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ORNL--5963

DE83 013207

Information Division

RADIOACTIVITY IN FOOD CROPS

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Date of Issue — May 1983

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PREFACE

This review is a product of the Ecological and Health Sciences Department, Information Center Complex (ICC), Oak Ridge National Laboratory (ORNL). It was prepared at the request of Dr. C. R. Richmond, Associate Laboratory Director for Biomedical and Environmental Sciences, ORNL.

The authors are indebted to Dr. Richmond for support and advice during preparation of the report; to W. B. Ewbank, Faye Fletcher, and members of the ICC Computer Services Group for computer processing of the tabulated data; to Anita Gill and members of the ICC Publications Office for publications assistance, and to J. S. Eldridge of the Analytical Chemistry Division and P. Stegnar of the Industrial Safety and Applied Health Physics Division for useful critiques.

ABSTRACT

Published levels of radioactivity in food crops from 21 countries and 4 island chains of Oceania are listed. The tabulation includes more than 3000 examples of 100 different crops. Data are arranged alphabetically by food crop and geographical origin. The sampling date, nuclide measured, mean radioactivity, range of radioactivities, sample basis, number of samples analyzed, and bibliographic citation are given for each entry, when available. Analyses were reported most frequently for ^{137}Cs , ^{40}K , ^{90}Sr , ^{226}Ra , ^{228}Ra , plutonium, uranium, total alpha, and total beta, but a few authors also reported data for ^{241}Am , ^7Be , ^{60}Co , ^{55}Fe , ^3H , ^{131}I , ^{54}Mn , ^{95}Nb , ^{210}Pb , ^{210}Po , ^{106}Ru , ^{125}Sb , ^{228}Th , ^{232}Th , and ^{95}Zr . Based on the reported data it appears that radioactivity from alpha emitters in food crops is usually low, on the order of $0.1 \text{ Bq}\cdot\text{g}^{-1}$ (wet weight) or less. Reported values of beta radiation in a given crop generally appear to be several orders of magnitude greater than those of alpha emitters. The most striking aspect of the data is the great range of radioactivity reported for a given nuclide in similar food crops with different geographical origins.

1. INTRODUCTION

Interest in radionuclides in food crops has steadily gained momentum during the last few decades, particularly in areas associated with nuclear weapons tests, uranium and thorium mining operations, nuclear reactors, and nuclear fuel processing plants. Interest has also been high among residents in areas inadvertently contaminated with radioactive materials and in sites containing naturally high concentrations of radioactive minerals. In response to this interest, many studies have been performed to measure the uptake of radionuclides by food crops. Thus far, most such studies have been pot experiments conducted in greenhouses with selected radionuclides artificially added to the pot soil. These pot experiments are useful to investigators studying uptake mechanisms, but they do not necessarily reflect the radionuclides present in food crops grown in the field under domestic or commercial conditions. Relatively few studies of these latter types have been made. This report summarizes the results of all such studies that could be readily located. It should be noted that, although all radionuclides listed in the following tables are naturally occurring in the plant in the sense that none were deliberately added, some man-made radionuclides occur as a result of fallout from nuclear processing facilities, weapons tests, or other forms of inadvertent contamination.

2. RATIONALE FOR DATA SELECTION

The literature was surveyed extensively to locate papers describing primary measurements of radioactivity, particularly alpha radiation in field-grown food crops. Commercial, government, and in-house data bases were utilized. Coverage of commercial data bases ranged from 1964 to September 1982 and included Agricola, BIOSIS Previews, Commonwealth Agricultural Bureaux, CA Search, Compendex, Conference Paper Index, Enviroline, National Technical Information Service, and *Pollution Abstracts*. On the U.S. Department of Energy's RECON System, *Nuclear Science Abstracts* (1948 to June 1976) and the Energy Data Base (July 1976-September 1982) were searched. On the Oak Ridge National Laboratory's ORLOOK System, both

the Environmental Aspects of the Transuranics (1945-1979) and Cleanup and Treatment of Radioactively Contaminated Land (1950-September 1982) data bases were examined.

Not all data resulting from these searches were included. For example, many authors did not adequately characterize the source of their samples, and some reported the radioactivity of mixtures of processed food crops, such as flour, without detailing the composition of the mixture. As previously stated, we also excluded greenhouse experiments in which the investigator arbitrarily added known quantities of radioactive materials to potted plants.

3. RADIOACTIVITY IN FOOD CROPS

The data on radioactivity in food crops are presented in appendices which classify the information according to food name, sample origin, radionuclide measured, amount of radioactivity, sampling basis, and sampling date. Two variations of each tabulation are given: in Appendix A, all entries are arranged alphabetically by food name; in Appendix B, entries are arranged alphabetically by geographical origin. An original literature citation is provided for each entry, and, when available, the range of radioactivity, as well as the number of samples analyzed, is also provided.

3.1 DESCRIPTIONS OF TABLE CAPTIONS IN THE APPENDICES

FOOD — Each food is listed by the common name indicated in the publication. The botanical name follows in parentheses, if supplied by the author.

GEOGRAPHICAL ORIGIN -- The source of the food sample is identified by country, region, and locality, in that order. In a few instances, when the sample was obtained through commercial channels, the indicated location refers to the acquisition site.

NUCLIDE MEASURED — The measured radioactivity is derived from the nuclide identified in this column. In a few instances the radioactivity arising from several radionuclides may be reported. If only specific

isotopes of a single element are involved, the chemical symbol of the element is followed by mass numbers of the appropriate isotopes. If no mass numbers are indicated after the chemical symbol, the measured activity may reflect contributions from all of the radioactive isotopes of the element. The notations "Total Alpha" and "Total Beta" indicate that different unspecified elements may be involved. A notation such as "85 keV gamma" indicates that the recorded activity refers only to the designated energy level.

MEAN — Under this caption the average radioactivity of the food sample is indicated to two significant figures, down to the nearest tenth of a becquerel per kilogram. Activities equal to or less than the limit of detection, or less than $0.1 \text{ Bq} \cdot \text{kg}^{-1}$, are denoted by a "<" symbol. In general, the listed values are derived units. Almost all of the activities in the original publications were reported as $\text{pCi} \cdot \text{g}^{-1}$ or $\text{pCi} \cdot \text{kg}^{-1}$. These values were converted to SI units by the relationship $1 \text{ Ci} = 3.7 \times 10^{10} \text{ Bq}$. Uranium in food crops was usually reported in mass units. These values were converted to activities by the relationship $1 \mu\text{g U} = 0.68 \text{ pCi}$, assuming radioactive equilibrium between ^{238}U , ^{235}U , and ^{234}U .

RANGE — The extreme values in a set of similar samples are indicated in this column. In general, most authors did not indicate that replicate determinations were made.

BASIS — In principle, the task of comparing results from different investigators who measure radioactivities in food crops appears to be straightforward and unequivocal. In practice, however, problems arise. Although all authors conscientiously report activity per unit weight, only a handful are careful to unambiguously define which weight was used. For food crops, it is obvious that the reference weight may be that of the freshly harvested product or it may be the air-dried, sun-dried, oven-dried, ashed, or prepared-for-eating product. Each of these sample forms contains varying quantities of free or fixed water that alters the weight and hence the activity per unit weight. Only oven-dried or ashed samples represent a consistent basis for comparisons. Most of the authors cited in this report did not address the question of sample basis explicitly. It is a fair assumption that data from

these authors refer to freshly harvested products, but some may characterize air-dried or sun-dried products. In view of these ambiguities, we have made a "best judgment" assignment of each sample to one of the four following bases:

Wet — This category includes all samples not subjected to strong heating, such as freshly harvested and air-dried products. All or most of the original free and fixed water in the sample is retained in this category.

Dry — Samples are subjected to heating, usually in an oven at or near the boiling point of water. Most of the original free water in these samples has been removed.

Ash — Samples are incinerated at temperatures in excess of 400°C. Here, all water and almost all carbonaceous matter have been removed.

Prepared for eating — Foods are prepared in a traditional manner for eating and are sampled after such preparation.

We believe this classification will permit equitable comparisons among samples from different investigators. For critical applications, consultation with authors or experimental verification of the data may be necessary.

NUMBER ANALYZED — The number of replicate analyses performed is indicated in this column. Only a few authors provided this information.

DATE — The entry in this column indicates when the food crop was sampled.

COMMENT — Pertinent supplemental information is listed here, when available.

REFERENCES — First author and year of publication are indicated. The corresponding full bibliographic citation is given in Sect. 4 of this report.

3.2 SUMMARY OF RADIOACTIVITY IN FOOD CROPS DATA

In Appendix A and Appendix B levels of radioactivity are presented for more than 3000 examples of food crops grown in 21 countries and 4 island chains of Oceania. Published data were found most frequently for ^{137}Cs , ^{40}K , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{226}Ra , ^{228}Ra , ^{90}Sr , uranium, total alpha,

and total beta; however, a few authors also reported radioactivity due to ^{241}Am , ^7Be , ^{60}Co , ^{55}Fe , ^3H , ^{131}I , ^{54}Mn , ^{95}Nb , ^{210}Pb , ^{210}Po , ^{106}Ru , ^{125}Sb , ^{228}Th , ^{232}Th , and ^{95}Zr . The ranges of mean radioactivities for principal radionuclides and foods listed in Appendix A are summarized in Table 1. In general, the levels of radioactivity associated with alpha emitters in these crops were low, usually less than $0.1 \text{ Bq}\cdot\text{kg}^{-1}$. Radium was usually responsible for the few examples of elevated alpha activity. Oranges, manioc, and Brazil nuts were foods containing the greatest concentrations of radium.

Levels of beta activity were usually several orders of magnitude greater than levels of alpha activity. The radionuclides most frequently associated with high beta activity were ^{40}K , ^{137}Cs , and ^{90}Sr . Leafy crops contained notably high levels of beta activity, but beta activity was by no means restricted to this crop class. Exceptionally large values were found in a wide variety of crops, especially pandanus, messerschimidia, and scaveola. In general, such crops were grown in previously contaminated areas or in locations having naturally high levels of radioactivity.

Despite the large number of entries in Appendix A, data for radioactivity in crops are seriously lacking for many countries. Coverage was best for Brazil, India, Japan, the U.S.A., and the U.S.S.R.. Table 2 summarizes by country the number of entries and the food crops listed in Appendix A and Appendix B.

Table 1. Range of mean radioactivities (Bq·kg⁻¹)

Food crop and sample basis ^a	Number of samples	⁴⁰ K	¹³⁷ Cs	⁹⁰ Sr	²²⁶ Ra	²²⁸ Ra	Plutonium	Uranium	Total alpha	Total beta
Apple										
Wet	62	24-210	0.1-5.2	<0.1-5.9	<0.1-<0.4					
Ash	1				19					
Apricot										
Wet	1			<0.2						
Dry	1									2200
Arrowroot										
Dry	2		740-1500							
Asparagus										
Wet	8	82	<0.3-<3.6		<0.8					
Avocado										
Wet	4		1.3	0.6-1.6						
Banana										
Wet	44	80-110	0.7-0.9	<0.1	<0.5-20.4		<0.1			
Dry	9	430-700	1.9-1200	<1.9-<3.3			<0.1			
Ash	1				20					
Barley										
Wet	50		0.3-7.0	0.3-7.4	1.4-1.6			<0.1-0.1		
Dry	6				1.1-4.5			<0.1		
Ash	1							2.5		
Bean										
Wet	20	63	<0.3	0.4-2.2	0.2-<0.4		<0.1		<0.1	<0.1
Dry	10		100-220				0.3-12		22	2300
Ash	20				3.0-220					
Processed for eating	8			0.1-1.9						
Beet										
Wet	41		1.0-1600	0.6-8.9	<0.1-1.3		<0.1			
Dry	4				1.0		0.2-48			
Ash	1				15					
Beet, sugar										
Dry	7				0.3-1.2			1.6		
Ash	7				13-33			5.5		
Brassica oleracea										
Wet	4			0.2-0.5						

Table 1 (continued)

Food crop and sample basis	Number of samples	⁴⁰ K	¹³⁷ Cs	⁹⁰ Sr	²²⁶ Ra	²²⁸ Ra	Plutonium	Uranium	Total alpha	Total beta
Breadfruit Dry	60	200-760	2.2-7100	2.6-<7.0			<0.1-1.0			
Broccoli Wet	8	100	<0.1		<0.6					
Dry	6				0.4-1.0		<0.1-1.5			
Buckwheat Wet	2		5.3	0.7						
Dry	4				0.7-3.0					
Cabbage Wet	209	89	<0.1-10	<0.1-70	<0.1-1.2		<0.1	1.3	<0.1	1500-4100
Dry	12				0.4		<0.1			
Ash	2				40			12		
Carrot Wet	55	96	<0.1-120	<0.1-1.4	<0.1-3.0		<0.1	0.8		
Dry	4	410			1.2		12			610
Ash	5				13-130			19		
Cassava Dry	2	180		<4.4						
Ash	4				4.5-23					
Cauliflower Wet	4		1.9-70	1.9-2.5						
Celery Wet	3	82	<0.3		<0.5					
Chard Wet	4		0.6	1.2-1.7						
Chavli Wet	10	130-220			0.2-0.9					
Cherry	2	56	<1.1							
Chicory Wet	5		0.3	0.6-1.4						
Ash	1				4.5					
Coconut Dry	110	30-2700	1.5-10,000	0.7-33					0.7	310

Table 1 (continued)

Food crop and sample basis	Number of samples	^{40}K	^{137}Cs	^{90}Sr	^{226}Ra	^{228}Ra	Plutonium	Uranium	Total alpha	Total beta
Coffee										
Wet	2	490-520								
Processed for eating	3		0.4-3.5	0.6-1.4						
Corn										
Wet	19		0.1-0.4	0.1-0.9	0.1		0.1	0.2	0.1-1.2	
Dry	11				0.4-0.9		0.1			370-2800
Ash	1				30					
Couve										
Ash	2				500	2000				
Cucumber										
Wet	16	56	0.1-1.4	0.3-1.0	0.1-0.2					
Dry	5				0.1				19	3100-4100
Ash	10				7.4-79					
Eggplant										
Wet	10	67	0.2-1.0	0.3-0.4	0.1-0.4					
Dry									15	
Ash	5				19-44					
Fenugreek										
Wet	10	82-180			0.2-0.7					
Fig										
Wet	2								0.1	
Dry	1									1500
Garlic										
Wet	2			3.0						
Ash	6				100-210					
Grape										
Wet	8	70-230	0.4-2.5	0.1	0.1-0.7					
Dry	1									1300
Ash	1				16					
Grapefruit										
Wet	3	34	0.4		0.8					
Greens										
Wet	8		1.9-2.3	1.5-5.9						
Kale										
Ash	22				0.6-7.4	34-1100				

Table 1 (continued)

Food crop and sample basis ^a	Number of samples	⁴⁰ K	¹³⁷ Cs	⁹⁰ Sr	²²⁶ Ra	²²⁸ Ra	Plutonium	Uranium	Total alpha	Total beta
Lemon Wet Ash	1				23				<0.1	
Lettuce Wet	20	48	<0.1-18	<0.1-120	<0.1-<0.3		<0.1			
Dry	16	260-2000	69,000	12,000			<0.1-9.1			1800-2200
Ash	2				1.7-6.4					
Maize Wet	4		1.9	3.7-210						
Manioc Ash	6				39-1700	7100				
Melon Wet	8	77	<0.4-0.9	<0.1-1.1			<0.1	0.6		
Messerschmidia Dry	40	280-20,000	840-26,000							
Millet Wet	4		3.5	3.9-8.5				0.5		
Dry	1				1.3			12		
Ash	1									
Mushroom Dry	2	1300								1500
Mustard Wet	4		2.6-4.3	2.5-4.4						
Nut, Brazil Wet	46				2.8-130	6.0-130			12-660	
Oat Wet	30		0.6-1.4	0.6-8.5				1.8		
Dry	46				1.5-3.8					1100-3500
Ash	1							64		
Okra Dry	30	720				38			66	1200
Onion Wet	411		<0.1-3.3	<0.1-1.9	0.1-1.4					
Dry	22				<0.1-1.1					
Ash	2				7.4-20					

Table 1 (continued)

Food crop and sample basis	Number of samples	^{40}K	^{137}Cs	^{90}Sr	^{226}Ra	^{228}Ra	Plutonium	Uranium	Total alpha	Total beta
Orange										
Wet	20	56	<0.2-3.1	0.2-0.6	<0.4-13					
Dry	9									520-960
Ash	9				7.4-540	6100				
Processed for eating	18	23-34	<0.4	<0.1-0.4						
Pandanus										
Dry	73	59-810	5.6-25,000	<0.7-2100						
Papaya										
Wet	1						<0.1			
Dry	40	70-1600	4.4-28,000	<1.6-2700						
Parsley										
Wet	2				<0.1					
Pea										
Wet	191		<0.1-19	<0.1-2.6	0.7-1.1		<0.1	<0.1-1.3		
Dry	34	2.5			0.8-2.1				0.0	280
Ash	5				28			49		
Peach										
Wet	9	44-59	0.9-1.1	<0.2-0.6			<0.1			
Dry	2									780-1000
Ash	3				33-63					
Pear										
Wet	10	27-32	<0.3-1.1	<0.1	<0.4					
Dry	1									1300
Pepper										
Wet	16	63	<0.3	0.4	0.1-0.8					
Dry	3								15	1900-2100
Ash	1				22					
Persimmon										
Dry	8		4.9-19	0.2-0.7						
Pineapple										
Processed for eating	9	28-49	<0.4	<0.1-0.2						
Plantain										
Dry	49	970				9.3			11-13	930
Plum										
Wet	9	48-67	<1.1-1.5	<0.1-0.4			<0.1			

Table 1 (continued)

