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REPORT NO. 90
October 30, 1969

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SALMONELLA

SURVEILLANCE

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CONTENTS. . .

FOR THE MONTH OF SEPTEMBER 1969

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. Please address

National Communicable Disease Center
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October 30, 1969

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I. SUMMARY

In September 1969, 2,198 isolations of salmonellae were reported from humans, an average of 550 isolations per week (Tables I, II, and V-A). This number represents an increase of 26 (5.0 percent) over the weekly average of August 1969 and an increase of 27 (5.2 percent) over the weekly average of September 1968.

Reports of 855 nonhuman isolations of salmonellae were received during September 1969 (Tables II, IV, and V-B).

II. REPORTS OF ISOLATIONS

The ten most frequently reported serotypes during September:

HUMAN				NONHUMAN		
	Serotype	Number	Percent	Rank Last Month	Serotype	Number	Percent
1	typhi-murium*	483	22.0	1	typhi-murium*	122	14.3
2	newport	231	10.5	2	heidelberg	87	10.2
3	enteritidis	200	9.1	3	cholerae-suis var. kunzendorf	64	7.5
4	heidelberg	162	7.4	4	anatum	57	6.7
5	saint-paul	109	5.0	7	saint-paul	52	6.1
6	infantis	96	4.4	6	montevideo	44	5.1
7	thompson	87	4.0	5	thompson	38	4.4
8	javiana	83	3.8	9	senftenberg	30	3.5
9	typhi	57	2.6	8	bredeney	29	3.4
10	blockley	55	2.5	10	enteritidis	21	2.5
					newport	21	2.5
	Total	1,563	71.1		Total	565	66.1
	TOTAL (all serotypes)	2,198			TOTAL (all serotypes)	855	
	*Includes var. copenhagen	34	1.5		*Includes var. copenhagen	31	3.6

III. CURRENT INVESTIGATIONS

NONE

IV. REPORTS FROM THE STATES

NONE

V. SPECIAL REPORTS

Announcement of a Course on Methods for the Isolation of Salmonellae from Food Products and Animal Feeds

The Epidemiology Program and the Laboratory Division of the National Communicable Disease Center will conduct a course on methods for isolating salmonellae from food products and animal feeds on January 5-16 and June 15-26, 1970*. The prerequisite for the course is 6 months' experience in either a bacteriology or quality control laboratory. The course is divided equally between lectures and laboratory exercises. Lectures include epidemiology, sampling, and principles of isolation and identification. Laboratory exercises include all necessary steps in the isolation and the preliminary biochemical and serologic identification of salmonellae from various foods and feeds, such as eggs, dry milk, candy, red meats, poultry, animal by-products, and fish meal.

State, Federal, and industry personnel may obtain application forms through: Training Office, Laboratory Consultation and Development Section, Laboratory Division, National Communicable Disease Center, Atlanta, Georgia 30333.

VI. INTERNATIONAL

NONE

*The closing dates to register for course are November 10, 1969, and April 20, 1970, respectively.

STATE EPIDEMIOLOGISTS AND STATE LABORATORY DIRECTORS

Key to all disease surveillance activities are the physicians who serve as State epidemiologists. They are responsible for collecting, interpreting, and transmitting data and epidemiological information from their individual States; their contributions to this report are gratefully acknowledged. In addition, valuable contributions are made by State Laboratory Directors; we are indebted to them for their valuable support.

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Wyoming	Herman S. Parish, M.D.	Donald T. Lee, Dr.P.H.

