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SALMONELLA

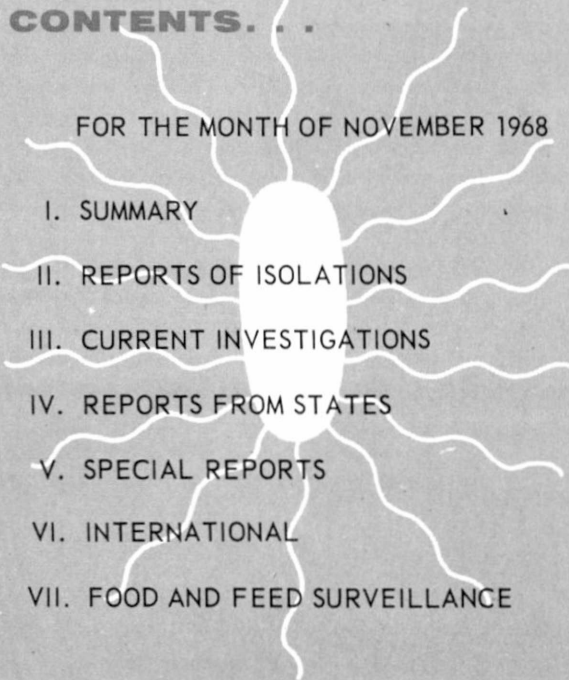
SURVEILLANCE

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FOR THE MONTH OF NOVEMBER 1968

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE/PUBLIC HEALTH SERVICE
Health Services and Mental Health Administration

PREFACE

Summarized in this report is information received from State and City Health Departments, university and hospital laboratories, the National Animal Disease Laboratory (USDA, ARS), Ames, Iowa, and other pertinent sources, domestic and foreign. Much of the information is preliminary. It is intended primarily for the use of those with responsibility for disease control activities. Anyone desiring to quote this report should contact the original investigator for confirmation and interpretation.

Contributions to the Surveillance Report are most welcome. Address

National Communicable Disease Center, Atlanta, Georgia 30333

Attention: Chief, Salmonellosis Unit, Epidemiology Program

National Communicable Disease Center	David J. Sencer, M.D., Director
Epidemiology Program	Alexander D. Langmuir, M.D., Chief
Bacterial Diseases Section	Philip S. Brachman, M.D., Chief John V. Bennett, M.D., Deputy Chief
Salmonellosis Unit	Bernard Aserkoff, M.D., Chief Andrew Mallory, M.D.
Statistics Section	Ida L. Sherman, M.S., Chief Theodore P. Feury, Jr., M.S. Arthur L. Michelson, M.S.
Veterinary Public Health Section	James H. Steele, D.V.M., Chief
Epidemiological Services Laboratory Section	Philip S. Brachman, M.D., Acting Chief
Salmonella Laboratory Unit	George K. Morris, Ph.D., Chief

Collaborators

Laboratory Program	
Bacteriology Section	
Enteric Bacteriology Unit	William H. Ewing, Ph.D., Chief William J. Martin, Ph.D., Asst. Chief

January 13, 1969

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I. SUMMARY

In November 1968, 1,658 isolations of salmonellae were reported from humans, an average of 414 isolations per week (Table I, II, and V-A). This number represents a decrease of 44 (9.6 percent) from the weekly average of October 1968 and an increase of 53 (14.7 percent) over the weekly average of November 1967.

Reports of 509 nonhuman isolations of salmonellae were received during November 1968 (Tables III, IV, and V-B).

II. REPORTS OF ISOLATIONS

The ten most frequently reported serotypes during November:

HUMAN				NONHUMAN		
Serotype	Number	Percent	Rank Last Month	Serotype	Number	Percent
1 <u>typhi-murium*</u>	481	29.0	1	<u>typhi-murium*</u>	70	13.8
2 <u>enteritidis</u>	174	10.5	2	<u>heidelberg</u>	36	7.1
3 <u>newport</u>	125	7.5	3	<u>anatum</u>	35	6.9
4 <u>saint-paul</u>	102	6.2	4	<u>livingstone</u>	31	6.1
5 <u>heidelberg</u>	89	5.4	5	<u>montevideo</u>	23	4.5
6 <u>infantis</u>	65	3.9	6	<u>infantis</u>	21	4.1
7 <u>thompson</u>	64	3.9	9	<u>saint-paul</u>	19	3.7
8 <u>javiana</u>	54	3.3	7	<u>cerro</u>	19	3.7
9 <u>typhi</u>	35	2.1	8	<u>derby</u>	18	3.5
10 <u>derby</u>	33	2.0	>10	<u>minnesota</u>	18	3.5
				<u>senftenberg</u>	18	3.5
				<u>thompson</u>	18	3.5
Total	1222	73.7		Total	326	64.0
TOTAL (all serotypes)	1658			TOTAL (all serotypes)	509	
*Includes <u>var. copenhagen</u>	16	1.0		*Includes <u>var. copenhagen</u>	16	3.1

