	-	-	-	1	-	-	-	-
Parasitism (NOS)	1	-	-	-	-	-	-	-	-	-	1	-	-
Septicemia, <i>Aeromonas sp.</i>	2	-	-	-	-	-	-	-	-	-	-	-	2
Tuberculosis	1	-	-	-	-	-	1	-	-	-	-	-	-
FRESH WATER FISH													
Gill-Branchitis	1	-	-	-	1	-	-	-	-	-	-	-	-
Neoplasm, Lymphosarcoma	1	-	-	-	-	-	-	-	-	-	-	1	-
LIZARD/IGUANA													
Arthritis	1	1	-	-	-	-	-	-	-	-	-	-	-
Bone-Osteomalacia	1	-	-	-	-	-	-	-	-	-	1	-	-
Heart-Myocardial Degeneration	1	-	-	-	-	-	1	-	-	-	-	-	-
Intestine-Parasitism, Nematode	1	-	-	-	-	-	-	-	-	-	1	-	-
Liver-Lipidosis	1	-	-	-	-	-	1	-	-	-	-	-	-
Septicemia, <i>Pseudomonas sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Stomach-Gastritis	1	-	-	-	-	-	-	-	-	1	-	-	-
SALAMANDER													
Feces-Microbiologic Examination	1	1	-	-	-	-	-	-	-	-	-	-	-
SALT WATER FISH													
Liver-Lipidosis	2	-	-	2	-	-	-	-	-	-	-	-	-
SNAKE													
Bone-Osteomalacia	1	-	-	-	-	-	-	-	-	1	-	-	-
Bone-Osteomyelitis	1	-	-	-	-	-	-	-	-	-	1	-	-
Brain-Encephalitis, Non-Suppurative	2	-	-	-	-	-	-	1	1	-	-	-	-
Gout	2	-	-	-	-	1	-	-	-	-	-	1	-
Heart-Endocarditis	1	-	-	-	-	-	-	-	-	-	-	-	1
Intestine-Parasitism, <i>Capillaria sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Intestine-Parasitism, Cestode	2	-	-	-	1	-	-	-	-	-	-	1	-
Intestine-Parasitism, Nematode	1	-	-	-	-	-	-	-	-	-	-	1	-
Kidney-Infarction	1	-	-	-	-	-	-	-	-	-	-	1	-
Kidney-Nephritis, Glomerulo	3	-	-	-	1	1	-	-	1	-	-	1	-
Liver-Hepatitis	1	-	-	-	-	-	-	-	1	-	-	-	-
Lung-Pneumonia, Interstitial	1	-	-	-	-	-	-	-	-	-	-	-	1

FISH, AMPHIBIANS & REPTILES (cont.)Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
SNAKE (cont.)												
Neoplasm, Fibrosarcoma	2	-	-	-	-	1	-	-	-	-	1	-
Neoplasm, Melanoma	1	-	-	-	-	-	-	-	-	-	1	-
Oral Cavity-Stomatitis	1	1	-	-	-	-	-	-	-	-	-	-
Pancreas-Pancreatitis	1	-	-	1	-	-	-	-	-	-	-	-
Peritonitis, Egg Yolk	1	-	-	-	-	-	-	1	-	-	-	-
Septicemia, Bacterial (NOS)	1	-	1	-	-	-	-	-	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	3	-	1	-	1	-	-	-	-	-	1	-
Stomach-Neoplasm (NOS)	1	1	-	-	-	-	-	-	-	-	-	-
Stomach-Ulcer	1	-	-	-	-	-	-	-	-	-	1	-
TURTLE												
Blood-Coagulation Disorder	1	-	1	-	-	-	-	-	-	-	-	-
Bone-Osteomalacia	1	-	-	-	-	-	1	-	-	-	-	-
Intestine-Parasitism, Nematode	1	-	-	-	-	-	-	1	-	-	-	-
Liver-Hemosiderosis	1	1	-	-	-	-	-	-	-	-	-	-
Peritonitis	1	-	1	-	-	-	-	-	-	-	-	-
Septicemia, Bacterial (NOS)	1	-	-	-	-	-	-	1	-	-	-	-
Septicemia, <i>Escherichia coli</i>	1	-	1	-	-	-	-	-	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-
Starvation	1	1	-	-	-	-	-	-	-	-	-	-
UNKNOWN												
Feces-Microbiologic Examination	1	1	-	-	-	-	-	-	-	-	-	-

MISCELLANEOUS MAMMALS

AMERICAN MINIATURE HORSE

Abortion, Idiopathic	1	-	-	-	-	-	-	-	-	1	-	-
Intestine-Enteritis, <i>Salmonella sp.</i>	1	-	-	-	-	-	-	-	1	-	-	-
Intestine-Infarction	1	-	1	-	-	-	-	-	-	-	-	-
Trauma	1	-	-	-	-	-	-	-	1	-	-	-

ANTELOPE

Abscess	4	-	-	-	-	-	1	-	1	-	-	2
Deficiency, Copper	1	-	-	-	-	-	-	-	-	-	-	1
Emaciation	2	-	-	-	-	-	-	-	-	-	-	2
Genital-Bacteriologic Examination	1	-	1	-	-	-	-	-	-	-	-	-
Lung-Pneumonia	1	-	-	-	-	-	-	-	-	-	-	1
Lung-Thrombosis	1	-	-	-	-	-	-	-	-	-	-	1

MISCELLANEOUS MAMMALS (cont.)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
BAT													
Brain-Encephalitis, Rabies	9	1	5	1	1	-	1	-	-	-	-	-	-
Heart-Endocarditis	1	-	1	-	-	-	-	-	-	-	-	-	-
Heart-Myocardial Degeneration	1	-	-	-	-	-	-	1	-	-	-	-	-
Intestine-Hemorrhage	1	-	-	-	-	-	-	1	-	-	-	-	-
Intestine-Parasitism (NOS)	1	-	-	-	-	-	-	1	-	-	-	-	-
Lung-Pneumonia, Broncho	2	1	-	-	-	-	-	-	1	-	-	-	-
Neoplasm, Mastocytoma	1	-	1	-	-	-	-	-	-	-	-	-	-
Sudden Unexpected Death	1	1	-	-	-	-	-	-	-	-	-	-	-
Uterus-Metritis	1	1	-	-	-	-	-	-	-	-	-	-	-
BEAR													
Bile Duct-Neoplasm, Carcinoma	1	-	-	-	-	-	-	-	1	-	-	-	-
BEAVER													
Bile Duct-Neoplasm	1	-	-	1	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, Broncho	1	-	-	1	-	-	-	-	-	-	-	-	-
CAMEL													
Feces-Microbiologic Examination	1	-	-	-	-	-	1	-	-	-	-	-	-
Neoplasm, Squamous Cell Carcinoma	1	-	-	-	-	-	1	-	-	-	-	-	-
Stomach-Neoplasm, Squamous Cell Carcinoma	1	-	-	-	-	-	1	-	-	-	-	-	-
Urine-Bacteriologic Examination	1	-	-	-	-	-	-	-	-	-	1	-	-
CHINCHILLA													
Feces-Microbiologic Examination	1	-	-	-	-	-	-	-	-	-	-	-	1
COUGAR													
Blood-Anemia	1	-	-	-	-	-	-	-	-	-	-	-	1
COYOTE													
Feces-Microbiologic Examination	2	-	-	-	-	-	-	-	-	-	-	2	-
Intestine-Enteritis, <i>Salmonella sp.</i>	1	-	-	-	-	-	-	-	-	-	-	1	-
DEER													
Abortion, Mummified Fetus	1	1	-	-	-	-	-	-	-	-	-	-	-
Brain-Abscess	1	1	-	-	-	-	-	-	-	-	-	-	-
Deficiency, Copper	1	-	-	-	-	-	-	-	-	-	-	1	-
Emaciation	1	-	-	-	-	-	-	-	-	-	-	-	1
Eye-Conjunctivitis	1	-	-	1	-	-	-	-	-	-	-	-	-
Feces-Microbiologic Examination	1	-	-	-	-	-	-	-	-	-	-	1	-

MISCELLANEOUS MAMMALS (cont.)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
DEER (cont.)													
Genital-Bacteriologic Examination	5	-	-	-	-	-	-	-	-	-	1	2	2
Intestine-Enteritis, Idiopathic	2	-	-	-	1	-	1	-	-	-	-	-	-
Intestine-Enteritis, <i>Mycobacterium paratuberculosis</i> (Johne's)	1	-	-	-	-	-	-	1	-	-	-	-	-
Intestine-Enteritis, Necrotic	1	-	-	-	1	-	-	-	-	-	-	-	-
Intestine-Hemorrhage	1	-	-	-	-	-	-	1	-	-	-	-	-
Intestine-Parasitism, Coccidia	3	1	-	-	-	-	-	-	1	-	1	-	-
Kidney-Nephritis	1	-	-	-	1	-	-	-	-	-	-	-	-
Kidney-Nephritis, End Stage	1	-	-	-	-	-	-	-	-	-	1	-	-
Liver-Hepatitis	1	-	-	-	1	-	-	-	-	-	-	-	-
Lung-Edema	2	1	1	-	-	-	-	-	-	-	-	-	-
Lung-Hemorrhage	1	-	-	-	-	-	1	-	-	-	-	-	-
Lung-Pneumonia, <i>Actinomyces pyogenes</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Lung-Pneumonia, Broncho	2	1	1	-	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, Interstitial	1	-	-	-	1	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Pasteurella multocida</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Malignant Catarrhal Fever	1	-	-	-	-	-	-	-	-	-	-	-	1
Neonatal Death	1	-	-	-	-	-	-	-	-	-	-	-	1
Neurologic Disorder, Idiopathic	5	1	-	-	-	-	1	1	-	2	-	-	-
Starvation	1	-	-	-	-	-	1	-	-	-	-	-	-
Sudden Unexpected Death	2	1	1	-	-	-	-	-	-	-	-	-	-
Toxicosis, Ethylene Glycol	1	1	-	-	-	-	-	-	-	-	-	-	-
ELK													
Liver-Lipidosis	1	1	-	-	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, Broncho	2	1	-	-	-	-	-	-	-	-	-	-	1
Peritonitis	1	-	-	-	-	-	-	1	-	-	-	-	-
Spleen-Splenitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Stomach-Abomasitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Stomach-Rumenitis	1	-	-	-	-	1	-	-	-	-	-	-	-
FERRET													
Adrenal Hyperplasia	2	-	-	-	1	-	1	-	-	-	-	-	-
Adrenal-Neoplasm, Adenoma	1	-	-	1	-	-	-	-	-	-	-	-	-
Brain-Encephalitis, Distemper	2	-	-	1	1	-	-	-	-	-	-	-	-
Canine Distemper	1	-	-	-	-	1	-	-	-	-	-	-	-
Cyst, Adnexal	1	-	-	-	-	-	-	1	-	-	-	-	-
Cyst, Apocrine	1	-	-	-	-	-	-	-	-	-	-	-	1
Dermatitis, Granulomatous	1	-	-	-	-	-	-	-	-	-	-	1	-
Heart-Myocardial Degeneration	1	-	-	-	1	-	-	-	-	-	-	-	-
Heart-Myocarditis	1	-	-	-	-	-	-	-	-	-	-	1	-

MISCELLANEOUS MAMMALS (cont.)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
FERRET (cont.)													
Intestine-Parasitism, Coccidia	1	-	-	1	-	-	-	-	-	-	-	-	-
Kidney-Nephritis, Glomerulo	1	-	-	-	-	-	-	-	-	-	-	-	1
Liver-Hepatitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Lung-Pneumonia, Broncho	1	-	-	-	1	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Escherichia coli</i>	1	-	-	-	-	1	-	-	-	-	-	-	-
Lymph Node-Neoplasm, Lymphosarcoma	5	2	1	-	-	1	-	1	-	-	-	-	-
Muscle-Neoplasm, Rhabdomyosarcoma	1	-	-	-	1	-	-	-	-	-	-	-	-
Neoplasm, Fibroma	2	-	-	-	-	-	-	1	-	-	1	-	-
Neoplasm, Lipoma	1	-	-	-	-	-	-	-	-	1	-	-	-
Neoplasm, Mastocytoma	1	-	-	-	-	1	-	-	-	-	-	-	-
Neoplasm, Sebaceous Gland Adenoma	1	-	1	-	-	-	-	-	-	-	-	-	-
Neurologic Disorder, Idiopathic	2	-	-	1	-	-	-	-	-	-	-	1	-
Oral Cavity-Neoplasm, Squamous Cell Carcinoma	2	-	-	-	1	-	-	-	-	1	-	-	-
Spleen-Nodular Hyperplasia	1	-	-	-	-	-	-	-	-	-	-	-	1
FOX													
Bone-Osteomalacia	1	-	-	-	-	-	-	-	-	-	-	-	1
Brain-Encephalitis, Distemper	1	-	-	-	-	-	-	-	-	1	-	-	-
Brain-Encephalitis, Rabies	1	1	-	-	-	-	-	-	-	-	-	-	-
Brain-Encephalomalacia	1	-	-	-	-	-	-	-	-	-	-	-	1
Intestine-Enteritis, <i>Salmonella sp.</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Intestine-Parasitism, Nematode	1	-	-	-	-	-	-	-	1	-	-	-	-
Lung-Pneumonia, Broncho	1	-	-	-	-	-	-	-	1	-	-	-	-
Lymph Node-Hyperplasia	1	-	-	-	-	-	-	1	-	-	-	-	-
Neurologic Disorder, Idiopathic	1	-	-	-	-	-	-	-	-	-	1	-	-
Parasitism, Mites	2	-	-	-	-	-	-	1	-	-	1	-	-
GERBIL													
Sudden Unexpected Death	1	-	-	-	-	-	-	1	-	-	-	-	-
Trauma	1	-	-	-	-	-	-	1	-	-	-	-	-
GUINEA PIG													
Abscess	1	-	-	-	-	-	1	-	-	-	-	-	-
Blood Vessel-Arteriosclerosis	1	-	-	-	1	-	-	-	-	-	-	-	-
Dermatitis, Focal	2	-	-	-	-	2	-	-	-	-	-	-	-
Dermatitis, Granulation Tissue	1	-	-	-	-	-	1	-	-	-	-	-	-
Feces-Microbiologic Examination	1	-	-	-	-	-	-	-	-	1	-	-	-
Intestine-Enteritis, Idiopathic	2	-	-	-	1	-	-	-	-	-	1	-	-
Intestine-Neoplasm (NOS)	1	-	-	-	1	-	-	-	-	-	-	-	-
Intestine-Obstruction	1	-	-	-	1	-	-	-	-	-	-	-	-
Kidney-Nephritis, Glomerulo	1	-	-	-	1	-	-	-	-	-	-	-	-

MISCELLANEOUS MAMMALS (cont.)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
GUINEA PIG (cont.)													
Liver-Hepatitis	1	-	-	-	1	-	-	-	-	-	-	-	-
Liver-Lipidosis	1	-	-	-	-	-	-	-	-	-	-	-	1
Lung-Bronchitis	1	-	-	1	-	-	-	-	-	-	-	-	-
Lung-Neoplasm, Carcinoma	1	-	-	1	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, Broncho	1	-	-	-	-	-	-	-	-	-	-	-	1
Lymph Node-Neoplasm, Lymphosarcoma	1	-	-	1	-	-	-	-	-	-	-	-	-
Neoplasm, Trichoepithelioma	1	-	-	-	-	1	-	-	-	-	-	-	-
Parasitism, Lice	1	-	-	-	-	-	-	-	-	1	-	-	-
Skin-Hyperkeratosis	1	-	-	-	-	1	-	-	-	-	-	-	-
Spleen-Nodular Hyperplasia	1	-	-	1	-	-	-	-	-	-	-	-	-
Thyroid-Neoplasm, Carcinoma	1	-	-	1	-	-	-	-	-	-	-	-	-
Urinary Bladder-Urocystitis	1	-	-	-	-	-	1	-	-	-	-	-	-
Uterus-Endometrial, Hyperplasia	1	-	-	1	-	-	-	-	-	-	-	-	-
Uterus-Metritis	1	-	-	-	-	-	-	-	-	-	-	-	1
Uterus-Neoplasm, Leiomyoma	1	-	-	1	-	-	-	-	-	-	-	-	-
HAMSTER													
Lung-Edema	1	-	-	-	-	-	-	-	-	-	1	-	-
Sudden Unexpected Death	1	-	-	-	-	-	-	-	1	-	-	-	-
LEOPARD													
Oral Cavity-Stomatitis	1	-	-	-	-	-	1	-	-	-	-	-	-
Thyroid-Goiter	1	-	-	-	-	1	-	-	-	-	-	-	-
Urine-Bacteriologic Examination	1	-	-	-	1	-	-	-	-	-	-	-	-
Vagina-Neoplasm, Leiomyoma	1	-	-	-	-	1	-	-	-	-	-	-	-
LLAMA													
Abortion, Idiopathic	1	-	-	-	-	-	-	-	-	-	-	-	1
Anomaly	1	-	-	1	-	-	-	-	-	-	-	-	-
Blood-Parasitism, <i>Eperythrozoon sp.</i>	1	-	-	1	-	-	-	-	-	-	-	-	-
Feces-Microbiologic Examination	1	-	-	-	-	-	-	-	-	-	-	-	1
Genital-Bacteriologic Examination	1	-	1	-	-	-	-	-	-	-	-	-	-
Intestine-Enteritis, Necrotic	1	1	-	-	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, Coccidia	1	1	-	-	-	-	-	-	-	-	-	-	-
Neurologic Disorder, Idiopathic	1	-	-	1	-	-	-	-	-	-	-	-	-
Septicemia, <i>Escherichia coli</i>	1	-	-	-	-	-	1	-	-	-	-	-	-
Sudden Unexpected Death	1	-	-	-	-	-	1	-	-	-	-	-	-
LYNX													
Kidney-Nephritis, Glomerulo	1	-	1	-	-	-	-	-	-	-	-	-	-
Liver-Lipidosis	1	-	1	-	-	-	-	-	-	-	-	-	-
Pancreas-Pancreatitis	1	-	1	-	-	-	-	-	-	-	-	-	-

MISCELLANEOUS MAMMALS (cont.)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
LYNX (cont.)													
Sudden Unexpected Death	1	-	1	-	-	-	-	-	-	-	-	-	-
MINK													
Brain-Encephalomalacia	1	1	-	-	-	-	-	-	-	-	-	-	-
Brain-Hemorrhage	1	-	-	-	-	-	-	-	-	-	-	-	1
Intestine-Enteritis, Parvovirus	1	1	-	-	-	-	-	-	-	-	-	-	-
Kidney-Nephritis, Interstitial	1	-	-	-	-	1	-	-	-	-	-	-	-
Kidney-Nephrosis	1	-	-	-	-	-	-	-	-	-	-	-	1
Liver-Lipidosis	2	-	-	-	-	-	-	-	-	-	-	1	1
Lung-Pneumonia, <i>Streptococcus sp.</i>	1	1	-	-	-	-	-	-	-	-	-	-	-
Pleura-Pleuritis	1	-	-	1	-	-	-	-	-	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	2	1	-	1	-	-	-	-	-	-	-	-	-
Stomach-Ulcer	1	-	-	-	-	-	-	-	-	-	1	-	-
Sudden Unexpected Death	1	-	-	-	-	1	-	-	-	-	-	-	-
MONKEY													
Feces-Microbiologic Examination	1	-	-	-	-	-	-	-	-	-	-	1	-
Septicemia, <i>Streptococcus sp.</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Septicemia, <i>Streptococcus suis</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
MOOSE													
Dermatosis, Endocrine	1	-	-	-	-	-	-	-	1	-	-	-	-
MOUSE													
Emaciation	1	-	-	-	-	-	-	-	1	-	-	-	-
Lung-Pneumonia, <i>Mycoplasma sp.</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Meninges-Meningitis, Suppurative	1	-	-	-	-	-	-	-	1	-	-	-	-
Parasitism, Mites	1	-	-	1	-	-	-	-	-	-	-	-	-
Sudden Unexpected Death	1	-	-	-	-	-	-	-	1	-	-	-	-
MUSK OX													
Neonatal Death	1	-	-	-	-	-	-	-	-	-	-	1	-
MUSKRAT													
Brain-Encephalomalacia	1	-	-	-	-	-	-	-	-	-	-	-	1
Kidney-Nephritis, Pyelo	1	-	-	-	-	-	-	-	-	-	-	-	1
Lung-Pneumonia, Broncho	1	-	-	-	-	-	-	-	-	-	-	-	1
OPOSSUM													
Urine-Bacteriologic Examination	1	-	-	-	-	-	-	1	-	-	-	-	-

MISCELLANEOUS MAMMALS (cont.)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
OTTER													
Kidney-Nephritis	2	-	-	-	-	-	-	1	-	-	1	-	-
Lung-Pneumonia, Broncho	1	-	-	-	-	-	-	1	-	-	-	-	-
PORCUPINE													
Feces-Microbiologic Examination	1	-	-	-	-	-	-	-	-	-	-	1	-
Liver-Lipidosis	1	-	-	-	-	-	-	-	-	-	-	1	-
PRAIRIE DOG													
Sudden Unexpected Death	1	-	1	-	-	-	-	-	-	-	-	-	-
PUMA													
Kidney-Nephritis, Glomerulo	1	-	1	-	-	-	-	-	-	-	-	-	-
Neoplasm, Lipoma	1	-	1	-	-	-	-	-	-	-	-	-	-
RABBIT													
Brain-Encephalitis, Granulomatous	2	-	2	-	-	-	-	-	-	-	-	-	-
Dermatitis, Eosinophilic	1	-	-	-	-	-	-	1	-	-	-	-	-
Ear-Parasitism, Mites	1	-	-	-	-	-	-	-	-	1	-	-	-
Esophagus-Dilatation	1	1	-	-	-	-	-	-	-	-	-	-	-
Eye-Conjunctivitis	2	-	-	2	-	-	-	-	-	-	-	-	-
Feces-Microbiologic Examination	5	-	1	2	-	-	-	1	-	-	-	-	1
Heart-Myocardial Degeneration	4	-	-	-	-	-	2	-	-	2	-	-	-
Heart-Myocarditis	2	-	-	-	-	-	-	-	1	1	-	-	-
Intestine-Enteritis, <i>Escherichia coli</i>	3	-	-	-	1	-	-	-	-	1	1	-	-
Intestine-Enteropathy, Atrophic	1	-	-	-	-	-	-	-	-	1	-	-	-
Intestine-Parasitism, Coccidia	2	-	-	-	2	-	-	-	-	-	-	-	-
Intestine-Parasitism, Nematode	1	-	-	-	-	-	1	-	-	-	-	-	-
Intestine-Rupture	1	1	-	-	-	-	-	-	-	-	-	-	-
Kidney-Nephritis, Interstitial	1	-	1	-	-	-	-	-	-	-	-	-	-
Kidney-Nephrosis	2	-	-	-	-	-	1	-	-	1	-	-	-
Liver-Hepatosi	1	-	-	-	1	-	-	-	-	-	-	-	-
Liver-Lipidosis	1	-	-	1	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Bordetella bronchiseptica</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Lung-Pneumonia, Broncho	2	-	-	-	1	-	-	-	1	-	-	-	-
Lung-Pneumonia, Interstitial	2	-	-	1	-	-	-	-	-	-	-	-	1
Lung-Pneumonia, <i>Pasteurella multocida</i>	1	-	-	-	-	-	-	-	-	1	-	-	-
Lung-Pneumonia, <i>Staphylococcus sp.</i>	1	-	-	-	-	-	-	-	-	1	-	-	-
Nasal-Rhinitis, <i>Pasteurella multocida</i>	1	-	-	-	-	-	-	-	-	-	-	1	-
Lung-Pneumonia, <i>Staphylococcus sp.</i>	1	-	-	-	-	-	-	-	-	1	-	-	-
Nasal-Rhinitis, <i>Pasteurella multocida</i>	1	-	-	-	-	-	-	-	-	-	-	1	-
Neonatal Death	2	-	-	-	-	-	-	1	-	-	1	-	-
Peritonitis	2	1	-	-	1	-	-	-	-	-	-	-	-