TABLE I. COMMON SALMONELLAE REPORTED FROM HUMAN SOURCES, SEPTEMBER, 1969

SEROTYPE	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	OHI	IND	ILL	MIC	WIS	MIN	IOW	MO	ND	SD	NEB	KAN	DEL	MD	DC	VA	WVA	NC	SC	GA	FLA
anatum								1	1				1	4		1									1				3		1	
bareilly									1																1		3					
blockley				4	2	2		4	4	2	3			4		2	1		2						1	3						2
braenderup								1		1																						1
bredeney									1					1	1														1			
chester										1				1			1															
cholerae-suis v kun															1																	1
cubana				1																												
derby				5		1	1	1			1			5		1									2	1					2	
enteritidis			1	60		4		5	8	8	11	3		19	7	2			12				1	1	6	1			1		7	10
give													1														1					
heidelberg				19		7		4	9	7	1	6	2	8	8	1	1		3				4		1	1	2		5		7	4
indiana									2																					1	1
infantis				6		2		2	3	5	4	5	9	4	1	3	5		2	1		1	1		2		1				3	3
java	1									2		1		3					1											1	
javiana				3																			6				1			8	24
litchfield														1															1	3	1
livingstone									1	1																					
manhattan				1	1				3		2	1			1										1	1					
miami																															3
mississippi																														1	
montevideo				2				1	4		1			3	1								2							2	
muenchen				1				7	5					2			1		1				1				1		1	1	4
newington				1							3												1		1						
newport				8		12		4	1	3		2		34	3	3		1	2				7		1		1		8	1	10	18
oranienburg								1	5			2			2				1						1		1			3	3
panama				1				2		3	11	1		4				1									1				
paratyphi B				1								4		2													1				2
reading				1							3														1						
saint-paul			1	5		2	1	7	3	5		6	1	17	6	5	2		1			1	1		2				2		6	6
san-diego										3				1													1					1
schwarzengrund																			1													
senftenberg								1																	1	1			1		1	
tennessee						1								1		1																
thompson		1		15		1		2	1	7	1	6		4	3	5			2	1			1				2	1	1		4	1
typhi				1		3	2	3		1		2		1	1				2						3		1		2		1	7
typhimurium	4		1	40	5	11		21	23	11	28	20	8	20	17	13	7	2	6	1		1	6	1	6	8	14	1	17		21	15
typhimurium v cop	1			12		1				1					2			1											2			
weltevreden										1																						
worthington																																
TOTAL	6	1	3	187	8	47	4	67	75	62	69	59	22	139	54	37	18	5	36	3	–	3	30	2	31	16	31	2	45	1	83	107
ALL OTHER*	–	11	5	3	4	2	41	5	7	5	8	1	–	7	6	1	3	3	1	–	–	–	1	1	4	18	3	–	1	–	4	8
TOTAL	6	12	8	190	12	49	45	72	82	67	77	60	22	146	60	38	21	8	37	3	–	3	31	3	35	34	34	2	46	1	87	115

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 165 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		2											1			1	1	2			21	1.0	114	0.8	*anatum*
							1														6	0.3	47	0.3	*bareilly*
1					4		1				4			2			1	6			55	2.5	348	2.3	*blockley*
																1				2	6	0.3	61	0.4	*braenderup*
																				1	5	0.2	91	0.6	*bredeney*
		1															1	3			8	0.4	36	0.2	*chester*
																					2	0.1	12	0.1	*cholerae-suis v kun*
							1				1										3	0.1	98	0.6	*cubana*
1	1				3		1						1					4		1	32	1.5	224	1.5	*derby*
1	2	2					5	4								2	1	9	3	4	200	9.1	1385	9.2	*enteritidis*
	1				3													2		1	9	0.4	60	0.4	*give*
1	4	3		1	12		6		1		2		5	1		6		20			162	7.4	1001	6.6	*heidelberg*
1																					5	0.2	78	0.5	*indiana*
2	5	2			3		9							3				8		1	96	4.4	843	5.6	*infantis*
	2				1									1				4			17	0.8	114	0.8	*java*
		1		1	7		29						1					2			83	3.8	289	1.9	*javiana*
		1			1																8	0.4	81	0.5	*litchfield*
						1												4		1	8	0.4	31	0.2	*livingstone*
							1											5			17	0.8	165	1.1	*manhattan*
																					3	0.1	73	0.5	*miami*
					5																6	0.3	27	0.2	*mississippi*
1					8		1						3					4			33	1.5	207	1.4	*montevideo*
					1		4						1					3			34	1.5	157	1.0	*muenchen*
																		1			6	0.3	20	0.1	*newington*
	6	10		7	21	6	53				3		1					4		1	231	10.5	1103	7.3	*newport*
		5					3						1	1		1		2			32	1.5	186	1.2	*oranienburg*
	1						2						1			1		1		13	43	2.0	231	1.5	*panama*
																					10	0.5	123	0.8	*paratyphi B*
											1							1			7	0.3	47	0.3	*reading*
1		1		1	2		15	1								1		6		1	109	5.0	678	4.5	*saint-paul*
		1																			7	0.3	43	0.3	*san-diego*
		3																3			7	0.3	54	0.4	*schwarzengrund*
		2																2			9	0.4	58	0.4	*senftenberg*
																		1			4	0.2	32	0.2	*tennessee*
1	2	5			3	1	4									4		7		1	87	4.0	747	4.9	*thompson*
3	1			2	2		2					2						12	1	2	57	2.6	384	2.5	*typhi*
4	2	6			3		9		1		6		9	4		6	3	62		6	449	20.4	3986	26.4	*typhimurium*
	1				11												2				34	1.5	182	1.2	*typhimurium v cop*
																				2	3	0.1	34	0.2	*weltevreden*
							1						1	1				1			4	0.2	25	0.2	*worthington*
18	28	45	–	12	90	8	148	5	2	–	17	2	25	13	–	23	9	179	4	37	1918	87.3	13475	89.3	TOTAL
–	–	1	8	7	15	1	46	–	–	–	–	20	2	–	–	–	2	16	3	6	280		1619		ALL OTHER*
18	28	46	8	19	105	9	194	5	2	–	17	22	27	13	–	23	11	195	7	43	2198		15094		TOTAL

