

Table 8-A1. ¹³⁷Cs activity concentrations (Bq/kg) in food products consumed by the average population in Arctic Finland.

Diet*	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk	12	9	4	2	1.6	1.4	0.6
Cow cheese *75%	1.2	0.9	0.4	0.2	0.2	0.1	0.06
Grain products as flour*	2	2	1	0.2	0.2	1.4	0.2
Potatoes *50%	0.4	0.4	0.2	0.1	0.1	2	0.1
Leafy vegetables (e.g. cabbage) *75%	1	2	0.5	0.2	0.1	2	0.1
Root vegetables (e.g. carrots) *50%	2	2	0.5	0.2	0.1	2	0.1
Fruit (imported)*	?						
Pork* and beef *90%	33.5	26.5	13.5	7	4.5	4	1.75
Poultry and eggs*							
Lamb	-	-	-	-	-	-	-
Marine fish (incl. fish from fishfarms)*	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Elk or moose	100	200	100	40	40	40	30
Reindeer or caribou	1300	2200	1300	580	450	600	400
Freshwater fish (wild)	120	180	130	80	39	57	47
Berries (wild)	40	50	35	20	20	25	20
Mushrooms (wild)	100	200	100	50	45	65	60
Various game (e.g. birds, hare, etc.)	20	30	20	10	10	20	10
Drinking water = river water	0.007	0.009	0.007	0.0045	0.004	0.007	0.004

* Imported products

Table 8-A2. ¹³⁷Cs activity concentrations (Bq/kg) in food products consumed by Finnish Sami reindeer herders (1550 people).

Diet*	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk	12	9	4	2	1.6	1.4	0.6
Cow cheese *75%	1.2	0.9	0.4	0.2	0.2	0.1	0.06
Grain products as flour*	2	2	1	0.2	0.2	1.4	0.2
Potatoes *50%	0.4	0.4	0.2	0.1	0.1	2	0.1
Leafy vegetables (e.g. cabbage) *75%							
Root vegetables (e.g. carrots) *50%	2	2	0.5	0.2	0.1	2	0.1
Fruit (imported)*							
Pork* and beef *90%	34	26	13.5	7	4.5	4	1.75
Poultry and eggs*							
Lamb	-	-	-	-	-	-	-
Marine fish (incl. fish from fishfarms)*	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Elk or moose	-	-	-	-	-	-	20
Reindeer or caribou	1300	2200	1300	580	450	600	400
Freshwater fish (wild)	130	135	120	60	40	30	30
Berries (wild)	40	50	35	20	20	25	20
Mushrooms (wild)	-	-	-	-	-	-	10
Various game (e.g. birds, hare, etc.)							
Drinking water = river water	0.007	0.009	0.007	0.0045	0.004	0.007	0.004

* Imported products

Table 8-A3. ¹³⁷Cs activity concentrations (Bq/kg) in some food products consumed by the Greenland average population and by the selected group.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
<i>Mainly imported products</i>							
Cow milk	2.6	0.98	0.39	0.20	0.10	0.44	0.09
Other milk							
Cow cheese	2.0	0.72	0.28	0.15	0.07	0.31	0.06
Other cheese							
Grain products as flour	10.5	6.3	1.40	0.62	0.28	0.99	0.10
Potatoes	1.57	0.41	0.29	0.14	0.07	0.12	0.09
Leafy vegetables (e.g. cabbage)							
Root vegetables (e.g. carrots)	0.95	0.28	0.09	0.09	0.08	0.09	0.04
Fruit (imported)	1.61	0.67	0.19	0.09	0.04	0.32	0.03
Pork							
Beef	14.8	4.9	1.49	0.83	0.31	0.90	0.47
Poultry and eggs							-
<i>Mainly local products</i>							
Lamb	67	46	29	42	58	44	17.4
Marine fish (incl. fish from fishfarms)	1.78	0.88	1.25	0.51	0.38	0.43	0.39
Deer	-	-	-	-	-	-	-
Elk or moose	-	-	-	-	-	-	-
Reindeer or caribou	340	540	113	107	68	83	(60)
Freshwater fish (wild)							
Berries (wild)	7.4	4.4	46	7.6	(7)	(6)	(5)
Mushrooms (wild)							
Various game (e.g. birds, hare, etc.)	5.0	10.5	4.8	3.2	2.7	0.58	(0.5)
Seal							
Whale	1.79	1.64	4.4	0.69	0.64	0.40	0.44
Drinking water							

Table 8-A4. ¹³⁷Cs activity concentrations (Bq/kg) in food products consumed by the average population in northern Canada and by the selected group.