MISCELLANEOUS MAMMALS (cont.)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
RABBIT (cont.)													
Pleura-Pleuritis	1	-	-	-	-	-	-	-	1	-	-	-	-
Respiratory Infection, <i>Pasteurella multocida</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Septicemia, <i>Bacillus piliformis</i> (Tyzzer's Disease)	2	-	-	-	-	-	-	1	-	1	-	-	-
Septicemia, <i>Pasteurella multocida</i>	2	-	-	-	1	-	-	-	1	-	-	-	-
Septicemia, <i>Pseudomonas sp.</i>	1	-	1	-	-	-	-	-	-	-	-	-	-
Septicemia, <i>Salmonella sp.</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Stomach-Volvulus	1	-	1	-	-	-	-	-	-	-	-	-	-
Sudden Unexpected Death	2	-	-	-	1	-	-	-	-	-	1	-	-
Trauma	1	-	-	-	1	-	-	-	-	-	-	-	-
Urine-Bacteriologic Examination	1	-	-	-	-	-	1	-	-	-	-	-	-
Uterus-Neoplasm (NOS)	1	-	-	-	-	-	-	-	-	1	-	-	-
Uterus-Neoplasm, Adenocarcinoma	1	-	-	1	-	-	-	-	-	-	-	-	-
Virus Infection, Pox	2	-	-	-	2	-	-	-	-	-	-	-	-
RACCOON													
Bone-Osteomalacia	1	-	-	-	-	-	-	-	-	-	-	1	-
Brain-Encephalitis, Distemper	4	-	-	1	-	-	-	-	1	1	1	-	-
Brain-Encephalomalacia, Parasitic	1	-	1	-	-	-	-	-	-	-	-	-	-
Brain-Encephalopathy	1	-	-	-	-	-	-	-	1	-	-	-	-
Canine Distemper	3	-	-	-	-	-	-	-	-	-	-	1	2
Intestine-Enteritis, Rotavirus	1	-	-	-	-	-	-	-	-	-	-	-	1
Intestine-Parasitism, Ascaris	1	-	-	-	-	-	-	-	-	-	-	1	-
Intestine-Parasitism, <i>Capillaria sp.</i>	2	-	-	1	-	-	-	-	-	1	-	-	-
Intestine-Parasitism, Cestode	1	-	-	1	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, Coccidia	2	-	1	1	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, <i>Cryptosporidium sp.</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Intestine-Parasitism, <i>Trichostrongyle sp.</i>	1	-	-	1	-	-	-	-	-	-	-	-	-
Lung-Abscess	1	-	-	1	-	-	-	-	-	-	-	-	-
Lung-Pneumonia	2	-	-	1	-	-	-	-	-	-	1	-	-
Lung-Pneumonia, Broncho	1	-	-	-	-	-	-	-	-	-	-	-	1
Neurologic Disorder, Idiopathic	3	1	-	-	-	-	-	-	-	-	-	-	2
Starvation	1	-	-	-	-	-	-	-	-	-	-	1	-
Trauma	1	-	-	1	-	-	-	-	-	-	-	-	-
Virus Infection, Adenovirus	1	-	-	-	-	-	-	-	-	1	-	-	-
RAT													
Emaciation	1	1	-	-	-	-	-	-	-	-	-	-	-
Toxicosis, Anticoagulant	1	-	-	-	-	1	-	-	-	-	-	-	-

MISCELLANEOUS MAMMALS (cont.)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
SERVAL													
Meninges-Meningitis, Non-Suppurative	1	-	-	-	-	-	-	-	-	1	-	-	-
SHREW													
Kidney-Nephrosis	1	-	1	-	-	-	-	-	-	-	-	-	-
Liver-Hepatitis	1	-	1	-	-	-	-	-	-	-	-	-	-
SKUNK													
Brain-Encephalitis, Granulomatous	1	-	-	-	-	-	-	-	-	1	-	-	-
Brain-Encephalitis, Rabies	107	13	9	7	11	13	9	12	6	5	7	6	9
SQUIRREL													
Lung-Pneumonia, <i>Bordetella bronchiseptica</i>	1	-	-	-	1	-	-	-	-	-	-	-	-
Virus Infection, Pox	1	-	-	1	-	-	-	-	-	-	-	-	-
TIGER													
Dermatitis, Focal	1	-	-	-	-	-	1	-	-	-	-	-	-
Feline Infectious Peritonitis	1	-	-	-	-	-	-	-	1	-	-	-	-
Lymph Node-Neoplasm, Lymphosarcoma	1	1	-	-	-	-	-	-	-	-	-	-	-
Mammary-Neoplasm, Adenocarcinoma	1	-	-	-	-	-	-	-	-	-	-	1	-
Meninges-Meningitis, Non-Suppurative	1	-	1	-	-	-	-	-	-	-	-	-	-
WOLF													
Feces-Microbiologic Examination	1	-	-	-	-	-	-	-	-	-	-	-	1
Sudden Unexpected Death	1	-	-	1	-	-	-	-	-	-	-	-	-
Uterus-Metritis	1	-	-	-	-	-	-	-	-	-	1	-	-
WOLVERINE													
Adrenal-Neoplasm, Carcinoma	1	1	-	-	-	-	-	-	-	-	-	-	-
Amyloidosis	1	1	-	-	-	-	-	-	-	-	-	-	-
Kidney-Nephritis, Interstitial	1	1	-	-	-	-	-	-	-	-	-	-	-
WOODCHUCK/GROUNDHOG													
Brain-Encephalitis, Distemper	1	-	-	-	-	-	-	-	-	-	-	1	-
Brain-Encephalitis, Non-Suppurative	1	-	-	1	-	-	-	-	-	-	-	-	-
Brain-Encephalomalacia	1	-	1	-	-	-	-	-	-	-	-	-	-
Brain-Encephalomalacia, Parasitism	1	-	1	-	-	-	-	-	-	-	-	-	-
Intestine-Enteritis, <i>Escherichia coli</i>	1	1	-	-	-	-	-	-	-	-	-	-	-
Neurologic Disorder, Idiopathic	1	1	-	-	-	-	-	-	-	-	-	-	-
ZEBRA													
Deficiency, Copper	1	-	-	-	-	-	-	-	-	-	-	-	1
Deficiency, Selenium	1	-	-	-	-	-	-	-	-	-	-	-	1
Heart-Myocardial Degeneration	1	-	-	-	-	-	-	-	-	-	-	-	1

MISCELLANEOUS MAMMALS (cont.)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
ZEBRA (cont.)													
Sudden Unexpected Death	1	-	-	-	-	-	-	-	-	-	1	-	-
MISCELLANEOUS													
Lymph Node-Lymphadenitis	1	-	-	-	-	-	-	1	-	-	-	-	-
Urine-Bacteriologic Examination	1	-	-	-	-	-	-	-	1	-	-	-	-

OVINE

0 Body as a Whole

Abscess	1	-	-	-	-	1	-	-	-	-	-	-	-
Anomaly	3	-	-	1	-	-	-	-	-	-	-	2	-
Caseous Lymphadenitis	2	-	1	-	-	-	-	-	-	-	1	-	-
Contagious Ecthyma	2	-	-	-	1	-	-	-	-	-	-	1	-
Grain Overload	5	-	-	1	-	-	-	-	-	1	-	2	1
Neonatal Death	1	-	-	-	-	-	-	-	1	-	-	-	-
Peritonitis	1	-	-	-	-	-	-	-	-	-	1	-	-
Septicemia, <i>Salmonella sp.</i>	5	-	1	1	-	-	2	-	-	-	1	-	-
Sudden Unexpected Death	5	1	-	-	-	-	1	-	-	2	1	-	-
Toxicosis, Copper	7	2	1	-	-	-	-	-	1	-	2	-	1
Trauma	1	-	-	-	-	-	-	-	-	-	-	1	-

1 Integumentary

Dermatitis, Eosinophilic	2	-	-	1	-	-	-	-	-	1	-	-	-
Mammary-Mammillitis	1	-	-	-	-	-	-	-	-	1	-	-	-
Mammary-Mastitis	5	-	-	1	-	-	-	1	1	2	-	-	-
Parasitism, Lice	1	-	-	-	-	1	-	-	-	-	-	-	-
Virus Infection, Pox	1	-	-	1	-	-	-	-	-	-	-	-	-

3 Respiratory

Respiratory Disorders-Total Cases	25	-	7	2	1	1	-	-	1	2	-	-	-
Lung-Bronchitis	1	-	-	-	-	-	-	-	-	-	-	-	1
Lung-Edema	1	-	-	-	-	-	-	-	-	-	1	-	-
Lung-Pneumonia, <i>Actinomyces pyogenes</i>	2	-	2	-	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, Broncho	4	-	1	-	-	-	-	-	-	-	1	2	-
Lung-Pneumonia, Foreign Body	1	-	-	-	-	-	-	-	-	1	-	-	-
Lung-Pneumonia, Ovine Progressive	1	-	-	1	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Pasteurella hemolytica</i>	14	-	4	-	1	1	-	-	1	2	1	2	2
Lung-Pneumonia, <i>Pasteurella multocida</i>	5	-	4	-	-	1	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Streptococcus suis</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Pleura-Pleuritis	1	-	-	1	-	-	-	-	-	-	-	-	-

OVINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
4 Cardiovascular													
Heart-Myocardial Degeneration	2	-	-	1	-	-	-	-	-	1	-	-	-
Heart-Myocarditis	1	-	-	-	-	-	-	-	-	-	1	-	-
5 Hemic and Lymphatic													
Blood-Anemia	5	1	1	3	-	-	-	-	-	-	-	-	-
6 Digestive													
Intestine-Enteritis, Idiopathic	3	1	-	1	-	-	-	-	-	1	-	-	-
Intestine-Enteritis, <i>Mycobacterium paratuberculosis</i> (Johne's)	1	-	-	-	-	-	-	-	1	-	-	-	-
Intestine-Enteritis, <i>Salmonella sp.</i>	4	-	-	1	-	1	-	-	1	-	1	-	-
Intestine-Parasitism (NOS)	1	1	-	-	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, Cestode	2	-	-	1	-	-	-	-	-	-	-	1	-
Intestine-Parasitism, Coccidia	19	-	5	3	1	1	-	-	-	-	1	5	3
Intestine-Parasitism, <i>Cryptosporidia sp.</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Intestine-Parasitism, Nematode	2	1	1	-	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, <i>Nematodirus sp.</i>	2	-	1	-	-	-	1	-	-	-	-	-	-
Intestine-Parasitism, Strongyles (unidentified)	5	-	-	1	1	1	1	-	-	-	1	-	-
Intestine-Parasitism, <i>Strongyloides sp.</i>	1	-	-	-	-	-	1	-	-	-	-	-	-
Intestine-Parasitism, <i>Trichostrongyle sp.</i>	3	1	1	-	-	-	-	-	1	-	-	-	-
Intestine-Parasitism, <i>Trichuris sp.</i>	1	1	-	-	-	-	-	-	-	-	-	-	-
Liver-Abscess	1	-	-	-	-	-	-	-	-	-	-	-	1
Liver-Cirrhosis	1	-	-	-	-	-	-	-	-	-	1	-	-
Liver-Hepatitis	2	-	-	1	-	-	-	1	-	-	-	-	-
Liver-Hepatositis	4	-	1	-	-	-	-	-	1	-	2	-	-
Liver-Lipidosis	4	2	-	1	-	1	-	-	-	-	-	-	-
Liver-Parasitism, <i>Fascioloides sp.</i>	3	-	-	-	-	-	1	1	-	-	1	-	-
Stomach-Abomasal Ulcer	1	-	-	-	-	-	-	-	-	-	1	-	-
Stomach-Abomasitis	1	-	-	1	-	-	-	-	-	-	1	-	-
Stomach-Dilatation	1	-	-	-	-	-	-	-	-	-	1	-	-
Stomach-Parasitism, <i>Haemonchus sp.</i>	7	-	5	1	-	-	-	-	-	-	-	1	-
Stomach-Rumenitis	2	-	-	1	-	-	1	-	-	-	-	-	-
7 Urogenital													
Reproductive Disorders-Total Cases	43	-	-	1	-	-	4	9	16	8	4	1	-
Abortion, Anomaly	1	-	-	-	-	-	-	-	-	-	1	-	-
Abortion, Bacterial (NOS)	1	-	-	-	-	-	-	-	-	1	-	-	-
Abortion, Bacterial, <i>Bacillus sp.</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Abortion, Bacterial, <i>Campylobacter sp.</i>	3	-	-	-	-	-	-	-	2	-	1	-	-
Abortion, Bacterial, <i>Escherichia coli</i>	1	-	-	-	-	-	-	1	-	-	-	-	-

OVINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Abortion, Bacterial, <i>Salmonella sp.</i>	3	-	-	-	-	-	1	-	2	-	-	-	-
Abortion, Idiopathic	18	-	-	1	-	-	2	4	6	3	1	1	-
Abortion, Mummified Fetus	4	-	-	-	-	-	-	-	3	1	-	-	-
Abortion, Myocarditis	1	-	-	-	-	-	-	1	-	-	-	-	-
Abortion, Parasitism, <i>Toxoplasma sp.</i>	2	-	-	-	-	-	1	1	-	-	-	-	-
Abortion, Placentitis	3	-	-	-	-	-	-	2	-	1	-	-	-
Abortion, Pneumonia	1	-	-	-	-	-	-	-	1	-	-	-	-
Dystocia	1	-	-	-	-	-	-	-	-	1	-	-	-
Genital-Bacteriologic Examination	1	-	-	-	-	-	-	-	1	-	-	-	-
Kidney-Nephrosis	3	-	-	1	-	-	-	1	-	-	1	-	-
Stillbirth, Idiopathic	1	-	-	-	-	-	-	-	-	1	-	-	-
Vas Deferens-Normal	1	-	-	-	-	-	-	-	1	-	-	-	-
9 Nervous													
Neurological Disorders-Total Cases	7	3	-	-	-	-	-	-	-	2	1	1	-
Brain-Encephalitis, <i>Listeria sp.</i>	1	-	-	-	-	-	-	-	-	1	-	-	-
Brain-Polioencephalomalacia	3	2	-	-	-	-	-	-	-	-	-	-	1
Neurologic Disorder, Idiopathic	3	1	-	-	-	-	-	-	-	1	1	-	-

PORCINE

0 Body as a Whole

Abscess	1	-	-	-	-	-	-	-	1	-	-	-	-
Edema Disease	7	-	1	-	1	-	1	1	1	-	1	1	-
Emaciation	2	-	-	1	-	-	-	-	-	-	-	-	1
Growth Retardation	9	1	-	1	1	1	1	-	1	1	1	-	1
Health Evaluation, Normal	1	-	-	-	-	-	-	-	-	-	-	-	1
Hernia, Diaphragmatic	1	-	-	-	-	-	-	-	-	-	1	-	-
Hernia, Inguinal	1	1	-	-	-	-	-	-	-	-	-	-	-
Metabolic Imbalance, Hypoglycemia	2	-	-	-	-	-	-	1	-	-	1	-	-
Mortality, Increased	1	-	-	-	-	-	-	-	1	-	-	-	-
Neonatal Death	15	1	3	-	1	2	2	-	-	3	-	1	2
Neonatal Weakness	11	-	1	-	1	1	2	2	2	-	1	-	1
Omphalitis	6	-	3	-	1	1	-	-	1	-	-	-	-
Paralysis	2	-	-	-	1	-	-	-	-	-	-	-	1
Peritonitis	5	-	1	1	-	-	-	-	1	1	-	-	1
Polyserositis	16	-	-	-	1	1	2	2	4	1	3	-	2
Porcine Stress Syndrome	12	1	-	2	2	1	1	-	1	2	1	1	-
Septicemia, <i>Actinobacillus sp.</i>	5	-	-	1	-	-	-	-	1	-	2	-	1
Septicemia, <i>Actinomyces pyogenes</i>	2	1	-	-	1	-	-	-	-	-	-	-	-

PORCINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Septicemia, <i>Erysipelothrix sp.</i>	23	5	3	7	-	-	2	1	-	-	1	2	2
Septicemia, <i>Escherichia coli</i>	20	4	1	4	1	-	1	1	-	2	3	2	1
Septicemia, <i>Haemophilus parasuis</i>	11	-	-	2	1	1	1	2	2	2	-	-	-
Septicemia, <i>Klebsiella sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Septicemia, <i>Pasteurella haemolytica</i>	1	-	-	-	-	-	-	-	-	-	1	-	-
Septicemia, <i>Pasteurella multocida</i>	7	-	-	1	1	-	1	1	2	-	-	-	1
Septicemia, <i>Salmonella sp.</i>	163	21	20	21	19	15	4	13	19	10	9	3	9
Septicemia, <i>Staphylococcus sp.</i>	4	1	-	1	-	1	-	-	-	-	-	-	1
Septicemia, <i>Streptococcus sp.</i>	8	1	-	1	-	-	-	1	1	1	-	1	2
Septicemia, <i>Streptococcus suis</i>	47	6	1	5	7	4	1	7	5	1	2	4	4
Starvation	6	1	1	1	-	2	-	-	-	-	-	-	1
Sudden Unexpected Death	106	2	13	15	13	6	6	8	14	8	3	6	12
Toxicosis (NOS)	2	1	-	-	-	-	-	-	-	-	1	-	-
Toxicosis, Iron	1	-	-	-	-	-	1	-	-	-	-	-	-
Toxicosis, Sodium (Water Deprivation)	6	-	1	1	1	-	-	1	1	-	1	-	-
Traumatic Injury	1	-	-	-	-	-	-	-	-	-	1	-	-
Virus Infection, Pseudorabies	12	1	1	-	-	1	1	4	3	-	-	1	-
Virus Infection, PRRS	15	-	-	1	-	1	-	-	-	2	2	2	7
Weakness	2	1	-	-	1	-	-	-	-	-	-	-	-
1 Integumentary													
Abscess	5	-	1	-	1	-	1	1	-	-	-	1	-
Cellulitis	1	-	-	-	-	-	-	-	1	-	-	-	-
Dermatitis, Allergic	1	-	-	-	-	-	-	-	-	-	-	1	-
Dermatitis, Exudative Epidermitis	14	-	1	2	2	1	1	2	2	2	-	-	1
Dermatitis, Pityriasis Rosea	1	-	-	-	-	-	-	-	-	-	-	-	1
Dermatitis, Podo	1	-	-	1	-	-	-	-	-	-	-	-	-
Mammary-Mastitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Parasitism, Mites	4	-	1	-	-	-	-	-	-	2	-	1	-
2 Musculoskeletal													
Arthritis	5	1	-	-	-	1	-	1	-	1	-	-	1
Arthritis, <i>Actinomyces pyogenes</i>	4	-	1	1	-	-	-	-	-	-	-	2	-
Arthritis, Non-Suppurative	1	-	-	-	-	-	-	-	-	-	-	-	1
Arthritis, <i>Streptococcus sp.</i>	2	-	-	1	-	-	-	-	-	-	-	-	1
Arthritis, <i>Streptococcus suis</i>	4	-	-	-	-	1	-	-	-	-	1	-	2
Arthritis, Suppurative	2	1	-	-	-	-	-	-	1	-	-	-	-
Bone-Fracture	1	-	-	-	-	-	-	-	-	1	-	-	-
Bone-Osteomalacia	4	-	-	-	-	-	1	-	2	1	-	-	-
Muscle-Degeneration	1	-	-	-	-	-	-	-	1	-	-	-	-
Splayleg	1	1	-	-	-	-	-	-	-	-	-	-	-
Synovitis	2	-	-	-	-	-	-	1	-	-	-	1	-

PORCINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
3 Respiratory													
Respiratory Disorders-Total Cases	955	63	76	81	114	60	58	86	102	97	76	63	79
Lung-Abscess	1	-	-	-	-	-	-	-	1	-	-	-	-
Lung-Bronchitis	22	2	7	3	-	1	-	1	1	1	3	-	3
Lung-Edema	10	-	1	1	2	-	-	1	-	-	1	-	4
Lung-Hemorrhage	1	-	-	-	-	-	-	-	1	-	-	-	-
Lung-Pneumonia	5	1	1	-	3	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Actinobacillus equuli</i>	2	-	-	-	1	-	-	-	1	-	-	-	-
Lung-Pneumonia, <i>Actinobacillus pleuropneumoniae</i>	125	3	5	8	18	10	10	16	18	14	8	8	7
Lung-Pneumonia, <i>Actinobacillus sp.</i>	7	-	1	1	1	-	-	-	3	1	-	-	-
Lung-Pneumonia, <i>Actinomyces pyogenes</i>	79	7	5	4	6	3	2	15	10	10	4	5	8
Lung-Pneumonia, <i>Bordetella bronchiseptica</i>	74	1	2	1	7	6	7	13	10	8	7	7	5
Lung-Pneumonia, Broncho	95	11	7	6	16	8	3	4	8	4	13	5	8
Lung-Pneumonia, <i>Escherichia coli</i>	1	-	1	-	-	-	-	-	-	-	-	-	-
Lung-Pneumonia, <i>Haemophilus parasuis</i>	136	8	9	6	11	6	15	12	17	20	11	12	9
Lung-Pneumonia, Interstitial	83	3	3	7	5	2	6	9	10	14	6	13	5
Lung-Pneumonia, <i>Mycoplasma hyopneumoniae</i>	52	1	11	12	9	1	4	2	1	1	1	3	6
Lung-Pneumonia, <i>Pasteurella hemolytica</i>	2	-	-	-	-	1	-	-	-	-	1	-	-
Lung-Pneumonia, <i>Pasteurella multocida</i>	363	21	29	34	42	21	26	33	43	35	24	27	28
Lung-Pneumonia, <i>Staphylococcus sp.</i>	2	-	1	-	-	-	-	-	-	-	1	-	-
Lung-Pneumonia, <i>Streptococcus sp.</i>	27	4	-	1	6	2	1	2	1	2	3	2	3
Lung-Pneumonia, <i>Streptococcus suis</i>	299	14	27	24	40	21	16	29	43	36	18	13	18
Lung-Pneumonia, Swine Influenza	47	3	-	2	3	8	7	3	6	3	4	4	4
Lung-Pneumonia, PRRS Virus	5	-	-	-	-	-	-	-	-	-	-	2	3
Nasal-Rhinitis	8	-	-	2	-	-	-	2	-	-	-	4	-
Nasal-Rhinitis, <i>Actinomyces pyogenes</i>	4	-	-	-	-	-	-	2	-	-	1	1	-
Nasal-Rhinitis, Atrophic	11	2	1	2	-	-	-	2	2	-	-	-	2
Nasal-Rhinitis, <i>Bordetella sp.</i>	4	-	-	1	-	-	1	1	-	1	-	-	-
Nasal-Rhinitis, Cytomegalovirus	9	2	-	-	-	-	1	1	2	1	2	-	-
Nasal-Rhinitis, <i>Haemophilus parasuis</i>	10	-	-	1	3	2	1	-	1	-	1	-	-
Nasal-Rhinitis, <i>Pasteurella multocida</i>	14	-	-	2	1	1	2	2	2	1	2	1	-
Nasal-Rhinitis, <i>Streptococcus sp.</i>	1	-	-	-	-	-	-	-	-	-	-	1	-
Nasal-Rhinitis, <i>Streptococcus suis</i>	12	-	-	3	1	1	2	2	-	1	1	-	1
Pleura-Pleuritis	5	1	-	1	-	-	-	1	1	1	-	-	-
Respiratory Infection (NOS)	2	-	-	-	-	-	-	-	1	-	-	-	1
Respiratory Infection, <i>Pasteurella multocida</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
4 Cardiovascular													
Blood Vessel-Arteritis	1	-	-	-	-	-	-	-	-	-	1	-	-
Blood Vessel-Arteriosclerosis	1	-	-	-	-	-	1	-	-	-	-	-	-
Heart-Anomaly	1	-	-	-	-	-	-	-	1	-	-	-	-

PORCINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Heart-Endocarditis	10	-	-	1	3	-	2	1	-	-	-	3	-
Heart-Epicarditis	13	2	-	1	1	2	1	1	1	-	2	2	-
Heart-Heart Failure, Acute	1	-	-	-	-	-	-	-	-	-	1	-	-
Heart-Heart Failure, Chronic	3	-	-	-	-	-	-	-	1	-	1	-	1
Heart-Mulberry Heart Disease	36	1	5	6	4	2	1	2	3	3	2	5	2
Heart-Myocardial Degeneration	9	-	2	2	-	1	-	2	-	1	-	1	-
Heart-Myocarditis	12	2	-	3	-	-	2	1	1	1	1	1	-
Heart-Pericarditis	5	-	-	-	-	1	-	1	1	1	1	-	-
5 Hemic and Lymphatic													
Blood-Anemia	16	1	1	1	4	-	1	-	2	3	2	-	1
Blood-Coagulation Disorder	3	1	1	-	-	-	-	-	-	-	-	1	-
Blood-Hemorrhage, Generalized	1	-	-	-	-	1	-	-	-	-	-	-	-
Bone Marrow-Neoplasm, Myeloproliferative Disorder	1	-	-	-	-	-	-	-	-	1	-	-	-
Lymph Node-Lymphadenitis	1	1	-	-	-	-	-	-	-	-	-	-	-
Lymph Node-Neoplasm, Lymphosarcoma	1	-	-	-	-	-	-	1	-	-	-	-	-
Spleen-Infarct	1	-	-	-	-	-	1	-	-	-	-	-	-
Spleen-Splenitis	3	1	-	-	-	-	-	-	-	2	-	-	-
6 Digestive													
Feces-Microbiologic Examination	18	1	2	2	1	3	1	1	1	2	4	-	-
Intestine-Colitis	27	1	3	4	3	-	1	1	4	5	1	2	2
Intestine-Enteritis, Nursing, Total Cases	513	41	57	58	42	27	42	62	49	34	43	27	31
Intestine-Enteritis, Older, Total Cases	381	27	33	39	32	18	23	31	45	39	33	32	29
Intestine-Enteritis, Adenovirus	9	-	2	1	-	1	-	1	-	1	2	-	1
Intestine-Enteritis, <i>Clostridium perfringens</i> Type C	2	-	-	1	-	-	-	-	-	-	-	-	1
Intestine-Enteritis, <i>Clostridium perfringens</i>	3	-	-	-	-	-	-	1	1	-	-	1	-
Intestine-Enteritis, <i>Escherichia coli</i> , Nursing	101	7	13	9	12	3	8	6	10	4	13	7	9
Intestine-Enteritis, <i>Escherichia coli</i> , Weaned	73	8	6	7	4	3	2	12	7	7	4	5	8
Intestine-Enteritis, Hemorrhagic	1	1	-	-	-	-	-	-	-	-	-	-	-
Intestine-Enteritis, Idiopathic	90	8	9	12	3	7	7	10	9	10	4	6	5
Intestine-Enteritis, Necrotic	53	5	8	8	9	2	4	3	3	3	2	4	2
Intestine-Enteritis, Porcine Proliferative	62	5	7	7	9	4	3	1	6	5	3	6	6
Intestine-Enteritis, Rotavirus	162	9	8	14	11	10	17	21	22	16	15	11	8
Intestine-Enteritis, <i>Salmonella sp.</i>	24	4	2	3	1	1	2	5	2	3	-	1	-
Intestine-Enteritis, Specimen Unsuitable	26	1	1	7	1	2	1	2	6	1	1	2	1
Intestine-Enteritis, Swine Dysentery	35	3	6	2	4	-	1	3	-	4	4	6	2
Intestine-Enteritis, Transmissible Gastroenteritis	63	2	3	4	3	3	12	8	7	6	4	8	2

PORCINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Intestine-Enteropathy, Atrophic	88	11	9	3	10	5	5	12	11	5	9	-	8
Intestine-Hemorrhage Syndrome	11	-	1	1	-	-	-	-	3	-	5	-	1
Intestine-Infarction	1	-	-	1	-	-	-	-	-	-	-	-	-
Intestine-Parasitism, Ascaris	7	1	1	-	-	-	1	-	1	-	-	2	1
Intestine-Parasitism, <i>Isospora suis</i>	83	6	9	17	11	1	4	11	3	6	7	35	
Intestine-Parasitism, <i>Cryptosporidium sp.</i>	11	-	-	-	-	-	2	3	3	1	2	-	-
Intestine-Parasitism, <i>Trichuris sp.</i>	3	-	-	2	-	-	1	-	-	-	-	-	-
Intestine-Volvulus	2	-	1	-	-	-	-	-	-	1	-	-	-
Liver-Cirrhosis	1	-	1	-	-	-	-	-	-	-	-	-	-
Liver-Hepatitis	14	2	1	2	1	-	1	-	1	4	1	1	-
Liver-Hepatositis	9	2	1	1	4	-	1	-	-	-	-	-	-
Liver-Lipidosis	6	1	-	-	-	2	-	-	1	-	2	-	-
Liver-Parasitism, Ascaris (Larvae)	17	3	5	1	1	-	-	2	-	1	1	-	3
Oral Cavity-Stomatitis	1	-	-	-	-	-	-	1	-	-	-	-	-
Pancreas-Pancreatitis	1	-	-	-	-	-	-	-	-	-	-	1	-
Rectum-Prolapse	1	-	-	-	-	1	-	-	-	-	-	-	-
Stomach-Gastritis	2	2	-	-	-	-	-	-	-	-	-	-	-
Stomach-Gastritis, Mycotic	1	-	-	1	-	-	-	-	-	-	-	-	-
Stomach-Ulcer	7	-	2	1	1	1	-	-	1	-	1	-	-
7 Urogenital													
Reproductive Disorders-Total Cases	356	30	36	42	37	23	30	33	30	27	28	20	20
Abortion, Anomaly	3	1	-	-	-	-	-	1	-	-	-	1	-
Abortion, Bacteria (NOS)	1	-	-	-	-	-	1	-	-	-	-	1	-
Abortion, Bacterial, <i>Actinobacillus sp.</i>	12	-	-	3	3	-	-	-	2	3	1	-	-
Abortion, Bacterial, <i>Actinomyces pyogenes</i>	1	-	-	-	-	-	-	-	1	-	-	-	-
Abortion, Bacterial, <i>Bacillus sp.</i>	1	-	-	1	-	-	-	-	-	-	-	-	-
Abortion, Bacterial, <i>Erysipelothrix sp.</i>	1	1	-	-	-	-	-	-	-	-	-	-	-
Abortion, Bacterial, <i>Escherichia coli</i>	1	-	-	-	-	-	-	-	-	-	-	-	1
Abortion, Bacterial, <i>Leptospira sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Abortion, Bacterial, <i>Salmonella sp.</i>	1	-	-	-	-	-	-	1	-	-	-	-	-
Abortion, Bacterial, <i>Staphylococcus aureus</i>	1	-	-	-	-	-	1	-	-	-	-	-	-
Abortion, Bacterial, <i>Staphylococcus sp.</i>	2	-	-	-	-	1	1	-	-	-	-	-	-
Abortion, Bacterial, <i>Streptococcus sp.</i>	15	1	3	1	3	-	2	1	2	-	1	-	1
Abortion, Circulatory Failure	1	-	-	-	-	-	-	-	-	1	-	-	-
Abortion, Encephalitis	4	-	-	1	1	-	-	1	-	1	-	-	-
Abortion, Idiopathic	177	17	22	21	21	11	12	11	15	11	15	10	11
Abortion, Mummified Fetus	30	1	1	3	3	2	1	5	2	4	1	2	3
Abortion, Mycotic Placentitis	1	-	-	-	-	-	1	-	-	-	-	-	-
Abortion, Myocarditis	6	1	1	-	-	-	-	-	1	3	-	-	-
Abortion, Placentitis	5	-	-	2	-	-	1	-	1	-	-	-	1
Abortion, Pneumonia	8	-	-	3	-	1	1	1	-	1	1	-	-

PORCINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Abortion, Specimen Unsuitable	1	-	-	-	-	-	-	-	-	-	-	1	-
Abortion, Viral (NOS)	1	1	-	-	-	-	-	-	-	-	-	-	-
Abortion, Viral, Parvovirus	7	-	1	1	1	-	2	2	-	-	-	-	-
Abortion, Viral, Pseudorabies	2	1	-	-	-	-	1	-	-	-	-	-	-
Abortion, Viral, PRRS Virus	4	-	-	-	-	-	-	-	-	-	1	1	2
Dystocia	1	1	-	-	-	-	-	-	-	-	-	-	-
Genital-Bacteriologic Examination	8	1	-	1	-	-	1	1	2	-	-	1	-
Genital-Infertility	10	1	1	-	-	3	-	2	-	-	3	-	-
Kidney-Infarction	1	-	-	-	-	-	-	-	-	-	-	-	1
Kidney-Nephritis	10	-	1	-	-	-	-	2	1	2	2	2	-
Kidney-Nephritis, End Stage	2	1	-	-	-	-	-	-	-	-	1	-	-
Kidney-Nephritis, Glomerulo	4	-	-	-	-	-	-	-	-	1	-	-	3
Kidney-Nephritis, Interstitial	6	1	-	-	1	-	1	1	1	1	-	-	-
Kidney-Nephritis, Pyelo	6	-	-	1	-	1	-	1	1	-	1	-	1
Kidney-Nephrosis	12	1	1	1	2	-	2	-	1	2	1	1	-
Kidney-Nephrosis, Oxalate	1	1	-	-	-	-	-	-	-	-	-	-	-
Stillbirth, Idiopathic	39	3	6	4	4	2	5	4	2	1	5	3	-
Urinary Bladder-Urocystitis	6	1	-	-	2	-	-	-	-	1	-	1	1
Urine-Bacteriologic Examination	2	1	-	-	1	-	-	-	-	-	-	-	-
Uterus-Metritis	9	-	1	1	1	3	-	1	1	-	1	-	-
Vas Deferens-Normal	1	-	-	-	-	-	-	1	-	-	-	-	-
8 Endocrine													
Thyroid-Goiter	1	-	-	-	-	-	-	-	-	-	1	-	-
9 Nervous													
Neurological Disorders-Total Cases	208	19	26	13	17	8	12	16	27	19	19	13	19
Brain-Abscess	3	-	1	-	-	-	-	-	-	-	-	1	1
Brain-Anomaly	1	-	1	-	-	-	-	-	-	-	-	-	-
Brain-Edema	1	-	1	-	-	-	-	-	-	-	-	-	-
Brain-Encephalitis, Eosinophilic	1	-	1	-	-	-	-	-	-	-	-	-	-
Brain-Encephalitis, Non-Suppurative	29	1	3	1	-	2	4	2	7	3	2	3	1
Brain-Encephalitis, Pseudorabies	19	4	1	-	-	1	-	3	4	3	1	-	2
Brain-Encephalomalacia	4	-	-	1	2	-	1	-	-	-	-	-	-
Brain-Toxicosis, Sodium (Water Deprivation)	6	-	1	1	1	-	-	1	1	-	1	-	-
Brain-Vasculitis	2	-	-	1	1	-	-	-	-	-	-	-	-
Congenital Tremor	2	-	1	-	-	-	-	-	1	-	-	-	-
Edema Disease	8	-	1	-	2	-	-	1	1	1	2	-	-
Meninges-Meningitis	2	-	-	-	-	-	-	-	-	-	2	-	-
Meninges-Meningitis, <i>Actinomyces pyogenes</i>	2	-	-	-	-	-	-	-	1	-	1	-	-
Meninges-Meningitis, <i>Escherichia coli</i>	3	-	-	-	-	-	-	-	-	1	1	1	-

PORCINE (continued)	Total	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn
Meninges-Meningitis, <i>Haemophilus parasuis</i>	6	-	-	-	1	-	1	1	1	-	1	1	-
Meninges-Meningitis, Non-Suppurative	3	-	1	-	1	-	-	-	-	-	1	-	-
Meninges-Meningitis, <i>Streptococcus suis</i>	57	6	4	5	5	2	3	4	4	6	5	5	8
Meninges-Meningitis, Suppurative	33	4	6	2	2	2	2	3	3	3	1	2	3
Neurologic Disorder, Idiopathic	21	4	2	1	1	1	-	2	4	1	1	1	3
Spinal Cord-Myelitis, Non-Suppurative	3	-	1	-	1	-	-	-	-	1	-	-	-
Spinal Cord-Myelomalacia	2	-	-	1	-	-	-	-	-	-	-	-	1
X Special Senses													
Ear-Necrosis	3	-	-	-	-	1	-	-	-	-	2	-	-
Ear-Otitis	1	-	-	-	-	-	-	-	-	-	-	1	-
Eye-Conjunctivitis	1	-	-	1	-	-	-	-	-	-	-	-	-

MISCELLANEOUS SPECIMENS

FEED

Mycotoxycosis, Vomitoxin	8	-	2	2	1	-	-	-	1	-	-	1	1
Mycotoxycosis, Zearalenone	2	-	-	1	-	-	-	-	1	-	-	-	-

OTHER SPECIMENS

Toxicant-Anticoagulant, Rodenticide	1	-	-	-	-	-	1	-	-	-	-	-	-
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Laboratory Procedures Summary

I.	Pathology	
	A. Necropsies (whole animals)	6,281
	B. Tissues from field necropsies (accessions)	4,801
	C. Formalin-fixed tissues (surgical or necropsy)	3,905
	D. Cytology (accessions)	1,121
	E. Electron Microscopy (thin sections)	3
	F. Hematology (specimens)	991
	G. Histopathology	
	1) Tissue Sections - H & E stain	63,291
	2) Slides - special stain	933
	H. Rabies (specimens)	2,270
		<u>83,596</u>
	Sub-total	83,596
II.	Bacteriology/Mycology	
	A. Specimens cultured (aerobic)	26,878
	B. Specimens cultured (anaerobic)	634
	C. Specimens cultured (special procedures)	
	1) Campylobacter	539
	2) Milk - quarter samples	2,347
	3) Milk - bulk tank	309
	4) <i>Mycobacterium paratuberculosis</i>	771
	5) Mycoplasma	104
	6) Ureaplasma	12
	D. Direct tissue examinations	
	1) Darkfield/phase contrast (specimens)	296
	2) Immunofluorescence - Chlamydia	118
	3) Immunofluorescence - <i>Clostridium</i> sp.	171
	4) Immunofluorescence - <i>E. coli</i> pili	1,671
	5) Immunofluorescence - <i>Leptospira</i>	756
	6) Immunofluorescence - Mycoplasma	1,400
	E. Microbial susceptibility (cultures = 5,838; drugs = 70,056)	5,546
	F. Mycology (specimens)	1,914
	G. Serotyping	
	1) <i>Actinobacillus pleuropneumoniae</i> (cultures)	134
	2) <i>Pasteurella multocida</i> (cultures)	76
	3) <i>Salmonella</i> spp. (cultures)	497
	3) <i>Streptococcus suis</i> (cultures)	474
		<u>44,647</u>
	Sub-total	44,647
III.	Genetics (specimens karyotyped)	405
IV.	Immunology/Serology	
	A. Immunology (specimens)	1,120
	B. Serology (tests)	302,802
		<u>303,922</u>
	Sub-total	303,922
V.	Parasitology	
	A. Direct Smears - Cryptosporidium	1,033
	B. Direct Smears - Other	2,357
	C. Flotation Fecal Exams	422
	D. Trichomonas Cultures	53
	E. Parasite Identification	114
		<u>3,979</u>
	Sub-total	3,979
VI.	Toxicology/Clinical Chemistry/Endocrinology	
	A. Analytical toxicology (analyses)	2,437
	B. Clinical chemistry (specimens)	2,919
	C. Endocrinology (specimens)	3,766
		<u>9,122</u>
	Sub-total	9,122
VII.	Virology	
	A. Electron microscopy (fecal/tissue specimens)	2,582
	B. Tissue immunofluorescence (tests)	18,911
	C. Virus isolation (specimens)	6,977
		<u>28,470</u>
	Sub-total	28,470
	TOTAL LABORATORY PROCEDURES	474,141

Necropsies (Accessions/Whole Animals)

Species	July	August	September	October	November	December	(continued below)
Avian- Chicken	10/63	11/73	12/147	5/40	11/65	6/62	
Avian- Miscellaneous	21/37	17/32	19/22	22/37	10/12	7/9	
Avian- Turkey	16/95	17/129	5/18	9/60	8/76	4/83	
Bovine	57/66	51/60	33/36	49/55	48/55	74/83	
Canine	47/52	28/26	30/29	21/21	24/29	31/29	
Caprine	3/4	0/0	1/1	1/1	3/3	0/0	
Equine	5/5	5/5	2/1	3/3	9/9	8/8	
Feline	24/22	16/17	12/11	28/29	16/25	17/17	
Fish-Amphibian-Reptile	4/4	4/4	0/0	2/2	1/1	2/2	
Miscellaneous Mammal	14/23	6/8	14/13	8/9	3/11	8/9	
Ovine	5/4	9/10	5/6	1/1	1/1	3/5	
Porcine	63/179	64/162	69/192	61/194	53/145	55/207	
TOTAL	269/554	228/526	202/476	210/452	187/432	215/514	

Species	January	February	March	April	May	June	Total
Avian- Chicken	17/99	8/150	16/250	17/246	10/47	11/92	134/1334
Avian- Miscellaneous	15/21	11/15	11/14	20/32	11/17	10/18	174/266
Avian- Turkey	9/40	11/52	11/63	12/69	14/69	24/131	140/885
Bovine	66/72	64/70	62/79	70/78	34/35	36/41	644/730
Canine	20/23	31/29	30/32	30/33	33/39	34/33	359/375
Caprine	1/1	1/2	1/1	1/1	1/2	2/3	15/19
Equine	6/7	4/4	1/1	4/5	4/4	2/2	53/54
Feline	19/19	19/20	17/17	26/26	17/17	20/27	231/247
Fish-Amphibian-Reptile	3/3	2/2	2/5	2/11	1/1	3/14	26/49
Miscellaneous Mammal	7/9	9/11	11/15	12/25	8/11	18/25	118/169
Ovine	10/14	14/26	15/37	6/10	8/9	2/5	79/128
Porcine	60/197	65/192	61/174	50/137	36/109	50/137	687/2025
TOTAL	233/505	239/573	238/688	250/673	177/360	212/528	2660/6281

Tissue Accessions

Species	Tissues from Field Necropsies	Formalin Fixed Tissues Only (Surgical or Necropsy)
Avian- Chicken	26	10
Avian- Miscellaneous	66	128
Avian- Turkey	21	17
Bovine	2,020	42
Canine	309	2,860
Caprine	15	2
Equine	59	112
Feline	144	594
Fish-Amphibian-Reptile	5	9
Miscellaneous Mammal	71	72
Ovine	71	5
Porcine	1,994	54
TOTAL	4,801	3,905

Positive Rabies Cases

Species	Jl	Ag	Sp	Oc	Nv	Dc	Jn	Fb	Mr	Ap	My	Jn	Total	Percent Total
Bat	1	5	1	1	-	1	-	-	-	-	-	-	9	5.3
Bovine	2	-	4	-	-	-	5	-	1	3	1	2	18	10.7
Canine	-	1	2	2	2	-	1	2	-	1	-	2	13	7.7
Equine	-	-	-	-	-	-	-	-	2	1	3	-	6	3.5
Feline	1	2	-	-	1	3	1	2	-	2	1	2	15	8.9
Fox	1	-	-	-	-	-	-	-	-	-	-	-	1	0.6
Skunk	13	9	7	11	13	9	12	6	5	7	6	9	107	63.3
TOTAL	18	17	14	14	16	13	19	10	7	15	11	15	169	100.0