TABLE II. OTHER SALMONELLAE REPORTED FROM HUMAN SOURCES, SEPTEMBER, 1969

SEROTYPE	REPORTING CENTER																						
	ALA	ALK	ARI	ARK	CAL	CON	DEL	DC	FLA	GA	HAW	ILL	IOW	KAN	LA	MD	MAS	MIC	MIN	MIS	MO	NH	NJ
alachua												3											
albany					1										1						1		
amager																	1						
arechavaleta											2												
atlanta										1													
berta											1				1			1					
bovis-morbificans										1													
california	1																						
canastel																							
carrau			1																				
cerro					1						1	1											
cholerae-suis																							1
duesseldorf																							1
eastbourne																							
eimsbuettel															7								
gaminara															1								
gatuni																							
georgia									1														
habana																	2						
hartford									1														
ibadan																							
johannesburg															1								
kentucky			1		1						1				1								
kottbus					1											1		1					
lawndale														1									
lomita																							
london					3																		
madelia												1											
meleagridis										1													
minnesota				1	2				1														
muenster						1			1	1								1					
new-brunswick																							
norwich				2											2					1			
ohio												1											
oritamerin																1							
oslo											1												
paratyphi A					1																		
poona					1	1	1									1							
rubislaw									1														
san-juan																							2
saphra																							
siegburg																							1
simsbury								1															
urbana					1											1		2					
virchow					1																		
wassenaar					1																		
TOTAL	1	–	2	3	14	2	1	1	5	4	6	6	–	1	14	4	3	5	–	1	1	–	5
NOT TYPED*	–	3	–	4	2	–	–	17	3	–	–	1	3	–	1	–	–	1	3	7	–	11	–
TOTAL	**1**	**3**	**2**	**7**	**16**	**2**	**1**	**18**	**8**	**4**	**6**	**7**	**3**	**1**	**15**	**4**	**3**	**6**	**3**	**8**	**1**	**11**	**5**

* See Table V-A

TABLE II – Continued

REPORTING CENTER														TOTAL	CUMULATIVE TOTAL	SEROTYPE
NM	NYA	NYB	NYC	NC	OHI	OKL	ORE	PA	RI	TEX	VT	VA	WIS			
		1												4	10	*alachua*
														3	11	*albany*
												1		2	22	*amager*
														2	2	*arechavaleta*
														1	9	*atlanta*
								1				1		5	27	*berta*
														1	6	*bovis-morbificans*
								1						2	10	*california*
								1						1	1	*canastel*
														1	3	*carrau*
														3	14	*cerro*
														1	11	*cholerae-suis*
														1	2	*duesseldorf*
								1		1				2	3	*eastbourne*
														7	25	*eimsbuettel*
														1	9	*gaminara*
						1								1	2	*gatuni*
														1	3	*georgia*
														2	8	*habana*
														1	27	*hartford*
										1				1	2	*ibadan*
													1	2	7	*johannesburg*
								1		1				6	13	*kentucky*
								2						5	7	*kottbus*
														1	1	*lawndale*
										4				4	9	*lomita*
					1									4	10	*london*
														1	9	*madelia*
														1	9	*meleagridis*
														4	22	*minnesota*
														4	24	*muenster*
								1						1	7	*new-brunswick*
										2				7	16	*norwich*
														1	10	*ohio*
														1	1	*oritamerin*
		1												2	12	*oslo*
														1	10	*paratyphi A*
			2				1							7	54	*poona*
										8				9	14	*rubislaw*
														2	2	*san-juan*
										6				6	8	*saphra*
										3				4	17	*siegburg*
		1										1		3	18	*simsbury*
		1	1											6	34	*urbana*
														1	3	*virchow*
														1	2	*wassenaar*
–	–	4	3	–	1	1	1	8	–	26	–	3	1	127	642	TOTAL
20	41	1	4	1	–	–	1	–	4	20	5	–	–	153	977	NOT TYPED*
20	**41**	**5**	**7**	**1**	**1**	**1**	**2**	**8**	**4**	**46**	**5**	**3**	**1**	**280**	**1619**	**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, SEPTEMBER, 1969