III. CURRENT INVESTIGATIONS

NONE

IV. REPORTS FROM THE STATES

NONE

V. SPECIAL REPORTS

NONE

VI. INTERNATIONAL

NONE

VII. FOOD AND FEED SURVEILLANCE

Salmonella Surveillance Program of Dry Milk Plants

Reported by Mr. Edwin F. Garbe, Chief, Inspection and Grading Branch, U.S. Department of Agriculture.

The U.S. Department of Agriculture tested product and environmental samples from 210 dry milk plants in 29 states during 1968 for the presence of salmonellae. The results of these tests are listed below. "Follow-up tests" were conducted at plants if an isolation was obtained. These results are not included.

Salmonella Surveillance of Dry Milk Plants
Routine Samples

Month	Product Samples			Environmental Samples		
	Number Tested	Number Positive	Percent Positive	Number Tested	Number Positive	Percent Positive
January	1102	0	0.00	144	8	5.5
February	1613	3	0.18	242	3	1.2
March	1229	7	0.57	221	13	5.9
April	2360	4	0.17	377	15	3.9
May	1749	3	0.17	343	11	3.2
June	922	4	0.43	168	13	7.7
July	1879	7	0.37	411	38	9.2
August	1055	1	0.09	186	6	3.2
September	1340	5	0.37	253	12	4.7
October	1535	1	0.07	357	7	2.0
November	616	0	0.00	96	8	8.3
December	<u>2096</u>	<u>4</u>	<u>0.19</u>	<u>344</u>	<u>18</u>	<u>5.2</u>
	17496	39	0.22	3142	152	4.8

TABLE I. COMMON SALMONELLAE REPORTED FROM HUMAN SOURCES, NOVEMBER 1968

SERO TYPE	GEOGRAPHIC DIVISION AND REPORTING CENTER																																
	NEW ENGLAND					MIDDLE ATLANTIC					EAST NORTH CENTRAL					WEST NORTH CENTRAL					SOUTH ATLANTIC												
	ME	NH	VT	MAS	RI	CON	NYA	NYB	NYC	NJ	PA	OH	IND	ILL	MIC	WIS	MIN	IOW	MO	ND	SD	NEB	KAN	DEL	MD	DC	VA	WVA	NC	SC	GA	FLA	
<i>anatum</i>				2				1		5				2	2	3									1					1			
<i>bareilly</i>				2				3																9									
<i>blockley</i>				3				1	2	1		4	1	5	1			1												1	1		
<i>braenderup</i>				3				2																					1				
<i>bredeney</i>								2		1	1																				1		
<i>chester</i>														1		1																	
<i>cholerae-suis v kun</i>															2										1								
<i>cubana</i>				1																											1		
<i>derby</i>						1		3	1	1		3		4			1		1					4						2			
<i>enteritidis</i>			1	35		1	6	9	4	3	19	5	3	10	8	1	2	2		11			1	5		2	4		6	5			
<i>give</i>																																	
<i>heidelberg</i>						1		5	1	2	12	6	1	15	9	1								1	3		1	2		2	7		
<i>indiana</i>																															2		
<i>infantis</i>				3	1			6	1		4	2	2	10	3			2	1				1				2			5	5		
<i>java</i>				1		1				1	1	1				2														4			
<i>javiana</i>											1																			1	26		
<i>litchfield</i>																															3		
<i>livingstone</i>									1																						1		
<i>manhattan</i>				1					1		2																			3	2		
<i>miami</i>											1																				21		
<i>mississippi</i>																															1		
<i>montevideo</i>						1		1		2				3	2		1						1				1						
<i>muenchen</i>										2	2			1		1								1							4		
<i>newington</i>																															4		
<i>newport</i>				2				1	1			3		4	2		2						4	1				2	10	27			
<i>oranienburg</i>				3		1				1				1					2											3	2		
<i>panama</i>						1					1			1	1																		
<i>paratyphi B</i>				3				1																									
<i>reading</i>																																	
<i>saint-paul</i>				6		3		3	3		6	6	1	10	1	1	1							3		1				1	13		
<i>san-diego</i>				1						1			1		2																1		
<i>schwarzengrund</i>																															1		
<i>sentenberg</i>				1						1																					1		
<i>tennessee</i>												3																					
<i>thompson</i>				9		3		2	1	1	5	2		6	3	1								1	1		2		1	5	5		
<i>typhi</i>				6				1	2	1		2		1																	2		
<i>typhimurium</i>	1		2	35	1	20	2	45	33	16	34	11	4	23	7	9	6	7	11	1			1	1		8	1	9	3	17	7	19	27
<i>typhimurium v cop</i>				3		3				3					2					1													
<i>weltevreden</i>														1																			
<i>worthington</i>																	1																
TOTAL	1	—	3	120	2	36	8	83	55	34	95	49	13	98	45	20	15	11	16	13	—	—	16	13	29	3	26	—	17	—	69	157	
ALL OTHER*	—	5	—	6	2	3	27	3	2	—	—	3	—	3	3	9	—	1	—	2	—	—	1	—	—	3	2	—	—	4	3	17	
TOTAL	1	5	3	126	4	39	35	86	57	34	95	52	13	101	48	29	15	12	16	15	—	—	17	13	29	6	28	—	17	4	72	174	