Rabies Examinations*

Species	Human Exposure				Non-Human Exposure				Grand Total
	Pos	Neg	No Test	Total	Pos	Neg	No Test	Total	
Bat	4	93	2	99	5	82	4	91	190
Bear	-	1	-	1	-	-	-	-	1
Beaver	-	-	-	-	-	1	-	1	1
Bovine	12	67	-	79	6	81	1	88	167
Canine	7	556	1	564	6	53	-	59	623
Caprine	-	2	-	2	-	2	-	2	4
Chipmunk	-	11	-	11	-	2	-	2	13
Deer	-	-	-	-	-	6	-	6	6
Equine	2	7	-	9	4	6	-	10	19
Feline	15	626	1	642	-	57	1	58	700
Ferret	-	7	-	7	-	3	-	3	10
Fisher	-	1	-	1	-	-	-	-	1
Fox	-	19	1	20	1	14	2	17	37
Gerbil	-	2	-	2	-	-	-	-	2
Gopher	-	6	-	6	-	-	-	-	6
Hamster	-	6	-	6	-	-	-	-	6
Llama	-	1	-	1	-	-	-	-	1
Mink	-	2	-	2	-	2	-	2	4
Mole	-	1	-	1	-	-	-	-	1
Mouse	-	21	-	21	-	-	-	-	21
Muskrat	-	6	-	6	-	7	-	7	13
Opposum	-	4	1	5	-	4	-	4	9
Ovine	-	3	-	3	-	4	-	4	7
Porcine	-	-	-	-	-	2	-	2	2
Rabbit	-	5	-	5	-	3	-	3	8
Raccoon	-	91	-	91	-	96	1	97	188
Rat	-	11	-	11	-	1	-	1	12
Shrew	-	2	-	2	-	-	-	-	2
Skunk	19	13	2	34	88	44	1	133	167
Squirrel	-	26	-	26	-	2	-	2	28
Weasel	-	2	-	2	-	1	-	1	3
Woodchuck	-	5	-	5	-	13	-	13	18
TOTAL	59	1,597	8	1,664	110	486	10	606	2,270

*Fluorescent antibody testing performed by the Minnesota Department of Health

Cytology Laboratory Summary*

Species	Specimens
Avian	12
Bovine	3
Canine	808
Caprine	1
Equine	10
Feline	254
Fish-Amphibian-Reptile	1
Miscellaneous Mammals	23
Ovine	1
Porcine	8
TOTAL	1,121

*Dr. Doug Weiss, Supervisor

Genetics Laboratory Summary

Species/Breed	Specimens Karyotyped	Number with Abnormal Chromosomes	Chromosomal Defect
Bovine/Holstein	102	85	Freemartin
Bovine/Charolais	64	27	1/29 Robertsonian Translocation
Bovine/Simmental	160	58	14/20 Robertsonian Translocation
Canine	44	2	Sex Chromosome Abnormality
Equine	30	2	Sex Chromosome Abnormality
Feline	5	0	Sex Chromosome Abnormality
TOTAL	405	174	

Hematology Laboratory Summary*

Species	Activated Partial Thromboplast	Blood Typing	Coagulation Profile	Complete Blood Count	Differential	EPE Screen	Fibrin Split Products	Fibrinogen
Avian	-	-	-	1	-	-	-	-
Bovine	-	-	-	27	1	-	-	-
Canine	20	-	13	419	17	-	4	-
Caprine	-	-	-	-	-	-	-	-
Equine	-	-	1	42	2	-	-	1
Feline	5	4	1	137	4	-	-	-
Misc. Mammal	-	-	-	11	1	4	-	4
Ovine	-	-	-	1	-	-	-	-
Porcine	-	-	-	122	-	18	-	-
TOTAL	25	4	15	760	25	22	4	5

Species	Hemo-bartonella	Packed Cell Hemoglobin Hemogram	Platelet Count	Prothrombin Time	Reticulocyte Count	Thrombin Time	White Blood Cell Count
Avian	-	-	-	-	-	-	-
Bovine	-	-	-	-	-	-	-
Canine	-	12	50	20	12	4	1
Caprine	-	-	-	-	-	-	-
Equine	-	-	-	-	-	-	-
Feline	3	-	2	5	3	-	1
Misc. Mammal	-	-	-	-	-	-	-
Ovine	-	-	-	-	-	-	-
Porcine	-	17	-	-	-	-	-
TOTAL	3	29	52	25	15	4	2

*Dr. Doug Weiss, Laboratory Supervisor

Histotechnique Laboratory Summary

Tissue Sections	Slides (H&E Stain)	Special Stains (Slides)	Recut Blocks	Decalcification
63,291	23,771	933	352	184

Bacterial Cultures/Susceptibilities				
Species	Accessions	Aerobic Cultures	Anaerobic Cultures	Microbial Susceptibility
Avian-Chicken	135	964	2	58
Avian-Miscellaneous	300	700	17	113
Avian-Turkey	177	1,088	0	115
Bovine	2,851	7,135	70	983
Canine	2,127	2,554	273	1,325
Caprine	49	123	5	11
Equine	494	748	43	205
Feline	597	801	60	242
Fish-Amphibian-Reptile	42	109	11	35
Miscellaneous Mammal	261	529	23	133
Miscellaneous Specimen	66	116	5	5
Ovine	143	402	2	41
Porcine	2,787	11,609	123	2,280
TOTAL	10,029	26,878	634	5,546

Bacterial Cultures - Special Procedures (Campylobacter and Mycobacterium)										
Species	<i>Campylobacter spp.</i>								<i>Mycobacterium paratuberculosis</i>	
	Specimens	coli	jejuni	upsal.	hyoint.	sputorum	fetus fetus	Misc.	Specimens	Positive
Avian-Chicken	9	-	-	-	-	-	-	-	-	-
Avian-Miscellaneous	-	-	-	-	-	-	-	-	-	-
Avian-Turkey	-	-	-	-	-	-	-	-	-	-
Bovine	369	-	1	-	-	-	3	1	759	147
Canine	98	4	3	17	-	-	-	-	-	-
Caprine	1	-	-	-	-	-	-	-	-	-
Equine	-	-	-	-	-	-	-	-	-	-
Feline	22	-	-	1	-	-	-	-	-	-
Miscellaneous Mammal	2	-	-	-	-	-	-	-	8	0
Ovine	37	-	3	-	-	-	-	-	4	0
Porcine	1	-	-	-	-	-	-	1	-	-
TOTAL	539	4	7	18	-	-	3	2	771	147

Bacterial Cultures - Special Procedures (Mycoplasma and Ureaplasma)						
Species	Mycoplasma			Ureaplasma		
	Accessions	Samples	Positive	Accessions	Samples	Positive
Avian - Chicken	2	8	0	-	-	-
Avian - Miscellaneous	3	4	1	-	-	-
Avian - Turkey	4	9	0	-	-	-
Bovine	4	7	0	2	2	2
Canine	39	42	25	9	9	4
Feline	6	6	1	1	1	0
Miscellaneous Mammals	2	4	4	-	-	-
Miscellaneous Specimens	2	2	0	-	-	-
Ovine	1	2	0	-	-	-
Porcine	10	20	6	-	-	-
TOTAL	73	104	37	12	12	6

Bacterial Immunofluorescence in Tissues* - Clostridia					
Species	Accessions	Specimens	<i>C. chauvoei</i> Positive	<i>C. septicum</i> Positive	<i>C. novyi</i> Positive
Bovine	50	52	11	9	11
Ovine	2	2	-	-	-
Porcine	1	3	-	-	-
TOTAL	53	57	11	9	11

*Frozen Section or Tissue Imprints

Bacterial Immunofluorescence in Tissues* - <i>Escherichia coli</i> Pilus Antigens							
Species	Accessions	K88		K99		987P	
		Tests	Positive	Tests	Positive	Tests	Positive
Bovine	352	-	-	322	74	-	-
Porcine	488	483	188	432	18	434	11
TOTAL	840	483	188	754	92	434	11

*Frozen Section or Tissue Imprints

Bacterial Immunofluorescence in Tissues* - Chlamydia, Leptospira and Mycoplasma

Species	<i>Chlamydia psittaci</i>				<i>Leptospira sp.</i>				<i>Mycoplasma hyopneumoniae</i>			
	Accessions	Samples	Pos	Neg	Accessions	Samples	Pos	Neg	Accessions	Samples	Pos	Neg
Avian- Chicken	-	-	-	-	-	-	-	-	-	-	-	-
Avian- Miscellaneous	4	9	0	9	2	2	0	2	-	-	-	-
Avian- Turkey	-	-	-	-	-	-	-	-	-	-	-	-
Bovine	4	6	0	6	13	17	0	17	-	-	-	-
Canine	1	3	0	3	1	1	0	1	-	-	-	-
Caprine	-	-	-	-	1	1	0	1	-	-	-	-
Equine	-	-	-	-	4	5	0	5	-	-	-	-
Feline	45	94	0	94	-	-	-	-	-	-	-	-
Miscellaneous Mammals	1	6	0	6	1	1	0	1	-	-	-	-
Porcine	-	-	-	-	338	729	4	725	629	1,400	107	1,293
TOTAL	55	118	0	118	360	756	4	752	629	1,400	107	1,293

*Frozen Section or Tissue Imprints

Bovine Mastitis Cultures

Number of Bovine Mastitis Cultures: 2,347
 Number with Significant Isolates: 851 (36%)
 Number with No growth: 1,496 (64%)
 Number of Bulk Tank Samples: 309

Isolate	Number Isolated	Number of Isolates Tested	Percent Susceptible		
			Amikacin	Ampicillin	Cephalothin
<i>Actinomyces pyogenes</i>	15	0	-	-	-
<i>Bacillus spp.</i>	7	4	100	25	50
<i>Corynebacterium spp.</i>	24	0	-	-	-
<i>Enterobacter spp.</i>	3	3	100	33	66
<i>Enterococcus spp.</i>	10	10	20	90	10
<i>Escherichia coli</i>	27	25	96	64	68
<i>Haemophilus somnus</i>	1	0	-	-	-
<i>Klebsiella spp.</i>	12	12	100	8	92
<i>Pasteurella haemolytica</i>	1	1	0	100	100
<i>Pasteurella multocida</i>	5	5	100	80	100
<i>Serratia spp.</i>	3	3	100	0	0
<i>Staphylococcus spp.-coag. negative</i>	180	180	98	72	99
<i>Staphylococcus spp.-coag. positive</i>	283	282	95	63	99
<i>Streptococcus agalactiae</i>	194	0	-	-	-
<i>Streptococcus bovis</i>	36	22	81	100	98
<i>Streptococcus dysgalactiae</i>	39	39	18	85	97
<i>Streptococcus spp.-Group G</i>	18	18	11	83	94
<i>Streptococcus uberis</i>	87	85	15	89	94
Yeasts	-	-	-	-	-

(continued)

Bovine Mastitis Cultures (continued)

Isolate	Percent Susceptible				
	Erythromycin	Gentamycin	Neomycin	Novobiocin	Penicillin
<i>Actinomyces pyogenes</i>	-	-	-	-	-
<i>Bacillus spp.</i>	25	100	100	25	25
<i>Corynebacterium spp.</i>	-	-	-	-	-
<i>Enterobacter spp.</i>	0	100	100	0	0
<i>Enterococcus spp.</i>	20	90	20	90	60
<i>Escherichia coli</i>	0	100	36	0	0
<i>Haemophilus somnus</i>	-	-	-	-	-
<i>Klebsiella spp.</i>	17	92	75	8	0
<i>Pasteurella haemolytica</i>	0	100	0	0	100
<i>Pasteurella multocida</i>	20	100	80	20	80
<i>Serratia spp.</i>	0	100	100	0	0
<i>Staphylococcus spp.</i> -coag. negative	63	100	98	68	72
<i>Staphylococcus spp.</i> -coag. positive	46	99	91	81	63
<i>Streptococcus agalactiae</i>	-	-	-	-	-
<i>Streptococcus bovis</i>	58	28	14	5	81
<i>Streptococcus dysgalactiae</i>	33	72	18	10	85
<i>Streptococcus spp.</i> -Group G	94	67	78	0	61
<i>Streptococcus uberis</i>	39	36	7	7	89
Yeasts	-	-	-	-	-

Isolate	Percent Susceptible				
	Oxacillin	Streptomycin	Sulfachloro- pyridazine	Tetracycline	Triple Sulfa
<i>Actinomyces pyogenes</i>	-	-	-	-	-
<i>Bacillus spp.</i>	-	75	100	50	100
<i>Corynebacterium spp.</i>	-	-	-	-	-
<i>Enterobacter spp.</i>	-	100	100	100	100
<i>Enterococcus spp.</i>	-	20	20	50	20
<i>Escherichia coli</i>	-	60	56	72	52
<i>Haemophilus somnus</i>	-	-	-	-	-
<i>Klebsiella spp.</i>	-	58	75	92	75
<i>Pasteurella haemolytica</i>	-	0	0	100	0
<i>Pasteurella multocida</i>	-	60	60	80	60
<i>Serratia spp.</i>	-	33	100	0	100
<i>Staphylococcus spp.</i> -coag. negative	98	91	51	81	29
<i>Staphylococcus spp.</i> -coag. positive	99	84	55	87	28
<i>Streptococcus agalactiae</i>	-	-	-	-	-
<i>Streptococcus bovis</i>	-	5	25	28	22
<i>Streptococcus dysgalactiae</i>	-	23	41	10	28
<i>Streptococcus spp.</i> -Group G	-	61	67	22	67
<i>Streptococcus uberis</i>	-	11	11	36	8
Yeasts	-	-	-	-	-

Actinobacillus pleuropneumoniae Serotyping*

Type	Accessions	Percent
1	72	54
3	1	1
5	21	16
7	25	19
9	1	1
Untypable	14	9
TOTAL	134	100

*Serotyping conducted by Dr. Carlos Pijoan

Pasteurella multocida Serotyping*

Type	Avian	Chicken	Porcine	Turkey	Total
A	-	-	32	-	32
1	-	-	-	2	2
3	-	-	-	6	6
3x4	-	1	-	4	5
3x4x5	-	-	-	-	-
Untypable	-	1	-	-	2
D	-	1	28	-	29
TOTAL	-	3	60	13	76

*Serotyping conducted by Dr. K. Nagaraja

Salmonella Serotyping*

Serotype	Host												Total
	Avian- Chicken	Avian- Misc.	Avian- Turkey	Bovine	Canine	Equine	Feline	Fish/ Amphib/ Reptile	Misc. Mammals	Misc. Specimen	Ovine	Porcine	
abony	-	-	-	-	-	-	-	1	-	-	-	-	1
agona	2	-	1	1	-	-	-	-	-	-	-	5	9
albany	-	1	-	-	-	-	-	-	-	-	-	-	1
amsterdam	-	-	-	-	-	-	-	-	-	-	-	1	1
anatum	-	-	1	-	-	-	-	-	-	-	-	1	2
arkansas	-	-	-	-	-	-	-	-	-	1	-	-	1
arizona	3	6	1	-	-	-	1	2	-	3	12	1	29
bietri	-	-	-	-	-	-	-	-	-	1	-	-	1
braenderup	1	-	-	-	-	-	-	-	-	-	-	-	1
brandenberg	-	-	-	1	-	-	-	-	1	-	-	2	4
bredney	-	-	1	2	-	-	-	-	-	-	-	1	4
cerro	-	-	-	-	1	-	-	-	-	-	-	-	1
cholerasuis kunzendorf	-	-	-	-	-	-	1	-	-	-	-	140	141
derby	-	-	-	-	-	-	-	-	-	-	-	21	21
dublin	-	1	-	61	-	2	1	1	-	-	-	2	68
enteriditis	4	-	-	10	-	-	-	-	-	-	-	2	16
hadar	-	-	5	-	-	1	-	2	1	-	1	1	11
havana	-	-	-	3	1	-	-	-	-	-	-	-	4
heidelberg	2	-	5	1	-	-	-	-	-	-	-	1	9
infantis	1	-	-	1	-	-	-	-	1	-	-	1	4
johannesberg	-	-	-	-	1	-	-	-	-	1	-	-	2
kentucky	1	-	2	-	-	-	-	-	-	-	-	-	3
lome	-	-	-	-	-	-	-	1	-	-	-	-	1
manhattan	-	-	1	-	-	-	-	-	-	-	-	-	1
mbandaka	1	-	-	4	-	-	-	1	-	-	-	1	7
minneapolis	-	-	-	-	1	-	-	-	-	-	-	-	1
montevideo	-	-	10	1	-	1	-	-	-	-	-	-	12
newington	-	-	-	3	-	-	-	-	-	-	-	-	3
newport	-	-	-	-	-	1	-	-	-	-	-	-	1
new brunswick	-	-	-	2	-	-	-	-	-	-	-	-	2
putten	-	-	-	-	-	-	-	-	-	-	-	1	1
sachsenwald	-	-	-	-	-	-	-	-	1	-	-	-	1
st. paul	-	-	2	-	-	-	-	-	1	-	-	-	3
seftenberg	-	-	4	2	-	-	-	-	-	-	-	1	7
sundsvall	-	-	-	-	-	-	-	-	1	-	-	-	1
tennessee	-	-	-	-	-	-	-	-	-	-	-	1	1
thomasville	-	-	-	-	-	-	-	-	-	1	-	-	1
typhimurium	-	1	-	13	1	14	3	-	1	-	-	5	38
typhimurium copenhagen	-	4	-	6	-	-	-	-	-	-	-	2	12
uganda	1	-	1	-	-	-	-	-	-	-	-	-	2
worthington	-	-	-	-	1	-	-	-	-	-	-	-	1
Salmonella 9,12 non-motile	-	-	-	62	1	-	-	-	1	-	-	2	66
untypable	-	-	-	1	-	-	-	-	-	-	-	-	1
TOTAL	16	13	34	174	7	19	6	8	8	7	13	192	497

*Serotyping conducted by National Veterinary Services Laboratory - Ames, IA.

Streptococcus suis Serotyping - Porcine Origin*

Source	Serotype												Total	Percent
	1	2	3	4	5	6	7	8	9	10	11	UT**		
Brain/Meninges	-	24	4	5	1	1	2	4	1	2	-	8	52	11.0
Heart	-	3	-	-	-	2	-	-	-	-	-	2	7	1.5
Joint	-	-	2	1	1	-	-	1	-	-	-	-	5	1.1
Kidney	-	2	1	-	-	-	-	-	-	-	-	1	4	0.8
Liver	-	11	2	-	-	-	1	1	1	-	-	1	17	3.6
Lung	1	110	49	34	22	5	11	23	1	4	3	34	297	62.6
Lymph Node	-	-	-	-	-	-	-	-	-	-	-	1	1	0.2
Nasal Turbinates	3	3	5	4	9	3	8	7	-	1	-	6	49	10.3
Other	-	2	7	-	4	-	5	2	-	3	-	2	25	5.3
Spleen	-	4	2	1	1	-	4	1	-	-	-	4	17	3.6
TOTAL	4	159	72	45	38	11	31	39	3	10	3	59	474	
PERCENT	0.8	33.6	15.2	9.5	8.0	2.3	6.5	8.2	0.7	2.1	0.7	12.4		100.0

*Serotyping conducted by Dr. Carlos Pijoan

**Untypable

In Vitro Antimicrobial Drug Susceptibility Tests

Avian (Chicken and Turkey)

Isolate	Number of Isolates Tested	Percent Susceptible					
		Bacitracin	Erythromycin	Gentamicin	Lincomycin	Neomycin	Nitro- furantoin
<i>Bordetella sp.</i>	3	0	100	100	0	33	33
<i>Erysipelothrix rhusiopathiae</i>	4	50	100	0	100	0	100
<i>Escherichia coli</i>	58	0	0	81	0	14	44
<i>Pasteurella hemolytica</i>	20	5	35	100	0	100	100
<i>Pasteurella multocida</i>	14	7	14	93	0	64	88
<i>Pasteurella spp.</i>	5	0	40	80	0	100	100
<i>Salmonella spp.</i>	37	0	5	68	3	61	93
<i>Staphylococcus aureus</i>	26	100	35	88	40	77	100
<i>Staphylococcus spp.-coag. neg.</i>	10	89	40	80	40	80	60

Isolate	Percent Susceptible							
	Novobiocin	Penicillin	Spectino- mycin	Streptomycin	Sulfachloro- pyridazine	Tetracycline Doxycycline	Trimetho- prim Sulfa	Triple Sulfa
<i>Bordetella sp.</i>	67	3	100	0	33	33	33	33
<i>Erysipelothrix rhusiopathiae</i>	0	100	75	0	25	0	0	0
<i>Escherichia coli</i>	0	0	59	4	22	10	88	14
<i>Pasteurella hemolytica</i>	5	85	100	89	45	10	95	25
<i>Pasteurella multocida</i>	57	93	86	38	43	93	86	36
<i>Pasteurella spp.</i>	25	50	100	75	60	60	100	60
<i>Salmonella spp.</i>	0	0	50	38	38	54	95	29
<i>Staphylococcus aureus</i>	76	85	4	92	69	8	96	27
<i>Staphylococcus spp.-coag. neg.</i>	67	80	40	100	80	40	100	70

In Vitro Antimicrobial Drug Susceptibility Tests (continued)

Bovine

Isolate	Number of Isolates Tested	Percent Susceptible				
		Amikacin	Ampicillin	Apramycin	Ceftiofur	Cephalothin
<i>Actinomyces pyogenes</i>	8	-	100	-	100	100
<i>Escherichia coli</i>	392	99	24	85	53	23
<i>Haemophilus spp.</i>	33	-	94	-	88	100
<i>Klebsiella spp.</i>	8	100	0	100	57	63
<i>Moraxella bovis</i>	6	-	100	-	100	100
<i>Pasteurella haemolytica</i>	111	-	63	-	99	100
<i>Pasteurella multocida</i>	138	-	88	-	100	100
<i>Pseudomonas spp.</i>	10	100	20	33	14	10
<i>Salmonella spp.</i>	171	100	25	98	59	85
<i>Staphylococcus spp.</i> -coag. pos.	3	-	33	-	100	100
<i>Staphylococcus spp.</i> -coag. neg.	2	-	50	-	100	100