SEROTYPE	DOMESTIC ANIMALS AND THEIR ENVIRONMENT							ANIMAL FEEDS			
	CHICKENS	TURKEYS	SWINE	CATTLE	HORSES	OTHER	SUBTOTAL	TANKAGE	VEGETABLE PROTEIN	OTHER	SUBTOTAL
anatum	5	19	12		1	3	40	11		1	12
bareilly	1						1	2			2
blockley	7	2	2				11	1			1
braenderup			1				1				—
bredeney		15	6			1	22	5		1	6
chester		7					7				—
cholerae-suis v kun			64				64				—
cubana		1					1	3		1	4
derby			9				9	1		2	3
enteritidis	12		1		1	1	15	1			1
give	1		1				2				—
heidelberg	28	37	11	1	1	1	79	4		1	5
indiana						2	2				—
infantis	12	2	2				16			2	2
java							—	1			1
javiana							—				—
litchfield							—				—
livingstone	2	1					3	4			4
manhattan	1	1	2				4				—
miami							—				—
mississippi							—				—
montevideo	5	1				2	8	17		16	33
muenchen		1					1				—
newington	1		4		1		6	1			1
newport		1	3	4	2	1	11				—
oranienburg	1						1	4		1	5
panama		5				1	6				—
paratyphi B							—				—
reading		5					5				—
saint-paul	9	22	4	5		1	41	4		1	5
san-diego		4					4				—
schwarzengrund		1	1				2	4		1	5
senftenberg	2	11					13	9		3	12
tennessee	2						2	6		6	12
thompson	13	3	1	1		1	19	3		1	4
typhi							—				—
typhimurium	13	7	24	25	5	5	79	1		1	2
typhimurium v cop	12	1	3	3	2	7	28	1			1
weltevreden			1				1				—
worthington	2	1	2				5	6		1	7
TOTAL	129	148	154	39	13	26	509	89	—	39	128
ALL OTHER*	21	28	8	9	1	5	72	23	—	17	40
TOTAL	**150**	**176**	**162**	**48**	**14**	**31**	**581**	**112**	**—**	**56**	**168**

* 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			1	3	57	346	*anatum*
							–		3	27	*bareilly*
							–		12	114	*blockley*
							–		1	7	*braenderup*
	1						–		29	105	*bredeney*
							–		7	36	*chester*
							–		64	508	*cholerae-suis v kun*
							–		5	89	*cubana*
				1			1		13	153	*derby*
4				1			1		21	118	*enteritidis*
							–		2	39	*give*
1							–	2	87	666	*heidelberg*
							–		2	15	*indiana*
							–		18	194	*infantis*
							–		1	8	*java*
							–		–	11	*javiana*
							–		–	2	*litchfield*
				1			1		8	100	*livingstone*
							–		4	42	*manhattan*
							–		–	6	*miami*
							–		–	–	*mississippi*
							–	3	44	217	*montevideo*
		1					1		2	30	*muenchen*
							–		7	37	*newington*
	9	1					1		21	119	*newport*
		2					2		8	80	*oranienburg*
							–	1	7	19	*panama*
							–		–	4	*paratyphi B*
							–	2	7	43	*reading*
1	4						–	1	52	271	*saint-paul*
							–		4	118	*san-diego*
							–		7	49	*schwarzengrund*
		2					2	3	30	166	*senftenberg*
			1				1		15	95	*tennessee*
1	1	10	2				12	1	38	213	*thompson*
							–		–	–	*typhi*
5	3	1				1	2		91	891	*typhimurium*
2							–		31	226	*typhimurium v cop*
							–		1	3	*weltevreden*
1	2						–		15	101	*worthington*
16	20	17	3	4	–	1	25	16	714	5268	TOTAL
2	17	2	–	–	–	2	4	6	141	1291	ALL OTHER*
18	**37**	**19**	**3**	**4**	**–**	**3**	**29**	**22**	**855**	**6559**	**TOTAL**