Food crop and sample basis ^d	Number of samples	⁴⁰ K	¹³⁷ Cs	⁹⁰ Sr	²²⁶ Ra	²²⁸ Ra	Plutonium	Uranium	Total alpha	Total beta
Pomegranate										
Wet	2								<0.1	
Ash	7				33-240					
Potato										
Wet	650	0.2-190	0.1-4.1	<0.1-4.1	<0.1-1.1		<0.1	<0.1		
Dry	38				0.5		0.2-20		0.0	1100-2500
Ash	29				2.4-390			37		
Pulse										
Wet	10	370-480			0.2-0.9					
Pumpkin										
Dry	3	950	12,000							3700
Radish										
Wet	178		0.0-1200	<0.1-5.8			<0.1	0.3		
Dry	39		190-250				1.3-15			
Ash	1							2.3		
Raspberry										
Dry	2	290								350
Rice										
Wet	269	46-87	<0.1-4.1	0.0-3.3	<0.1-0.3		<0.1			
Dry	24	35				<0.4				
Ash	4				1.3-51					
Processed for eating	8			<0.1						
Rye										
Wet	263		0.4-13	0.5-7.8	<0.1-1.7			0.3-1.0		
Dry	31				0.9-1.3					
Ash	1							42		
Scaveola										
Dry	48	<210-1000	140-54,000							
Soybean										
Wet	72		0.1-35	0.1-18						
Dry	43						<0.1-0.6			
Spinach										
Wet	234	100-170	0.0-900	0.0-19	0.2-0.4					
Dry	78	2000-2100								2200-2400

Table 1 (continued)

Food crop and sample basis ^a	Number of samples	⁴⁰ K	¹³⁷ Cs	⁹⁰ Sr	²²⁶ Ra	²²⁸ Ra	Plutonium	Uranium	Total alpha	Total beta
Squash										
Wet	12	78	<0.1-5.7	<0.1-0.4	<0.5		<0.1-<0.3	1.5		
Dry	289	1400	150-8600				<0.1-0.9			
Ash	4				0.9-70					
Strawberry										
Dry	2	510								630
Tangelo										
Wet	3	40	<0.3		<0.2					
Tangerine										
Wet	3	26	<0.2		<0.5					
Tapioca										
Dry	5	520				11			16-22	480
Taro										
Dry	11	89-310	1.9-12	<2.6-48			<0.1			
Tomato										
Wet	302	67	<0.2-36	<0.1-7.0	<0.1-1.4		<0.1	1.3	<0.1	
Dry	69		290		0.4		0.1-0.4		0.0	1400-4000
Ash	9				7.4-240					
Turnip										
Wet	83	56	<0.2-3.4	<0.1-1.9	<0.1		<0.1			
Dry	6				0.5-0.9		0.3-2.9			
Watermelon										
Wet	34	1.1	0.2-1.5							
Ash	1				10					
Wheat										
Wet	686	120-150	0.2-12	0.4-28	<0.1-2.8		<0.1	<0.1-0.1		
Dry	111				0.1-0.2		<0.1			150
Ash	7				6.7-12					
Yam										
Dry	1								11	
Ash	2				4.6-340					

^aDenotes basis on which analytical results are reported.

Table 2. Food listings by country

Country	Number of entries in appendices	Food
Australia	5	Pear
Bangladesh	38	Beet, cabbage, carrot, cauliflower, lettuce, radish, spinach, tomato
Belgium	26	Sugar beet, wheat
Bikini Island	3	Banana, papaya, squash
Brazil	121	Banana, bean, beet, carrot, cassava, chicory, courve, gilo, kale, lemon, lettuce, manioc, nut, orange, potato, rice, squash, taioba, tomato, water-cress, yam
Caroline Islands	76	Banana, breadfruit, coconut, pandanus, papaya, taro
Columbia	10	Coffee
Costa Rica	15	Banana
Denmark	151	Apple, barley, cabbage, carrot, oat, pea, potato, rye, wheat
Ecuador	15	Banana
Germany	9	Apple, cabbage, carrot, corn, potato
Hungary	20	Carrot, lettuce, mushroom, pea, raspberry, spinach, strawberry, wheat
India	217	<i>Abelmoschus esculentus</i> , <i>Anacardium occidentale</i> , apple, banana, bean, bladderdock, brinjal, carica papaya, carrot, cauliflower, chawli, coconut, cucumber, <i>Cyamopsis tetragonoloba</i> , eggplant, fenugreek, lady's finger, <i>Mangifera indica</i> , millet, okra, pea, pepper, plantain, potato, pulse, pumpkin, rawar, rice, spinach, <i>Tamarindus indica</i> , tapioca, tomato, wheat, yam

Table 2 (continued)

Country	Number of entries in appendices	Food
Italy	59	Apple, <i>Brassica oleracea</i> , cabbage, carrot, chard, chicory, haricot, lettuce, maize, potato, spinach, tomato, turnip, wheat
Japan	915	Apple, avocado, cabbage, carrot, cauliflower, cucumber, eggplant, grape, greens, komatsu-na, lettuce, melon, mustard, onion, orange, peach, persimmon, plum, potato, radish, rice, soybean, spinach, tai-na, tomato, turnip, wheat
Mariana Islands	37	Breadfruit, coconut, pandanus, papaya, taro
Marshall Islands	278	Arrowroot, banana, breadfruit, coconut, lettuce, messerschmidia, pandanus, papaya, pumpkin, scaveola, squash
Mexico	10	Melon, pineapple
Palau Islands	33	Breadfruit, cassava, coconut, pandanus, papaya, taro
Poland	16	Beet, cabbage, carrot, lettuce, parsley, potato, rye, wheat
South Africa	63	Apricot, bean, cabbage, corn, cucumber, grape, grenadilla, oat, orange, peach, pear, pepper, potato, quince, tomato
Spain	11	Bean, cabbage, corn, fig, lemon, pomegranate, tomato
Taiwan	29	Banana, orange, pineapple
U.S.A.	587	Apple, apricot, asparagus, banana, bean, beet, broccoli, cabbage, canteloupe, carrot, celery, chard, cherry, corn, cucumber, eggplant, grape, grapefruit, lettuce, melon, onion, orange, pea, peach, pear, pepper, plum, potato, radish, rice, soybean, squash, tangelo, tangerine, tomato, turnip, wheat

Table 2 (continued)

Country	Number of entries in appendices	Food
U.S.S.R.	247	Apple, barley, bean, beet, beet (sugar), buckwheat, cabbage, carrot, corn, cucumber, eggplant, garlic, grape, melon, millet, oat, onion, pea, pepper, potato, radish, rice, rye, tomato, watermelon, wheat

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APPENDIX A

RADIOACTIVITY IN FOOD CROPS

By Food Name

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
<i>Abelmoschus esculentus</i>	India, Kerala and Madras States	Total alpha	33	--	Dry	-	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
<i>Anacardium occidentale</i>	India, Kerala and Madras States	Total alpha	15	--	Dry	-	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
Apple	USA, Tennessee, Oak Ridge	K-40	210	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Washington, Hanford Site	K-40	61	--	Wet	1	1979	Sagehen vicinity	Houston, J.R., et al., 1980
	USA, Tennessee, Oak Ridge	K-40	37	--	Wet	1	--	Red delicious variety. Market samples.	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	K-40	29	--	Wet	1	--	Winesap variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Washington, Hanford Site	K-40	24	--	Wet	1	1979	Sunnyside location	Houston, J.R., et al., 1980
	USSR, Moscow	Be-226	19	--	Ash	5	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.W., et al., 1966
Apple (<i>Malus sylvestris</i>)	Italy, Ispra	Sr-90	5.9	--	Wet	--	1967		De Bertoli, M.D., et al., 1968
	Italy, Ispra	Cs-137	5.2	--	Wet	--	1967		De Bertoli, M.D., et al., 1968
Apple	Japan, Akita	Cs-137	3.3	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1968
	Japan, Yamagata	Cs-137	2.9	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1968
	Japan, Nagano	Sr-90	1.0	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1968
	Japan, Nagano	Cs-137	1.5	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1968
	Japan, Aomori	Cs-137	1.3	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1968
	USA, Tennessee, Oak Ridge	Hu-106	<1.3	--	Wet	1	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Washington, Hanford Site	Cs-137	<1.1	--	Wet	1	1979	Sagehen vicinity	Houston, J.R., et al., 1980
	USA, Washington, Hanford Site	Cs-137	<1.1	--	Wet	1	1979	Sunnyside location	Houston, J.R., et al., 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYSED	DATE	COMMENT	REFERENCE
Apple	Japan, Isewori	Cs-137	1.0	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1962
Apple (Malus domestica)	Italy, Alto Adige, Campania, Emilia	Cs-137	0.7	--	Wet	--	1970, April - June		Comitato Nazionale Per L'Energia Nucleare, 1971
Apple	USA, Tennessee, Oak Ridge	Ru-106	<0.7	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
Apple (Malus domestica)	Italy, Alto Adige, Emilia	Cs-137	0.6	--	Wet	--	1970, July - September		Comitato Nazionale Per L'Energia Nucleare, 1971
Apple	USA, Tennessee, Oak Ridge	Ru-106	<0.5	--	Wet	1	--	Winesap variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
Apple (Malus domestica)	Italy, Alto Adige, Emilia	Cs-137	0.4	--	Wet	--	1970, October - December		Comitato Nazionale Per L'Energia Nucleare, 1971
Apple	USA, Tennessee, Oak Ridge	Sb-125	<0.4	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Ra-226	<0.4	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Japan, Isewori	Sr-90	0.3	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1962
	Japan, Tanigata	Sr-90	0.3	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1962
	USA, Tennessee, Oak Ridge	Co-60	<0.3	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.3	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.3	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Ra-226	<0.3	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Denmark, The Islands	Cs-137	0.2	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USA, Tennessee, Oak Ridge	Co-60	<0.2	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Sb-125	<0.2	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASES	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Apple	USA, Tennessee, Oak Ridge	Cs-137	<0.2	--	Net	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.2	--	Net	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Sb-125	<0.2	--	Net	1	--	Winesap variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.2	--	Net	1	--	Winesap variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	USA, Nevada, Nye Co.	Po-210	<0.1	--	Net	--	1976, August 3		Andrews, V.E., et al., 1978
Apple (Sales destination)	Italy, Alto Adige, Sallia	Sr-90	<0.1	--	Net	--	1970, October - December		Comitato Nazionale Per L'Energia Nucleare, 1971
Apple	Japan, Aomori	Sr-90	0.1	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
	Japan, Akita	Sr-90	0.1	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
	Denmark, South Jutland	Sr-90	<0.1	--	Net	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, Funen	Sr-90	<0.1	--	Net	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, Zealand	Sr-90	<0.1	--	Net	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, Lolland-Falster	Sr-90	<0.1	--	Net	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, Bornholm	Sr-90	<0.1	--	Net	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, Copenhagen	Sr-90	<0.1	--	Net	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, Jutland	Cs-137	0.1	--	Net	--	1977		Aarkrog, A., et al., 1978
	Denmark, North Jutland	Sr-90	<0.1	--	Net	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, East Jutland	Sr-90	<0.1	--	Net	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, West Jutland	Sr-90	<0.1	--	Net	--	1977, September		Aarkrog, A., et al., 1978
	Italy, Campania, Sallia, Lario	Sr-90	<0.1	--	Net	--	1970, January - March		Comitato Nazionale Per L'Energia Nucleare, 1971
	Italy, Alto Adige, Campania, Sallia	Sr-90	<0.1	--	Net	--	1970, April - June		Comitato Nazionale Per L'Energia Nucleare, 1971
	Italy, Alto Adige, Sallia	Sr-90	<0.1	--	Net	--	1970, July - September		Comitato Nazionale Per L'Energia Nucleare, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	STATUS	NUMBER ANALYZED	DATE	COMMENT	REFERENCES
Apple	USA, Tennessee, Oak Ridge	Sr-95, Pb-95, Total beta	<0.1	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Sr-95, Pb-95, Total beta	<0.1	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Co-60	<0.1	--	Wet	1	--	Vinesap variety. Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Sr-95, Pb-95, Total beta	<0.1	--	Wet	1	--	Vinesap variety. Market samples, edible portion.	Oakes, T.V., et al., 1977
	Germany	Ba-226	<0.1	--	Wet	--	--		De Bortoli, R.D., et al., 1972
	USSR, Moscow	Ba-226	<0.1	--	Wet	5	1961-1964	Random samples from all wholesale markets supplying the city	Sarel, A.B., et al., 1966
	USA, Tennessee, Oak Ridge	Ba-226	<0.1	--	Wet	1	--	Vinesap variety. Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.1	--	Wet	1	--	Vinesap variety. Market samples, edible portion.	Oakes, T.V., et al., 1977
	India, Bombay	Po-210	0.1	--	Wet	2	--		Khandekar, P.N., 1977
Apricot	South Africa, Polladaba	Total beta	2200	--	Dry	--	1966, November	Farm 11 km SW of Polladaba	Van der, D., et al., 1967
	USA, Nevada, Pahrump	H-3	24	--	Wet	--	1974, July 6		Andrews, V.E., et al., 1978
	USA, California, Sanning	H-3	24	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, Nevada, Spale	H-3	<11	--	Wet	--	1974, July 11		Andrews, V.E., et al., 1978
	USA, California, Sanning	Sr-89	<0.2	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, California, Sanning	Sr-90	<0.2	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	Marshall Islands, Bongelap-Bongelap	Cs-137	1500	--	Dry	--	1974, April 6	Sample V-1018	Greenhouse, H.A., et al., 1977
Arrowroot	Marshall Islands, Bongelap-Bongelap	Cs-137	740	--	Dry	--	1974, April 6	Sample V-101A	Greenhouse, H.A., et al., 1977
Asparagus	USA, Tennessee, Oak Ridge	H-40	82	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<3.6	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Ba-106	<1.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Ba-226	<0.6	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Base

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Banana	Marshall Islands, Majuro Atoll, Laura Village	Sr-90	<1.9	--	Dry	--	1975, November		Neison, V.A., 1979
	Marshall Islands, Majuro Atoll, Laura Village	Cs-137	1.9	--	Dry	--	1975, November		Neison, V.A., 1979
	USA, Tennessee, Oak Ridge	Sr-90	<1.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Taiwan	Cs-137	0.9	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1968
	Taiwan	Cs-137	0.7	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1968
	USA, Tennessee, Oak Ridge	Sr-90	<0.5	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Ecuador	Sr-90	<0.4	--	Wet	--	1973, July 10		Slapson, R.E., et al., 1976
	Ecuador	Sr-90	<0.4	--	Wet	--	1973, June 11		Slapson, R.E., et al., 1976
	Ecuador	Sr-90	<0.4	--	Wet	--	1973, June 20		Slapson, R.E., et al., 1976
	Costa Rica	Sr-90	<0.4	--	Wet	--	1973, February 26		Slapson, R.E., et al., 1976
	Costa Rica	Sr-90	<0.4	--	Wet	--	1973, February 13		Slapson, R.E., et al., 1976
	Costa Rica	Sr-90	<0.4	--	Wet	--	1973, January 2		Slapson, R.E., et al., 1976
	Costa Rica	Cs-137	<0.4	--	Wet	--	1973, January 2		Slapson, R.E., et al., 1976
	Costa Rica	Cs-137	<0.4	--	Wet	--	1973, February 13		Slapson, R.E., et al., 1976
	Costa Rica	Cs-137	<0.4	--	Wet	--	1973, February 26		Slapson, R.E., et al., 1976
	Ecuador	Cs-137	<0.4	--	Wet	--	1973, June 20		Slapson, R.E., et al., 1976
	Ecuador	Cs-137	<0.4	--	Wet	--	1973, June 11		Slapson, R.E., et al., 1976
	Ecuador	Cs-137	<0.4	--	Wet	--	1973, July 10		Slapson, R.E., et al., 1976
	Ecuador	I-131	<0.4	--	Wet	--	1973, July 10		Slapson, R.E., et al., 1976
	Ecuador	I-131	<0.4	--	Wet	--	1973, June 11		Slapson, R.E., et al., 1976
	Ecuador	I-131	<0.4	--	Wet	--	1973, June 20		Slapson, R.E., et al., 1976

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	STATUS	NUMBER ANALYSED	DATE	COMMENT	REFERENCE
Banana	Costa Rica	I-131	<0.4	--	Not	--	1973, February 26		Slapson, S.E., et al., 1974
	Costa Rica	I-131	<0.4	--	Not	--	1973, February 13		Slapson, S.E., et al., 1974
	Costa Rica	I-131	<0.4	--	Not	--	1973, January 2		Slapson, S.E., et al., 1974
	USA, Tennessee, Oak Ridge	Cs-137	<0.4	--	Not	--	--	Market samples, edible portion	Oaker, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-60	<0.4	--	Not	--	--	Market samples, edible portion	Oaker, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Sr-90	<0.3	--	Not	--	--	Market samples, edible portion	Oaker, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Tb-232	<0.3	--	Not	--	--	Market samples, edible portion	Oaker, T.W., et al., 1977
	Marshall Islands, Majuro Atoll, Laura Village	Po-239,240	<0.1	--	Dry	--	1975, November		Welson, V.A., 1976
	Taiwan	Sr-90	<0.1	--	Not	--	1963, February		National Institute of Agricultural Sciences, 1964
	Taiwan	Sr-90	<0.1	--	Not	--	1963, February		National Institute of Agricultural Sciences, 1964
	Costa Rica	Sr-90	<0.1	--	Not	--	1973, February 26		Slapson, S.E., et al., 1974
	Costa Rica	Sr-90	<0.1	--	Not	--	1973, February 26		Slapson, S.E., et al., 1974
	Costa Rica	Sr-90	<0.1	--	Not	--	1973, January 2		Slapson, S.E., et al., 1974
	Broadleaf	Sr-90	<0.1	--	Not	--	1973, July 10		Slapson, S.E., et al., 1974
	Broadleaf	Sr-90	<0.1	--	Not	--	1973, June 11		Slapson, S.E., et al., 1974
	Broadleaf	Sr-90	<0.1	--	Not	--	1973, June 20		Slapson, S.E., et al., 1974
	Bikini Island	Po-239,240	<0.1	--	Not	--	1974		Welson, V., 1976
	India, Bombay	Po-210	<0.1	--	Not	2	--		Rhodeshar, P.W., 1977
	USA, Tennessee, Oak Ridge	Sr-90, Pb-210, Total beta	<0.1	--	Not	--	--	Market samples, edible portion	Oaker, T.W., et al., 1977
Barley	USSR	Sr-90	7.4	--	Not	25	1964		Kuznetsov, V.A., et al., 1966
	USSR	Cs-137	7.0	--	Not	--	1964	Pine ground	Kuznetsov, V.A., et al., 1966
	USSR, central region	Ba-226	4.5	--	Dry	5	--	Area 4	Rukhin, I.E., et al., 1963