Note: NYA — New York, Albany; NYB — Beth Israel Hospital; NYC — New York City.
Beth Israel Hospital laboratory is a reference laboratory and this month serotyped a total of 180 cultures.

* See Table II.

TABLE I - Continued

GEOGRAPHIC DIVISION AND REPORTING CENTER																				TOTAL	% OF TOTAL	CUMULATIVE TOTAL	% OF CUMULATIVE TOTAL	SEROTYPE	
EAST S. CENTRAL				WEST S. CENTRAL				MOUNTAIN						PACIFIC											
KY	TEN	ALA	MIS	ARK	LA	OKL	TEX	MON	IDA	WYO	COL	NM	ARI	UTA	NEV	WAS	ORE	CAL	ALK	HAW					
					1		1				1							1			18	1.1	197	1.1	<i>anatum</i>
					2	1					1					1		6			17	1.0	67	0.4	<i>bareilly</i>
					3		1													1	32	1.9	461	2.5	<i>blockley</i>
																					7	0.4	134	0.7	<i>braenderup</i>
																					11	0.7	166	0.9	<i>bredenev</i>
		1																			2	0.1	51	0.3	<i>chester</i>
	1	1																			4	0.2	27	0.1	<i>cholerae-suis v kun</i>
	2		1	1	2								1			1		2			4	0.2	49	0.3	<i>cubana</i>
	2				3	1	1				1		1			2	1	2			33	2.0	386	2.1	<i>derby</i>
																2					18	10.5	1,584	8.6	<i>enteritidis</i>
	3	6		1	2		2						2		2			4			4	0.2	60	0.3	<i>give</i>
																					89	5.4	1,232	6.7	<i>heidelberg</i>
1	2				2	1	3											4			2	0.1	83	0.5	<i>indiana</i>
					4													4		4	65	3.9	890	4.9	<i>infantis</i>
																		6			21	1.3	188	1.0	<i>java</i>
		1		1	3	1	20											1			54	3.3	472	2.6	<i>javana</i>
																		1			5	0.3	86	0.5	<i>litchfield</i>
	2	1														1					4	0.2	35	0.2	<i>livingstone</i>
																		2			17	1.0	184	1.0	<i>manhattan</i>
																					22	1.3	108	0.6	<i>miami</i>
					1																2	0.1	49	0.3	<i>mississippi</i>
		3		1			1				1		1								17	1.0	256	1.4	<i>montevideo</i>
					1																15	0.9	187	1.0	<i>muenchen</i>
	1	1		5	8		36				2					1		2			7	0.4	40	0.2	<i>newington</i>
																					10	7.5	1,142	6.2	<i>newport</i>
	2				3	1												3			20	1.2	280	1.5	<i>oranienburg</i>
						2												2			15	0.9	211	1.2	<i>panama</i>
						1										1					6	0.4	110	0.6	<i>paratyphi B</i>
	21	2				3					5					1					1	0.1	39	0.2	<i>reading</i>
																1		8			102	6.2	1,085	5.9	<i>saint-paul</i>
																					6	0.4	102	0.6	<i>san-diego</i>
					1		1											1			2	0.1	48	0.3	<i>schwarzengrund</i>
																					5	0.3	59	0.3	<i>senftenberg</i>
	1	2			2		1										1				4	0.2	80	0.4	<i>tennessee</i>
																		10			64	3.9	616	3.4	<i>thompson</i>
1	1			2	2		2				2						1	3	3		35	2.1	574	3.1	<i>typhi</i>
	2	2		4	10	2	15	2			10		2	1		3	1	40			465	28.0	4,728	25.8	<i>typhimurium</i>
				1	1								2								16	1.0	286	1.6	<i>typhimurium v cop</i>
											1										10	0.6	73	0.4	<i>weltevreden</i>
																					1	0.1	21	0.1	<i>worthington</i>
2	40	20	1	16	48	9	93	-	2	-	24	-	8	1	2	12	4	112	3	59	1,503	90.7	16,446	89.7	TOTAL
1	-	1	3	2	7	1	15	2	-	-	3	5	-	-	-	-	1	14	-	1	155		1,891		ALL OTHER*
3	40	21	4	18	55	10	108	2	2	-	27	5	8	1	2	12	5	126	3	60	1,658		18,337		TOTAL