Diet	<1960	1960-1964	1965-1969	1970-1975	1975-1979	1980-1984	1985-1989	1990-1994
<i>Imported products</i>								
Milk and milk products								0.1
Meat								
Cereals								
Fruit and vegetables								
<i>Local products</i>								
Large land mammals	625	1250*	1250*	800	650*	450	230*	150*
Fish (fresh)	2	4	5	3	3	2**	2	1.5
Plants								
Small game								
Marine mammals	5	10	7*	6	5	3.7*	3.5	3.4*
Water	0.002	0.004	0.005	0.004	0.0-02*	0.002	0.001	0.001

The intake of ¹³⁷Cs with northern Canadian diet is dominated by the consumption of large land mammals, hence contributions from other diet components have been neglected.

* Values derived from compilation of Canadian Arctic data (Walton 1995). Other values interpolated.

** ¹³⁷Cs concentration in fish based on an assumption of an arbitrary mixture of fish of freshwater and marine origin at contemporary levels of ¹³⁷Cs concentration. Medium levels of ¹³⁷Cs in freshwater fish (3 Bq/kg and in marine fish (1 Bq/kg (Walton 1995).

Table 8-A5. ¹³⁷Cs activity concentrations (Bq/kg) in food products consumed by the average population of the Russian Arctic.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk	4	6	3	2	1	2	0.3
Cow cheese	0.4	0.6	0.3	0.2	0.1	0.2	0.1
Grain products as flour	1	1	0.5	0.3	0.3	1	0.3
Potatoes	0.5	0.5	0.4	0.3	0.2	0.3	0.2
Leafy vegetables (e.g. cabbage)	2	2	1.2	0.6	0.2	2	0.2
Root vegetables (e.g. carrots)	1	2	1	0.5	0.2	1	0.2
Fruit (imported)	1.5	1.9	1.3	0.7	0.2	0.6	0.9
Pork	8	12	6	4	2	4	0.6
Beef	16	24	12	8	4	8	1.2
Poultry and eggs	16	24	12	8	4	8	4
Marine fish	4	4	2	2	2	1.6	2
Venison (including reindeer)	510	630	470	300	260	300	290
Freshwater fish (wild)	40	40	20	20	20	16	20
Berries (wild)	40	50	35	20	6	15	10
Mushrooms (wild)	150	150	60	60	60	60	60
Various game (e.g. birds, hare, etc.)			60	60	60	60	60
Drinking water	0.007	0.007	0.004	0.004	0.004	0.002	0.001

Table 8-A6. ¹³⁷Cs activity concentrations (Bq/kg) in food products consumed by reindeer herdsman and their families in the western part of the Russian Arctic.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk							
Cow cheese	0.4	0.6	0.03	0.2	0.1	0.2	0.1
Grain products as flour	1	1	0.5	0.3	0.3	1	0.3
Potatoes	0.5	0.5	0.4	0.3	0.2	0.3	0.2
Leafy vegetables (e.g. cabbage)							
Root vegetables (e.g. carrots)	1	2	1	0.5	0.2	1	0.2
Fruit (imported)	1.5	1.9	1.3	0.7	0.2	0.6	0.9
Pork							
Beef							
Poultry and eggs	16	24	12	8	4	8	4
Seafish	4	4	2	2	2	1.6	2
Venison (including reindeer)	2000	2200	1400	700	500	500	300
Freshwater fish (wild)	40	40	20	20	15	16	25
Berries (wild)	40	50	35	20	6	15	10
Mushrooms (wild)	150	150	60	60	60	60	60
Various game (e.g. birds, hare, etc.)	200	220	140	70	50	50	30
Drinking water	2	1	0.4	0.02	0.004	0.002	0.002

Table 8-A7. ¹³⁷Cs activity concentrations (Bq/kg) in food products consumed by reindeer herdsman and their families in the eastern part of the Russian Arctic.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk							
Cow cheese	0.4	0.6	0.3	0.2	0.1	0.2	0.1
Grain products as flour	1.0	1.0	0.5	0.3	0.3	1.0	0.3
Potatoes	0.5	0.5	0.4	0.3	0.2	0.3	0.2
Leafy vegetables (e.g. cabbage)							
Root vegetables (e.g. carrots)	1.0	2.0	1.0	0.5	0.2	1.0	0.2
Fruit (imported)	40	50	35	20	6.0	15	10
Pork							
Beef							
Poultry and eggs	16	24	12.0	8.0	4.0	8.0	4.0
Marine fish	4.0	4.0	2.0	2.0	2.0	1.6	2.0
Venison (including reindeer)	510	630	470	300	260	300	290
Freshwater fish (wild)	40	40	20	20	15	15	25
Berries (wild)	40	50	35	20	6.0	15	10
Mushrooms (wild)	100	100	60	60	60	60	60
Various game (e.g. birds, hare, etc.)	50	60	50	25	25	30	30
Drinking water	0.7	0.3	0.2	0.01	0.002	0.001	0.001