Table 1. Naturally Occurring Radioactivity in Feed Crops, by Feed Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SEEDS	NUMBER ANALYZED	YEAR	COMMENT	REFERENCE
Barley, pearl	USSR	Cs-137	4.4	--	Wet	--	1964		Kaishnikov, V.A., et al., 1966
Barley, fine ground	USSR	Cs-137	3.9	--	Wet	15	1966	Grains	Petukhova, E.V., et al., 1969
Barley	USSR, central region	Ba-226	3.1	--	Dry	3	--	Area 3	Muhlin, I.E., et al., 1965
	USSR	Cs-137	2.7	--	Wet	13	1966	Grains	Petukhova, E.V., et al., 1969
	USSR, Leningrad region	Uranium	2.5	--	Ash	--	--	Grains. Computed values.	Alekseev, V.V., 1969
Barley, pearl	USSR	Cs-137	2.3	--	Wet	45	1966	Grains	Petukhova, E.V., et al., 1969
Barley	USSR, central region	Ba-226	2.0	--	Dry	4	--	Area 1	Muhlin, I.E., et al., 1965
	Denmark, Studsgaard	Sr-90	1.6	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USSR, central region	Ba-226	1.6	0.4-4.5	Dry	15	--		Muhlin, I.E., et al., 1965
	USSR, Volga River region	Radium	1.6	--	Wet	23	1964-1965	Experimental region	Belova, B.S., et al., 1967
	USSR	Sr-90	1.5	--	Wet	25	1966	Grains	Petukhova, E.V., et al., 1969
	Denmark, Skirkeby	Cs-137	1.4	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, St. Jyngedav	Sr-90	1.4	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USSR, Volga River region	Radium	1.4	--	Wet	12	1964-1965	Control region	Belova, B.S., et al., 1967
	Denmark, Skirkeby	Sr-90	1.3	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Lakev	Sr-90	1.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USSR, central region	Ba-226	1.1	--	Dry	9	--	Area 2	Muhlin, I.E., et al., 1965
	Denmark, Tylstrup	Sr-90	1.0	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USSR	Sr-90	0.9	--	Wet	13	1966	Fine ground	Kaishnikov, V.A., et al., 1966
Barley, pearl	USSR	Sr-90	0.9	--	Wet	19	1966		Kaishnikov, V.A., et al., 1966
Barley	Denmark, Ibed	Cs-137	0.8	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Odun	Sr-90	0.8	--	Wet	--	1977, Summer		Aarkrog, A., et al., 1978
	Denmark, Ledreborg	Cs-137	0.7	--	Wet	--	1977, Winter		Aarkrog, A., et al., 1978
	Denmark, Tylstrup	Cs-137	0.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Lakev	Cs-137	0.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tytofte	Cs-137	0.7	--	Wet	--	1977, Winter		Aarkrog, A., et al., 1978
	Denmark, B'agstedgaard	Sr-90	3.7	--	Wet	--	1977		Aarkrog, A., et al., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASES	SAMPLES ANALYZED	DATE	COUNTRY	LITERATURE
Barley	Denmark, Tystofte	Zr-90	0.7	--	Vet	--	1977, Summer	Greece	Aarkrog, A., et al., 1978
	Denmark, Ledreborg	Zr-90	0.7	--	Vet	--	1977, Summer		Aarkrog, A., et al., 1978
Barley, fine ground	USSR	Zr-90	0.7	--	Vet	15	1966		Potukhova, L.V., et al., 1969
Barley	Denmark, Ledreborg	Cs-137	0.6	--	Vet	--	1977, Summer		Aarkrog, A., et al., 1978
	Denmark, Studsgård	Cs-137	0.6	--	Vet	--	1977	Greece	Aarkrog, A., et al., 1978
	Denmark, Odus	Cs-137	0.6	--	Vet	--	1977, Summer		Aarkrog, A., et al., 1978
	Denmark, Blaaupstedsgrd	Cs-137	0.6	--	Vet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tystofte	Cs-137	0.6	--	Vet	--	1977, Summer		Aarkrog, A., et al., 1978
	Denmark, Abad	Zr-90	0.6	--	Vet	--	1977	Greece	Aarkrog, A., et al., 1978
Barley, pearl	USSR	Zr-90	0.6	--	Vet	45	1966		Potukhova, L.V., et al., 1969
Barley	Denmark, Odus	Zr-90	0.5	--	Vet	--	1977, Winter		Aarkrog, A., et al., 1978
	Denmark, Ledreborg	Zr-90	0.5	--	Vet	--	1977, Winter		Aarkrog, A., et al., 1978
	Denmark, Odus	Cs-137	0.4	--	Vet	--	1977, Winter	Greece	Aarkrog, A., et al., 1978
	Denmark, St. Jørgensdal	Cs-137	0.3	--	Vet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tystofte	Zr-90	0.3	--	Vet	--	1977, Winter		Aarkrog, A., et al., 1978
	USSR, Rostov-on-the-Don	Pb-210	0.2	--	Vet	9	--		Ladinskaya, L.A., et al., 1973
	USSR, Rostov-on-the-Don	Pb-210	0.2	--	Vet	9	--	Greece	Ladinskaya, L.A., et al., 1973
	Denmark, Ledreborg	Rn-54	0.2	--	Vet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Abad	Rn-54	0.2	--	Vet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tystofte	Rn-54	<0.1	--	Vet	--	1977, Winter		Aarkrog, A., et al., 1978
	Denmark, Løker	Rn-54	<0.1	--	Vet	--	1977	Greece	Aarkrog, A., et al., 1978
	Denmark, Tystofte	Rn-54	0.1	--	Vet	--	1977, Summer		Aarkrog, A., et al., 1978
	USSR, Leningrad region	Uranium	<0.1	--	Dry	--	--		Alekseev, V.V., 1969
	USSR, Volga River region	Uranium	<0.1	--	Vet	12	1964-1965		Belova, R.S., et al., 1967
	USSR, Volga River region	Uranium	0.1	--	Vet	23	1964-1965	Greece	Belova, R.S., et al., 1967
	USSR	Pb-210	0.1	--	Vet	1	--		Yermolayeva-Nakovskaya, A.P., et al., 1969

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Barley	USSR	Po-210	<0.1	--	Wet	15	--		Yermolayeva-Makovskaya, A.P., et al., 1969
Bean	South Africa, Polindaba	Total beta	2300	--	Dry	--	1966, October	Farm 16 km NW of Polindaba	Van Am, D., et al., 1967
	Brazil, Araxa-Tapira area	Ba-226	220	--	Ash	--	--	Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
Bean, bush	USA, New Mexico, Los Alamos, Montanada Canyon	Cu-137	220	--	Dry	13	1977	Grown in unfertilized soil	White, G.C., et al., 1981
Bean	Iran, Rasht	Ba-226	130	--	Ash	--	1975	Field 2, north. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Iran, Rasht	Ba-226	110	--	Ash	--	1975	Field 1, north. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Iran, Rasht	Ba-226	100	--	Ash	--	1975	Field 2, north. Area of high natural radioactivity.	Khademi, B., et al., 1980
Bean, bush	USA, New Mexico, Los Alamos, Montanada Canyon	Cu-137	100	--	Dry	13	1977	Soil fertilized with cow manure	White, G.C., et al., 1981
Bean	Iran, Rasht	Ba-226	96	--	Ash	--	1975	Field 1, south. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Iran, Rasht	Ba-226	87	--	Ash	--	1975	Field 1, north. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Iran, Rasht	Ba-226	85	--	Ash	--	1975	Field 1, south. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Iran, Rasht	Ba-226	78	--	Ash	--	1975	Field 1, south. Area of high natural radioactivity.	Khademi, B., et al., 1980
Bean, green	USA, Tennessee, Oak Ridge	K-40	63	--	Wet	--	--	Market samples, edible portion	Oaken, T.V., et al., 1977
Bean	Iran, Rasht	Ba-226	59	--	Ash	--	1975	Field 1, south. Area of high natural radioactivity.	Khademi, B., et al., 1980
Bean, brown	Brazil, Rio de Janeiro	Ba-226	52	--	Ash	--	--		Lobao, N., et al., 1973
Bean	Brazil, Araxa-Tapira area	Ba-226	52	--	Ash	--	--	Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
	Brazil, Araxa-Tapira area	Ba-226	19	--	Ash	--	--	Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
Bean, brown	Brazil, Rio de Janeiro	Ba-226	17	--	Ash	--	--		Lobao, N., et al., 1973
Bean, black	Brazil, Rio de Janeiro	Ba-226	17	--	Ash	--	--		Lobao, N., et al., 1973
Bean, butter	Brazil, Rio de Janeiro	Ba-226	13	--	Ash	--	--		Lobao, N., et al., 1973
Bean, bush	USA, New Mexico, Los Alamos, Montanada Canyon	Pu-238	12	--	Dry	13	1977	Soil fertilized with cow manure	White, G.C., et al., 1981
Bean, black	Brazil, Rio de Janeiro	Ba-226	9.9	--	Ash	--	--		Lobao, N., et al., 1973
Bean, bush	USA, New Mexico, Los Alamos, Montanada Canyon	Pu-238	9.6	--	Dry	13	1977	Grown in unfertilized soil	White, G.C., et al., 1981

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SEEDS	POWDER ANALYZED	DATE	COMMENT	REFERENCE
Bean	Iran, Babacar	Ba-226	7.4	--	Ash	--	1975	Field 3. Area of high natural radioactivity.	Khademi, D., et al., 1980
Bean, brown	Brazil, Rio de Janeiro	Ba-226	8.3	--	Ash	--	--		Lobao, N., et al., 1973
Bean, black	Brazil, Rio de Janeiro	Ba-226	2.7	--	Ash	--	--		Lobao, N., et al., 1973
Bean, fradinho	Brazil, Rio de Janeiro	Ba-226	2.6	--	Ash	--	--		Lobao, N., et al., 1973
Bean, green	USA, Tennessee, Oak Ridge	Sr-90	<2.0	--	Net	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Bean, kidney	USA	Sr-90	2.2	--	Net	12	1964		Knighnikov, V.A., et al., 1968
Bean, dried	USA, New York, New York City	Sr-90	1.9	--	Processed for eating	--	1970, February		Atomic Energy Commission, 1971
Bean, bush	USA, New Mexico, Los Alamos, Montanada Canyon	Pu-239	1.9	--	Dry	13	1977	Soil fertilized with cow manure	White, G.C., et al., 1981
Bean, dried	USA, California, San Francisco	Sr-90	1.7	--	Processed for eating	--	1970, September		Atomic Energy Commission, 1971
Bean, bush	USA, New Mexico, Los Alamos, Montanada Canyon	Pu-239	1.5	--	Dry	13	1977	Grown in unfertilized soil	White, G.C., et al., 1981
Bean	USA, New York, New York City	Sr-90	1.4	--	Net	--	1976, February	Dry	Hardy, R.P., Jr., 1976
Bean, dried	USA, California, San Francisco	Sr-90	0.8	--	Processed for eating	--	1970, March		Atomic Energy Commission, 1971
	USA, New York, New York City	Sr-90	0.7	--	Processed for eating	--	1970, November		Atomic Energy Commission, 1971
Bean, green	USA, Tennessee, Oak Ridge	Ba-136	<0.7	--	Net	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Bean, dried	USA, California, San Francisco	Sr-90	0.6	--	Processed for eating	--	1970, June		Atomic Energy Commission, 1971
	USA, New York, New York City	Sr-90	0.6	--	Processed for eating	--	1970, August		Atomic Energy Commission, 1971
Bean, dry	USA, California, San Francisco	Sr-90	0.4	--	Net	--	1976, March		Hardy, R.P., Jr., 1976
Bean, bush	USA, Tennessee, Oak Ridge	Plutonium	0.4	--	Dry	5	1975-1976	Total Pu, shelled beans grown White Oak Creek flood plain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
Bean, green	USA, Tennessee, Oak Ridge	Ba-226	<0.4	--	Net	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Bean, dried	USA, California, San Francisco	Sr-90	0.3	--	Processed for eating	--	1970, December		Atomic Energy Commission, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Bean, bush	USA, Tennessee, Oak Ridge	Plutonium	0.3	--	Dry	7	1975-1976	Total Pu, whole bean grown white Oak Creek floodplain at Oak Ridge National Laboratory	Aitiano, D.C., et al., 1980
Bean, green	USA, Tennessee, Oak Ridge	Cs-137	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Co-60	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Oklahoma, Afton	Ra-226	0.2	--	Wet	--	1975	High Ra-226 in local water supply	Reefers, D.M., et al., 1980
	USA, Tennessee, Oak Ridge	Th-232	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Bean, dry	USA, New York, New York City	Pb-210	<0.1	--	Wet	--	--		Horne, R.S., et al., 1971
	USA, New York, New York City	Pb-210	<0.1	--	Wet	--	--		Horne, R.S., et al., 1971
Bean	USA, New York	Pu-239,240	<0.1	--	Wet	--	1972	Dry	Sennett, J.D., 1975
Bean, dried	USA, New York, New York City	Sr-90	0.1	--	Processed for eating	--	1976, May		Atomic Energy Commission, 1971
Bean, broad (Vicia faba L.)	Spain, Palomares	Total alpha	<0.1	--	Wet	--	--	Secs. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasín, C., et al., 1970
	Spain, Palomares	Total alpha	<0.1	--	Wet	--	--	Pod with seeds. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasín, C., et al., 1970
Bean, green	USA, Tennessee, Oak Ridge	Sr-95, Pb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Bean, french	India, Bombay	Po-210	<0.1	--	Wet	3	--		Khandekar, S.B., 1977
Bean, cluster	India, Bombay	Po-210	<0.1	--	Wet	3	--		Khandekar, S.B., 1977
Bean	Brazil, Arara Tapira area	Total alpha	--	--	Wet	--	--	Area of high natural radioactivity	Penna-Franco, H., et al., 1965
Bean (Bulichas biflorus)	India, Kerala and Madras States	Total alpha	22	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.S., et al., 1965
Beet	South Africa, Polladaba	Total beta	2300	--	Dry	--	1966, October	Beet	Van Au, D., et al., 1967
	Bangladesh, Khulna	Cs-137	1600	--	Wet	--	1972-1974	Beet	Rab Hoss, M.A., 1978
	Bangladesh, Khulna	Cs-137	370	--	Wet	--	1972-1974	Leaf	Rab Hoss, M.A., 1978
	Bangladesh, Dacca	Cs-137	320	--	Wet	--	1972-1974	Beet	Rab Hoss, M.A., 1978
	Bangladesh	Tl-208	97	--	Wet	--	1972-1974	Beet	Rab Hoss, M.A., 1978