Isolate	Percent Susceptible						
	Erythromycin	Gentamicin	Kanamycin	Lincomycin	Neomycin	Nitrofurantoin	Novobiocin
<i>Actinomyces pyogenes</i>	100	100	100	100	-	100	100
<i>Escherichia coli</i>	-	76	19	-	11	91	-
<i>Haemophilus spp.</i>	63	82	56	21	-	100	81
<i>Klebsiella spp.</i>	-	100	43	-	29	0	-
<i>Moraxella bovis</i>	80	100	80	17	-	100	60
<i>Pasteurella haemolytica</i>	9	96	87	0	-	98	4
<i>Pasteurella multocida</i>	28	98	81	0	-	100	49
<i>Pseudomonas spp.</i>	-	100	33	-	57	17	-
<i>Salmonella spp.</i>	-	95	24	-	22	96	-
<i>Staphylococcus spp.</i> -coag. pos.	33	100	100	0	-	-	100
<i>Staphylococcus spp.</i> -coag. neg.	0	50	50	0	-	100	100

In Vitro Antimicrobial Drug Susceptibility Tests (continued)

Bovine (continued)

Isolate	Percent Susceptible						
	Penicillin	Spectinomycin	Sulfachloro- pyridazine	Tetracycline	Trimetho- prim Sulfa	Triple Sulfa	Enrofloxacin
<i>Actinomyces pyogenes</i>	100	88	13	88	100	0	-
<i>Escherichia coli</i>	-	49	18	8	63	13	97
<i>Haemophilus spp.</i>	77	76	63	85	94	33	-
<i>Klebsiella spp.</i>	-	43	25	0	71	25	100
<i>Moraxella bovis</i>	100	100	100	100	100	100	-
<i>Pasteurella haemolytica</i>	61	88	65	52	99	28	-
<i>Pasteurella multocida</i>	85	86	63	81	87	28	-
<i>Pseudomonas spp.</i>	-	33	22	30	13	25	100
<i>Salmonella spp.</i>	-	96	21	22	90	14	100
<i>Staphylococcus spp.</i> -coag. pos.	33	33	100	100	100	33	-
<i>Staphylococcus spp.</i> -coag. neg.	0	0	50	50	50	0	-

Canine and Feline

Isolate	Number of Isolates Tested	Percent Susceptible				
		Amikacin	Ampicillin	Amoxicillin/ Clavulanic Acid	Bacitracin	Cefataxine
<i>Bordetella spp.</i>	19	-	100	100	50	42
<i>Enterobacter spp.</i>	18	94	29	53	0	89
<i>Escherichia coli</i>	203	98	65	81	6	98
<i>Klebsiella spp.</i>	17	100	0	94	0	100
<i>Pasteurella multocida</i>	59	-	100	100	0	100
<i>Pasteurella spp.</i>	5	-	100	100	-	100
<i>Proteus spp.</i>	69	94	25	71	0	62
<i>Pseudomonas spp.</i>	88	95	5	3	0	34
<i>Salmonella spp.</i>	13	100	62	100	-	91
<i>Staphylococcus spp.</i> -coag. pos.	201	-	27	99	94	97
<i>Staphylococcus spp.</i> -coag. neg.	59	-	34	100	100	98
<i>Streptococcus spp.</i> -alpha	110	-	62	96	63	46
<i>Streptococcus spp.</i> -beta	108	-	84	100	98	98

In Vitro Antimicrobial Susceptibility Tests (continued)

Canine and Feline (continued)

Isolate	Percent Susceptible						
	Cephalothin	Chloramphenicol	Clindamycin	Enrofloxacin	Erythromycin	Gentamicin	Neomycin
<i>Bordetella spp.</i>	32	100	0	100	100	100	100
<i>Enterobacter spp.</i>	28	82	-	94	-	100	75
<i>Escherichia coli</i>	21	94	-	99	-	96	54
<i>Klebsiella spp.</i>	59	83	-	89	-	100	100
<i>Pasteurella multocida</i>	98	100	2	97	22	97	56
<i>Pasteurella spp.</i>	100	100	0	100	80	100	-
<i>Proteus spp.</i>	49	66	-	97	-	94	56
<i>Pseudomonas spp.</i>	3	9	-	83	-	80	15
<i>Salmonella spp.</i>	82	75	-	92	-	92	100
<i>Staphylococcus spp.</i> -coag. pos.	99	97	44	96	41	99	83
<i>Staphylococcus spp.</i> -coag. neg.	100	97	64	98	59	98	97
<i>Streptococcus spp.</i> -alpha	40	77	18	35	42	55	16
<i>Streptococcus spp.</i> -beta	98	94	50	59	69	73	0

Percent Susceptible

Isolate	Percent Susceptible						
	Nitrofurantoin	Oxacillin	Penicillin	Polymyxin	Tetracycline	Ticarcillin	Trimethoprim Sulfa
<i>Bordetella spp.</i>	-	-	0	100	100	100	47
<i>Enterobacter spp.</i>	100	-	-	86	63	69	56
<i>Escherichia coli</i>	98	-	-	88	69	71	85
<i>Klebsiella spp.</i>	82	-	-	67	59	8	67
<i>Pasteurella multocida</i>	-	-	97	70	98	100	100
<i>Pasteurella spp.</i>	-	-	80	-	80	-	100
<i>Proteus spp.</i>	18	-	-	4	7	33	73
<i>Pseudomonas spp.</i>	1	-	-	94	17	59	12
<i>Salmonella spp.</i>	92	-	-	-	83	75	46
<i>Staphylococcus spp.</i> -coag. pos.	-	98	26	95	52	99	73
<i>Staphylococcus spp.</i> -coag. neg.	-	94	37	94	63	93	85
<i>Streptococcus spp.</i> -alpha	-	-	49	10	41	66	80
<i>Streptococcus spp.</i> -beta	-	-	83	5	24	100	94

In Vitro Antimicrobial Susceptibility Tests (continued)

Equine

Isolate	Number of Isolates Tested	Percent Susceptible		
		Amikacin	Ampicillin	Carbenicillin
<i>Actinobacillus spp.</i>	13	-	92	-
<i>Enterobacter spp.</i>	4	100	0	75
<i>Escherichia coli</i>	22	100	38	35
<i>Klebsiella spp.</i>	7	100	0	0
<i>Pseudomonas spp.</i>	9	100	22	100
<i>Rhodococcus equi</i>	1	-	100	-
<i>Salmonella spp.</i>	10	100	30	11
<i>Staphylococcus spp.</i> -coag. pos.	7	-	57	-
<i>Staphylococcus spp.</i> -coag. neg.	2	-	100	-
<i>Streptococcus spp.</i> -alpha	7	-	100	-
<i>Streptococcus spp.</i> -beta	52	-	84	-

Isolate	Percent Susceptible				
	Ceftiofur	Cephalothin	Chloramphenicol	Erythromycin	Gentamicin
<i>Actinobacillus spp.</i>	77	100	92	31	100
<i>Enterobacter spp.</i>	0	25	100	-	100
<i>Escherichia coli</i>	50	32	72	-	68
<i>Klebsiella spp.</i>	57	86	100	-	100
<i>Pseudomonas spp.</i>	11	0	0	-	38
<i>Rhodococcus equi</i>	0	0	100	100	100
<i>Salmonella spp.</i>	90	33	60	-	13
<i>Staphylococcus spp.</i> -coag. pos.	86	100	71	29	100
<i>Staphylococcus spp.</i> -coag. neg.	100	100	100	0	100
<i>Streptococcus spp.</i> -alpha	71	71	100	57	57
<i>Streptococcus spp.</i> -beta	87	98	89	79	46

In Vitro Antimicrobial Susceptibility Tests (continued)

Equine (continued)

Isolate	Percent Susceptible					
	Neomycin	Nitrofurantoin	Novobiocin	Penicillin	Polymyxin	Rifampin
<i>Actinobacillus spp.</i>	-	100	8	92	-	62
<i>Enterobacter spp.</i>	50	25	-	-	50	-
<i>Escherichia coli</i>	37	90	-	-	89	-
<i>Klebsiella spp.</i>	43	29	-	-	43	-
<i>Pseudomonas spp.</i>	75	25	-	-	83	-
<i>Rhodococcus equi</i>	-	100	0	0	-	100
<i>Salmonella spp.</i>	60	100	-	-	90	-
<i>Staphylococcus spp.</i> -coag. pos.	-	71	86	12	-	100
<i>Staphylococcus spp.</i> -coag. neg.	-	100	100	100	-	100
<i>Streptococcus spp.</i> -alpha	-	83	33	100	-	100
<i>Streptococcus spp.</i> -beta	-	98	11	82	-	93

Isolate	Percent Susceptible					
	Spectinomycin	Sulfachloro-pyridazine	Tetracycline	Ticarcillin	Trimethoprim Sulfa	Triple Sulfa
<i>Actinobacillus spp.</i>	77	83	69	83	100	77
<i>Enterobacter spp.</i>	75	50	50	67	100	50
<i>Escherichia coli</i>	59	50	41	29	55	32
<i>Klebsiella spp.</i>	86	43	100	0	86	71
<i>Pseudomonas spp.</i>	0	40	11	67	0	0
<i>Rhodococcus equi</i>	100	0	0	-	100	0
<i>Salmonella spp.</i>	50	13	30	25	10	11
<i>Staphylococcus spp.</i> -coag. pos.	0	57	100	50	100	14
<i>Staphylococcus spp.</i> -coag. neg.	100	100	100	-	100	0
<i>Streptococcus spp.</i> -alpha	67	17	57	50	100	20
<i>Streptococcus spp.</i> -beta	67	16	27	100	58	8

Ovine

Isolate	Number of Isolates Tested	Percent Susceptible				
		Amikacin	Ampicillin	Apramycin	Ceftiofur	Cephalothin
<i>Escherichia coli</i>	3	100	67	100	67	33
<i>Pasteurella hemolytica</i>	16	-	100	-	100	100
<i>Pasteurella multocida</i>	7	-	100	-	100	100
<i>Salmonella spp.</i>	12	100	100	100	92	100

In Vitro Antimicrobial Drug Susceptibility Tests (continued)

Ovine (continued)

Isolate	Percent Susceptible						
	Erythromycin	Enrofloxacin	Gentamicin	Kanamycin	Lincomycin	Neomycin	Nitrofurantoin
<i>Escherichia coli</i>	-	100	100	33	-	0	100
<i>Pasteurella hemolytica</i>	13	-	88	80	6	-	100
<i>Pasteurella multocida</i>	14	-	100	86	0	-	100
<i>Salmonella spp.</i>	-	100	100	100	-	100	100

Isolate	Percent Susceptible						
	Novobiocin	Penicillin	Spectinomycin	Sulfachloro- pyridazine	Tetracycline	Trimethoprim Sulfa	Triple Sulfa
<i>Escherichia coli</i>	-	-	33	0	0	100	0
<i>Pasteurella hemolytica</i>	7	100	94	63	81	94	31
<i>Pasteurella multocida</i>	43	86	100	57	100	100	57
<i>Salmonella spp.</i>	-	-	91	67	92	92	18

Porcine

Isolate	Number of Isolates Tested	Percent Susceptible					
		Amikacin	Ampicillin	Apramycin	Carbadox	Ceftiofur	Cephalothin
<i>Actinobacillus pleuropneumoniae</i>	125	-	75	-	-	99	98
<i>Actinobacillus spp.</i>	27	-	67	-	-	93	100
<i>Actinomyces pyogenes</i>	11	-	91	-	-	82	100
<i>Bordetella spp.</i>	82	-	61	-	-	0	13
<i>Enterobacter spp.</i>	6	100	17	99	100	67	17
<i>Erysipelothrix rhusiopathiae</i>	15	-	100	-	-	100	93
<i>Escherichia coli</i>	530	99	47	52	70	63	30
<i>Haemophilus spp.</i>	147	-	93	-	-	97	99
<i>Klebsiella spp.</i>	5	100	0	100	100	80	80
<i>Pasteurella multocida</i>	401	-	98	-	-	100	100
<i>Salmonella spp.</i>	187	100	73	89	81	79	97
<i>Staphylococcus hyicus</i>	27	-	19	-	-	89	100
<i>Staphylococcus spp.-coag. pos.</i>	11	-	9	-	-	100	100
<i>Streptococcus suis</i>	343	-	82	-	-	78	97
<i>Streptococcus spp.-alpha</i>	156	-	79	-	-	71	88
<i>Streptococcus spp.-beta</i>	50	-	90	-	-	100	100

In Vitro Antimicrobial Drug Susceptibility Tests (continued)

Porcine (continued)

Isolate	Percent Susceptible						
	Enrofloxacin	Erythromycin	Gentamicin	Kanamycin	Lincomycin	Neomycin	Nitrofurantoin
<i>Actinobacillus pleuropneumoniae</i>	-	14	98	82	3	-	100
<i>Actinobacillus spp.</i>	-	15	100	78	0	-	93
<i>Actinomyces pyogenes</i>	-	73	100	91	27	-	100
<i>Bordetella spp.</i>	-	87	100	100	2	-	43
<i>Enterobacter spp.</i>	83	-	80	67	-	40	50
<i>Erysipelothrix rhusiopathiae</i>	-	87	20	7	47	-	89
<i>Escherichia coli</i>	99	-	50	32	-	19	70
<i>Haemophilus spp.</i>	-	88	97	88	39	-	100
<i>Klebsiella spp.</i>	100	-	100	100	-	100	100
<i>Pasteurella multocida</i>	-	31	99	94	0	-	99
<i>Salmonella spp.</i>	100	-	89	75	-	69	91
<i>Staphylococcus hyicus</i>	-	19	96	80	19	-	91
<i>Staphylococcus spp.-coag. pos.</i>	-	9	100	64	10	-	100
<i>Streptococcus suis</i>	-	25	52	10	16	-	80
<i>Streptococcus spp.-alpha</i>	-	24	63	19	17	-	77
<i>Streptococcus spp.-beta</i>	-	42	84	26	30	-	88

Isolate	Percent Susceptible						
	Novobiocin	Penicillin	Spectinomycin	Sulfachloro-pyridazine	Tetracycline	Trimethoprim Sulfa	Triple Sulfa
<i>Actinobacillus pleuropneumoniae</i>	4	70	98	85	25	86	2
<i>Actinobacillus spp.</i>	12	52	93	77	11	96	56
<i>Actinomyces pyogenes</i>	91	91	82	18	27	90	17
<i>Bordetella spp.</i>	59	1	2	7	98	26	7
<i>Enterobacter spp.</i>	-	-	50	20	50	83	33
<i>Erysipelothrix rhusiopathiae</i>	0	100	93	7	9	27	7
<i>Escherichia coli</i>	-	-	50	17	4	83	14
<i>Haemophilus spp.</i>	92	94	99	77	90	87	7
<i>Klebsiella spp.</i>	-	-	80	75	60	100	80
<i>Pasteurella multocida</i>	48	96	98	53	81	98	32
<i>Salmonella spp.</i>	-	-	84	7	12	92	4
<i>Staphylococcus hyicus</i>	100	15	7	74	11	93	41
<i>Staphylococcus spp.-coag. pos.</i>	73	9	9	45	9	100	9
<i>Streptococcus suis</i>	11	76	77	31	5	98	26
<i>Streptococcus spp.-alpha</i>	20	67	65	30	4	94	32
<i>Streptococcus spp.-beta</i>	22	92	54	36	2	96	30

Mycology (Specimens Cultured)	
Species	Total Cultures
Avian- Chicken	18
Avian-Turkey	21
Avian- Miscellaneous	107
Bovine	695
Canine	366
Caprine	7
Equine	143
Feline	46
Fish/Amphibians/Reptiles	4
Miscellaneous Mammals	62
Miscellaneous Specimens	3
Ovine	44
Porcine	398
TOTAL	1,914

Immunology					
Species	Antinuclear Antibody	Antiplatelet Antibody	Antithrombin III Level	Autoimmune Dermatitis (IgG, C ₃)	Direct Coombs
Bovine	-	-	-	-	-
Canine	84	13	5	36	36
Equine	-	-	-	-	-
Feline	2	-	-	2	3
Misc. Mammal	-	-	-	-	-
Porcine	-	-	-	-	-
TOTAL	86	13	5	38	39

Species	Immune Panel	Immunoglobulins Fetal Fluid	Immunoglobulins Serum	LE Clot	Rheumatoid Factor
Bovine	-	209	207	-	-
Canine	18	-	16	7	11
Equine	-	-	35	-	-
Feline	1	-	6	-	-
Misc. Mammal	-	-	18	-	-
Porcine	-	411	-	-	-
TOTAL	19	620	282	7	11

Parasitology - Microscopic Examinations

Species	Direct Smears		Flotation Examinations	
	Accessions	Samples	Accessions	Samples
Avian - Chicken	37	106	2	5
Avian - Miscellaneous	38	50	7	10
Avian - Turkey	82	155	2	1
Bovine	527	815	129	179
Canine	92	99	53	62
Caprine	16	20	4	4
Equine	6	6	24	29
Feline	34	34	17	19
Fish-Amphibian-Reptile	10	11	3	3
Miscellaneous Mammal	50	55	27	40
Ovine	27	34	16	24
Porcine	724	972	26	46
TOTAL	1,643	2,357	310	422

Parasitology - *Cryptosporidium* sp. Examinations

Species	Accessions	Specimens	Accessions Positive	Specimens Positive	Percent Accessions Positive
Avian-Chicken	13	13	--	--	0
Avian-Turkey	2	4	2	2	100
Bovine	546	983	279	394	51
Caprine	1	3	1	1	100
Ovine	4	5	1	1	100
Miscellaneous Mammals	8	25	4	5	50
TOTAL	573	1,033	287	403	

Parasitology - Special Examinations*

Host Species	Ectoparasites	No. Cases	Endoparasites	No. Cases
Avian - Chicken			<i>Eimeria brunetti</i>	1
			<i>Davaina proglottina</i>	1
Avian - Miscellaneous	<i>Goniodes sp.</i>	1	<i>Acanthocephala sp.</i>	1
	<i>Menopon sp.</i>	1	<i>Capillaria sp.</i>	1
	<i>Ornithonyssus sylviarum</i>	1	<i>Clinostomum sp.</i>	1
			Fluke ova	1
			<i>Giardia sp.</i>	1
			<i>Valipora sp.</i>	1
Avian - Turkey			<i>Eimeria adenoides</i>	1
Bovine	<i>Chorioptes sp.</i>	1	<i>Buxtonella sp.</i>	1
	<i>Linognathus vituli</i>	1	<i>Buxtonella sulcata</i>	1
			<i>Cryptosporidium sp.</i>	1
			<i>Eimeria bovis</i>	1
			<i>Eimeria canadensis</i>	1
			<i>Haemonchus contortus</i>	1
			<i>Monezia sp.</i>	1
			Trematode ova	1
			Trichostrongyle ova	2
Canine	<i>Dermacentor variabilis</i>	2	<i>Alaria sp.</i>	3
	<i>Ixodes dammini</i>	4	Coccidia oocysts (spurious)	2
	<i>Ixodes muris</i>	1	<i>Cuterebra sp.</i>	1
	<i>Rhipicephalus sanguineus</i>	1	<i>Giardia sp.</i>	1
			<i>Isospora sp.</i>	2
			<i>Mesocestoides sp.</i>	2
			<i>Physaloptera sp.</i>	1
			<i>Toxocara canis</i>	2
Feline	<i>Dermacentor variabilis</i>	1	<i>Capillaria feliscati</i>	1
	Flea larva	1	<i>Dipylidium sp.</i>	1
	<i>Rhipicephalus sanguineus</i>	1	<i>Isospora felis</i>	1
			<i>Isospora rivolta</i>	1
			<i>Toxocara cati</i>	1
Fish-Amphibian-Reptile			<i>Balantidium sp.</i>	1
			<i>Capillaria sp.</i>	1
			Cestode ova	2
			Contracaecum larvae	1
			<i>Ophioprocunculus sp.</i>	1
			Pentastome ova	1
			Pinworm ova	1
			<i>Tachygonetra sp.</i>	1
Miscellaneous Mammals			<i>Alaria arisaemoides</i>	1
			<i>Capillaria sp.</i>	1
			<i>Cephenemyia sp.</i>	1
			Coccidian oocysts	1
			<i>Dracunculus sp.</i>	1
			Metastrongylid larva	1
			<i>Parelaphostrongylus tenuis</i>	1
			<i>Passalurus ambiguus</i>	1
			<i>Saccharomycopsis guttulatus</i> (yeast)	2
			<i>Setaria sp.</i>	1
Porcine			<i>Ascarsis suum</i>	1
Unknown	<i>Dermacentor variabilis</i>	2		
	<i>Ixodes cookei</i>	1		
	<i>Ixodes dammini</i>	1		
	<i>Ornithonyssus sylviarum</i>	1		

*114 total examinations conducted by Gary Averbeck/Dr. Bert Stromberg

Serology Summary

Disease	Positive	Suspect	Negative	No Test/ Toxic	Total Tests	Percent Positive
Aleutian Disease (CIEP)	3	-	5	-	8	37.5
Anaplasmosis (CF)	72	100	13,659	40	13,871	0.5
Blue Tongue (AGID)	47	21	1,206	4	1,278	2.7
Bovine Adenovirus	68	-	5	-	73	93.1
Bovine Herpesvirus DN599 (IFA)	12	-	226	-	238	5.0
Bovine Herpes Mammillitis (SN)	108	-	106	-	214	50.5
Bovine Leukosis (AGID)	429	2	1,639	8	2,078	20.6
Bovine Respiratory Syncytial Virus (SN)	1,361	-	85	5	1,451	93.8
Bovine Viral Diarrhea (SN)	3,004	-	898	212	4,114	73.0
<i>Brucella abortus</i> (CF)	-	2	82	27	111	0.0
<i>Brucella canis</i> (Rapid Slide/Tube Agg.)	1	2	114	-	117	0.8
Caprine Arthritis Encephalitis Virus (AGID)	140	18	411	2	571	24.5
Chlamydia (CF)	3	-	95	-	98	3.1
Encephalomyocarditis Virus (SN)	132	-	2,200	18	2,350	56.2
Encephalomyocarditis Virus (HAI)	31	-	17	-	48	64.6
Equine Infectious Anemia (AGID)	3	-	2,033	1	2,037	0.1
Equine Infectious Anemia (CELISA)	3	-	20	-	23	13.0
Equine Viral Rhinopneumonitis Virus (SN)	35	-	40	2	77	45.4
Eperythrozoonosis (HA)	51	154	841	-	1,046	4.9
Feline Infectious Peritonitis (ELISA)	18	-	25	-	43	41.9
Feline Leukemia (ELISA)	6	-	75	-	81	7.4
Infectious Bovine Rhinotracheitis (SN)	2,772	-	1,052	216	4,040	68.6
Leptospira (MA-6 serovars)	4,115	-	2,543	-	6,658	61.8
Lyme Disease (IFA)	204	200	580	-	984	20.7
<i>Mycobacterium paratuberculosis</i> (AGID)	234	3	652	-	889	26.3
<i>Mycobacterium paratuberculosis</i> (CF)	3	6	555	7	571	0.5
Occult Heartworm (ELISA)	4	-	57	-	61	6.5
Ovine Progressive Pneumonia (AGID)	248	10	864	-	1,122	22.1
Parainfluenza-3 (HI)	1,363	-	294	1	1,658	82.2
Parvovirus (HAI)	2,056	-	522	18	2,596	79.2
Porcine Reproductive & Respiratory Syndrome (IFA)	3,036	-	7,178	-	10,214	29.7
Porcine Reproductive & Respiratory Syndrome (SN)	248	-	963	5	1,216	20.4
Pseudorabies (ELISA Screen)	7,673	-	160,671	-	168,344	4.6
Pseudorabies (GP1)	3,841	-	26,432	-	30,273	12.7
Pseudorabies (GPX)	6,597	-	25,066	-	31,663	20.8
Pseudorabies (LAT)	36	-	129	-	165	21.8
Pseudorabies (SN)	3,669	-	4,075	19	7,763	47.3
Swine Influenza Virus (HI)	1,062	-	943	-	2,005	53.0
Transmissible Gastroenteritis (SN)	854	-	924	12	1,790	47.7
Toxoplasma (IHA)	17	-	134	-	151	11.2
Vesicular Stomatitis - Indiana (SN)	-	-	352	-	352	0.0
Vesicular Stomatitis - New Jersey (SN)	-	-	360	-	360	0.0
TOTAL	43,559	518	258,128	597	302,802	