Table 8-A8. ¹³⁷Cs activity concentrations (Bq/kg) in some food products consumed in Arctic Norway by average population and the selected group.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk	7	9	3	2	1	4	2
Cow cheese		29			8		
Cheese, brown	280	280	192		44	95	85
Grain products as flour							
Potatoes	3	3					
Leafy vegetables (e.g. cabbage)							
Root vegetables (e.g. carrots)							
Fruit (imported)							
Pork	94	70	25	61	60	11	16
Beef							
Meat (Lamb)	196	171	125	590	24	108	128
Poultry and eggs							
Marine fish						5	2
Venison (including reindeer/caribou)	1050	1730	1160	750	430	910	440
Freshwater fish (wild)		50				109	50
Berries (wild)						30	
Mushrooms (wild)							630
Various game (e.g.birds, hare, etc.)							
Drinking water							

Table 8-A9. ¹³⁷Cs activity concentrations (Bq/kg) in food products consumed by the average population in Arctic Sweden.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk	11	11	5	2.8	1.9	5.2	5.1
Cow cheese	7.4	7.4	3.4	1.9	1.3	3.5	3.4
Other cheese	14.3	20	14	10	7	56	50
Grain products as flour	0.3	0.4	0.2	0.09	0.06	1.0	0.2
Potatoes	0.7	0.2	0.1	0.1	0.08	2.0	0.5
Vegetables	0.7	0.2	0.1	0.1	0.08	2.0	0.5
Fruit (60% imported)	0.4	0.1	0.08	0.06	0.05	1.0	0.2
Beef and pork	4.7	0.7	0.2	0.09	0.03	14	2.0
Lamb	43	60	43	31	22	170	150
Marine fish (incl. fish from fishfarms)	1.0	1.0	0.5	0.3	13	4.0	2.0
Deer	50	75	60	54	45	450	600
Moose	15	25	21	18	15	150	200
Reindeer	1420	2800	1030	380	240	1170	800
Freshwater fish (wild)	100	140	79	44	25	390	540
Berries (wild)	206	160	125	100	110	320	143
Mushrooms (wild)	129	180	129	92	66	600	500

Table 8-A10. ¹³⁷Cs activity concentrations (Bq/kg) in food products consumed by Swedish reindeer herders.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk	11	11	5	2.8	1.9	5.2	5.1
Cow cheese							
Other cheese							
Grain products as flour	0.3	0.4	0.2	0.09	0.06	1.0	0.2
Potatoes	0.7	0.2	0.1	0.1	0.08	2.0	0.5
Vegetables	0.7	0.2	0.1	0.1	0.08	2.0	0.5
Fruit (60% imported)	0.4	0.1	0.08	0.06	0.05	1.0	0.2
Beef and pork	4.7	0.7	0.2	0.09	0.03	14	2.0
Lamb	43	60	43	31	22	170	150
Marine fish (incl. fish from fishfarms)							
Deer							
Moose	15	25	21	18	15	150	200
Reindeer	1420	2800	1030	380	240	1170	800
Freshwater fish (wild)	100	140	79	44	25	390	540
Berries (wild)	206	160	125	100	110	315	143
Mushroom (wild)							
Various game	64	90	65	46	33	500	360

Table 8-A11. ⁹⁰Sr activity concentrations (Bq/kg) in some food products consumed by the Greenland population.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
<i>Imported products</i>							
Cow milk	0.70	0.48	0.27	0.15	0.09	0.07	0.04
Other milk							
Cow cheese	4.9	3.4	1.9	1.0	0.66	0.48	0.32
Grain products as flour	3.6	1.8	0.73	0.48	0.31	0.21	0.16
Potatoes	0.12	0.14	0.12	0.08	0.06	0.04	0.04
Leafy vegetables (e.g. cabbage)	0.55	0.50	0.38	0.28	0.28	0.24	0.22
Root vegetables (e.g. carrots)							
Fruit (imported)	0.37	0.14	0.15	0.08	0.04	0.05	0.03
Pork							
Beef	0.19	0.10	0.06	0.04	0.02	0.02	0.01
Poultry and eggs							
<i>Local products</i>							
Lamb	0.56	0.34	0.29	0.23	0.20	0.12	0.135
Marine fish (incl. fish from fishfarms)	0.05	0.04	0.05	0.04	0.03	0.02	0.01
Deer	-						
Elk and moose							
Reindeer or caribou	2.7	2.2	0.52	0.24	0.26	0.15	(0.1)
Freshwater fish (wild)							
Berries (wild)	4.7	2.0	11.4	0.63	(0.6)	(0.5)	(0.4)
Mushrooms (wild)	-						
Various game (e.g.birds, hare, etc.)	0.61	0.36	0.48	0.25	0.17	0.20	0.28
Seal	-						
Whale	-						
Drinking water	0.112	0.061	0.026	0.032	0.028	0.014	0.008