Table 1. Naturally occurring radioactivity in food crops, by food name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Root	USA, Tennessee, Oak Ridge	Plutonium	40	--	Dry	3	1975-1976	Total Pb, stib, gross White Oak Creek, sample at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
Root, sugar	Belgium, Gembloux	Ra-226	33	--	Ash	--	1977	Root, Plot 53, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1386 kg/ha.	Kirschmann, R., et al., 1980
	Belgium, Gembloux	Ra-226	30	--	Ash	--	1977	Root, Plot 26, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 363 kg/ha.	Kirschmann, R., et al., 1980
	Belgium, Gembloux	Ra-226	23	--	Ash	--	1977	Root, Plot 25, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 363 kg/ha.	Kirschmann, R., et al., 1980
	Belgium, Gembloux	Ra-226	20	--	Ash	--	1977	Root, Plot 26, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 363 kg/ha.	Kirschmann, R., et al., 1980
	Belgium, Gembloux	Ra-226	15	--	Ash	--	1977	Root, Plot 14, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 363 kg/ha.	Kirschmann, R., et al., 1980
Root	Brazil, Rio de Janeiro	Ra-226	15	--	Ash	--	--	Root, Plot 36, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 363 kg/ha.	Lebao, M., et al., 1973
Root, sugar	Belgium, Gembloux	Ra-226	13	--	Ash	--	1977	Root, Plot 36, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 363 kg/ha.	Kirschmann, R., et al., 1980
Root	USA, Nevada, Overton	H-3	<11	--	Wet	--	1974, July 15	Root	Andrews, V.E., et al., 1978
	Bangladesh, Khulna	Sr-90	8.9	--	Wet	--	1972-1978	Leaf	Rab Molla, M.A., 1978
	Bangladesh, Dacca	Sr-90	8.6	--	Wet	--	1972-1978	Leaf	Rab Molla, M.A., 1978
	Bangladesh, Dacca	Sr-90	7.5	--	Wet	--	1972-1978	Root	Rab Molla, M.A., 1978
	Bangladesh	Pb-208	7.4	--	Wet	--	1972-1978	Leaf	Rab Molla, M.A., 1978
	Bangladesh, Dacca	Cs-137	7.4	--	Wet	--	1972-1978	Leaf	Rab Molla, M.A., 1978
	USA, Nevada, Curtant	H-3	7.4	--	Wet	--	1976, August 3	Greens	Andrews, V.E., et al., 1978
Root, sugar	USA, Louisiana region	Uranium	5.5	--	Ash	--	--	Tubers. Computed values.	Alkneer, T.V., 1969
Root	USA	Cs-137	2.2	--	Wet	--	1964	Tubers. Computed values.	Reishahor, V.A., et al., 1966
Root, sugar	USA, Louisiana region	Uranium	1.6	--	Dry	--	--	Tubers. Computed values.	Alkneer, T.V., 1969
Root	Bangladesh, Khulna	Sr-90	1.3	--	Wet	--	1972-1978	Root	Rab Molla, M.A., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Beet	USSR, central region	Ra-226	1.3	--	Wet	5	--	Area 3	Nukhin, I.E., et al., 1965
Beet, sugar	Belgium, Gembloux	Ra-226	1.2	--	Dry	--	1977	Beet. Plot 24. Belgian Agricultural Research Centre. Phosphate fertilizer applied, 383 kg/ha.	Kirchmann, P., et al., 1980
Beet	USSR	Sr-90	1.0	--	Wet	107	1964		Kaishnikov, V.A., et al., 1966
	USSR	Sr-90	1.0	--	Wet	24	1963		Kaishnikov, V.A., et al., 1966
	USSR, central region	Ra-226	1.0	0.3-3.9	Dry	19	--		Nukhin, I.E., et al., 1965
	USSR	Cs-137	1.0	--	Wet	64	1966	Beet	Petukhova, E.V., et al., 1969
	USSR, central region	Ra-226	1.0	--	Wet	3	--	Area 4	Nukhin, I.E., et al., 1965
Beet, sugar	Belgium, Gembloux	Ra-226	0.8	--	Dry	--	1977	Beet. Plot 43. Belgian Agricultural Research Centre. Phosphate fertilizer applied, 386 kg/ha.	Kirchmann, P., et al., 1980
Beet	USA, Nevada, Springdale	Po-210	<0.6	--	Wet	--	1976, July 15	Greens	Andrews, V.E., et al., 1978
	USA, Nevada, Tonopah	Po-210	<0.6	--	Wet	--	1976, August 3	Greens	Andrews, V.E., et al., 1978
	USSR	Sr-90	0.6	--	Wet	64	1966	Beet	Petukhova, E.V., et al., 1969
	USSR, central region	Ra-226	0.5	--	Wet	4	--	Area 2	Nukhin, I.E., et al., 1965
	Belgium, Gembloux	Ra-226	0.5	--	Dry	--	1977	Beet. Plot 25. Belgian Agricultural Research Centre. Phosphate fertilizer applied, 383 kg/ha.	Kirchmann, P., et al., 1980
Beet, sugar	Belgium, Gembloux	Ra-226	0.4	--	Dry	--	1977	Beet. Plot 18. Belgian Agricultural Research Centre. Phosphate fertilizer applied, 383 kg/ha.	Kirchmann, P., et al., 1980
	Belgium, Gembloux	Ra-226	0.4	--	Dry	--	1977	Beet. Plot 26. Belgian Agricultural Research Centre. Phosphate fertilizer applied, 383 kg/ha.	Kirchmann, P., et al., 1980
	USSR, central region	Ra-226	0.3	--	Wet	3	--	Area 1	Nukhin, I.E., et al., 1965
Beet, sugar	Belgium, Gembloux	Ra-226	0.3	--	Dry	--	1977	Beet. Plot 36. Belgian Agricultural Research Centre. Phosphate fertilizer applied, 383 kg/ha.	Kirchmann, P., et al., 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Crop

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	CRAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	Basis	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Beet	USA, Tennessee, Oak Ridge	Plutonium	0.2	--	Dry	3	1975-1976	Total Pu, pooled beet grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
	Poland, Henry Valley	Ba-226	<0.1	--	Wet	--	--	Root.	Pietruch-Fils, E., 1972
	USSR, Rostov-on-the-Don	Pb-210	0.1	--	Wet	6	--		Ladianskaya, L.A., et al., 1973
	USSR, Rostov-on-the-Don	Po-210	<0.1	--	Wet	6	--		Ladianskaya, L.A., et al., 1973
	USA, Nevada, Nink	Po-238	<0.1	--	Wet	--	1976, August 4	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Nink	Po-239	<0.1	--	Wet	--	1976, August 4	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Adavon	Po-238	<0.1	--	Wet	--	1976, August 4		Andrews, V.E., et al., 1978
	USA, Nevada, Adavon	Po-239	<0.1	--	Wet	--	1976, August 4		Andrews, V.E., et al., 1978
	USA, Nevada, Currant	Po-238	<0.1	--	Wet	--	1976, August 3	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Currant	Po-239	<0.1	--	Wet	--	1976, August 3	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Goldfield	Po-238	<0.1	--	Wet	--	1976, August 2	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Goldfield	Po-239	<0.1	--	Wet	--	1976, August 2	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Springdale	Po-238	<0.1	--	Wet	--	1976, July 15	Grown. Statistically insignificant	Andrews, V.E., et al., 1978
	USA, Nevada, Springdale	Po-239	<0.1	--	Wet	--	1976, July 15	Grown. Statistically insignificant	Andrews, V.E., et al., 1978
	USA, Nevada, Tonopah	Po-238	<0.1	--	Wet	--	1976, August 3	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Tonopah	Po-239	<0.1	--	Wet	--	1976, August 3	Root	Andrews, V.E., et al., 1978
	Poland, Warsaw	Ba-226	<0.1	--	Wet	--	--	Roots	Pietruch-Fils, E., 1972
	USA, Nevada, Tonopah	Po-238	<0.1	--	Wet	--	1976, August 3	Grown	Andrews, V.E., et al., 1978
	USA, Nevada, Tonopah	Po-239	<0.1	--	Wet	--	1976, August 3	Grown	Andrews, V.E., et al., 1978
Bladder dock (Bassia vercurius L.)	India, Bombay	Po-210	0.4	--	Wet	3	--		Khandekar, B.V., 1977
Brassica oleracea	Italy, Lazio	Sr-90	0.5	--	Wet	--	1970, July - September		Comitato Nazionale Per L'Energia Nucleare, 1971
	Italy, Campania, Emilia, Lazio, Veneto	Sr-90	0.4	--	Wet	--	1970, October - December		Comitato Nazionale Per L'Energia Nucleare, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Brassica oleracea	Italy, Campania, Lazio, Marche	Sr-90	0.2	--	Wet	--	1970, January - March		Comitato Nazionale Per L'Energia Nucleare, 1971
	Italy, Lazio	Sr-90	0.2	--	Wet	--	1970, April - June		Comitato Nazionale Per L'Energia Nucleare, 1971
Broadfruit	Marshall Islands, Bikini-Bikini	Cs-137	7100	--	Dry	--	1976, April 6	Sample V-7	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	5900	--	Dry	--	1976, April 6	Sample V-8, innature	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	1200	--	Dry	--	1976, April 5	Sample V-6, innature	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	Cs-137	1800	--	Dry	--	1974, April 4	Sample V-99, skin and core	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	Cs-137	1500	--	Dry	--	1974, April 4	Sample V-100, meat	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	Cs-137	1300	--	Dry	--	1976, April 3	Sample V-27	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	Cs-137	870	--	Dry	--	1974, April 4	Sample V-97, skin and core	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	Cs-137	650	--	Dry	--	1974, April 5	Sample V-96, meat	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	K-40	760	--	Dry	--	1974, April 5	Sample V-96, meat	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	Cs-137	730	--	Dry	--	1974, April 4	Sample V-98, meat	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	Cs-137	710	--	Dry	--	1974, April 4	Sample V-95, skin and core	Greenhouse, N.A., et al., 1977
	Mariana Islands, Guam, Dededo	K-40	670	--	Dry	--	1975, November		Welson, V.A., 1979
	Marshall Islands, Majaro Atoll, Laura Village	K-40	670	--	Dry	--	1975, November		Welson, V.A., 1979
	Palau Islands, Koror Island	K-40	670	--	Dry	--	1975, November		Welson, V.A., 1979
	Marshall Islands, Bikini-Bikini	K-40	650	--	Dry	--	1976, April 6	Sample V-8, innature	Greenhouse, N.A., et al., 1977
	Mariana Islands, Guam, Gerise	K-40	590	--	Dry	--	1975, November		Welson, V.A., 1979
	Caroline Islands, Pohnpei Island, Kolonia	K-40	560	--	Dry	--	1975, November		Welson, V.A., 1979
	Palau Islands, Babelthap Island	K-40	520	--	Dry	--	1975, November		Welson, V.A., 1979
	Marshall Islands, Bikini-Bikini	K-40	500	--	Dry	--	1976, April 6	Sample V-6, innature	Greenhouse, N.A., et al., 1977
	Caroline Islands, Truk Atoll, Dublin Island	K-40	480	--	Dry	--	1975, November		Welson, V.A., 1979
	Marshall Islands, Ujae-Ujae	K-40	480	--	Dry	--	1976, April 5	Sample V-91, edible portion	Greenhouse, N.A., et al., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Broadfruit	Caroline Islands, Truk Atoll, Pohn Island	K-40	400	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Inarajan	K-40	400	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	K-40	410	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Bongelap-Bongelap	K-40	400	--	Dry	--	1976, April 4	Sample V-99, skin and core	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	K-40	390	--	Dry	--	1976, April 3	Sample V-27	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	K-40	300	--	Dry	--	1976, April 4	Sample V-97, skin and core	Greenhouse, N.A., et al., 1977
	Marshall Islands, Majuro Atoll, Eastern Gateway	K-40	360	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Ujae-Ujae	Ca-137	350	--	Dry	--	1976, April 5	Sample V-93, edible portion	Greenhouse, N.A., et al., 1977
	Marshall Islands, Ujae-Ujae	K-40	350	--	Dry	--	1975, April 19	Sample V-108, meat	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	K-40	250	--	Dry	--	1976, April 4	Sample V-98, meat	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bongelap-Bongelap	K-40	240	--	Dry	--	1976, April 4	Sample V-100, meat	Greenhouse, N.A., et al., 1977
	Caroline Islands, Truk Atoll, Pohn Island	K-40	200	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Ca-137	85	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Eastern Gateway	Ca-137	56	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Pohn Island	Ca-137	44	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Ujae-Ujae	Ca-137	39	--	Dry	--	1975, April 19	Sample V-108, meat	Greenhouse, N.A., et al., 1977
	Caroline Islands, Ponape Island, Kolonia	Ca-137	27	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Laura Village	Ca-137	27	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Dededo	Ca-137	13	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Laura Village	Sr-90	<7.0	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Sr-90	<6.3	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Koror Island	Ca-137	0.8	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Dededo	Sr-90	<0.4	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Pohn Island	Sr-90	<0.4	--	Dry	--	1975, November		Nelson, V.A., 1979

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Breadfruit	Mariana Islands, Guam, Morizo	Sr-90	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Sr-90	<2.6	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Babelthau Island	Sr-90	<2.6	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Koror Island	Sr-90	<2.6	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Iserajan	Sr-90	<2.6	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majaro Atoll, Eastern Gateway	Sr-90	2.6	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Bublos Island	Sr-90	<2.6	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Babelthau Island	Cs-137	2.2	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Pu-239,240	1.0	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Babelthau Island	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Koror Island	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majaro Atoll, Iauka Village	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Pu-239,240	0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Dededo	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Boos Island	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Briarjal	India, Bombay	Po-210	0.1	--	Wet	2	--		Rhandekar, R.V., 1977
Broccoli	USA, Tennessee, Oak Ridge	K-40	100	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Ba-106	<5.6	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Broccoli (Brassica oleracea var. botrytis L.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	1.5	--	Dry	--	1975-1980	Washed. Grown in H-area.	Saith, N.H., et al., 1981
Broccoli	USA, California, Livermore Valley	Ba-216	1.0	--	Dry	--	--	Garden 1, soil Ca 3,100 ppm, 10 applications of phosphogypsum fertilizer.	Lindgren, C.L., et al., 1978
	USA, Tennessee, Oak Ridge	Ba-226	<0.6	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Broccoli (Brassica oleracea var. botrytis L.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	0.4	--	Dry	--	1975-1980	Washed. Grown in H-area.	Saith, N.H., et al., 1981

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SUCLID ISOTOPES	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	MOISTURE BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Broccoli	USA, California, Livermore Valley	Ba-226	0.4	--	Dry	--	--	Garden 2, soil Ca 4,200 ppm, 10 applications of phosphogypsum fertilizer.	Lindoken, C.L., et al., 1978
	USA, Tennessee, Oak Ridge	Sr-90, Pb-210, Total beta	<0.6	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Sb-125	<0.3	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Broccoli (Brassica oleracea var. botrytis L.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	0.2	--	Dry	--	1979-1980	Unwashed. Grown in H-area.	Smith, H.W., et al., 1981
Broccoli	USA, Tennessee, Oak Ridge	Cs-60	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Broccoli (Brassica oleracea var. botrytis L.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Unwashed. Grown in H-area.	Smith, H.W., et al., 1981
Broccoli	USA, Tennessee, Oak Ridge	Cs-137	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Vb-232	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Beckehent	USSR	Cs-137	5.3	--	Wet	35	1966	Grains	Petukhova, E.V., et al., 1969
	USSR, central region	Ba-226	3.0	--	Dry	6	--	Area 3	Rukhin, I.B., et al., 1965
	USSR, central region	Ba-226	2.6	--	Dry	5	--	Area 4	Rukhin, I.B., et al., 1965
	USSR, central region	Ba-226	1.2	0.4-2.6	Dry	--	--		Rukhin, I.B., et al., 1965
	USSR, central region	Ba-226	0.7	--	Dry	4	--	Area 1	Rukhin, I.B., et al., 1965
	USSR	Sr-90	0.7	--	Wet	35	1966	Grains	Petukhova, E.V., et al., 1969
Cabbage	South Africa, Polindaba	Total beta	4100	--	Dry	--	1966, October	Para 16 km NW of Polindaba	Van der, D., et al., 1967
	South Africa, Polindaba	Total beta	3000	--	Dry	--	1966, September	Para 11 km NW of Polindaba	Van der, D., et al., 1967
	South Africa, Polindaba	Total beta	3000	--	Dry	--	1966, April	Para 16 km NW of Polindaba	Van der, D., et al., 1967
	South Africa, Polindaba	Total beta	2900	--	Dry	--	1966, June	Para 16 km NW of Polindaba	Van der, D., et al., 1967
	South Africa, Polindaba	Total beta	2600	--	Dry	--	1966, May	Para 11 km NW of Polindaba	Van der, D., et al., 1967
	South Africa, Polindaba	Total beta	2500	--	Dry	--	1966, May	Para 4 km E of Polindaba	Van der, D., et al., 1967
	South Africa, Polindaba	Total beta	2500	--	Dry	--	1966, September	Para 4 km E of Polindaba	Van der, D., et al., 1967

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASES	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Cabbage	South Africa, Polladaba	Total beta	1800	--	Dry	--	1966, July	Para 4 to 8 of Polladaba	Van Au, D., et al., 1967
	South Africa, Polladaba	Total beta	1500	--	Dry	--	1966, July	Para 11 to 19 of Polladaba	Van Au, D., et al., 1967
	USA, Tennessee, Oak Ridge	K-40	89	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Cabbage (Brassica oleracea)	Italy, Ispra	Sr-90	70	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
Cabbage	USSR, Moscow	Sr-226	40	--	Ash	11	1961-1964	Random samples from all wholesale markets supplying the city	Haral, A.W., et al., 1968
	USA, California, Santa Maria	R-3	17	--	Wet	--	1974, July 8		Andrews, T.E., et al., 1978
	USSR	Uranium	12	--	Ash	--	1963-1965	Wend	Petrov, I.A., et al., 1969
	Japan, Ishikawa, Kanazawa	Cs-137	10	--	Wet	--	1962, April		National Institute of Agricultural Sciences, 1968
	Bangladesh, Dacca	Sr-90	7.2	--	Wet	--	1972-1974		Rab Hossain, A.A., 1978
	Japan, Totterri, Yonago	Sr-90	7.0	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1968
	Japan, Ishikawa, Kanazawa	Sr-90	6.8	--	Wet	--	1962, April		National Institute of Agricultural Sciences, 1968
	Italy, Ispra	Cs-137	5.2	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Japan, Nagasaki, Nagasaki	Cs-137	4.9	--	Wet	--	1962, June		National Institute of Agricultural Sciences, 1968
Cabbage	Japan, Aichi, Sasebo	Cs-137	4.8	--	Wet	--	1964, October		National Institute of Radiological Sciences, 1965
	Bangladesh	Tl-208	4.4	--	Wet	--	1972-1974		Rab Hossain, A.A., 1978
	Japan, Akita, Tanno	Sr-90	3.9	--	Wet	--	1962, June		National Institute of Agricultural Sciences, 1968
	Japan, Kyoto, Kyoto	Cs-137	3.7	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1968
	Japan, Wakayama, Iwado	Cs-137	3.6	--	Wet	--	1963, January		National Institute of Agricultural Sciences, 1968
Cabbage	Japan, Niigata, Seiro	Cs-137	3.3	--	Wet	--	1961, December		National Institute of Agricultural Sciences, 1968
	Japan, Fuku	Sr-90	3.1	--	Wet	--	1962, January		National Institute of Radiological Sciences, 1968