Serology by Species (Accessions/Animals)

Species	July	August	September	October	November	December	(continued below)
Avian- Chicken	1/14	0/0	0/0	0/0	0/0	2/62	
Avian- Miscellaneous	0/0	4/19	3/4	5/14	1/1	0/0	
Avian- Turkey	0/0	2/26	2/43	0/0	2/55	1/20	
Bovine	275/900	369/2778	392/1766	300/1716	241/1133	221/1451	
Canine	85/114	81/83	94/90	98/99	68/112	47/50	
Caprine	13/41	6/44	6/28	7/30	4/34	6/15	
Equine	129/227	96/222	110/201	125/245	26/62	29/84	
Feline	11/11	12/23	7/5	9/12	4/7	7/7	
Miscellaneous Mammal	7/45	5/14	24/49	9/226	8/24	12/54	
Ovine	5/20	9/63	6/71	5/237	3/53	2/4	
Porcine	1967/30114	1368/21249	981/37378	903/14003	727/12084	822/15457	
TOTAL	2493/31486	1952/24521	1625/39635	1461/16582	1084/13565	1149/17204	

Species	January	February	March	April	May	June	Total
Avian- Chicken	1/19	0/0	5/262	1/8	3/59	2/50	15/474
Avian- Miscellaneous	0/0	2/2	3/26	1/1	0/0	1/1	20/68
Avian- Turkey	1/10	0/0	1/12	1/24	3/23	0/0	13/213
Bovine	258/1520	260/1541	387/2634	265/2780	245/1658	246/1352	3459/21229
Canine	48/50	45/46	45/49	54/63	74/75	91/91	830/922
Caprine	9/60	11/40	8/23	13/79	10/141	8/46	101/581
Equine	49/85	76/145	183/388	209/341	132/195	164/319	1328/2514
Feline	4/6	6/8	8/8	1/1	0/0	5/5	74/93
Miscellaneous Mammal	7/104	8/30	13/81	10/24	4/12	2/3	109/666
Ovine	6/44	8/51	5/99	5/153	10/167	5/78	69/1040
Porcine	923/16496	1195/21838	1139/20863	1172/19130	863/14246	1185/21161	13245/244019
TOTAL	1306/18394	1611/23701	1797/24445	1732/22604	1344/16576	1709/23106	19263/271819

Foreign Export Testing

Procedure	Accessions	Samples
Anaplasma (CF)	77	552
Bluetongue (AGID)	74	553
<i>Brucella abortus</i> (CF)	16	67
Bovine Leukosis (AGID)	38	481

Leptospirosis Serology - Summary

Species	Herds				Animals			
	Number Tested	Number Negative	Number Positive	Percent Positive	Number Tested	Number Negative	Number Positive	Percent Positive
Bovine	1,245	614	631	50.7	2,562	1,219	1,343	52.4
Canine	16	5	11	68.7	70	54	16	22.8
Caprine	8	6	2	25.0	32	24	8	25.0
Equine	93	17	76	81.7	351	87	264	75.2
Ovine	17	16	1	5.9	24	22	2	8.3
Porcine	623	278	345	55.4	3,582	1,120	2,462	68.7
Misc. Species	11	8	3	27.3	37	17	20	54.0
TOTAL	2,013	944	1,069	53.1	6,658	2,543	4,115	61.8

Leptospirosis Serology - Positive Results by Microscopic Agglutination Test

Species	Bratislava	Canicola	Grippotyphosa	Hardjo	Icterohemorrhagica	Pomona
Bovine	321	692	554	748	633	706
Canine	3	7	2	1	7	1
Caprine	8	-	-	-	1	-
Equine	217	96	64	28	99	48
Ovine	-	-	-	-	-	2
Porcine	1,961	596	687	548	1,162	377
Misc. Species	18	17	11	15	2	17
TOTAL	2,528	1,408	1,318	1,340	1,904	1,151

Lyme Disease (*Borrelia burgdorferi*) Serology (Indirect Fluorescent Antibody)

Species	Samples	Titers		
		<80	80-160	320- \geq 1280
Bovine	77	28	40	9
Canine	785	515	109	161
Equine	122	37	51	34
TOTAL	984	580	200	204

Toxoplasmosis Serology (Indirect Hemagglutination)

Species	Accessions	Samples	Titers							
			< 64	64	128	256	512	1024	2048	4096
Bovine	3	6	5	0	0	0	0	0	1	0
Canine	8	11	11	0	0	0	0	0	0	0
Caprine	2	2	2	0	0	0	0	0	0	0
Equine	1	1	1	0	0	0	0	0	0	0
Feline	38	46	36	3	3	2	0	0	1	1
Ovine	26	37	36	0	1	0	0	0	0	0
Porcine	8	48	46	1	0	0	0	1	0	0
TOTAL	86	151	137	4	4	2	0	1	2	1

Virus Serology

Bovine Infectious Bovine Rhinotracheitis (Serum Neutralization)						
Accessions	Samples	Negative	≤ 1:4	1:8-1:32	≥ 1:64	Toxic
1488	4040	1052	762	1314	696	216

Bovine Parainfluenza-3 (Hemagglutination Inhibition)						
Accessions	Samples	Negative	1:10-20	1:40-80	≥ 1:160	Toxic
444	1658	294	587	673	103	1

Bovine Parvovirus (Hemagglutination Inhibition)														
Accessions	Samples			Negative		1:8-64		1:128-512		1:1024-2048		≥ 1:4096		NT
	Sera	FF*	Total	Sera	FF	Sera	FF	Sera	FF	Sera	FF	Sera	FF	
25	79	-	79	0	-	71	-	6	-	0	-	0	-	2

Bovine Respiratory Syncytial Virus (Serum Neutralization)						
Accessions	Samples	Negative	≤ 1:4	1:8-64	≥ 1:128	Toxic
244	1451	85	240	781	340	5

Bovine Viral Diarrhea (Serum Neutralization)						
Accessions	Samples	Negative	≤ 1:4	1:8-128	≥ 1:256	Toxic
1490	4114	898	292	1384	1328	212

Canine Parvovirus (Hemagglutination Inhibition)														
Accessions	Samples			Negative		1:8-64		1:128-512		1:1024-2048		≥ 1:4096		NT
	Sera	FF*	Total	Sera	FF	Sera	FF	Sera	FF	Sera	FF	Sera	FF	
25	33	-	33	3	-	11	-	11	-	7	-	0	-	1

Equine Rhinopneumonitis Virus (Serum Neutralization)						
Accessions	Samples	Negative	≤ 1:4	1:8-64	≥ 1:128	Toxic
36	77	40	4	22	9	2

Virus Serology (continued)

Porcine Encephalomyocarditis Virus (Hemagglutination Inhibition)

Accessions	Samples			Negative		1:8-64		1:128-512		1:1024-2048		≥ 1:4096		NT
	Sera	FF*	Total	Sera	FF	Sera	FF	Sera	FF	Sera	FF	Sera	FF	
3	48	-	48	17	-	21	-	8	-	1	-	1	-	-

Porcine Encephalomyocarditis Virus (Serum Neutralization)

Accessions	Samples			Negative		< 1:132		≥ 1:132		Toxic	
	Sera	FF*	Total	Sera	FF	Sera	FF	Sera	FF	Sera	FF
572	1952	398	2350	1802	398	0	0	132	0	18	0

Porcine Parvovirus (Hemagglutination Inhibition)

Accessions	Samples			Negative		1:8-64		1:128-512		1:1024-2048		≥ 1:4096		NT
	Sera	FF*	Total	Sera	FF	Sera	FF	Sera	FF	Sera	FF	Sera	FF	
582	2086	398	2484	162	357	265	27	434	10	883	2	327	2	15

Porcine Reproductive and Respiratory Syndrome (Indirect Fluorescent Antibody for antibody detection)

Accessions	Samples	< 1:16	1:16	1:64	1:256	1:1024
251	10214	7178	862	787	900	487

Porcine Reproductive and Respiratory Syndrome (Serum Neutralization)

Accessions	Samples	< 1:16	1:16	1:32-256	≥ 1:512	Toxic
59	1216	963	105	133	10	5

Porcine Swine Influenza Virus (Hemagglutination Inhibition)

Accessions	Samples	Negative	1:10-20	1:40	≥ 1:80	Toxic
121	2005	943	539	241	282	N/A

Porcine Transmissible Gastroenteritis (Serum Neutralization)

Accessions	Samples	Negative	1:4	1:8-128	≥ 1:256	Toxic
111	1790	924	79	270	505	12

*Fetal Fluid

Virus Serology - Porcine Pseudorabies

Month	ELISA Screening				ELISA - GPX			
	Accessions	Samples	Negative	Positive	Accessions	Samples	Negative	Positive
July	1,586	23,936	22,862	1,074	251	4,682	4,130	552
August	1,177	17,336	16,234	1,102	182	3,035	2,250	785
September	701	11,792	11,370	422	171	3,168	2,509	659
October	682	10,560	10,092	468	131	1,965	1,800	165
November	529	8,360	8,095	265	110	2,180	1,865	315
December	602	11,088	10,027	1,061	91	1,616	1,370	246
January	621	11,176	10,782	394	107	2,039	1,363	676
February	820	14,608	14,076	532	194	3,194	2,270	924
March	817	14,256	13,584	672	152	3,327	2,281	1,046
April	572	9,416	9,037	379	195	2,668	1,980	688
May	806	18,040	17,368	672	101	1,413	999	414
June	985	17,776	17,144	632	135	2,376	2,249	127
TOTAL	9,898	168,344	160,671	7,673	1,820	31,663	25,066	6,597

Month	ELISA - GPI				Latex Agglutination			
	Accessions	Samples	Negative	Positive	Accessions	Samples	Negative	Positive
July	243	4,242	3,649	593	8	13	10	3
August	143	2,287	2,027	260	10	15	14	1
September	112	2,486	2,218	268	2	3	3	0
October	92	1,546	1,381	165	2	7	4	3
November	92	1,432	1,268	164	5	24	22	2
December	116	2,428	2,084	344	26	48	43	5
January	80	1,832	1,461	371	2	5	5	0
February	149	3,095	2,911	184	2	2	2	0
March	76	2,543	2,242	301	1	1	1	0
April	218	3,849	3,269	580	17	44	22	22
May	82	1,234	1,062	172	-	-	-	-
June	193	3,299	2,860	439	3	3	3	0
TOTAL	1,596	30,273	26,432	3,841	78	165	129	36

Month	Serum Neutralization						
	Accessions	Samples	Negative	1:2	≥ 1:4	≥ 1:32	Toxic
July	526	1,178	744	70	210	144	10
August	405	1,304	708	74	269	253	0
September	163	754	498	78	147	26	5
October	80	461	175	17	126	143	0
November	68	246	109	52	61	24	0
December	132	493	250	44	135	64	0
January	92	936	518	193	185	40	0
February	111	352	142	77	111	21	1
March	148	547	220	37	165	125	0
April	117	691	309	82	174	124	2
May	112	319	140	35	91	53	0
June	170	482	262	66	123	30	1
TOTAL	2,124	7,763	4,075	825	1,797	1,047	19

Analytical Toxicology (Accessions-Samples-Positive)

Analyses	Avian	Bovine	Canine	Caprine	Equine
Alkaloids	1-1-0	-	84-88-11	-	-
Ammonia	-	2-2-0	-	-	-
Anticoagulants	1-1-1	4-4-0	59-65-19	-	3-3-1
Arsenic	-	2-2-2	-	-	1-1-0
Carbon Monoxide	-	-	2-3-2	-	-
Cholinesterase	10-49-2	31-35-3	28-29-5	1-2-0	4-4-0
Copper	-	80-115-5	12-13-0	-	2-2-0
Cyanide	-	1-2-0	2-2-0	-	-
Drosophila	2-2-0	-	-	-	-
Ethylene Glycol	-	-	4-4-2	-	-
Iron	3-3-0	2-2-0	2-2-0	-	1-1-0
Lead	7-8-1	274-305-23	197-197-12	-	1-1-0
Monensin	-	-	-	-	-
Mycotoxins	-	-	-	-	-
Nitrates	-	36-46-3	-	-	-
pH	-	28-30-4	-	-	-
Poison Plants	-	-	-	-	-
Reinsch	3-3-0	150-161-0	83-86-0	3-3-0	9-9-1
Selenium	2-2-0	93-180-1	-	1-1-0	8-9-0
Sodium	1-2-1	3-4-0	-	-	-
Sulfates	-	-	-	-	-
Total Dissolved Solids	-	-	-	-	-
Vitamin E	1-1-0	48-62-0	-	1-1-0	7-8-0
Zinc	1-1-0	18-23-0	12-15-1	1-1-0	2-2-0
Zinc Phosphide	-	-	4-4-1	-	-
TOTAL	32-73-5	772-973-41	489-508-53	7-8-0	38-40-2

Analyses	Feline	Miscellaneous	Ovine	Porcine	Total
Alkaloids	6-6-0	13-14-3	-	1-1-0	105-110-14
Ammonia	-	-	-	-	2-2-0
Anticoagulants	2-2-0	8-9-5	1-1-0	4-5-0	82-90-26
Arsenic	-	-	-	1-1-0	4-4-2
Carbon Monoxide	-	-	-	3-5-0	5-8-2
Cholinesterase	19-20-4	4-27-0	1-1-0	-	98-167-14
Copper	1-1-0	4-4-0	21-31-8	11-19-0	131-185-13
Cyanide	-	6-6-0	-	-	9-10-0
Drosophila	-	2-2-0	-	-	4-4-0
Ethylene Glycol	3-4-1	-	-	-	7-8-3
Iron	-	-	-	10-23-0	18-31-0
Lead	44-45-2	5-7-1	2-3-0	9-11-0	539-577-39
Monensin	-	9-12-3	-	-	9-12-3
Mycotoxins	-	135-178-21	-	-	135-178-21
Nitrates	2-2-0	21-26-2	-	2-8-0	61-82-5
pH	-	1-1-0	3-3-0	-	32-34-4
Poison Plants	-	5-5-1	-	-	5-5-1
Reinsch	18-18-0	24-27-0	6-7-0	9-10-0	305-324-1
Selenium	-	7-8-0	9-11-0	86-116-0	206-327-1
Sodium	-	5-5-1	-	10-14-0	19-25-2
Sulfates	-	3-5-1	-	-	3-5-1
Total Dissolved Solids	-	2-3-0	-	-	2-3-0
Vitamin E	-	3-3-0	6-7-0	67-86-0	133-168-0
Zinc	2-2-0	1-1-0	2-8-0	11-21-0	50-74-1
Zinc Phosphide	-	-	-	-	4-4-1
TOTAL	97-100-7	258-343-38	51-72-8	224-320-0	1968-2437-154

Clinical Chemistry* (Number of Tests)						
Species	Alanine Aminotransferase	Albumin	Alkaline Phosphatase	Amylase	Aspartine Aminotransferase	Bile Acids
Avian	-	-	-	-	2	-
Bovine	-	-	-	-	-	-
Canine	1	6	4	11	2	252
Equine	-	-	-	-	-	-
Feline	-	-	-	-	-	49
Fish-Amphibian-Reptile	-	-	-	-	-	-
Miscellaneous Mammal	-	-	-	-	-	-
Ovine	-	-	-	-	-	-
Porcine	-	-	-	-	-	-
TOTAL	1	6	4	11	4	301

Species	Blood Gas	BUN	Calcium	Cholesterol	Creatine Kinase	Fecal Trypsin
Avian	-	-	1	-	54	-
Bovine	-	51	27	-	3	-
Canine	6	3	19	4	6	-
Equine	-	-	-	-	2	-
Feline	1	4	62	-	2	1
Fish-Amphibian-Reptile	-	-	-	-	-	-
Miscellaneous Mammal	-	-	-	-	-	-
Ovine	-	-	-	-	-	-
Porcine	-	1	5	-	1	-
TOTAL	7	59	114	4	68	1

Species	Glucose	Lactic Dehydrogenase	Lipase	Magnesium	Osmolality	Phenobarbitol
Avian	-	-	-	-	-	-
Bovine	-	-	-	1	16	-
Canine	6	1	123	-	-	176
Equine	-	-	1	-	-	-
Feline	5	-	8	-	-	-
Fish-Amphibian-Reptile	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-
Ovine	-	-	-	-	-	-
Porcine	-	-	-	-	-	-
TOTAL	11	1	132	1	26	176

Clinical Chemistry (continued)

Species	Phosphorous	Potassium	Protein Electrophoresis	Serum Profile	Serum Triglycerides	Total Bilirubin
Avian	-	-	-	46	-	-
Bovine	23	-	-	502	-	-
Canine	-	4	3	532	10	2
Equine	-	-	-	96	-	-
Feline	-	1	5	152	-	1
Fish-Amphibian-Reptile	-	-	-	62	-	-
Miscellaneous Mammal	-	-	-	91	-	-
Ovine	-	-	-	5	-	-
Porcine	4	-	-	17	-	-
TOTAL	27	5	8	1,503	10	3

Species	Total Protein	Uric Acid	Urinalysis	Urine Chemistries	Urine Protein/Creatinine Ratio	Urine Sediment
Avian	-	-	-	-	-	-
Bovine	-	-	1	-	-	-
Canine	4	5	240	2	59	4
Equine	-	-	2	2	-	-
Feline	3	-	82	2	2	2
Fish-Amphibian-Reptile	-	-	-	-	-	-
Miscellaneous Mammal	7	-	3	16	-	-
Ovine	-	-	-	-	-	-
Porcine	-	-	-	-	-	-
TOTAL	14	5	328	22	61	6

*Dr. Victor Perman, Laboratory Supervisor

Endocrinology*

Species	Adrenocorticotrophic Hormone	Cortisol	Digoxin	Estradiol	Estrone Sulfate	Insulin
Avian	-	-	-	-	-	-
Bovine	-	-	-	-	-	-
Canine	30	1,217	17	17	-	275
Equine	1	6	-	-	6	-
Feline	3	17	-	-	-	1
Fish-Amphibian-Reptile	-	-	-	-	-	-
Miscellaneous Mammal	-	2	-	-	-	-
Ovine	-	-	-	-	-	-
Porcine	-	-	-	-	-	-
TOTAL	34	1,242	17	25	6	276

Species	Luteinizing Hormone	Parathyroid Hormone	Progesterone	Testosterone	Triiodothyronine (T-3)	Thyroxine (T-4)
Avian	-	-	-	-	-	5
Bovine	-	-	-	-	4	4
Canine	5	27	34	12	302	1,409
Equine	-	-	33	11	9	34
Feline	-	1	5	6	9	178
Fish-Amphibian-Reptile	-	-	-	-	-	-
Miscellaneous Mammal	-	-	49	-	2	3
Ovine	-	-	-	-	-	-
Porcine	-	-	24	-	-	1
TOTAL	5	28	145	29	326	1,633

*Dr. Shirley Johnston, Laboratory Supervisor

Viral Immunofluorescence in Tissues (Frozen Sections or Tissue Imprints)

Species	Accessions	Samples	Bovine Coronavirus		Bovine Herpesvirus DN599		Bovine Parainfluenza-3		Bovine Parvovirus	
			Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
			Avian-Chicken	2	10	-	-	-	-	-
Bison	2	2	-	-	-	-	0	1	-	-
Bovine	1,617	3,198	130	1,037	0	7	1	1,841	0	1
Canine	47	75	-	-	-	-	-	-	-	-
Caprine	3	6	0	3	-	-	0	3	-	-
Deer	5	8	0	4	-	-	0	3	-	-
Elk	1	1	-	-	-	-	0	1	-	-
Equine	29	50	-	-	-	-	-	-	-	-
Feline	78	139	-	-	-	-	-	-	-	-
Ferret	3	6	-	-	-	-	-	-	-	-
Fox	3	4	-	-	-	-	-	-	-	-
Leopard	1	2	-	-	-	-	-	-	-	-
Llama	3	6	-	-	-	-	0	2	-	-
Mink	1	2	-	-	-	-	-	-	-	-
Mouse	1	1	-	-	-	-	0	1	-	-
Ovine	12	13	0	4	-	-	0	12	-	-
Porcine	2,029	4,297	-	-	-	-	-	-	-	-
Raccoon	5	7	-	-	-	-	-	-	-	-
TOTAL	3,842	7,827	130	1,048	0	7	1	1,864	0	1