Table 8-A12. ⁹⁰Sr activity concentrations (Bq/kg) in food products consumed by the average population of the Russian Arctic.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk	0.21	1.3	0.4	0.4	0.2	0.1	0.04
Cow cheese	6	5	1.5	1.5	0.8	0.4	0.15
Grain products as flour	0.4	0.6	0.3	0.2	0.2	0.2	0.03
Potatoes	0.15	0.3	0.2	0.15	0.1	0.07	0.08
Leafy vegetables (e.g. cabbage)	0.5	0.4	0.3	0.2	0.15	0.07	0.08
Root vegetables (e.g. carrots)	0.2	0.3	0.3	0.2	0.15	0.07	0.08
Fruit (imported)	0.15	0.15	0.15	0.1	0.1	0.1	0.15
Pork (bone)	150	200	48	14	11	9	8
Beef (bone)	300	590	96	29	26	22	15
Poultry and eggs							
Marine fish	2.9	2	1.5	1.0	0.7	0.5	0.04
Reindeer (bone)	2800	3600	1620	860	360	185	70
Freshwater fish (wild)	17.5	19.5	11.5	10	2.5	1.7	0.8
Berries (wild)	1.6	1.3	1.15	1	0.7	0.6	0.6
Mushrooms (wild)	0.6	0.6	0.5	0.4	0.3	0.1	0.1
Various game (e.g. birds, hare, etc.)							
Drinking water	0.03	0.03	0.008	0.005	0.002	0.002	0.002

Table 8-A13. ⁹⁰Sr activity concentrations (Bq/kg) in food products consumed by reindeer herdsman and their families in the western part of the Russian Arctic.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk							
Cow cheese	6	5	1.5	1.5	0.8	0.4	0.15
Grain products as flour	0.4	0.6	0.3	0.2	0.2	0.2	0.03
Potatoes	0.15	0.3	0.2	0.15	0.1	0.07	0.08
Leafy vegetables (e.g. cabbage)							
Root vegetables (e.g. carrots)	0.2	0.3	0.3	0.2	0.15	0.07	0.08
Fruit (imported)	0.15	0.15	0.15	0.1	0.1	0.1	0.05
Pork							
Beef							
Poultry and eggs							
Marine fish	2.9	2	1.5	1.0	0.7	0.5	0.04
Reindeer (bone)	3600	5000	1810	1040	410	200	70
Freshwater fish (wild)	19	21	11	11	3	2	0.9
Berries (wild)	1.6	1.3	1.4	1.3	1.2	1.2	1.2
Mushrooms (wild)	0.6	0.6	0.5	0.4	0.3	0.2	0.2
Various game (e.g. birds, hare, etc.)							
Drinking water	0.5	0.2	0.15	0.01	0.005	0.003	0.002

Table 8-A14. Sr-90 activity concentrations (Bq/kg) in food products consumed by reindeer herdsman and their families in the eastern part of the Russian Arctic.

Diet	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994
Cow milk							
Cow cheese	6	5	1.5	1.5	0.8	0.4	0.15
Grain products as flour	0.4	0.6	0.3	0.2	0.2	0.2	0.03
Potatoes	0.05	0.3	0.2	0.15	0.1	0.07	0.08
Leafy vegetables (e.g. cabbage)							
Root vegetables (e.g. carrots)	0.2	0.3	0.3	0.2	0.15	0.07	0.08
Fruit (imported)	0.15	0.15	0.15	0.1	0.1	0.1	0.05
Pork							
Beef							
Poultry and eggs							
Marine fish	2.9	2	1.5	1.0	0.7	0.5	0.04
Reindeer (bone)	2100	2300	1220	680	320	170	70
Freshwater fish (wild)	16	18	12	9	2	1.7	0.7
Berries (wild)	1.6	1.6	1.2	1	0.7	0.5	0.5
Mushrooms (wild)	0.6	0.6	0.5	0.4	0.1	0.1	0.1
Various game (e.g. birds, hare, etc.)							
Drinking water	0.5	0.2	0.1	0.01	0.005	0.002	0.002