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	Basis	NUMBER ANALYZED	DATE	CORRECTION	REFERENCE
Cabbage	Japan, Tokyo, Setagaya	Sr-90	3.1	--	Net	--	1962, June		National Institute of Agricultural Sciences, 1966
	Japan, Fuku	Cs-137	3.0	--	Net	--	1962, January		National Institute of Radiological Sciences, 1966
Cabbage, Chinese	Japan, Shiga, Seiro	Sr-90	2.7	--	Net	--	1962, March		National Institute of Agricultural Sciences, 1966
Cabbage	Japan, Nagasaki, Nagasaki	Sr-90	2.7	--	Net	--	1962, February		National Institute of Agricultural Sciences, 1966
	USSR	Cs-137	2.6	--	Net	--	1964		Krishnakov, V.A., et al., 1966
	Japan, Okayama, Okayama	Sr-90	2.5	--	Net	--	1962, June		National Institute of Agricultural Sciences, 1966
	Japan, Nagasaki, Nagasaki	Cs-137	2.4	--	Net	--	1962, February		National Institute of Agricultural Sciences, 1966
	Bangladesh, Khulna	Sr-90	2.3	--	Net	--	1972-1976		Sab Hossain, M.A., 1978
Cabbage, Chinese	Japan, Shizuoka, Yoshivara	Sr-90	2.3	--	Net	--	1965, January		National Institute of Radiological Sciences, 1965
	Japan, Tokyo, Setagaya	Cs-137	2.2	--	Net	--	1962, April		National Institute of Agricultural Sciences, 1966
	Japan, Nagasaki, Nagasaki	Sr-90	2.2	--	Net	--	1962, June		National Institute of Agricultural Sciences, 1966
Cabbage	Japan, Shiga, Nagasaki	Cs-137	2.2	--	Net	--	1962, May		National Institute of Agricultural Sciences, 1966
	Japan, Shizuoka, Fujieda	Sr-90	2.1	--	Net	--	1965, November		National Institute of Radiological Sciences, 1966
Cabbage, Chinese	Japan, Hokkaido, Obihiro	Cs-137	2.1	--	Net	--	1964, August		National Institute of Radiological Sciences, 1965
	Japan, Aichi, Sasebo	Sr-90	2.1	--	Net	--	1964, October		National Institute of Radiological Sciences, 1965
Cabbage	USSR	Cs-137	2.0	--	Net	--	1964		Krishnakov, V.A., et al., 1966
	Japan, Hokkaido, Asahikawa	Cs-137	2.0	--	Net	--	1963, January		National Institute of Agricultural Sciences, 1966
Cabbage, Chinese	Japan, Shizuoka, Yoshivara	Cs-137	2.0	--	Net	--	1965, January		National Institute of Radiological Sciences, 1965
Cabbage	Japan, Tottori, Yonago	Cs-137	1.9	--	Net	--	1962, May		National Institute of Agricultural Sciences, 1966

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASE	SAMPLE ANALYZED	DATE	COMMENT	REFERENCE
Cabbage, Chinese	Japan, Ibaragi, Tsuchiura	Sr-90	1.9	--	Vol	--	1962, October		National Institute of Agricultural Sciences, 1964
	Japan, Fukuoka, Yano	Cs-137	1.9	--	Vol	--	1963, October		National Institute of Radiological Sciences, 1964
Cabbage	Japan, Niigata, Nagasaki	Sr-90	1.9	--	Vol	--	1962, May		National Institute of Agricultural Sciences, 1964
	Japan, Niigata, Seiro	Sr-90	1.9	--	Vol	--	1961, December		National Institute of Agricultural Sciences, 1964
Cabbage, Chinese	Japan, Wakayama, Iwade	Sr-90	1.8	--	Vol	--	1963, January		National Institute of Agricultural Sciences, 1964
	Japan, Kagoshima	Cs-137	1.6	--	Vol	--	1961, May - June		National Institute of Radiological Sciences, 1964
	Japan, Osaka, Ikeda	Sr-90	1.6	--	Vol	--	1964, November		National Institute of Radiological Sciences, 1965
Cabbage	Japan, Niigata, Iwanuma	Cs-137	1.5	--	Vol	--	1962, July		National Institute of Agricultural Sciences, 1964
Cabbage, Chinese	Japan, Fuku, Kamakura	Sr-90	1.5	--	Vol	--	1962, November		National Institute of Agricultural Sciences, 1964
Cabbage	Japan, Shizuoka, Yoshivara	Sr-90	1.5	--	Vol	--	1962, November		National Institute of Radiological Sciences, 1964
Cabbage, Chinese	Japan, Ibaragi, Tokai	Sr-90	1.5	--	Vol	--	1964, November		National Institute of Radiological Sciences, 1965
	Japan, Saitama, Hita	Cs-137	1.5	--	Vol	--	1963, February		National Institute of Agricultural Sciences, 1964
Cabbage	Bangladesh, Dacca	Cs-137	1.5	--	Vol	--	1972-1974		Rob Helle, M.S., 1974
Cabbage, Chinese	Japan, Okayama, Okayama	Cs-137	1.4	--	Vol	--	1962, August		National Institute of Agricultural Sciences, 1964
	Japan, Shizuoka, Fujieda	Sr-90	1.4	--	Vol	--	1965, January		National Institute of Radiological Sciences, 1965
Cabbage	Japan, Ryogo, Akashi	Cs-137	1.4	--	Vol	--	1961, December		National Institute of Agricultural Sciences, 1964
Cabbage, Chinese	Japan, Fukuoka, Yano	Sr-90	1.3	--	Vol	--	1963, December		National Institute of Radiological Sciences, 1964
Cabbage	Japan, Kanagawa, Odawara	Cs-137	1.3	--	Vol	--	1963, November		National Institute of Radiological Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SIZE	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Cabbage	Japan, Aichi, Sanage	Cs-137	1.3	--	Net	--	1965, October	Head	National Institute of Radiological Sciences, 1966
Cabbage, Chinese	Japan, Niigata, Seiro	Cs-137	1.3	--	Net	--	1962, March		National Institute of Agricultural Sciences, 1966
	Japan, Akita, Tenno	Cs-137	1.3	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Cabbage	USSR	Strontium	1.3	--	Net	--	1963-1965		Pedoren, V.A., et al., 1969
Cabbage, Chinese	Japan, Tottori	Sr-90	1.2	--	Net	--	1961, October	Area 4	National Institute of Radiological Sciences, 1966
	Japan, Tokyo, Setagaya	Sr-90	1.2	--	Net	--	1962, April		National Institute of Agricultural Sciences, 1966
	Japan, Akita, Tenno	Sr-90	1.2	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Cabbage	Japan, Akita, Tenno	Cs-137	1.2	--	Net	--	1962, June		National Institute of Agricultural Sciences, 1966
	Japan, Wakayama, Iwade	Cs-137	1.2	--	Net	--	1962, December		National Institute of Agricultural Sciences, 1966
	Japan, Aichi, Sanage	Sr-90	1.2	--	Net	--	1964, October		National Institute of Radiological Sciences, 1965
	USSR	Cs-137	1.2	--	Net	130	1966		Potukhova, E.V., et al., 1969
	USSR, central region	Ba-226	1.2	--	Net	6	--		Rubins, I.N., et al., 1965
Cabbage (Brassica oleracea)	Italy, Milano	Sr-90	1.1	--	Net	20	1967		De Bertoli, M.D., et al., 1968
Cabbage, Chinese	Japan, Tottori	Cs-137	1.1	--	Net	--	1961, October		National Institute of Radiological Sciences, 1966
Cabbage	Japan, Hiroshima, Fukuyama	Cs-137	1.1	--	Net	--	1962, May		National Institute of Agricultural Sciences, 1966
	Japan, Wakayama, Wakayama	Cs-137	1.1	--	Net	--	1962, December		National Institute of Agricultural Sciences, 1966
	Japan, Osaka, Nibara	Cs-137	1.1	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965
	Japan, Kanagawa, Totsuka	Sr-90	1.1	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965
Cabbage, Chinese	Japan, Miyagi, Iwatsubo	Sr-90	1.0	--	Net	--	1964, September		National Institute of Agricultural Sciences, 1966

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Cabbage	Japan, Fukuoka, Yase	Cs-137	1.0	--	Vet	--	1964, January		National Institute of Radiological Sciences, 1964
Cabbage, Chinese	Japan, Miyagi, Furukawa	Sr-90	1.0	--	Vet	--	1964, October		National Institute of Radiological Sciences, 1965
Cabbage	Japan, Saitama, Iwatsuki	Cs-137	1.0	--	Vet	--	1963, February		National Institute of Agricultural Sciences, 1964
Cabbage, Chinese	Japan, Aomori, Aomori	Cs-137	1.0	--	Vet	--	1962, March		National Institute of Agricultural Sciences, 1964
	Japan, Saitama, Tokorozawa	Cs-137	1.0	--	Vet	--	1963, February		National Institute of Agricultural Sciences, 1964
	Japan, Fukuoka, Fukuoka	Sr-90	1.0	--	Vet	--	1965, January		National Institute of Radiological Sciences, 1965
Cabbage	Japan, Kagoshima, Kokubu	Cs-137	0.9	--	Vet	--	1962, June		National Institute of Agricultural Sciences, 1964
Cabbage, Chinese	Japan, Fuku, Kamakura	Cs-137	0.9	--	Vet	--	1962, November		National Institute of Agricultural Sciences, 1964
	Japan, Aichi, Atabase	Sr-90	0.9	--	Vet	--	1964, November		National Institute of Radiological Sciences, 1965
	Japan, Miyagi, Furukawa	Sr-90	0.9	--	Vet	--	1964, December		National Institute of Radiological Sciences, 1965
	Japan, Hokkaido, Sapporo	Cs-137	0.9	--	Vet	--	1974, November		National Institute of Radiological Sciences, 1985
Cabbage	Japan, Osaka, Osaka	Cs-137	0.9	--	Vet	--	1963, May		National Institute of Agricultural Sciences, 1964
Cabbage, Chinese	Japan, Aomori, Aomori	Sr-90	0.9	--	Vet	--	1962, March		National Institute of Agricultural Sciences, 1964
Cabbage	Japan, Wakayama, Iwade	Sr-90	0.9	--	Vet	--	1962, December		National Institute of Agricultural Sciences, 1964
	Japan, Kanagawa, Niira	Sr-90	0.9	--	Vet	--	1964, June		National Institute of Radiological Sciences, 1965
	Japan, Kanagawa, Niira	Cs-137	0.9	--	Vet	--	1964, June		National Institute of Radiological Sciences, 1965
	Japan, Hiroshima, Kabe	Cs-137	0.9	--	Vet	--	1961, December		National Institute of Agricultural Sciences, 1964
	Japan, Kyoto, Kyoto	Sr-90	0.8	--	Vet	--	1962, July		National Institute of Agricultural Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SUCLIDE MEASUREMENT	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Cabbage, Chinese	Japan, Okayama, Okayama	Sr-90	0.8	--	Net	--	1962, August		National Institute of Agricultural Sciences, 1968
	Japan, Kanagawa, Yokohama	Cs-137	0.8	--	Net	--	1963, December		National Institute of Radiological Sciences, 1968
Cabbage	Japan, Aichi, Senage	Sr-90	0.8	--	Net	--	1965, October		National Institute of Radiological Sciences, 1968
	Japan, Aichi, Akabane	Sr-90	0.8	--	Net	--	1965, November		National Institute of Radiological Sciences, 1968
Cabbage, Chinese	Japan, Ibaragi, Tokai	Cs-137	0.8	--	Net	--	1964, November		National Institute of Radiological Sciences, 1965
	Japan, Niigaki, Shirolishi	Sr-90	0.8	--	Net	--	1964, October		National Institute of Radiological Sciences, 1965
	Japan, Hokkaido, Sapporo	Sr-90	0.8	--	Net	--	1974, November		National Institute of Radiological Sciences, 1965
Cabbage	Japan, Hokkaido, Asahikawa	Sr-90	0.8	--	Net	--	1963, January		National Institute of Agricultural Sciences, 1968
	Japan, Kanagawa, Toruka	Cs-137	0.8	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965
Cabbage, Chinese	Japan, Ibaragi, Tsuchiura	Cs-137	0.7	--	Net	--	1964, October		National Institute of Agricultural Sciences, 1968
	Japan, Fukui, Ono	Cs-137	0.7	--	Net	--	1962, December		National Institute of Agricultural Sciences, 1968
	Japan, Osaka, Ikeda	Cs-137	0.7	--	Net	--	1964, November		National Institute of Radiological Sciences, 1965
	Japan, Niigaki, Furukawa	Cs-137	0.7	--	Net	--	1964, October		National Institute of Radiological Sciences, 1965
	Japan, Hiroshima, Kabe	Cs-137	0.7	--	Net	--	1962, March		National Institute of Agricultural Sciences, 1968
Cabbage	Japan, Tokyo, Setagaya	Cs-137	0.7	--	Net	--	1964, June		National Institute of Agricultural Sciences, 1968
	Japan, Osaka, Ikeda	Sr-90	0.7	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965
Cabbage, Chinese	Japan, Shizuoka, Fujieda	Cs-137	0.7	--	Net	--	1965, January		National Institute of Radiological Sciences, 1965
	Japan, Fukuoka, Shino	Sr-90	0.7	--	Net	--	1965, January		National Institute of Radiological Sciences, 1965

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Cabbage	Japan, Saitama, Sagito	Cs-137	0.7	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
	USA, Tennessee, Oak Ridge	Sr-90	<0.7	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USSR	Sr-90	0.6	--	Wet	37	1963, October - December		Feizhnikov, V.A., et al., 1966
	USSR	Sr-90	0.6	--	Wet	178	1964		Feizhnikov, V.A., et al., 1966
Cabbage, Chinese	Japan, Miyagi, Iwatsuna	Cs-137	0.6	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1964
	Japan, Kagoshima	Sr-90	0.6	--	Wet	--	1961, May - June		National Institute of Radiological Sciences, 1964
Cabbage	Japan, Hokkaido, Sapporo	Cs-137	0.6	--	Wet	--	1965, September		National Institute of Radiological Sciences, 1966
	Japan, Aichi, Akabane	Cs-137	0.6	--	Wet	--	1965, November		National Institute of Radiological Sciences, 1966
Cabbage, Chinese	Japan, Ibaragi, Nito	Cs-137	0.6	--	Wet	--	1964, November		National Institute of Radiological Sciences, 1965
	Japan, Miyagi, Furukawa	Cs-137	0.6	--	Wet	--	1964, December		National Institute of Radiological Sciences, 1965
	Japan, Miyagi, Shirosaki	Cs-137	0.6	--	Wet	--	1964, October		National Institute of Radiological Sciences, 1965
Cabbage	Japan, Hiroshima, Fukuyama	Sr-90	0.6	--	Wet	--	1964, May		National Institute of Agricultural Sciences, 1964
	Japan, Osaka, Mihara	Sr-90	0.6	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
	Japan, Osaka, Huroyama	Sr-90	0.6	--	Wet	--	1964, November		National Institute of Radiological Sciences, 1965
Cabbage, Chinese	Japan, Fukuoka, Shino	Cs-137	0.6	--	Wet	--	1965, January		National Institute of Radiological Sciences, 1965
	Japan, Fuku, Ono	Sr-90	0.5	--	Wet	--	1962, December		National Institute of Agricultural Sciences, 1964
Cabbage	Japan, Aomori, Sannabe	Sr-90	0.5	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Kanagawa, Odawara	Sr-90	0.5	--	Wet	--	1963, November		National Institute of Radiological Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Item

FOOD CROP	GEOGRAPHICAL ORIGIN	SAMPLE NUMBER	MEAN RADIOACTIVITY (Bq kg ⁻¹)	SCOPE OF RADIOACTIVITY (Bq kg ⁻¹)	DATE	NUMBER ANALYZED	DATE	COUNTRY	REFERENCE
Cabbage	Japan, Fukuoka, Yase	Sc-90	0.5	--	Not	--	1964, January		National Institute of Radiological Sciences, 1964
	Japan, Hokkaido, Ohihiro	Sc-90	0.5	--	Not	--	1965, October		National Institute of Radiological Sciences, 1966
	Japan, Osaka, Osaka	Sc-90	0.5	--	Not	--	1963, May		National Institute of Agricultural Sciences, 1964
Cabbage, Chinese	Japan, Hiroshima, Kabe	Sc-90	0.5	--	Not	--	1962, March		National Institute of Agricultural Sciences, 1964
Cabbage	Japan, Wakayama, Wakayama	Sc-90	0.5	--	Not	--	1962, December		National Institute of Agricultural Sciences, 1964
	Denmark, North Jutland	Sc-90	0.5	--	Not	--	1977, September		Lachreg, A., et al., 1978
Cabbage, Chinese	Japan, Saitama, Sugito	Sc-90	0.5	--	Not	--	1964, June		National Institute of Radiological Sciences, 1965
Cabbage	Japan, Hyogo, Ikeshi	Sc-90	0.5	--	Not	--	1961, December		National Institute of Agricultural Sciences, 1964
	USSR	Sc-90	0.5	--	Not	65	1966		Potukhova, N.V., et al., 1967
	USSR	Sc-90	0.5	--	Not	--	1965		Potukhova, N.V., et al., 1967
	USSR	Sc-90	0.4	--	Not	22	1963, April - June		Kalishnikov, V.A., et al., 1966
	USSR	Sc-90	0.3	--	Not	59	1963		Kalishnikov, V.A., et al., 1966
	Japan, Okayama, Okayama	Cs-137	0.4	--	Not	--	1962, June		National Institute of Agricultural Sciences, 1964
	Japan, Niigata, Iwanuma	Sc-90	0.4	--	Not	--	1962, July		National Institute of Agricultural Sciences, 1964
	Japan, Hokkaido, Sapporo	Sc-90	0.4	--	Not	--	1965, September		National Institute of Radiological Sciences, 1966
	Japan, Shimane, Yoshinaka	Cs-137	0.4	--	Not	--	1965, November		National Institute of Radiological Sciences, 1966
	Japan, Fukuoka, Shimo	Sc-90	0.4	--	Not	--	1966, January		National Institute of Radiological Sciences, 1966
Cabbage, Chinese	Japan, Niigata, Shiroishi	Cs-137	0.4	--	Not	--	1964, December		National Institute of Radiological Sciences, 1965
	Japan, Kanagawa, Odawara	Sc-90	0.4	--	Not	--	1965, January		National Institute of Radiological Sciences, 1965