Species	Bovine Respiratory Syncytial Virus		Bovine Rotavirus		Bovine Viral Diarrhea		Canine Distemper		Equine Adenovirus		Equine Viral Rhinopneumonitis	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
	Avian-Chicken	-	-	-	-	-	-	-	-	-	-	-
Bison	0	1	-	-	0	2	-	-	-	-	-	-
Bovine	31	680	57	1,108	16	3,526	-	-	-	-	-	-
Canine	-	-	-	-	-	-	5	66	-	-	-	-
Caprine	-	-	0	6	0	8	-	-	-	-	-	-
Deer	0	3	0	4	0	5	-	-	-	-	-	-
ELk	0	1	-	-	0	1	-	-	-	-	-	-
Equine	-	-	-	-	-	-	-	-	0	1	0	50
Feline	-	-	-	-	-	-	-	-	-	-	-	-
Ferret	-	-	-	-	-	-	2	4	-	-	-	-
Fox	-	-	-	-	-	-	1	3	-	-	-	-
Leopard	-	-	-	-	-	-	-	-	-	-	-	-
Llama	-	-	-	-	0	2	-	-	-	-	-	-
Mink	-	-	-	-	-	-	0	2	-	-	-	-
Mouse	0	1	-	-	-	-	-	-	-	-	-	-
Ovine	0	12	0	3	0	8	-	-	-	-	-	-
Porcine	-	-	-	-	-	-	-	-	-	-	-	-
Raccoon	-	-	-	-	-	-	1	6	-	-	-	-
TOTAL	31	698	57	1,121	16	3,552	9	81	0	1	0	50

Viral Immunofluorescence in Tissues (Frozen Sections or Tissue Imprints) (continued)

Species	Feline Herpesvirus		Feline Infectious Peritonitis		Infectious Bovine Rhinotracheitis		Infectious Laryngo-tracheitis		Porcine Parvovirus	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Avian-Chicken	-	-	-	-	-	-	0	10	-	-
Bison	-	-	-	-	0	2	-	-	-	-
Bovine	-	-	-	-	28	1,875	-	-	-	-
Canine	-	-	-	-	-	-	-	-	-	-
Caprine	-	-	-	-	0	2	-	-	-	-
Deer	-	-	-	-	0	4	-	-	-	-
Elk	-	-	-	-	0	1	-	-	-	-
Equine	-	-	-	-	-	-	-	-	-	-
Feline	2	127	1	13	-	-	-	-	-	-
Ferret	-	-	-	-	-	-	-	-	-	-
Fox	-	-	-	-	-	-	-	-	-	-
Leopard	0	2	-	-	-	-	-	-	-	-
Llama	-	-	-	-	0	2	-	-	-	-
Mink	-	-	-	-	-	-	-	-	-	-
Mouse	-	-	-	-	-	-	-	-	-	-
Ovine	-	-	-	-	0	7	-	-	-	-
Porcine	-	-	-	-	-	-	-	-	14	866
Raccoon	-	-	-	-	-	-	-	-	-	-
TOTAL	2	129	1	13	28	1,893	0	10	14	866

Species	Porcine Reovirus		Porcine Rotavirus		Pseudorabies		Swine Influenza Virus		Transmissible Gastroenteritis	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Avian-Chicken	-	-	-	-	-	-	-	-	-	-
Bison	-	-	-	-	-	-	-	-	-	-
Bovine	-	-	-	-	0	2	-	-	-	-
Canine	-	-	-	-	-	-	-	-	-	-
Caprine	-	-	-	-	-	-	-	-	-	-
Deer	-	-	-	-	-	-	-	-	-	-
Elk	-	-	-	-	-	-	-	-	-	-
Equine	-	-	-	-	-	-	-	-	-	-
Feline	-	-	-	-	-	-	-	-	-	-
Ferret	-	-	-	-	-	-	-	-	-	-
Fox	-	-	-	-	-	-	-	-	-	-
Leopard	-	-	-	-	-	-	-	-	-	-
Llama	-	-	-	-	-	-	-	-	-	-
Mink	-	-	-	-	-	-	-	-	-	-
Mouse	-	-	-	-	-	-	-	-	-	-
Ovine	-	-	-	-	-	-	-	-	-	-
Porcine	0	1,729	79	1,650	15	449	75	1,510	175	1,554
Raccoon	-	-	-	-	-	-	-	-	-	-
TOTAL	0	1,729	79	1,650	15	501	75	1,510	175	1,554

Electron Microscopy (Fecal or Tissue Specimens)

Species	Accessions	Specimens	Negative	Positive	Adenovirus	Calicivirus	Coronavirus
Avian	139	147	112	45	10	-	-
Bovine	1,002	1,064	775	309	2	-	99
Canine	273	278	190	84	-	-	1
Caprine	4	4	3	1	1	-	-
Equine	9	9	9	0	-	-	-
Feline	98	97	73	24	-	1	-
Mink	6	7	7	0	-	-	-
Miscellaneous	38	39	34	5	-	-	-
Ovine	7	7	4	3	-	-	-
Porcine	895	930	711	219	12	-	22
TOTAL	2,471	2,582	1,918	690	25	-	122

Species	Enterovirus	Herpesvirus	Papovavirus	Parainfluenza		Pox Virus	Rotavirus
				Virus	Parvovirus		
Avian	-	1	-	-	-	5	26
Bovine	-	-	1	-	-	2	249
Canine	-	-	-	1	80	-	-
Caprine	-	-	-	-	-	-	-
Equine	-	-	-	-	-	-	-
Feline	1	4	-	1	17	-	1
Mink	-	-	-	-	-	-	-
Miscellaneous	-	1	-	1	-	-	1
Ovine	-	-	-	-	-	4	-
Porcine	-	7	-	-	-	-	184
TOTAL	1	13	1	3	97	11	461

Virus Isolation (Cell Culture)

Virus	Accessions	Positive
Bovine Herpesvirus DN599	11	0
Bovine Parainfluenza-3 Virus	2,556	0
Bovine Respiratory Syncytial Virus	9	0
Bovine Viral Diarrhea Virus	2,556	45*
Canine Distemper Virus	3	0
Canine Herpesvirus	35	0
Equine Influenza	1	0
Equine Rhinotracheitis Virus	35	0
Feline Calicivirus	49	1
Feline Rhinopneumonitis Virus	58	4
Infectious Bovine Rhinotracheitis Virus	2,556	6
Miscellaneous Viruses	66	0
Porcine Reproductive & Respiratory Syndrome	2,331	173
Pseudorabies	1,797	22
Swine Influenza Virus	26	0

*5 cytopathic and 40 non-cytopathic viruses

APPENDIX

Minnesota Racing Analytical Laboratory - Personnel

Martin E. Bergeland, DVM, PhD	Director
Ashok K. Singh, PhD	Supervisor - Racing Laboratory
Michael J. Murphy, DVM, PhD	Veterinary Toxicologist
Lawrence J. Felice, PhD	Analytical Toxicologist (Collaborator)
Tom Arendt, BS	Junior Scientist (Collaborator)
Usha Mishra, MS	Junior Scientist
Kae Granley	Principal Laboratory Technician
Yin Jiang, MS	Research Assistant
Constance Strand, MA	Accounts Supervisor
Mary Thurn	Executive Secretary
Kristin Doss	Student Laboratory Technician
Iftikhar Hussain	Student Laboratory Technician
Katherine Toft	Student Laboratory Technician
Thomas White	Student Laboratory Technician
Vipin Goyal	Student Laboratory Technician
Scott Likely	Student Laboratory Attendant

Minnesota Racing Analytical Laboratory - Laboratory Procedures Summary

Month	Number of Samples		Number of Analyses			Suspects Processed		Lasix Positive
	Urine	Blood	TLC	HPLC	ELISA	Hordeine	GC/MS	
July	594	609	8,316	609	4,752	57	96	311
August	644	665	9,016	665	4,928	27	88	368
September	585	594	8,190	594	4,384	19	72	217
October	407	411	5,698	411	3,264	41	30	350
May	574	582	7,462	582	5,740	125	56	273
June	424	432	5,512	432	4,240	57	50	196
TOTAL	3,228	3,293	44,194	3,293	27,308	326	392	1,715

Minnesota Brucella Testing Laboratory - Personnel

William Hartmann, DVM, MS	Supervisor
Robert Tiller	Laboratory Supervisor
Myron Parsons	Agricultural Laboratory Technician
David Wickland	Agricultural Laboratory Technician
Todd Friendshuh	Agricultural Laboratory Technician

Minnesota Brucella Testing Laboratory - Laboratory Tests

I. Cattle	
A. Serum	
1) On Farm	24,286
2) Market	65,577
3) Slaughter Surveillance	<u>433,908</u>
Sub-Total	523,771
B. Milk Ring Tests	56,528
II. Swine	50,539
III. Other Species	
A. Canine	34
B. Sheep	482
C. Horses	227
D. Elk	234
E. Deer	156
F. Goats	1,293
G. Llamas	183
H. Miscellaneous	<u>15</u>
Sub-Total	2,624
TOTAL	633,462

Minnesota Poultry Testing Laboratory - Personnel
Willmar, Minnesota

Dr. Dale C. Lauer	Supervisor
Joanne B. Slagter	Senior Laboratory Technician
Beth Larson	Senior Laboratory Technician
Susan Rierson	Senior Laboratory Technician

Minnesota Poultry Testing Laboratory - Laboratory Procedures

	<u>Serology</u>	<u>Cultures</u>
I. Pullorum - Typhoid		
A. Chickens - Commercial	3,900	6
B. Turkeys	41,400	3
C. Waterfowl and Game Birds	6,909	46
D. Exhibition Testing	<u>7,295</u>	—
Sub-Total	59,504	55
II. <i>Salmonella enteritidis</i> - Sanitation Monitored Program		
A. Chicken Breeding Flocks/Hatcheries	3,900	2,809
III. Minnesota/California Agreement and U.S. Sanitation Monitored Program (includes <i>Salmonella typhimurium</i>)		
A. Turkey Breeders		
1) Blood Samples	41,400	
2) Rectal Swabs		44,000
3) Environmental/Hatchery Samples		<u>4,062</u>
Sub-Total		48,062
IV. Salmonella Serotyping		5,112
V. Mycoplasma		
A. <i>Mycoplasma gallisepticum</i> - Turkey	27,310	
B. <i>Mycoplasma megeagridis</i> - Turkey	74,810	
C. <i>Mycoplasma synoviae</i> - Turkey	74,260	
D. <i>Mycoplasma gallisepticum</i> - Chicken	15,795	
E. <i>Mycoplasma synoviae</i> - Chicken	<u>15,795</u>	
Sub-Total	207,970	
VI. Avian Influenza		
A. Turkey	26,898	
B. Other	<u>2,975</u>	
Sub-Total	29,873	
TOTAL	342,647	56,038

Departmental Courses

Course	Title	Lect/Lab Hours	Quarter	Credits	No. of Students	Instructor
VDM 5000	Diagnostic Medicine	0/150	SS91	2.0	18	Shaw* VDM Faculty
VDM 5521	Surgical Pathology	0/26	SS91	3.0	1	Barnes
VDM 5522	Diagnostic Pathology	0/110	SS91	5.0	1	Barnes
VDM 5621	Diagnostic Virology	0/30	SS91	3.0	1	Goyal
VDM 8777	Masters Thesis		SS91		1	Goyal
VDM 8888	Doctoral Thesis		SS91		4	Felice Goyal Ruth Singh
VDM 5000	Diagnostic Medicine	0/150	F91	2.0	21	Shaw* VDM Faculty
VDM 5164	Tox. Poisonous Plants	10/5	F91	1.0	56	Murphy
VDM 5521	Surgical Pathology	0/220	F91	3.0	3	Barnes
VDM 5524	Problems in Diag. Pathology	0/21	F91	2.0/3.0	2	Barnes
VDM 5622	Problems in Diag. Virology	0/40	F91	4.0	1	Goyal
VDM 8777	Masters Thesis		F91		3	Goyal
VDM 8888	Doctoral Thesis		F91		4	Collins Felice Goyal Ruth
VDM 5000	Diagnostic Medicine	0/150	W92	2.0	21	Shaw* VDM Faculty
VDM 5521	Surgical Pathology	0/180	W92	3.0	2	Barnes
VDM 5522	Diagnostic Pathology	0/50	W92	5.0	1	Barnes
VDM 8777	Masters Thesis		W92		3	Goyal
VDM 8888	Doctoral Thesis		W92		5	Collins Felice Goyal Ruth Singh
VDM 5165	Veterinary Toxicology	20/0	S92	2.0	56	Murphy Felice
VDM 5503	Diagnostic Pathology	32/0	S92	3.0	56	Werdin* Collins O'Brien O'Leary Ruth Shaw
VDM 5521	Surgical Pathology	0/40	S92	3.0	1	Barnes
VDM 5524	Problems in Diag. Pathology	0/90	S92	2.0/4.0	2	Barnes
VDM 8777	Masters Thesis		S92		2	Goyal
VDM 8888	Doctoral Thesis		S92		4	Collins Goyal Ruth Singh

*Course Coordinator

VDM Faculty Participation in Other Courses

Course	Title	Lect/Lab Hours	Quarter	Credits	No. of Students	Instructor
CVM 5100	Intro. to Veterinary Medicine	1/0	F91	2.0	64	Goyal
CVM 5100	Intro. to Veterinary Medicine	1/0	F91	2.0	64	Nelson
CVM 5100	Intro. to Veterinary Medicine	1/0	F91	2.0	64	Ruth
Txcl 8800	Directed Research	0/30	F91	4.0	1	Singh
VPB 5000	Veterinary Hospital Necropsy	0/20	F91	2.0	12	Shaw
VBP 5502	Systemic Pathology	6/7	F91	6.0	67	Ruth
VPB 5502	Systemic Pathology	9/16	F91	6.0	67	Werdin
VPB 8533	Problems: Pathology	0/36	F91	3.0	1	Collins
CAPS 5570	Reprod. Dis. of Domestic Animals	2/0	W92	5.0	62	Werdin
CAPS 5951	Directed Studies	0/30	W92	1.0-5.0	2	Singh
PubH 5171	Environmental Microbiology	6/0	W92	3.0	4	Goyal
Txcl 8800	Directed Research	0/30	W92	4.0	1	Singh
VPB 5000	Veterinary Hospital Necropsy	0/20	W92	2.0	12	Shaw
VPB 8700	Seminar in Veterinary Microbiology	1/0	W92	1.0	10	Goyal
AGRI 1000	Honors Colloquium	2/0	S92	2.0	30	Murphy
AnSc 3476	Animal Health	2/0	S92	3.0	20	Murphy
CAPS 5160	Large Animal Medicine	2/0	S92	6.0	67	Bergeland
CAPS 5160	Large Animal Medicine	1/0	S92	6.0	67	Murphy
CAPS 5160	Large Animal Medicine	1/0	S92	6.0	67	Werdin
CAPS 5271	Law, Economics & Ethics	1/0	S92	2.0	62	Nelson
CAPS 5271	Law, Economics & Ethics	1/0	S92	2.0	62	Ruth
CAPS 5665	Monitoring & Surveillance of Disease	6/0	S92	3.0	72	Collins
CAPS 5951	Directed Studies	0/30	S92	1.0-5.0	1	Singh
CVM 5200	Clinical Toxicology	2/0	S92	1.0	62	Felice
CVM 5200	Clinical Toxicology	10/0	S92	1.0	62	Murphy
Txcl 5214	Principles of Toxicology	2/0	S92	4.0	2	Murphy
VPB 5000	Veterinary Hospital Necropsy	0/20	S92	2.0	12	Shaw
VPB 5501	Basic Pathology	0/30	S92	5.0	72	Shaw
VPB 8533	Problems: Pathology	0/36	S92	3.0	1	Collins
CAPS/VDM	Grand Rounds	8/0	SS92-W92	0.0	100	VDM Faculty

Residents/Graduate Students

Name	Program	Degree Sought	Degree Granted	Advisor
Elida Bautista	Microbiology	M.S.		Goyal
Nourdine Bouchriti**	Microbiology	Ph.D.		Goyal
T. Chalermchaikit	Veterinary Medicine	Ph.D.	3/92	Felice
Yin Jiang	Toxicology	Ph.D.		Singh
Beth Moore	Microbiology	M.S.	3/92	Goyal
Kurt Rossow	Pathology	Ph.D.		Collins
Rafique Tahir	Microbiology	M.S.		Goyal
Nour-Said Tligui*	Pathology	Ph.D.		Ruth

*Department of PathoBiology

**Department of HIDAOA, Institute Agronomique et Veterinaire Morocco

Research Projects (Principal or Co-Investigator)

- Ames, T.R., Sivula, N.J., Marsh, W.E., Werdin, R.E., Jacobson, L.E. Maheswaran, S.K. 1991. Bovine respiratory disease project. MN Ag. Exp. Station. \$50,000.
- Benfield, D.A. and Collins, J.E. 1991. Experimental studies on the transmission and persistence of swine infertility and respiratory disease virus (Mystery Swine Disease). National Pork Producers Council. \$16,525.
- Collins, J.E. 1991. Immunopathogenesis of Swine Infertility and Respiratory Syndrome. Boehringer Ingelheim Animal Health, Inc. \$32,700.
- Collins, J.E. and Joo, H.S. 1991. Pathogenesis and immunology of Mystery Swine Disease. MN Ag. Expt. Station. \$30,000.
- Collins, J.E. and Morrison, R. 1991. Swine Infertility and Respiratory Syndrome. Boehringer Ingelheim Animal Health, Inc. \$209,828.
- Morrison, R.B., Collins, J.E. and Benfield, D.A. 1991. Determining the cause of Mystery Swine Disease (MSD). American Veterinary Medical Association. \$12,955.
- Murphy, M.J., Felice, L., Hardy, R., and Weiss, D. 1991. Vitamin K, epoxide: vitamin K ratio as a predictor for length of therapy in anticoagulant rodenticide intoxicated pets. University of Minnesota, CVM Companion Animal Grants Program. \$2,500.
- Murphy, M.J., Geor, R., Hope, E., King, V., Walsler, M., and Walter, P. 1991. The effect of glucocorticoids on circulating osteocalcin concentration in untrained and trained horses. Minnesota Racing Commission. \$61,828.
- Pijoan, C., Galina, L., Christianson, W. and Collins, J. 1991. A model to reproduce meningitis caused by *Streptococcus suis*. National Pork Producers Council. \$19,436.
- Raffe, M.R., Hendrix, P.K., Felice, L.J. and Murphy, M.J. 1991. Evaluation of epidural analgesic in the dog. Morris Animal Foundation. \$30,915.
- Robinson, R.A., Nagaraja, K., Goyal, S. and Collins, J.E. 1991. Development of an ELISA test to predict the carrier status of *Salmonella choleraesuis* infected swine. Minnesota Pork Producers Council. \$24,000.
- Ruth, G.R., Buoen, L., Weber, A., Murtaugh, M. 1991. Flow cytometric analysis of chromosomal abnormalities in cattle and swine. MN Ag. Exp. Station. \$19,950.
- Singh, A.K. 1991. Development of protocol for the medication of furosemide in horses. Minnesota Racing Commission. \$40,000.
- Barnes, D.M., Bergeland, M.E., Collins, J.E., Felice, L.J., Goyal, S.M., Kurtz, H.J., Murphy, M.J., Nelson, G.H., Ruth, G.R., Shaw, D.S., Singh, A.K. and Werdin, R.E. 1992. Veterinary Diagnostic Investigation. MN Ag. Expt. Station (MN V-65-006).
- Bartges, J.W., Bird, K., Felice, L.J., Osborne, C.A. and Unger, L.K. 1992. Plasma purine concentration and urinary purine excretion in normal dogs consuming different diets. Mark Morris Assoc. \$34,525.
- Choi, C.S., Molitor, T., Collins, J.E., Joo, H.S. and Plageman, P. 1992. Immune-mediated pathogenesis of SIRS virus. MN Ag. Expt. Station. \$24,938.
- Felice, L.J., Polzin, D.J. and Osborne, C.A. 1992. Determination of glomerular filtration rate with non-radioisotopic contrast agents in normal dogs. Ralston Purina Co., \$14,900.
- Ward, G.E., Murtaugh, M.P., Gebhart, C.J., Collins, J.E. and Goyal, S.M. 1992. Prevention and control of enteric diseases of swine. MN Ag. Expt. Station. \$30,000.

Service and Research Contracts

- Bergeland, M.E. 1991-92. Minnesota Poultry Testing Laboratory. MN Board of Animal Health, \$95,000.
- Bergeland, M.E. 1991-92. Minnesota Racing Analytical Laboratory. MN Racing Commission, \$250,000.
- Bergeland, M.E. 1991-92. Diagnostic Services. Minnesota Zoological Garden, \$8,000.

Publications: Refereed Journals

Refereed Journals (July 1, 1991-July 30, 1992)

- Aguilar, R., Shaw, D.P., Dubey, J.P. and Redig, P. 1991. Protozoal encephalomyelitis in an immature northern goshawk (*Accipiter gentilis*). *J. Zoo Wildlife Med.* 22:466-469.
- Buoen, L.C., Zhang, T.Q., Weber, A.F., Anderson, M.E. and Ruth, G.R. 1992. The requirements of fibroblast use to confirm the identity of cytogenetic centric fusion (CF) carriers in the diagnosis of same-sex twin cattle. *J. Vet. Diagn. Invest.* 4:212-214.
- Christianson, W.T., Collins, J.E., Pijoan, C., Joo, H.S., Benfield, D.A. and McCullough, S.J. 1991. Swine infertility and respiratory syndrome. *Pig Veterinary Journal* 27:9-12.
- Boermans, J.J., Johnstone, I., Black W.D. and Murphy, M.J. 1991. Clinical signs, laboratory changes and toxicokinetics of brodifacoum in the horse. *Can. J. Vet. Res.* 55:21-27.
- Duimstra, J.R., Myers, L.L., Collins, J.E., Benfield, D.A., Shoop, D.S. and Bradbury, W.C. 1991. Infection of gnotobiotic pigs with an enterotoxigenic strain of *Bacteroides fragilis*. *Vet. Pathol.* 28:336-338.
- Frank, R.K., Newman, J. and Ruth, G.R. 1991. Lesions of perirenal hemorrhage syndrome in growing turkeys. *Avian Dis.* 35:523-534.
- Halvorson, D.A., Shaw, D., Sivanandan, V., Barbour, E.K., Maheshkumar, S., Newman, J.A., and Newman, L. 1991. Serological response in broiler chicks to different commercial Newcastle disease and infectious bronchitis vaccines. *Avian Dis.* 35:978-981.
- Jackson, T.W., Costin, C., Link, K., Heule, M. and Murphy, M.J. 1991. Correlation of serum ibuprofen concentrations with clinical signs of toxicity in three canine exposures. *Vet. Hum. Toxicol.* 33:486-488.
- Kruger, J.M., Osborne, C.A., Goyal, S.M., Wickstrom, S.L., Johnston, G.R., Flether, T.F. and Brown, P.A. 1991. Clinical evaluation of cats with lower urinary tract diseases. *J. Am. Vet. Med. Assoc.* 199:211-216.
- Maheshkumar, S., Goyal, S.M. and Economon, P.P. 1991. Evaluation of a water concentration procedure for the detection of infectious pancreatic necrosis virus in a fish hatchery. *J. Appl. Ichthyol.* 7:115-119.
- Maheshkumar, S., Goyal, S.M., Peterson, R.B. and Economon, P.P. 1991. Method for the concentration of infectious pancreatic necrosis virus from hatchery water. *J. Virol. Methods.* 31:211-218.
- Miller, M.A., Nelson, S.L., Turk, J.R., Pace, L.W., Brown, T.P., Shaw, D.P., Fischer, J.R., and Gosser, H.S. 1991. Cutaneous neoplasia in 340 cats. *Vet. Pathol.* 28:389-395.
- Mogollon, J.D., Pijoan, C., Murtaugh, M.P., Collins, J.E. and Cleary, P.P. 1991. Identification of epidemic strains of *Streptococcus suis* by genomic fingerprinting. *J. Clin. Microbiol.* 29:982-987.
- Naeem, K., Murtaugh, M.P. and Goyal, S.M. 1991. Tissue distribution of bovid herpesvirus-4 in inoculated rabbits and its detection by DNA hybridization and polymerase chain reaction. *Arch. Virol.* 119:239-255.