TABLE II. OTHER SALMONELLAE REPORTED FROM HUMAN SOURCES, NOVEMBER 1968

SEROTYPE	REPORTING CENTER																											
	ALA	ARK	CAL	COL	CON	DC	FLA	GA	HAW	ILL	IOW	KAN	KY	LA	MAS	MIC	MIS	MON	NH	NM	NY	NY	NY	B	NY	C	ND	
<i>atlanta</i>								1																				
<i>berta</i>							1																					
<i>california</i>			1																									
<i>carrau</i>							1																					
<i>cerro</i>									1																		1	
<i>coeln</i>																											1	
<i>drypool</i>														1														
<i>dublin</i>															1													
<i>fresno</i>										1																		
<i>gallinarum</i>																												
<i>gaminara</i>														1														
<i>hartford</i>							2								1													
<i>heilbron</i>				1																								
<i>inverness</i>																2												
<i>kentucky</i>			1																									
<i>lindenburg</i>												1																
<i>loma-linda</i>			3																									
<i>lomita</i>																												
<i>madelia</i>							2																					
<i>manchester</i>																												
<i>manila</i>					1																							
<i>minnesota</i>														2														
<i>new-brunswick</i>							1																		1			
<i>norwich</i>																												
<i>orion</i>				1																								
<i>paratyphi B v. odense</i>																												
<i>pensacola</i>					2									1	2													
<i>poona</i>			2				3																					
<i>rubislaw</i>			1				1							1														
<i>saphra</i>																												
<i>siegburg</i>														1													1	
<i>simsbury</i>								1							1													
<i>tallahassee</i>							2																					
<i>thomasville</i>								1																				
<i>uganda</i>																												
<i>urbana</i>			1													1											1	
<i>virchow</i>				1						1																		
TOTAL	—	—	9	3	3	—	14	2	1	2	—	1	—	7	5	3	—	—	—	—	—	—	—	—	3	2	—	
NOT TYPED*	1	2	5	—	—	3	3	1	—	1	1	—	1	—	1	—	3	2	5	5	27	—	—	—	—	—	2	
TOTAL	1	2	14	3	3	3	17	3	1	3	1	1	1	7	6	3	3	2	5	5	27	3	2	2	—	—	2	

* See Table V-A

TABLE II - Continued

REPORTING CENTER										TOTAL	CUMULATIVE TOTAL	SERO TYPE
OHI	OKL	ORE	RI	SC	TEX	VA	WIS					
										1	10	<i>atlanta</i>
										1	27	<i>berta</i>
										1	20	<i>california</i>
										1	2	<i>carrau</i>
										2	10	<i>cerro</i>
										1	3	<i>coeln</i>
										1	5	<i>drypool</i>
1										1	11	<i>dublin</i>
										1	2	<i>fresno</i>
										1	1	<i>gallinarum</i>
										1	16	<i>gaminara</i>
										3	16	<i>hartford</i>
										1	1	<i>heilbron</i>
										2	2	<i>inverness</i>
1										2	16	<i>kentucky</i>
										1	2	<i>lindenburg</i>
										3	5	<i>loma-linda</i>
						1				1	6	<i>lomita</i>
										2	5	<i>madelia</i>
1										1	4	<i>manchester</i>
										1	2	<i>manila</i>
										2	18	<i>minnesota</i>
					1					3	4	<i>new-brunswick</i>
1					5					6	41	<i>norwich</i>
										1	5	<i>orion</i>
										2	4	<i>paratyphi B v. odense</i>
										3	12	<i>pensacola</i>
										5	71	<i>poona</i>
										3	33	<i>rubislaw</i>
					3					3	20	<i>saphra</i>
						1				3	7	<i>siegburg</i>
										2	5	<i>simsbury</i>
										2	7	<i>tallahassee</i>
					1					1	1	<i>thomasville</i>
										1	1	<i>uganda</i>
							3			6	25	<i>urbana</i>
										2	6	<i>virchow</i>
3	1	-	-	-	10	2	3			74	667	TOTAL
-	-	1	2	4	5	-	6			81	1,224	NOT TYPED*
3	1	1	2	4	15	2	9			155	1,891	TOTAL