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Cabbage, Chinese	Japan, Aichi, Sasebo	Cs-137	0.4	--	Wet	--	1964, October		National Institute of Radiological Sciences, 1965
Cabbage	Denmark, East Jutland	Sr-90	0.4	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, Funen	Sr-90	0.4	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
	Japan, Osaka, Ikeda	Cs-137	0.4	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
Cabbage, Chinese	Japan, Kanagawa, Odawara	Cs-137	0.4	--	Wet	--	1965, January		National Institute of Radiological Sciences, 1965
Cabbage	Japan, Hiroshima, Kabe	Sr-90	0.4	--	Wet	--	1961, December		National Institute of Agricultural Sciences, 1964
	USSR, central region	Ba-226	0.4	0.2-2.6	Dry	16	--		Mukhin, I.E., et al., 1965
	USA, Tennessee, Oak Ridge	Ba-226	<0.4	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USSR, central region	Ba-226	0.4	--	Wet	8	--	Area 3	Mukhin, I.E., et al., 1965
	Japan, Kagoshima, Kokubu	Sr-90	0.3	--	Wet	--	1964, June		National Institute of Agricultural Sciences, 1964
Cabbage, Chinese	Japan, Nakayama, Nakayama	Sr-90	0.3	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1981
Cabbage	Japan, Fukuoka, Fukuoka	Sr-90	0.3	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1966
	Japan, Fukuoka, Fukuoka	Cs-137	0.3	--	Wet	--	1965, February		National Institute of Radiological Sciences, 1966
	Japan, Fukuoka, Shimo	Cs-137	0.3	--	Wet	--	1966, January		National Institute of Radiological Sciences, 1966
Cabbage, Chinese	Japan, Ibaragi, Nito	Sr-90	0.3	--	Wet	--	1964, November		National Institute of Radiological Sciences, 1965
	Japan, Aichi, Akabane	Cs-137	0.3	--	Wet	--	1964, November		National Institute of Radiological Sciences, 1965
	Japan, Miyagi, Shirosaki	Sr-90	0.3	--	Wet	--	1964, December		National Institute of Radiological Sciences, 1965
	Japan, Kanagawa, Tozuka	Cs-137	0.3	--	Wet	--	1965, January		National Institute of Radiological Sciences, 1965
	Japan, Hokkaido, Obihiro	Sr-90	0.3	--	Wet	--	1964, August		National Institute of Radiological Sciences, 1965

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE ISOTOPE	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Cabbage	Japan, Saitama, Iwatsuki	Sr-90	0.3	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1966
Cabbage, Chinese	Japan, Saitama, Utsu	Sr-90	0.3	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1966
Cabbage	Denmark, West Jutland	Sr-90	0.3	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, South Jutland	Sr-90	0.3	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, Zealand	Sr-90	0.3	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
	Japan, Osaka, Kuroyama	Cs-137	0.3	--	Wet	--	1964, November		National Institute of Radiological Sciences, 1965
Cabbage, Chinese	Japan, Fukuoka, Fukuoka	Cs-137	0.3	--	Wet	--	1965, January		National Institute of Radiological Sciences, 1965
Cabbage	USA, central region	Ba-226	0.3	--	Wet	6	--	Area 2	Mukhin, I.E., et al., 1965
	USA, Nevada, Lathrop Wells	Po-210	<0.2	--	Wet	--	1974, July 17		Andrews, V.E., et al., 1978
	Japan, Osaka, Osaka	Sr-90	0.2	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Akita, Akita	Sr-90	0.2	--	Wet	--	1980, October		National Institute of Radiological Sciences, 1980
Cabbage, Chinese	Japan, Kanagawa, Yokohama	Sr-90	0.2	--	Wet	--	1963, December		National Institute of Radiological Sciences, 1966
	Japan, Saitama, Tokorozawa	Sr-90	0.2	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1966
Cabbage	Denmark, Copenhagen	Sr-90	0.2	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, Lolland-Falster	Sr-90	0.2	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
	Denmark, Bornholm	Sr-90	0.2	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
	USA, Tennessee, Oak Ridge	Co-60	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Sh-125	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, central region	Ba-226	0.2	--	Wet	5	--	Area 1	Mukhin, I.E., et al., 1965
	USA, California, Santa Maria	Sr-89	<0.2	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Cabbage (Brassicaceae var. capitata L.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	--	1979-1980	Washed. Grows in R-area.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Washed. Grows in R-area.	Smith, M.H., et al., 1981
Cabbage	Poland, Rowary Valley	Ba-226	<0.1	--	Wet	--	--		Pietrzak-Flis, S., 1972
	Poland, Warsaw	Ba-226	<0.1	--	Wet	--	--		Pietrzak-Flis, S., 1972
	Japan, Osaka, Osaka	Cs-137	<0.1	--	Wet	--	1976, November		National Institute of Radiological Sciences, 1980
	Japan, Akita, Akita	Cs-137	<0.1	--	Wet	--	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Osaka, Senri-gun	Sr-90	0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Osaka, Senri-gun	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
Cabbage, Chinese	Japan, Wakayama, Wakayama	Cs-137	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1981
Cabbage	Japan, Aomori, Senri-gun	Cs-137	<0.1	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
	Denmark, Jutland	Cs-137	<0.1	--	Wet	--	1977		Larkrog, A., et al., 1978
	Denmark, The Islands	Cs-137	<0.1	--	Wet	--	1977		Larkrog, A., et al., 1978
	Japan, Hokkaido, Obihiro	Cs-137	<0.1	--	Wet	--	1965, October		National Institute of Radiological Sciences, 1966
	Japan, Shizuoka, Fujieda	Cs-137	<0.1	--	Wet	--	1965, November		National Institute of Radiological Sciences, 1966
Cabbage, Chinese	Japan, Kanagawa, Totsuka	Sr-90	0.1	--	Wet	--	1965, January		National Institute of Radiological Sciences, 1965
Cabbage	USA, Utah, Orem	Ba-7	<0.1	--	Wet	--	1974, October 16		Andrews, V.R., et al., 1978
	USA, Utah, Orem	Pu-238	<0.1	--	Wet	--	1974, October 16		Andrews, V.R., et al., 1978
	USA, Utah, Orem	Pu-239	<0.1	--	Wet	--	1974, October 16		Andrews, V.R., et al., 1978
Cabbage (Brassicaceae var. capitata L.)	Spain, Palomares	Total alpha	<0.1	--	Wet	--	--	Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966	Alvarez-Rasilla, C., et al., 1970

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SPECIFIC MEASUREMENT	2510 RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	STATE	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Cabbage	Germany	Na-226	<0.1	--	Wet	--	--	Sample 2	De Bertoli, H.D., et al., 1972
	Germany	Na-226	<0.1	--	Wet	--	--	Sample 1	De Bertoli, H.D., et al., 1972
	USA, Tennessee, Oak Ridge	Ir-95, Sb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USSR, Moscow	Na-226	0.1	--	Wet	11	1961-1964	Random samples from all wholesale markets supplying the city	Karai, A.V., et al., 1966
	USA, California, Santa Maria	Po-55	<0.1	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, California, Santa Maria	Ir-98	<0.1	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
Cantaloupe	USA, Washington, Hanford Site	K-40	41	--	Wet	1	1979	Sunnyside location	Houston, J.B., et al., 1980
	USA, Washington, Hanford Site	Cs-137	<0.1	--	Wet	1	1979	Sunnyside location	Houston, J.B., et al., 1980
Carica papaya	India, Kerala and Madras States	Total alpha	19	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Mistry, F.S., et al., 1965
Cassia	Hungary, Győr-Sopron	Total beta	610	--	Dry	--	1971-1974		Szabo, A., 1977
	Hungary, Győr-Sopron	K-40	410	--	Dry	--	1971-1974		Szabo, A., 1977
	Brazil, Rio de Janeiro	Na-226	130	--	Ash	--	--		Lobao, N., et al., 1973
	Bangladesh, Khulna	Cs-137	120	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
	USA, Tennessee, Oak Ridge	K-40	96	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Brazil, Rio de Janeiro	Na-226	73	--	Ash	--	--		Lobao, N., et al., 1973
	Brazil, Rio de Janeiro	Na-226	63	--	Ash	--	--		Lobao, N., et al., 1973
	Bangladesh, Dacca	Cs-137	52	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
	USA, California, Santa Maria	H-3	30	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	USSR	Strontium	19	--	Ash	--	1963-1965	Root	Fedorov, Y.A., et al., 1969
	Bangladesh	Tl-208	17	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
	USSR, Moscow	Na-226	13	--	Ash	1	1961-1964	Random samples from all wholesale markets supplying the city	Karai, A.V., et al., 1966
	USA, Tennessee, Oak Ridge	Plutonium	12	--	Dry	1	1975-1976	Total Pb, grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
	USA, Nevada, Clark Station	H-3	<11	--	Wet	--	1974, August 12		Andrews, V.E., et al., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE ANALYSIS	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	DIETS	SUBS. ANALYZED	DATE	COMMENT	REFERENCE
Carrot	USSR	Cs-137	4.1	--	Wet	--	1964		Kaizhnikov, V.A., et al., 1966
	USSR, central region	Ra-226	3.0	--	Wet	9	--	Area 4	Mukhin, I.S., et al., 1965
	USSR	Cs-137	1.9	--	Wet	--	1965		Petukhova, E.V., et al., 1969
	Japan, Fukuoka	Cs-137	1.8	--	Wet	--	1961, October		National Institute of Agricultural Sciences, 1968
Carrot (daucus carota)	Bangladesh, Dacca	St-90	1.4	--	Wet	--	1972-1976		Tab Helle, H.A., 1978
	USSR, central region	Ra-226	1.2	0.1-1.2	Dry	21	--		Mukhin, I.S., et al., 1965
	Italy, Milano	St-90	1.1	--	Wet	20	1967		De Bertoli, R.D., et al., 1968
	USSR	Cs-137	1.1	--	Wet	79	1966		Petukhova, E.V., et al., 1969
Carrot	USSR, Transcaucasus, Oak Ridge	Ra-106	<1.1	--	Wet	--	--	Market samples, edible portion	Oaken, T.W., et al., 1977
	USSR	St-90	1.0	--	Wet	99	1964		Kaizhnikov, V.A., et al., 1966
	USSR	St-90	1.0	--	Wet	25	1963		Kaizhnikov, V.A., et al., 1966
	USSR	Uranium	0.8	--	Wet	--	1963-1965	Root	Pedotov, T.A., et al., 1969
Beetroot, Root Jutland	Denmark, West Jutland	St-90	0.7	--	Wet	--	1977, September		Aektroeg, A., et al., 1978
	USSR, Transcaucasus, Oak Ridge	Ra-226	<0.7	--	Wet	1	--	Market samples, edible portion	Oaken, T.W., et al., 1977
	Denmark, East Jutland	St-90	0.6	--	Wet	--	1977, September		Aektroeg, A., et al., 1978
	USSR	St-90	0.6	--	Wet	79	1966		Petukhova, E.V., et al., 1969
Beetroot	USSR	St-90	0.6	--	Wet	--	--		Petukhova, E.V., et al., 1969
	Denmark, South Jutland	St-90	0.5	--	Wet	--	1977, September		Aektroeg, A., et al., 1978
	USSR, central region	Ra-226	0.5	--	Wet	9	--	Area 1	Mukhin, I.S., et al., 1965
	USSR, central region	Ra-226	0.4	--	Wet	6	--	Area 3	Mukhin, I.S., et al., 1965
Beetroot, North Jutland	Denmark, North Jutland	St-90	0.3	--	Wet	--	1977, September		Aektroeg, A., et al., 1978
	Denmark, Zealand	St-90	0.3	--	Wet	--	1977, September		Aektroeg, A., et al., 1978
	Denmark, Lolland-Falster	St-90	0.3	--	Wet	--	1977, September		Aektroeg, A., et al., 1978
	USA, Nevada, Clark Station	St-90	<0.3	--	Wet	--	1978, August 12		McCorm, V.E., et al., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SIZE	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Chicory (Cichorium intybus var. Catalogna)	Italy, Ispra	Sr-90	0.6	--	Wet	20	1966	Market samples	De Bertoli, N.D., et al., 1967
Chicory (Cichorium intybus)	Italy, Ispra	Cs-137	0.3	--	Wet	20	1966	Market samples. Computed value.	De Bertoli, N.D., et al., 1967
Chicory (Cichorium intybus var. Catalogna)	Italy, Ispra	Cs-137	0.3	--	Wet	20	1966	Market samples. Computed value.	De Bertoli, N.D., et al., 1967
Coconut	Marshall Islands, Bikini Atoll	Cs-137	10000	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini-Bikini	Cs-137	6600	--	Dry	--	1975, April 16	Sample V-120B	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini Atoll	Cs-137	5400	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini Atoll	Cs-137	4100	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini Atoll	Cs-137	4100	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini Atoll	Cs-137	3700	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini Atoll	Cs-137	3700	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini Atoll	Cs-137	3400	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini Atoll	Cs-137	2900	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Majuro Atoll, Mile 17.3	R-40	2700	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	R-40	2000	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Eastern Gateway	R-40	1400	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Marshall Islands, Bonaparte-Bonaparte	R-40	1400	--	Dry	--	1975, April 12	Sample V-116, meat	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bonaparte-Bonaparte	Cs-137	1400	--	Dry	--	1975, April 12	Sample V-116, meat	Greenhouse, N.A., et al., 1977
	Marshall Islands, Majuro Atoll, Laura Village	R-40	1200	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Marshall Islands, Bikini Atoll	Cs-137	1200	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini-Bikini	R-40	970	--	Dry	--	1975, April 16	Sample V-120B, meat	Greenhouse, N.A., et al., 1977
	Fahe Islands, Rabelthaus Island	R-40	670	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
	Marshall Islands, Bonaparte-Bonaparte	Cs-137	590	--	Dry	--	1974, April 8	Sample V-70	Greenhouse, N.A., et al., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Coconut	Marshall Islands, Bikini Atoll	K-40	540	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bonaparte-Bonaparte	K-40	540	--	Dry	--	1975, April 12	Sample V-114, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Majuro Atoll, Site 17.3	K-40	480	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Palau Islands, Babelthap Island	K-40	480	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
	Marshall Islands, Bonaparte-Bonaparte	K-40	470	--	Dry	--	1975, April 12	Sample V-122, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bonaparte-Bonaparte	Cs-137	440	--	Dry	--	1975, April 12	Sample V-122, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini Atoll	K-40	410	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini-Bikini	Cs-137	400	--	Dry	--	1975, April 16	Sample V-120A, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Sigaj-Kuajalein	K-40	400	--	Dry	--	1975, April 12	Sample V-110, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bonaparte-Bonaparte	Cs-137	320	--	Dry	--	1975, April 12	Sample V-114, meat	Greenhouse, H.A., et al., 1977
	India, Kerala Coast	Total beta	310	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	India, Kerala Coast	K-40	300	200-370	Dry	6	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	Marshall Islands, Majuro Atoll, Laura Village	K-40	270	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
	Palau Islands, Koror Island	K-40	270	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Miliak-Bonaparte	K-40	250	--	Dry	--	1975, April 12	Sample V-118, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Majuro Atoll, Eastern Gateway	K-40	240	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Eastern Gateway	Cs-137	220	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	K-40	210	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	K-40	200	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
	Marshall Islands, Miliak-Bonaparte	Cs-137	190	--	Dry	--	1975, April 12	Sample V-116, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bonaparte-Bonaparte	K-40	180	--	Dry	--	1974, April 4	Sample V-70, Copra	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bonaparte-Bonaparte	K-40	180	--	Dry	--	1974, April 4	Sample V-70, Copra	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini Atoll	K-40	160	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASE	HUMANS ANALYZED	DATE	CORRECTION	REFERENCE
Coconut	Marshall Islands, Bikini Atoll	K-40	140	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Majuro Atoll, Mile 17.3	Cs-137	150	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Noon Island	K-40	140	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
	Mariana Islands, Guao, Dededo	K-40	140	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
	Marshall Islands, Uotho-Uotho	K-40	140	--	Dry	--	1975, April 19	Sample V-112, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini Atoll	K-40	140	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Caroline Islands, Truk Atoll, Dublon Island	K-40	130	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
	Marshall Islands, Likiep-Bikini	K-40	120	--	Dry	--	1975, April 16	Sample V-120A, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	K-40	120	--	Dry	--	1975, April 12	Sample V-116, milk	Greenhouse, H.A., et al., 1977
	Mariana Islands, Guao, Ayana	K-40	110	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
	Marshall Islands, Bikini Atoll	K-40	110	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Caroline Islands, Poonape Island, Kolonia	Cs-137	96	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Marshall Islands, Rigoj-Kuajalein	K-40	95	--	Dry	--	1975, April 12	Sample V-109, milk	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini Atoll	K-40	93	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Caroline Islands, Truk Atoll, Pofan Island	K-40	82	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Marshall Islands, Rongelap-Rongelap	K-40	81	--	Dry	--	1975, April 12	Sample V-115, milk	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini Atoll	K-40	78	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Caroline Islands, Truk Atoll, Dublon Island	K-40	67	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
	Marshall Islands, Rongelap-Rongelap	Cs-137	66	--	Dry	--	1975, April 12	Sample V-116, milk	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini Atoll	K-40	59	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Caroline Islands, Truk Atoll, Pofan Island	K-40	52	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
	Caroline Islands, Poonape Island, Kolonia	Pu-239, 240	<61	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Marshall Islands, Uotho-Uotho	Cs-137	41	--	Dry	--	1975, April 19	Sample V-112, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Eniwetok-Rongelap	Cs-137	37	--	Dry	--	1975, April 12	Sample V-119, milk	Greenhouse, H.A., et al., 1977