- Routh, C.R., Triplett, D.A., Murphy, M.J., Felice, L.J., Sadowski, J.A. and Bovill, E.G. 1991. Superwarfarin ingestion and detection. *Am. J. Hematol.* 36:50-54.
- Sheftel, J., Setzer, S., Walser, M., Pertile, T., Hegstad, R.I., Felice, L.J. and Murphy, M.J. 1991. Elevated 25-hydroxy and normal 1,25 dihydroxy cholecalciferol serum concentrations in a successfully treated case of vitamin D₃ toxicosis in a dog. *Vet. Hum. Toxicol.* 33:345-348.
- Singh, A.K. 1991. Molecular properties and inhibition kinetics of acetylcholinesterase obtained from rat brain and cockroach neural ganglion. *Toxicol. Industr. Health.* 6:551-570.
- Singh, A.K., Jang, Y., Mishra, U. and Granley, K. 1991. Simultaneous analysis of flumixin, phenylbutazone, mefenamic acid and thiosalicylic acid in plasma and urine by high performance liquid chromatography. *J. Chromatogr.* 568:351-361.
- Zhang, T.Q., Buoen, L.C., Ruth, G.R., Anderson, M.E. and Weber, A.F. 1991. Two different centric (CF) chromosomal defects in a Simbrah bull. *Theriogenology.* 37:553-558.
- Benfield, D.A., Nelson, E., Collins, J.E., Harris, L., Goyal, S.M., Robison, D., Christianson, W.T., Morrison, R.B., Gorcyca, D., and Chladek, D. 1992. Characterization of swine infertility and respiratory syndrome (SIRS) virus (Isolate ATCC VR-2332). *J. Vet. Diagn. Invest.* 4:127-133.
- Christianson, W.T., Collins, J.E., Benfield, D.A., Harris, L., Gorcyca, D.E., Chladek, D.W., Morrison, R.B. and Joo, H.S. 1992. Experimental reproduction of swine infertility and respiratory syndrome (SIRS) in pregnant sows. *Am. J. Vet. Res.* 53:485-488.
- Collins, J.E., Benfield, D.A., Christianson, W.T., Harris, L., Hennings, J.C., Shaw, D.P., Goyal, S.M., McCullough, S., Morrison, R.B., Joo, H.S., Gorcyca, D. and Chladek, D. 1992. Isolation of swine infertility and respiratory syndrome virus (isolate ATCC VR-2332) in North America and experimental reproduction of the disease in gnotobiotic pigs. *J. Vet. Diagn. Invest.* 4:117-126.
- Duffy, S.J., Morrison, R.B. and Goyal, S.M. 1992. Use of an enzyme-linked immunosorbent assay for detection of infection with pseudorabies virus on a herd basis. *J. Am. Vet. Med. Assoc.* 200:499-502.
- Exner, D.V., Brien, W.F., and Murphy, M.J. 1992. Superwarfarin ingestion. *Can. Med. Assoc. J.* 146:34-35.
- Galina, L., Pijoan, C., and Collins, J. 1992. Analysis of *Streptococcus suis* isolates from clinical cases. *J. Vet. Diagn. Invest.* 4:189-191.
- Goyal, S.M. and Naeem, K. 1992. Bovid herpesvirus-4: A review. *Vet. Bull.* 62:181-211.
- Morrison, R.B., Collins, J.E., Harris, L., Christianson, W., Benfield, D.A., Chladek, D.W., Gorcyca, D.E. and Joo, H.S. 1992. Serologic evidence incriminating an unidentified virus as the cause of swine infertility and respiratory syndrome (SIRS). *J. Vet. Diagn. Invest.* 4:186-188.
- Ostrow, R.S., Forslund, K.M., McGlennen, R.C., Shaw, D.P., Schlievert, P.M., Ussery, M.A., Huggins, J.W., Faras, A.J. 1992. Ribavirin mitigates wart growth in rabbits at early stages of infection with cottontail rabbit papillomavirus. *Antiviral Research* 17:99-113.
- Singh, A.K. 1992. Interference of hordenine with screening and confirmation of drugs by thin layer chromatography and ELISA. *Forensic Sci. Int.* 54:9-22.
- Skilling, S.R., Sun, X., Kurtz, H.J., and Larson, A. 1992. Selective potentiation of NMDA-induced activity and release of excitatory amino acids by dynorphin: possible roles in paralysis and neurotoxicity. *Brain Research* 575:272-278.
- Weber, A.F., Buoen, L.C., Zhang, T.Q. and Ruth, G.R. 1992. Occurrence of the 14/20 centric fusion (CF) chromosomal aberration in U.S. Simmental cattle: A preliminary report. *J. Am. Vet. Med. Assoc.* 200:1216-1219.
- Wensvoort, G., deKluyver, E.P., Lujtze, E.A., de Beste, A., Harris, L., Collins, J.E., Christianson, W.T. and Chladek, D. 1992. Antigenic comparison of European isolates of Lelystad virus and North American isolates of SIRS virus. *J. Vet. Diagn. Invest.* 4:134-138.

Woody, B., Murphy, M.J., Green, R., Ray, A.C. 1992. Coagulopathic effects and therapy of brodifacoum toxicosis in dogs. *Am. J. Vet. Int. Med.* 6:55-59.

Yoon, I.J., Joo, H.S., Christianson, W.T., Kim, H.S., Collins, J.E., Carlson, J.H. and Dee, S.A. 1992. Isolation of a cytopathic virus from weak pigs on farms with a history of swine infertility and respiratory syndrome. *J. Vet. Diagn. Invest.* 4:139-143.

Yoon, I.J., Joo, H.S., Christianson, W.T., Kim, H.S., Collins, J.E., Morrison, R.B. and Dial, G.D. 1992. An indirect fluorescent antibody test for the detection of antibody to swine infertility and respiratory syndrome virus in swine sera. *J. Vet. Diagn. Invest.* 4:144-147.

Publications: Abstracts

Benfield, D.A., Collins, J.E., Harris, L., Chladek, D.W., Nelson, E.A., Christianson, W. and Morrison, R. 1991. Etiologic agent of swine infertility and respiratory syndrome in the United States. Conference of Research Workers in Animal Disease, Chicago, IL.

Christianson, W.T., Collins, J.E., Benfield, D.A., Harris, L., Chladek, D.W., Morrison, R.B. and Joo, H.S. 1991. Experimental reproduction of a newly described viral disease, swine infertility and respiratory syndrome (SIRS) in pregnant sows. Conference of Research Workers in Animal Disease, Chicago, IL.

Collins, J.E. 1991. Swine infertility and respiratory syndrome. United States Animal Health Association, San Diego, CA.

Morrison, R.B., Collins, J.E., Harris, L., Chladek, D. Christianson, W. and Benfield, D. 1991. Sero-epidemiologic investigation of swine infertility and respiratory syndrome (SIRS). Conference of Research Workers in Animal Disease, Chicago, IL.

Zhang, T.Q., Buoen, L.C., Weber, A.F., Anderson, M.E., and Ruth, G.R. 1991. Diagnosis and implications of 14/20 centric fusion translocation in Simmental cattle. 34th Annual Meeting of the Amer. Assoc. Vet. Lab Diagnosticians, San Diego CA.

Zhang, T.Q., Buoen, L.C., Weber, A.F., Anderson, M.E. and Ruth, G.R. 1991. Incidence and implications of hypoproliferic boars in the USA. 34th Annual Meeting of the Amer. Assoc. of Vet. Lab. Diagnosticians, San Diego, CA.

Zhang, T.Q., Buoen, L.C., Weber, A.F. and Ruth, G.R. 1991. The incidence of centric fusion (CF) translocations in three cattle breeds in North America. Conference of Research Workers in Animal Disease, Chicago, IL.

Collins, J.E., Benfield, D.A., Nelson, E.A., Chladek, D.W. 1992. Isolation and characterization of swine infertility and respiratory syndrome virus. World Association of Veterinary Laboratory Diagnosticians, Lyon, France

Geor, R., Hope, E. and Murphy, M.J. 1992. Decreased serum osteocalcin concentrations in horses given parental dexamethasone. Annual Meeting of the Society of Toxicology, Seattle, WA.

Lulich, J., Osborne, C., Felice, L., Fletcher, T., Thumchai, R. and Sanderson, S. 1992. Effects of oral NaCl administration in urinary oxalate excretion. Amer. College Vet. Internal Med., New Orleans, LA.

Murphy, M.J., Hope, E. and Stanton, T. 1992. Serum bone gla-protein concentrations increase following brodifacoum exposure. Annual Meeting of the Society of Toxicology, Seattle, WA.

Singh, A.K. 1992. Development of protocols for the regulation of furosemide medication in horses. Conference of Racing Analysts and Veterinarians, New Orleans, LA.

Publications: Books, Book Chapters and Monographs

Benfield, D.A., Loula, T., Collins, J.E. and Jenny, A. Porcine Respiratory and Reproductive Syndrome. In Diseases of Swine. Leman, A.D. (Ed). 7th edition. Iowa State University Press. Ames, IA, pp. 756-762.

Murphy, M.J. and Reagor, J.C. Toxic Plants. In Current Therapy in Equine Medicine 3. W.B. Saunders Co, Inc., Philadelphia, PA, pp. 372-377

Myers, L.L., Shoop, D.S and Collins, J.E. Enterovirulence of Toxigenic *Bacteroides fragilis* in young rabbits. In Proceedings of the 25th Joint Conference, United States and Japan Cooperative Medical Science Program on Cholera and Related Diseases. Johns Hopkins University Press, Baltimore, MD.

Taylor, D.S. and Bergeland, M.E. 1992. Clostridial infections. In Diseases of Swine. Leman, A.D. et al (Ed.), 7th edition. Iowa State University Press. Ames, IA, pp. 454-469.

Publications: Proceedings

Collins, J.E., Benfield, D.A., Christianson, W., Harris, L., Gorcyca, D.E., Chladek, D.W. and Morrison, R. 1991. Swine infertility and respiratory syndrome (Mystery Swine Disease). Proc. Minnesota Swine Conference for Veterinarians, St. Paul, MN, pp. 200-205.

Bergeland, M.E. 1991. Historical perspective of the role of *Clostridium perfringens* in piglet diarrhea. Proc. Symposium on Clostridial Enteritis. St. Paul, MN, pp. 1-4 and 25-31.

Publications: Miscellaneous

Bergeland, M.E., Collins, J.E. and Thurn, M.D. 1991. Animal Health in Minnesota. MN Ag. Exp. Station, Misc. Report 73-1991, pp 1-126.

Becker, R., Martin, N., Murphy, M.J. 1991. Hoary alyssum: Toxicity to horses, forage quality and control. MN Extension Service AG-FS-5567-A.

Collins, J.E. 1991. Cryptosporidium: Most common enteric pathogen in Minnesota calves. DxMonitor. USDA-APHIS-NAHMS.

Collins, J.E. 1991. Newly recognized respiratory syndromes in North American swine herds. Amer. Assoc. of Swine Pract. Newsletter. 3:7-11.

Collins, J.E. 1991. *Streptococcus suis* type 2 associated with meningitis in swine. DxMonitor. USDA-APHIS-NAHMS.

El Halawani, M.E., Waibel, P., Janni, K., Noll, S., Halvorson, D.A., Newman, J. and Shaw, D. 1991. Management and well-being of market turkeys. *Gobbles*, 48:28-31.

Goyal, S.M. 1991. Rabies in a llama. DxMonitor, USDA-APHIS-NAHMS.

Nagaraja, K.V., Zhang, C.L., Sivanandan, V., Choi, C., Newman, J.A., Shaw, D.P. and Felice, L.J. 1991. Poultry enteritis. *Gobbles*, 48:21-22.

Ruth, G.R. 1991. Cytogenetic analyses on domesticated animals. DxMonitor. USDA-APHIS-NAHMS.

Pullen, M.M. and Ruth, G.R. 1992. Muscular hemorrhage in a slaughtered hog. Amer. Assoc. of Swine Pract. Newsletter, 4:24.

Shaw, D.P. 1992. Caged layer fatigue. *ISA/Babcock Bulletin*.

Continuing Education Presentations

Bergeland, Martin E. September 14, 1991. Historical perspective of the role of *Clostridium perfringens* in piglet diarrhea. Symposium on Clostridial Enteritis, St. Paul, MN.

Collins, James E. September 16, 1991. Swine infertility and respiratory syndrome (Mystery Swine Disease). Minnesota Swine Conference for Veterinarians, St. Paul, MN.

Collins, James E. February 6, 1992. Diagnostic Investigations at the Minnesota Veterinary Diagnostic Laboratory, Minnesota Veterinary Medical Association, 95th Annual Meeting, Bloomington, MN.

Shaw, D.P. September 16, 1991. Differential diagnosis of grow-finish enteropathies. Minnesota Swine Conference for Veterinarians, St. Paul, MN.

Lecture, Seminar and Workshop Presentations

Bergeland, Martin E. July 15, 1991. The past, present and future of the Veterinary Science Department and the Animal Disease Research and Diagnostic Laboratory. Faculty Retreat. South Dakota State University, Brookings, SD.

Murphy, Michael J. August 13, 1991. Hoary alyssum toxicity: Field cases and experimental data. University of Minnesota, College of Veterinary Medicine Equine Research Seminar Series. St. Paul, MN.

Bergeland, Martin E. February 18-20, 1992. The role of the Minnesota Veterinary Diagnostic Laboratory in beef quality assurance. Minnesota Beef Council Regional Meetings at Rochester (Feb. 18), Marshall (Feb. 19) and St. Cloud, MN (Feb. 20), MN.

Collins, James E. March 12, 1992. The Minnesota Veterinary Diagnostic Laboratory. National Postsecondary Agriculture Student Organization, St. Paul, MN.

Murphy, M.J. February 2, 1992. An update on newer rodenticides. Metropolitan Animal Hospital Association Meeting, Minneapolis, MN.

Scientific Meeting Presentations

Felice, L.J. and Chen, M. June 3-5, 1991. A comparison of extraction methods for liver vitamin E. Midwest AOAC, Sioux Falls, SD.

Murphy, M.J. July 29, 1991. Special problems with OTC pharmaceutical poisoning. 128th Annual Meeting of the American Veterinary Medical Association, Seattle, WA.

Murphy, M.J. July 29, 1991. Diagnosis and treatment of the newer rodenticide poisonings. 128th Annual Meeting of the American Veterinary Medical Association, Seattle, WA.

Murphy, M.J. July 29, 1991. Preventative measures for naturally occurring toxins. 128th Annual Meeting of the American Veterinary Medical Association, Seattle, WA.

Werdin, R.E. October 2-4, 1991. Nutritional osteodystrophy of calves. Western Conference of Veterinary Diagnostic Pathologists, Saskatoon, Saskatchewan.

Werdin, R.E. October 2-4, 1991. Pulmonary hypertrophic osteopathy in mink. Western Conference of Veterinary Diagnostic Pathologists, Saskatoon, Saskatchewan.

Werdin, R.E. October 2-4, 1991. Actinomycotic osteomyelitis of cattle. Western Conference of Veterinary Diagnostic Pathologists, Saskatoon, Saskatchewan.

Collins, J.E. 1992. Isolation and characterization of swine infertility and respiratory syndrome virus. World Association of Veterinary Laboratory Diagnosticians, Lyon, France

Singh, A.K. March 15-19, 1992. Development of protocols for the regulation of furosemide medication in horses. 9th Conference of Racing Analysts and Veterinarians, New Orleans, LA.

Awards and Citations

Bergeland, M.E. Veterinarian of the Year - Minnesota Veterinary Medical Association, 1992.

Nelson, G.H. Distinguished Service Award - Minnesota Veterinary Medical Association, 1992.

Professional Organizations

Bergeland, Martin E. American Association of Veterinary Laboratory Diagnosticians
AAVLD-USDA Emergency Disease Liason Committee
Awards Committee
Finance Committee
Long Range Planning Committee, Chair - 1992
Laboratory Directors Committee
Nominating Committee

United States Department of Agriculture
Subcommittee on Pseudorabies Vaccines

Collins, James E. American Association of Veterinary Laboratory Diagnosticians
Long Range Planning Committee
Animal Disease Reporting Committee, Chair

North Central Conference of Veterinary Laboratory Diagnosticians
Secretary/Treasurer

Felice, Lawrence J. American Association of Veterinary Laboratory Diagnosticians
Mycotoxin Committee

Midwest Association of Official Analytical Chemists
Executive Board

Minnesota Chromatography Forum
Education Committee

Murphy, Michael J. American Academy of Veterinary and Comparative Toxicology
Vice President and Program Chair

American Board of Veterinary Toxicology
Examination Committee

- Nelson, Glen J. American Association of Veterinary Laboratory Diagnosticians
Interpretive Serology Committee
Mycotoxin Committee
- Minnesota Veterinary Medical Council
Executive Secretary
Nominating Committee, Chair
W.T.S. Thorp Lectureship Committee, Chair
Budget Committee
Alumni/College Relations Committee, Co-Chair
Executive Board
- Minnesota Veterinary Medical Alumni Association
Board of Directors
Annual Meeting Chairman
Nominating Committee
Student Experience Committee
- Minnesota Veterinary Medical Association
Governmental Affairs Committee
Minnesota Veterinary Historical Museum Board of Directors
- Ruth, George R. American Association of Veterinary Laboratory Diagnosticians
Congenital and Inherited Disease Committee, Chair
Diagnostic Pathology Committee
- Minnesota Veterinary Medical Association
Committee on Governmental Affairs
Committee on Chemically Impaired Veterinarians
- Werdin, Ronald E. American Association of Veterinary Laboratory Diagnosticians
Diagnostic Veterinary Pathology Committee
- Minnesota Veterinary Medical Association
Infectious Disease Committee
Memorial and Historical Committee
Minnesota Veterinary Historical Museum Board of Directors
- United States Animal Health Association
Infectious Diseases of Cattle Committee
- Western Conference of Veterinary Laboratory Diagnosticians
Minnesota Representative

University Committees

- Bergeland, Martin E. Administrative Council - CVM
Legislative Committee - CVM
Search Committee, Chair - Director of Veterinary Continuing Education and Extension - CVM
Strategic Planning Committee - CVM
VDL Building Committee - U of M
- Collins, James E. Faculty Council - CVM
Curriculum Committee - CVM

Felice, Lawrence J. Research Committee - CVM
 Admissions and Scholastic Standing Committee - CVM

Goyal, Sagar M. Admissions and Scholastic Standing Committee - CVM
 International Programs Committee, Alternate - CVM
 VDL Building Committee - U of M

Kurtz, Harold J. Animal Care Committee - CVM
 OSHA Committee - CVM

Murphy, Michael J. Animal Care Committee - CVM
 Dairy Resource Group Seminar Committee - CVM
 Search Committee, Chair of Small Animal Clinical Sciences - CVM

Nelson, Glen H. Dean's Advisory Council - CVM
 Legislative Committee - CVM
 Honors Committee - CVM
 Recruitment Committee - CVM
 VDL Building Committee - U of M
 President's Distinguished Faculty Mentor Program - U of M

Ruth, George R. Long Range Planning Committee - CVM
 Research and Public Practice Committee - CVM
 Strategic Planning Committee
 Judicial Committee, CVM Representative - U of M

Shaw, Daniel P. Faculty Council, Alternate - CVM
 Learning Resources Committee - CVM

Werdin, Ronald E. Awards Committee - CVM
 Careers Committee - CVM
 Faculty Council - CVM

Department of Veterinary Diagnostic Medicine

Departmental Income

July 1, 1991 - June 30, 1992

I.	Instruction		
	A. University Operations and Maintenance Fund		
	1) Annual Budget		
	a) Salaries	\$ 86,291	
	b) Fringe Benefits	23,299	
	c) Supplies	<u>255</u>	
			\$ 109,845
II.	Research		
	A. Agricultural Experiment Station	31,383	
	B. Federal Contracts and Grants		
	1) USDA - Animal Health Funds	17,800	
	C. Minnesota Racing Commission	61,828	
	D. Private Industry	<u>209,000</u>	
			320,011
III.	Services		
	A. State Special Appropriation		
	Minnesota Veterinary Diagnostic Laboratory	1,736,368	
	B. Laboratory User Fees		
	1) Veterinary Diagnostic Laboratory		
	a) Public	1,092,680	
	b) Other University Departments	114,065	
	2) Histotechnique Laboratory	40,919	
	3) Minnesota Racing Analytical Laboratory	<u>271,621</u>	
			3,255,653
IV.	Other		
	A. Minnesota Poultry Testing Laboratory	95,000	
	B. College of Veterinary Medicine Administration	262	
	C. Private Gifts		
	1) Fenstermacher Fund		
	a) Contributions	4,190	
	b) Endowment earnings	1,552	
	2) Research	<u>33,323</u>	
			<u>134,327</u>
	TOTAL		\$ <u>3,819,836</u>

Administration

University of Minnesota

Elton A. Kuderer - Chair, Board of Regents
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Cherie R. Perlmutter - Associate Vice President, Health Sciences
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Board of Animal Health

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Theodore G. Huisinga
John A. Howe
Thomas J. Hagerty - Executive Secretary

University of Minnesota

College of Veterinary Medicine Advisory Council Executive Committee Members

Thomas Hagerty, Chair	Minnesota Board of Animal Health St. Paul, Minnesota
Warren Hartman	Mixed Animal Practice Wadena, Minnesota
John Hausladen	Minnesota Turkey Growers Association St. Paul, Minnesota
Conrad Kvamme	Orbit Farms Dairy Little Falls, Minnesota