Cumulative Totals include isolations of all serotypes (except those listed in Table I) reported this year.

TABLE III. COMMON SALMONELLAE REPORTED FROM NONHUMAN SOURCES, NOVEMBER 1968

SEROTYPE	DOMESTIC ANIMALS AND THEIR ENVIRONMENT							ANIMAL FEEDS			
	CHICKENS	TURKEYS	SWINE	CATTLE	HORSES	OTHER	SUBTOTAL	TANKAGE	VEGETABLE PROTEIN	OTHER	SUBTOTAL
<i>anatum</i>	4	2	2	2		6	16	10		6	16
<i>bareilly</i>	2		1				3	2			2
<i>blockley</i>	6		1				7	1			1
<i>braenderup</i>							—				—
<i>bredeney</i>							—				—
<i>chester</i>		1					1				1
<i>cholerae-suis v kun</i>			17				17				17
<i>cubana</i>							—	1			1
<i>derby</i>		3	4	1			8				8
<i>enteritidis</i>	1	1				2	4				4
<i>give</i>	2						2				2
<i>heidelberg</i>	20	11	1			1	33				33
<i>indiana</i>							—				—
<i>infantis</i>	14	1				1	16		3		19
<i>java</i>						2	2				2
<i>javiana</i>							—				—
<i>litchfield</i>							—				—
<i>livingstone</i>		1	1				2	10		16	26
<i>manhattan</i>	2		2				4				4
<i>miami</i>							—				—
<i>mississippi</i>							—				—
<i>montevideo</i>	2						2	12		2	14
<i>muenchen</i>		1					1	1			2
<i>newington</i>		1	1				2	1			3
<i>newport</i>				1		2	3				3
<i>oranienburg</i>							—	4		1	5
<i>panama</i>		2					2				2
<i>paratyphi B</i>							—				—
<i>reading</i>		1	1				2				2
<i>saint-paul</i>	4	2	1	9		1	17				17
<i>san-diego</i>							—				—
<i>schwarzengrund</i>		3				1	4				4
<i>senftenberg</i>		3					3	5		1	9
<i>tennessee</i>							—	3		1	4
<i>thompson</i>	10						10	1			11
<i>typhi</i>							—				—
<i>typhimurium</i>	3	2	8	17	3	9	42				42
<i>typhimurium v cop</i>	7		1			4	12	2			14
<i>weltevreden</i>							—				—
<i>worthington</i>	4						4	1			5
TOTAL	81	35	41	30	3	29	219	54	—	30	84
ALL OTHER*	15	9	2	15	1	9	51	25	—	11	36
TOTAL	96	44	43	45	4	38	270	79	—	41	120