Table 1. Naturally Occurring Radioactivity in Feed Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Coconut	Marshall Islands, Rongelap-Rongerik	Cs-137	37	--	Dry	--	1975, April 12	Sample V-113, milk	Greenhouse, W.A., et al., 1977
	Marshall Islands, Majuro Atoll, Mile 17.3	Cs-137	36	--	Dry	--	1975, November	Meat	Neilsen, V.A., 1979
	Marshall Islands, Bikini Atoll	Sr-90	33	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Caroline Islands, Ponape Island, Kolonia	Sr-90	<32	--	Dry	--	1975, November	Milk	Neilsen, V.A., 1979
	Mariana Islands, Guam, Dededo	K-40	30	--	Dry	--	1975, November	Milk	Neilsen, V.A., 1979
	Marshall Islands, Majuro Atoll, Eastern Gateway	Sr-90	<28	--	Dry	--	1975, November	Milk	Neilsen, V.A., 1979
	Marshall Islands, Majuro Atoll, Eastern Gateway	Cs-137	27	--	Dry	--	1975, November	Meat	Neilsen, V.A., 1979
	Marshall Islands, Majuro Atoll, Mile 17.3	Sr-90	<23	--	Dry	--	1975, November	Milk	Neilsen, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Cs-137	16	--	Dry	--	1975, November	Meat	Neilsen, V.A., 1979
	Caroline Islands, Truk Atoll, Soan Island	Cs-137	13	--	Dry	--	1975, November	Meat	Neilsen, V.A., 1975
	Caroline Islands, Ponape Island, Kolonia	Cs-137	11	--	Dry	--	1975, November	Copra	Neilsen, V.A., 1979
	Mariana Islands, Guam, Dededo	Cs-137	10	--	Dry	--	1975, November	Meat	Neilsen, V.A., 1979
	Marshall Islands, Majuro Atoll, Laura Village	Cs-137	10	--	Dry	--	1975, November	Copra	Neilsen, V.A., 1979
	Marshall Islands, Bikini Atoll	Sr-90	<8.1	--	Dry	--	1971, November		Lynch, O.D., Jr., et al., 1975
	Mariana Islands, Guam, Agaña	Cs-137	7.6	--	Dry	--	1975, November	Meat	Neilsen, V.A., 1979
	Caroline Islands, Truk Atoll, Pohn Island	Cs-137	6.7	--	Dry	--	1975, November	Meat	Neilsen, V.A., 1979
	Palau Islands, Babelthau Island	Cs-137	6.3	--	Dry	--	1975, November	Meat	Neilsen, V.A., 1979
	Marshall Islands, Bijej-Rongerik	Cs-137	5.0	--	Dry	--	1975, April 12	Sample V-110, meat	Greenhouse, W.A., et al., 1977
	Marshall Islands, Majuro Atoll, Laura Village	Pu-239, "40	4.4	--	Dry	--	1975, November	Copra	Neilsen, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Sr-90	<3.3	--	Dry	--	1975, November	Meat	Neilsen, V.A., 1979
	India, Kerala Coast	Ba-228	3.3	1.1-5.9	Dry	6	--	Sample area included monazite bearing high radiation belt	Hietry, E.B., et al., 1970
	Caroline Islands, Truk Atoll, Pohn Island	Cs-137	3.3	--	Dry	--	1975, November	Milk	Neilsen, V.A., 1979
	Caroline Islands, Truk Atoll, Soan Island	Sr-90	<3.3	--	Dry	--	1975, November	Meat	Neilsen, V.A., 1979

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	PLANT	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Coconut	Marshall Islands, Majuro Atoll, Eastern Gateway	Sr-90	<3.0	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Palau Islands, Koror Island	Sr-90	<2.6	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Palau Islands, Babelthaus Island	Sr-90	<2.6	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Mariana Islands, Guam, Agaña	Sr-90	<2.6	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Mile 17.3	Sr-90	<2.6	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Pufen Island	Sr-90	<2.6	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Dublon Island	Sr-90	<2.6	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Dublon Island	Sr-90	<2.6	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Sr-90	<2.2	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
	Mariana Islands, Guam, Dededo	Sr-90	<2.2	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Palau Islands, Koror Island	Cs-137	1.9	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Marshall Islands, Rongerik Island	Cs-137	<1.6	--	Dry	--	1975, April 12	Sample V-109, milk	Greenhouse, M.A., et al., 1977
	Caroline Islands, Truk Atoll, Dublon Island	Cs-137	1.5	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Laura Village	Sr-90	<0.7	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
	India, Kerala Coast	Total alpha	0.7	<0.4-2.2	Dry	6	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	India, Kerala Coast	85 keV gamma	0.7	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	Palau Islands, Koror Island	Pu-239,240	<0.1	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Pu-239,240	<0.1	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Pu-239,240	<0.1	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
	Mariana Islands, Guam, Agaña	Pu-239,240	<0.1	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Roon Island	Pu-239,240	<0.1	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Coffee	Colombia	K-40	520	--	Wet	--	1973, April 24		Simpson, B.E., et al., 1974
	Colombia	K-40	490	--	Wet	--	1973, July 10		Simpson, B.E., et al., 1974

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Coffee	Colombia	Cs-137	3.5	--	Processed for eating	--	1973, July 10		Simpson, R.E., et al., 1974
	Colombia	Sr-90	1.4	--	Processed for eating	--	1973, April 24		Simpson, R.E., et al., 1974
	Colombia	Sr-90	0.6	--	Processed for eating	--	1973, July 10		Simpson, R.E., et al., 1974
	Colombia	Cs-137	<0.4	--	Processed for eating	--	1973, April 24		Simpson, R.E., et al., 1974
	Colombia	Z-131	<0.4	--	Processed for eating	--	1973, July 10		Simpson, R.E., et al., 1974
	Colombia	Ra-106	<0.4	--	Processed for eating	--	1973, July 10		Simpson, R.E., et al., 1974
	Colombia	Z-131	<0.4	--	Processed for eating	--	1973, April 24		Simpson, R.E., et al., 1974
	Colombia	Ra-106	<0.4	--	Processed for eating	--	1973, April 24		Simpson, R.E., et al., 1974
	Colombia	Ra-106	<0.4	--	Processed for eating	--	1973, April 24		Simpson, R.E., et al., 1974
Cora, Indian	South Africa, Polladaba	Total beta	2800	--	Dry	--	1966, January	Para 17 km ENE of Polladaba	Van Au, D., et al., 1967
	South Africa, Polladaba	Total beta	2100	--	Dry	--	1966, January	Para 10 km E of Polladaba	Van Au, D., et al., 1967
Cora, Kaffir	South Africa, Polladaba	Total beta	810	--	Dry	--	1966, February	Para 120 km S of Polladaba	Van Au, D., et al., 1967
Cora, Indian	South Africa, Polladaba	Total beta	370	--	Dry	--	1966, March	Para 10 km E of Polladaba	Van Au, D., et al., 1967
Cora	Iran, Ramsar	Ra-226	30	--	Ash	--	1975	Field 3. Area of high natural radioactivity.	Khademi, B., et al., 1980
	USA, California, Coachella	R-3	24	--	Net	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, Nevada, Springdale	R-3	19	--	Net	--	1974, September 11		Andrews, V.E., et al., 1978
	USA, Nevada, Pahrump	R-3	18	--	Net	--	1974, July 15		Andrews, V.E., et al., 1978
	USA, Nevada, Indian Springs	R-3	13	--	Net	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, Nevada, Ninko	R-3	<11	--	Net	--	1974, August 5		Andrews, V.E., et al., 1978
	Spain, Palomares	Total Alpha	1.2	--	Net	--	--	Single kernels. Sampled in cultivated area in Alamo River flood plain. Area contaminated by accidental rupture of bomb containing Pu and U, January 17, 1966.	Alvarez-Rasín, C., et al., 1970

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE NUMBER	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COUNTRY	REFERENCE
Corn	USSR	2x-90	0.9	--	Wet	15	1964		Kaizhenkov, V.A., et al., 1966
	USSR, central region	Ba-226	0.9	--	Dry	4	--	Area 4	Rukhin, I.E., et al., 1965
	USSR, central region	Ba-226	0.8	--	Dry	5	--	Area 1	Rukhin, I.E., et al., 1965
	USSR, central region	Ba-226	0.8	--	Dry	5	--	Area 3	Rukhin, I.E., et al., 1965
	USSR, central region	Ba-226	0.5	0.1-1.3	Dry	18	--		Rukhin, I.E., et al., 1965
	USA, Nevada, Nye	Sr-90	<0.4	--	Wet	--	1974, August 21		Andrews, V.E., et al., 1978
	USA, Nevada, Pahrump	Sr-90	<0.4	--	Wet	--	1974, July 15		Andrews, V.E., et al., 1978
	USA, Massachusetts, Cape Cod, North Eastham	Cs-137	0.4	--	Wet	--	1975	Corn plus cob	Hardy, R.P., Jr., 1977
	USA, Nevada, Sunnyside	Sr-90	<0.4	--	Wet	--	1974, August 28		Andrews, V.E., et al., 1978
	USSR, central region	Ba-226	0.4	--	Dry	6	--	Area 2	Rukhin, I.E., et al., 1965
	USA, Nevada, Adavon	Sr-90	<0.3	--	Wet	--	1974, August 28		Andrews, V.E., et al., 1978
	USA, Nevada, Nye	Sr-90	<0.3	--	Wet	--	1974, August 21		Andrews, V.E., et al., 1978
	USA, Nevada, Pahrump	Sr-90	0.3	--	Wet	--	1974, July 15		Andrews, V.E., et al., 1978
	USA, Nevada, Cerrant	Sr-90	<0.3	--	Wet	--	1974, August 27		Andrews, V.E., et al., 1978
	USA, Nevada, Sunnyside	Sr-90	<0.3	--	Wet	--	1974, August 28		Andrews, V.E., et al., 1978
	USA, California, Coachella	Sr-90	<0.3	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, Nevada, Adavon	Sr-90	<0.2	--	Wet	--	1974, August 28		Andrews, V.E., et al., 1978
	USA, Massachusetts, Cape Cod, North Eastham	Sr-90	0.2	--	Wet	--	1975	Corn plus cob	Hardy, R.P., Jr., 1977
	USA, Nevada, Cerrant	Sr-90	<0.2	--	Wet	--	1974, August 27		Andrews, V.E., et al., 1978
	USA, Nevada, Tonopah	Sr-90	<0.2	--	Wet	--	1974, August 14		Andrews, V.E., et al., 1978
	USA, California, Coachella	Po-210	<0.2	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, California, Coachella	Sr-90	<0.2	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, Illinois, Argonne environs	Uranium	0.2	--	Wet	--	1974	Kernels	Goldchert, J.W., et al., 1979
	USA, South Carolina, Aiken	Plutonium	<0.1	--	Dry	5	1970, October	Total Pu, field combined, unlifted, South Field at Savannah River Plant	Ajciand, D.C., et al., 1980

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FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Couve	Brazil, Araxa-Tapira area	Tb-228	240	--	Ash	--	--	Green vegetable related to cauliflower. Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
Cucumber	South Africa, Polindaba	Total beta	4100	--	Dry	--	1966, March	Para 4 km E of Polindaba	Van As, D., et al., 1967
	South Africa, Polindaba	Total beta	3300	--	Dry	--	1966, November	Para 4 km E of Polindaba	Van As, D., et al., 1967
	South Africa, Polindaba	Total beta	3100	--	Dry	--	1966, January	Para 4 km E of Polindaba	Van As, D., et al., 1967
	Japan, Okayama City vicinity	Ra-226	78	--	Ash	3	--	Author's sample basis revised	Kuroda, T., 1968
	Japan, Sancho-nachi area	Ra-226	72	--	Ash	3	--		Kuroda, T., 1968
	USA, Tennessee, Oak Ridge	K-40	56	--	Wet	1	--	Market samples, edible portion	Oakes, T.S., et al., 1977
	Iran, Ramsar	Ra-226	26	--	Ash	--	1974	Field 1, south. Area of high natural radioactivity.	Khadehi, B., et al., 1980
	Iran, Ramsar	Ra-226	22	--	Ash	--	1975	Field 1, south. Area of high natural radioactivity.	Khadehi, B., et al., 1980
	USSR, Moscow	Ra-226	22	--	Ash	14	1961-1964	Random samples from all wholesale markets supplying the city	Marek, A.M., et al., 1966
	Iran, Ramsar	Ra-226	20	--	Ash	--	1975	Field 2, north. Area of high natural radioactivity.	Khadehi, B., et al., 1980
	Iran, Ramsar	Ra-226	20	--	Ash	--	1971	Field 1, north. Area of high natural radioactivity.	Khadehi, B., et al., 1980
	India, Kerala and Madras States	Total alpha	19	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Mistry, K.B., et al., 1965
	Iran, Ramsar	Ra-226	16	--	Ash	--	1974	Field 2, north. Area of high natural radioactivity.	Khadehi, B., et al., 1980
Cucumber	Iran, Ramsar	Ra-226	14	--	Ash	--	1974	Field 1, south. Area of high natural radioactivity.	Khadehi, B., et al., 1980
	Iran, Ramsar	Ra-226	7.4	--	Ash	--	1975	Field 3. Area of high natural radioactivity.	Khadehi, B., et al., 1980
	USSR	Ce-137	1.4	--	Wet	--	1964		Kuizhnikov, V.A., et al., 1966
	Japan, Tokyo	Ce-137	1.4	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1964
	Japan, Tokyo	Sr-90	1.0	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

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Cucumber	USSR	Cs-137	0.9	--	Wet	60	1966		Petukhova, E.V., et al., 1969
	USSR	Sr-90	0.4	--	Wet	54	1964		Knishnikov, V.A., et al., 1966
	USSR	Sr-90	0.6	--	Wet	23	1963		Knishnikov, V.A., et al., 1966
	Japan, Tokyo	Sr-90	0.4	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1964
	USA, Tennessee, Oak Ridge	Ba-106	<0.4	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Japan, Tokyo	Cs-137	0.3	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1964
	USSR	Sr-90	0.3	--	Wet	60	1966		Petukhova, E.V., et al., 1969
	USSR	Sr-90	0.3	--	Wet	--	1965		Petukhova, E.V., et al., 1969
	USA, Tennessee, Oak Ridge	Co-60	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Ba-226	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Japan, Okayama City vicinity	Ba-226	<0.1	--	Wet	3	--	Author's sample basis revised	Kuroda, T., 1968
	USSR, central region	Ba-226	<0.1	<0.1-1.4	Dry	14	--		Rukhin, I.E., et al., 1965
	USSR, Moscow	Ba-226	0.1	--	Wet	--	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.W., et al., 1964
	USA, Tennessee, Oak Ridge	Sr-95, Pb-95, Total beta	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Sb-125	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Japan, Sancho-nachi area	Ba-226	<0.1	--	Wet	3	--		Kuroda, T., 1968
Cyamopsis tetragonoloba	India, Kerala and Madras States	Total alpha	110	--	Dry	--	--	Edible portion. From farm in area of high background radioactivity.	Histry, K.B., et al., 1965
Soyplant	USA, Tennessee, Oak Ridge	K-40	67	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Japan, Sancho-nachi area	Ba-226	44	--	Ash	2	--	Author's sample basis revised	Kuroda, T., 1968
	Iran, Bessar	Ba-226	33	--	Ash	--	1973	Field 3. Area of high natural radioactivity.	Khadehi, B., et al., 1980

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FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Eggplant	Iran, Basrah	Ba-226	29	--	Ash	--	1975	Field 3. Area of high natural radioactivity.	Khameel, B., et al., 1980
	Japan, Okayama City vicinity	Ba-226	19	--	Ash	2	--	Author's sample basis revised	Kuroda, T., 1968
	USSR, Moscow	Ba-226	19	--	Ash	1	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.W., et al., 1966
Eggplant (Solanum melongena)	India, Kerala and Madras States	Total alpha	15	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
Eggplant	Japan, Osaka, Ikeda	Cs-137	1.0	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1968
	USA, Tennessee, Oak Ridge	Ba-106	<0.6	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Ba-226	<0.4	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Japan, Osaka, Ikeda	Sr-90	0.4	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1968
	Japan, Kyoto, Kyoto	Cs-137	0.4	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1968
	Japan, Kyoto, Kyoto	Sr-90	0.3	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1968
	USA, Tennessee, Oak Ridge	Co-60	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Sr-95, Sb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Sb-125	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Japan, Sancho-sachi area	Ba-226	<0.1	--	Wet	2	--	Author's sample basis revised	Kuroda, T., 1968
	Japan, Okayama City vicinity	Ba-226	<0.1	--	Wet	2	--	Author's sample basis revised	Kuroda, T., 1968
	USSR, Moscow	Ba-226	<0.1	--	Wet	1	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.W., et al., 1966
Peanut	India, Bombay area	K-40	160	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	140	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	130	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	120	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980

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Peanut	India, Bombay area	K-40	82	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.9	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ba-226	0.7	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ba-226	0.6	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.5	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.4	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.4	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ba-226	0.3	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ba-226	0.2	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ba-226	0.2	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.2	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Po-210	<0.1	--	Wet	2	--		Khandekar, S.N., 1977
Fig	South Africa, Polindaba	Total beta	1500	--	Dry	--	1966, January	From 15 km SW of Polindaba	Van der, D., et al., 1967
Fig (<i>Ficus carica</i> L.)	Spain, Palomares	Total alpha	<0.1	--	Wet	--	--	Soiled. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rivas, C., et al., 1970
	Spain, Palomares	Total alpha	<0.1	--	Wet	--	--	Shine. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rivas, C., et al., 1970
Garlic	Iran, Rasht	Ba-226	210	--	Ash	--	1975	Field 2, north. of high natural radioactivity.	Khadehi, B., et al., 1980
	Iran, Rasht	Ba-226	190	--	Ash	--	1972	Field 1, north. of high natural radioactivity.	Khadehi, B., et al., 1980
	Iran, Rasht	Ba-226	90	--	Ash	--	1974	Field 1, south. of high natural radioactivity.	Khadehi, B., et al., 1980
	Iran, Rasht	Ba-226	160	--	Ash	--	1974	Field 2, north. of high natural radioactivity.	Khadehi, B., et al., 1980
	Iran, Rasht	Ba-226	130	--	Ash	--	1975	Field 1, south. of high natural radioactivity.	Khadehi, B., et al., 1980
	Iran, Rasht	Ba-226	100	--	Ash	--	1974	Field 1, south. of high natural radioactivity.	Khadehi, B., et al., 1980
	USSR	Sr-90	3.0	--	Wet	2	1963		Kalishnikov, V.A., et al., 1966
Gile	Brazil, Rio de Janeiro	Ba-226	8.1	--	Ash	--	--	Squash	Lobao, S., et al., 1973
	Brazil, Rio de Janeiro	Ba-226	3.3	--	Ash	--	--	Squash	Lobao, S., et al., 1973