TABLE IV. OTHER SALMONELLAE REPORTED FROM NONHUMAN SOURCES, SEPTEMBER, 1969

SEROTYPE	DOMESTIC ANIMALS AND THEIR ENVIRONMENT							ANIMAL FEEDS			
	CHICKENS	TURKEYS	SWINE	CATTLE	HORSES	OTHER	SUBTOTAL	TANKAGE	VEGETABLE PROTEIN	OTHER	SUBTOTAL
alachua		6	2				8				—
albany		1			1		2				—
berta	2						2				—
binza							—	1		2	3
bovis-morbificans						2	2				—
california	5						5			1	1
carrau							—				—
cerro		2					2	5			5
cholerae-suis			2				2				—
drypool	1						1				—
dublin				9			9				—
eimsbuettel	1	2					3	1		3	4
habana							—			3	3
illinois							—	1			1
kentucky	1	4					5	2			2
kottbus	1		1				2				—
lexington							—			1	1
madelia							—				—
manila							—			1	1
meleagridis	1						1				—
minneapolis							—	1			1
minnesota		5					5	1		1	2
muenster		1					1				—
new-brunswick			2				2	3			3
orion	2	3					5	4			4
oslo						2	2				—
pomona							—				—
poona							—				—
pullorum	5						5				—
rubislaw							—				—
shomron		1					1				—
siegburg	1	1					2			5	5
simsbury						1	1	1			1
taksony		1					1				—
thomasville							—	1			1
urbana							—				—
virchow							—				—
TOTAL	20	27	7	9	1	5	69	21	—	17	38
NOT TYPED*	1	1	1	—	—	—	3	2	—	—	2
TOTAL	**21**	**28**	**8**	**9**	**1**	**5**	**72**	**23**	**—**	**17**	**40**

* See Table V-B

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				
							–		8	32	*alachua*
							–		2	36	*albany*
							–		2	11	*berta*
							–	2	5	51	*binza*
							–		2	4	*bovis-morbificans*
							–		6	34	*california*
	2						–		2	2	*carrau*
							–	1	8	63	*cerro*
							–		2	16	*cholerae-suis*
							–		1	35	*drypool*
							–		9	84	*dublin*
							–		7	102	*eimsbuettel*
							–		3	10	*habana*
							–		1	6	*illinois*
							–		7	114	*kentucky*
							–		2	10	*kottbus*
							–		1	6	*lexington*
	1						–		1	4	*madelia*
							–		1	3	*manila*
							–		1	39	*meleagridis*
							–		1	6	*minneapolis*
							–		7	79	*minnesota*
							–		1	7	*muenster*
							–		5	23	*new-brunswick*
							–		9	15	*orion*
							–		2	10	*oslo*
	5						–		5	7	*pomona*
	1						–		1	7	*poona*
1						2	2		8	40	*pullorum*
							–	1	1	7	*rubislaw*
1							–		2	2	*shomron*
							–		7	59	*siegburg*
							–		2	47	*simsbury*
							–		1	11	*taksony*
							–		1	20	*thomasville*
	4						–		4	28	*urbana*
	1						–		1	1	*virchow*
2	14	–	–	–	–	2	2	4	129	1194	TOTAL
–	3	2	–	–	–	–	2	2	12	97	NOT TYPED*
2	**17**	**2**	**–**	**–**	**–**	**2**	**4**	**6**	**141**	**1291**	**TOTAL**

TABLE V. SALMONELLAE REPORTED BY GROUP IDENTIFICATION ONLY, SEPTEMBER, 1969

A. HUMAN SOURCES

REPORTING CENTER	GROUP															TOTAL
	A	B	C	C1			C2	D	E	G			Z	UNK		
ALASKA								3								3
ARKANSAS		1		1			2									4
CALIFORNIA		2														2
D.C.		14		1			1							1		17
FLORIDA														3		3
ILLINOIS														1		1
IOWA		1												2		3
LOUISIANA							1									1
MICHIGAN		1														1
MINNESOTA														3		3
MISSISSIPPI		3					4									7
NEW HAMPSHIRE		8						2						1		11
NEW MEXICO		7		5			4	3	1							20
NEW YORK – A														41		41
NEW YORK – BI														1		1
NEW YORK – C	1	3														4
NORTH CAROLINA		1														1
OREGON								1								1
RHODE ISLAND		1		2					1							4
TEXAS		1		4			5	2	1					7		20
VERMONT		3	1					1								5
TOTAL	1	46	1	13			17	12	3	–			–	60		153

B. NONHUMAN SOURCES

SOURCES	GROUP															TOTAL
	A	B	C	C1			C2	D	E	G			Z	UNK		
DOMESTIC ANIMALS AND THEIR ENVIRONMENT														3		3
ANIMAL FEEDS										1			1			2
WILD ANIMALS AND BIRDS																–
REPTILES AND ENVIRONMENT														3		3
HUMAN DIETARY ITEMS		2														2
MISCELLANEOUS				2												2
TOTAL	–	2	–	2			–	–	–	1			1	6		12