* See Table IV

TABLE III - Continued

WILD ANIMALS AND BIRDS	REPTILES AND ENVIRONMENT	HUMAN DIETARY ITEMS						MISCELLANEOUS	TOTAL	CUMULATIVE TOTAL	SEROTYPE
		EGGS AND PRODUCTS	POULTRY	RED MEAT	DAIRY PRODUCTS	OTHER	SUBTOTAL				
1			1				2	1	35	505	anatum
							—	5	5	33	bareilly
							—	1	9	211	blockley
							—	—	—	25	braenderup
							—	1	1	127	bredeney
							—	1	1	45	cheater
							—	17	17	148	cholerae-suis v kun
							—	1	1	300	cubana
							—	18	18	260	derby
1							—	7	5	128	enteritidis
							—	1	8	54	give
5							—	1	36	590	heidelberg
1							—	2	—	17	indiana
							—	21	21	389	infantis
							—	3	3	26	java
							—	—	—	12	javiana
							—	—	—	3	litchfield
		1					—	2	31	144	livingstone
							—	—	4	26	manhattan
							—	—	—	10	miami
	1						—	1	—	1	mississippi
	1						—	1	23	442	montevideo
	1						—	3	3	93	muenchen
2							—	1	4	111	newington
							—	1	6	194	newport
		1					3	8	8	164	oranienburg
							1	5	8	64	panama
							—	—	—	7	paratyphi B
			1				1	2	2	26	reading
							1	19	19	357	saint-paul
							—	—	—	43	san-diego
		1					1	5	5	74	schwarzengrund
							—	9	18	299	senftenberg
							1	5	5	166	tennessee
							6	18	18	251	thompson
1							—	6	—	—	typhi
		4	1				5	54	54	995	typhimurium
		2					2	16	16	242	typhimurium v cop
							—	—	—	10	welfevreden
							—	3	8	114	worthington
12	3	15	4	1	4	8	32	42	392	6,706	TOTAL
1	2	2	—	—	4	5	11	16	117	1,623	ALL OTHER*
13	5	17	4	1	8	13	43	58	509	8,329	TOTAL

TABLE IV - Continued

WILD ANIMALS AND BIRDS	REPTILES AND ENVIRONMENT	HUMAN DIETARY ITEMS						MISCELLANEOUS	TOTAL	CUMULATIVE TOTAL	SEROTYPE	
		EGGS AND PRODUCTS	POULTRY	RED MEAT	DAIRY PRODUCTS	OTHER	SUBTOTAL					
1		1			1			1	4	5	44	<i>alachua</i>
										1	12	<i>albaray</i>
										10	10	<i>amager</i>
										1	3	<i>bern</i>
									1	4	66	<i>binza</i>
										1	72	<i>california</i>
									1	19	140	<i>cerro</i>
										11	68	<i>dublin</i>
									1	5	248	<i>eimsbuettel</i>
		1						1		1	1	<i>heilbron</i>
										1	13	<i>illinois</i>
										2	17	<i>johannesburg</i>
										2	103	<i>kentucky</i>
										4	18	<i>manila</i>
					3			3		4	37	<i>melegridis</i>
	1								7	18	87	<i>minnesota</i>
										1	13	<i>pomona</i>
										2	52	<i>pullorum</i>
										1	2	<i>saphra</i>
						5		5		12	76	<i>siegburg</i>
										1	3	<i>stanley</i>
									2	3	18	<i>taksony</i>
										1	1	<i>tallahassee</i>
										1	48	<i>thomasville</i>
1	1	2	-	-	4	5	11	16	111	1,544		TOTAL
-	1	-	-	-	-	-	-	-	6	79		NOT TYPED *
1	2	2	-	-	4	5	11	16	117	1,623		TOTAL

TABLE V. SALMONELLAE REPORTED BY GROUP IDENTIFICATION ONLY, NOVEMBER 1968

A. HUMAN SOURCES

REPORTING CENTER	GROUP													TOTAL	
	B	C			C1	C2			D	E		G	UNK.		
ALABAMA	1														1
ARKANSAS					1	1									2
CALIFORNIA	4												1		5
DIST. OF COLUMBIA	3														3
FLORIDA	1					1						1			3
GEORGIA									1						1
ILLINOIS	1														1
IOWA													1		1
KENTUCKY	1														1
MASSACHUSETTS	1														1
MISSISSIPPI	1				1	1									3
MONTANA	1					1									2
NEW HAMPSHIRE	2				2			1							5
NEW MEXICO	5														5
NEW YORK-A													27		27
NORTH DAKOTA													2		2
OREGON								1							1
RHODE ISLAND	2														2
SOUTH CAROLINA	1	2											1		4
TEXAS	1					1							3		5
WISCONSIN													6		6
TOTAL	25	2			4	5			3	-			1	41	81

B. NONHUMAN SOURCES

SOURCES	GROUP													TOTAL	
	B	C			C1	C2			D	E		G	UNK.		
DOMESTIC ANIMALS AND THEIR ENVIRONMENT	4									1					5
ANIMAL FEEDS															-
WILD ANIMALS AND BIRDS															-
REPTILES AND ENVIRONMENT						1									1
HUMAN DIETARY ITEMS															-
MISCELLANEOUS															-
TOTAL	4	-			-	1			-	1			-	-	6