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Grape	South Africa, Pollandaba	Total beta	1300	--	Dry	--	1966, February		Van der, D., et al., 1967
	USA, Tennessee, Oak Ridge	K-40	230	--	Wet	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	USA, Washington, Hanford Site	K-40	70	--	Wet	1	1979	Sagehen vicinity	Houston, J.R., et al., 1980
	USSR, Moscow	Ba-226	16	--	Ash	2	1961-1964	Random samples from all wholesale markets supplying the city	Narol, A.V., et al., 1966
	Japan, Yamaguchi	Cs-137	2.5	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1964
	USA, Tennessee, Oak Ridge	Ba-106	<2.0	--	Wet	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	USA, Washington, Hanford Site	Cs-137	<1.1	--	Wet	1	1979	Sagehen vicinity	Houston, J.R., et al., 1980
	USA, Tennessee, Oak Ridge	Ba-226	<0.7	--	Wet	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Co-60	<0.5	--	Wet	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Sr-95, Pb-95, Total beta	<0.5	--	Wet	--	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Sb-125	<0.5	--	Wet	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Co-137	<0.4	--	Wet	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.4	--	Wet	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	Japan, Yamaguchi	Sr-90	0.1	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1964
	USSR, Moscow	Ba-226	<0.1	--	Wet	2	--	Random samples from all wholesale markets supplying the city	Narol, A.V., et al., 1966
Grapefruit	USA, Tennessee, Oak Ridge	K-40	34	--	Wet	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Ba-106	<1.3	--	Wet	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Ba-226	<0.8	--	Wet	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Sb-125	<0.4	--	Wet	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.4	--	Wet	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.4	--	Wet	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Co-60	<0.2	--	Wet	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977

Table 1. Naturally Occurring Radioactivity in Feed Crops, by Feed Name

Feed Crop	Geographical Origin	Isotope Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Size	Number Analyzed	Date	Comments	Reference
Grapelovite	USA, Tennessee, Oak Ridge	Sr-90, Pb-210, Total beta	40.1	--	Wet	--	--	Market samples, edible portion.	Oakes, T.W., et al., 1977
Green, tsubo-ma	Japan, Saitama, Sugito	Sr-90	5.9	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
	Japan, Fukuoka, Shimo	Sr-90	4.8	--	Wet	--	1965, February		National Institute of Radiological Sciences, 1965
	Japan, Saitama, Miya	Sr-90	2.5	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
	Japan, Fukuoka, Fukuoka	Cs-137	2.3	--	Wet	--	1965, February		National Institute of Radiological Sciences, 1965
	Japan, Fukuoka, Shimo	Cs-137	4.3	--	Wet	--	1965, February		National Institute of Radiological Sciences, 1965
	Japan, Saitama, Miya	Cs-137	1.9	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
	Japan, Saitama, Sugito	Cs-137	1.9	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
	Japan, Fukuoka, Fukuoka	Sr-90	1.5	--	Wet	--	1965, February		National Institute of Radiological Sciences, 1965
Greenadilla	South Africa, Polindaba	Total beta	3400	--	Dry	--	1966, February	Para 16 km NW of Polindaba	Van der, D., et al., 1967
	South Africa, Polindaba	Total beta	1800	--	Dry	--	1966, October	Para 16 km NW of Polindaba	Van der, D., et al., 1967
	South Africa, Polindaba	Total beta	1800	--	Dry	--	1966, December	Para 16 km NW of Polindaba	Van der, D., et al., 1967
Haricot (Phaseolus vulgaris)	Italy, Milano	Sr-90	1.0	--	Wet	20	1967		De Bertoli, H.D., et al., 1968
Kale (Brassica oleracea L.) amp. acephala	Brazil, Araxa-Tapira	Ba-228	1100	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pissarra, H., et al., 1972
	Brazil, Araxa-Tapira	Ba-228	810	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pissarra, H., et al., 1972
	Brazil, Araxa-Tapira	Ba-228	640	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pissarra, H., et al., 1972
	Brazil, Araxa-Tapira	Ba-228	640	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pissarra, H., et al., 1972

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Cauliflower Brassica oleracea L. var. botrytis	Brazil, Araxá-Tapira	Ba-228	390	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	320	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	300	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	230	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	220	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	200	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	190	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	170	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	160	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	110	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	60	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	54	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	47	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	34	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972
	Brazil, Araxá-Tapira	Ba-228	34	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pinna, N., et al., 1972

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Kale (<i>Brassica oleracea</i> L.) var. <i>acrophala</i>	Brazil, Arara-Tapira	Ba-228	34	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pissman, M., et al., 1972
Kale	Brazil, Rio de Janeiro	Ba-226	7.4	--	Ash	--	--		Lobao, W., et al., 1973
	Brazil, Rio de Janeiro	Ba-226	2.6	--	Ash	--	--		Lobao, W., et al., 1973
	Brazil, Rio de Janeiro	Ba-226	0.6	--	Ash	--	--		Lobao, W., et al., 1973
Mogatan-na	Japan, Saitama, Sagito	Sr-90	4.3	--	Wet	--	1962, February	National Institute of Agricultural Sciences, 1968	National Institute of Agricultural Sciences, 1968
	Japan, Saitama, Miisa	Cs-137	1.9	--	Wet	--	1962, March		National Institute of Agricultural Sciences, 1968
	Japan, Saitama, Sagito	Cs-137	1.9	--	Wet	--	1962, February		National Institute of Agricultural Sciences, 1968
	Japan, Saitama, Miisa	Sr-90	0.3	--	Wet	--	1962, March		National Institute of Agricultural Sciences, 1968
Lady's finger	India, Bombay	Po-210	0.1	--	Wet	3	--	Pooled. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Khandekar, R.N., 1977
Leuca	Brazil, Rio de Janeiro	Ba-226	23	--	Ash	--	--		Lobao, W., et al., 1973
Leuca (<i>Citrus limonius</i> Sims)	Spain, Palomares	Total alpha	<0.1	--	Wet	--	--		Alvarez-Saiz, C., et al., 1970
Lettuce	Marshall Islands, Bikini Atoll	Cs-137	49000	--	Dry	--	1972, March		Lynch, G.D., Jr., et al., 1975
	Marshall Islands, Bikini Atoll	Sr-90	12000	--	Dry	--	1972, March	Market samples, edible portion	Lynch, G.D., Jr., et al., 1975
	Hungary	Total beta	2200	--	Dry	35	1975, Fall		Szabo, A., 1977
	Hungary	K-40	2000	--	Dry	35	1975, Fall		Szabo, A., 1977
	Hungary	Total beta	1800	--	Dry	46	1975, Spring		Szabo, A., 1977
	Hungary	K-40	1400	--	Dry	46	1975, Spring		Szabo, A., 1977
	Marshall Islands, Bikini Atoll	K-40	260	--	Dry	--	1972, March		Lynch, G.D., Jr., 1975
Lettuce (<i>Lactuca sativa</i>)	Italy, Ispra	Sr-90	120	--	Wet	--	1967	Market samples, edible portion	De Bertoli, N.D., et al., 1968
Lettuce	USA, Tennessee, Oak Ridge	K-40	48	--	Wet	1	--		Oaken, T.W., et al., 1977
	USA, California, Salinas	K-3	26	--	Wet	--	1974, July 4		Andrews, V.E., et al., 1978
	USA, Nevada, Overton	K-3	24	--	Wet	--	1974, July 15		Andrews, V.E., et al., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Lettuce	USA, Nevada, Adaven	Be-7	19	--	Wet	--	1976, August 3		Andrews, V.E., et al., 1978
	USA, Nevada, Indian Springs	B-3	18	--	Wet	--	1978, July 8		Andrews, V.E., et al., 1978
Lettuce (Lactuca sativa)	Italy, Ispra	Cs-137	18	--	Wet	--	1967		De Bertoli, H.D., et al., 1967
Lettuce	USA, Nevada, Indian Springs	Be-7	12	--	Wet	--	1976, July 20		Andrews, V.E., et al., 1978
Lettuce (Lactuca sativa L.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	9.1	--	Dry	--	1979-1980	Grown in H-area. Unwashed.	Smith, M.W., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	6.5	--	Dry	--	1979-1980	Grown in H-area. Unwashed.	Smith, M.W., et al., 1981
Lettuce	Brazil, Rio de Janeiro	Ba-226	6.4	--	Ash	--	--		Lobao, W., et al., 1973
Lettuce (Lactuca sativa L.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	3.5	--	Dry	--	1979-1980	Grown in H-area. Washed as solid head.	Smith, M.W., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	3.3	--	Dry	--	1979-1980	Grown in H-area. Washed after separated.	Smith, M.W., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	3.1	--	Dry	--	1979-1980	Grown in H-area. Washed after separated.	Smith, M.W., et al., 1981
Lettuce	USA, Tennessee, Oak Ridge	Plutonium	3.0	--	Dry	3	1975-1976	Total Pu, grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
	Bangladesh, Khulna	Sr-90	2.3	--	Wet	--	1972-1974		Rab Helle, H.A., 1978
	Japan, Hiroshima, Kabe	Cs-137	2.3	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1966
	Bangladesh, Khulna	Cs-137	1.9	--	Wet	--	1972-1974		Rab Helle, H.A., 1978
	Brazil, Rio de Janeiro	Ba-226	1.7	--	Ash	--	--		Lobao, W., et al., 1973
	Japan, Hiroshima, Kabe	Sr-90	1.4	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1966
Lettuce (Lactuca sativa L.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	1.2	--	Dry	--	1979-1980	Grown in H-area. Washed as solid head.	Smith, M.W., et al., 1981
Lettuce	USA, Tennessee, Oak Ridge	Be-106	<0.7	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Lettuce (Lactuca sativa)	Italy, Ispra	Sr-90	0.7	--	Wet	20	1966	Market samples	De Bertoli, H.D., et al., 1967
Lettuce	USA, Nevada, Tonopah	Sr-89	<0.6	--	Wet	--	1974, July 19		Andrews, V.E., et al., 1978
Lettuce (Lactuca sativa L.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	0.5	--	Dry	--	1979-1980	Control, market samples.	Smith, M.W., et al., 1981

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FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Lettuce (<i>Lactuca sativa</i>)	Italy, Emilia, Lazio	Sr-90	0.5	--	Wet	--	1970, October - December		Comitato Nazionale Per L'Energia Nucleare, 1971
	Italy, Milano	Sr-90	0.4	--	Wet	20	1967		De Bortoli, H.D., et al., 1968
Lettuce	USA, Nevada, Goldfield	Po-210	<0.4	--	Wet	--	1976, August 2		Andrews, V.E., et al., 1978
	USA, Nevada, Tonopah	Sr-90	0.4	--	Wet	--	1974, July 19		Andrews, V.E., et al., 1978
	USA, Tennessee, Oak Ridge	Ba-226	<0.3	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Lettuce (<i>Lactuca sativa</i>)	Italy, Campania, Lazio	Sr-90	0.3	--	Wet	--	1970, January - March		Comitato Nazionale Per L'Energia Nucleare, 1971
Lettuce	USA, Nevada, Tonopah	Po-210	<0.3	--	Wet	--	1974, July 19		Andrews, V.E., et al., 1978
	USA, Tennessee, Oak Ridge	Sb-125	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Lettuce (<i>Lactuca sativa</i> L.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Po-210	<0.1	--	Dry	--	1979-1980	Control, market samples.	Smith, W.H., et al., 1981
Lettuce	Poland, Kowary Valley	Ba-226	<0.1	--	Wet	--	--		Pietruch-Vilis, S., 1972
	USA, Nevada, Goldfield	Po-210	<0.1	--	Wet	--	1976, August 2		Andrews, V.E., et al., 1978
	USA, Tennessee, Oak Ridge	Co-60	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Sr-90, Pb-210, Total beta	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Lettuce (<i>Lactuca sativa</i>)	Italy, Lazio	Sr-90	<0.1	--	Wet	--	1970, April - June		Comitato Nazionale Per L'Energia Nucleare, 1971
	Italy, Abruzzi, Lazio	Sr-90	<0.1	--	Wet	--	1970, July - September		Comitato Nazionale Per L'Energia Nucleare, 1971
Lettuce	USA, Nevada, Goldfield	Po-210	<0.1	--	Wet	--	1976, August 2		Andrews, V.E., et al., 1978
	USA, California, Salinas	Po-210	<0.1	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, California, Salinas	Sr-90	<0.1	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, California, Salinas	Sr-90	<0.1	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
	USA, California, Blythe	Be-7	<0.1	--	Wet	--	1974, October 16		Andrews, V.E., et al., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Lettuce (<i>Lactuca sativa</i>)	Italy, Ispra	Cs-137	0.1	--	Wet	20	1966	Market samples. Computed value.	De Bortoli, N.D., et al., 1967
Maize, green (Zea mays)	Italy, Ispra	Sr-90	210	--	Wet	--	1967		De Bortoli, N.D., et al., 1968
Maize (Zea mays)	Italy, Ispra	Sr-90	3.7	--	Wet	--	1967		De Bortoli, N.D., et al., 1968
Maize, green (Zea mays)	Italy, Ispra	Cs-137	1.9	--	Wet	--	1967		De Bortoli, N.D., et al., 1968
Maize (Zea mays)	Italy, Ispra	Cs-137	1.9	--	Wet	--	1967		De Bortoli, N.D., et al., 1968
<i>Sesquifera indica</i>	India, Kerala and Madras States	Total Alpha	1.5	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Mistry, K.B., et al., 1965
Amioc	Brazil, Araxa-Tapira area	Ra-226	7100	--	Ash	--	--	Area of high natural radioactivity	Penna-Franca, E., et al., 1965
	Brazil, Araxa-Tapira area	Th-228	1800	--	Ash	--	--	Area of high natural radioactivity	Penna-Franca, E., et al., 1965
	Brazil, Araxa-Tapira area	Ra-226	1700	--	Ash	--	--	Area of high natural radioactivity	Penna-Franca, E., et al., 1965
	Brazil, Rio de Janeiro	Ra-226	59	--	Ash	--	--	Flour	Lobao, N., et al., 1973
	Brazil, Rio de Janeiro	Ra-226	50	--	Ash	--	--	Flour	Lobao, N., et al., 1973
	Brazil, Rio de Janeiro	Ra-226	50	--	Ash	--	--	Flour	Lobao, N., et al., 1973
	Brazil, Rio de Janeiro	Ra-226	39	--	Ash	--	--	Flour	Lobao, N., et al., 1973
Melon, honeydew	Mexico	K-40	77	--	Wet	--	1973, April 9		Slapson, R.E., et al., 1974
Melon, net	Japan, Saitama	Sr-90	1.1	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1964
	Japan, Saitama	Cs-137	0.9	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1964
Melon	USA, Illinois, Argonne environs	Uranium	0.6	--	Wet	--	1978		Golchert, H.W., et al., 1979
Melon, honeydew	Mexico	Ra-226	<0.4	--	Wet	--	1973, April 9		Slapson, R.E., et al., 1974
	Mexico	Cs-137	<0.4	--	Wet	--	1973, April 9		Slapson, R.E., et al., 1974
	Mexico	Th-232	<0.4	--	Wet	--	1973, April 9		Slapson, R.E., et al., 1974
Melon	USSR	Sr-90	<0.1	--	Wet	3	1963		Knightikov, V.A., et al., 1966
Melon, honeydew	Mexico	Sr-90	<0.1	--	Wet	--	1973, April 9		Slapson, R.E., et al., 1974
Melon	USA, Illinois, Argonne environs	Pu-239	<0.1	--	Wet	--	1978		Golchert, H.W., et al., 1979
	USA, Illinois, Argonne environs	Th-232	<0.1	--	Wet	--	1978		Golchert, H.W., et al., 1979

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SPECIES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Solan	USA, Illinois, Argentine	Tb-236	<0.1	--	Net	--	1978		Golchert, M.W., et al., 1979
	USA, Illinois, Argentine	Tb-228	<0.1	--	Net	--	1978		Golchert, M.W., et al., 1979
Sesuvium	Marshall Islands, Bikini-Bikini	Cs-137	26000	--	Dry	--	1975, April 18	Sample V-23, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	26000	--	Dry	--	1975, March 18	Sample V-76, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	22000	--	Dry	--	1976, April 7	Sample V-13	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	21000	--	Dry	--	1976, April 7	Sample V-12	Greenhouse, M.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	20000	--	Dry	--	1975, April 18	Sample V-23, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	20000	--	Dry	--	1975, April 18	Sample V-18, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	20000	--	Dry	--	1974, April 12	Sample V-75, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	18000	--	Dry	--	1975, April 18	Sample V-21, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	17000	--	Dry	--	1975, April 18	Sample V-20, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	12000	--	Dry	--	1976, April 7	Sample V-11	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	9700	--	Dry	--	1976, April 7	Sample V-9	Greenhouse, M.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	8400	--	Dry	--	1975, April 18	Sample V-19, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	7600	--	Dry	--	1975, April 18	Sample V-20, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	4900	--	Dry	--	1974, April 12	Sample V-75, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	4100	--	Dry	--	1976, April 7	Sample V-18	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	3500	--	Dry	--	1976, April 7	Sample V-22	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	3500	--	Dry	--	1976, April 7	Sample V-21	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	3200	--	Dry	--	1975, April 18	Sample V-29, fruit	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	2900	--	Dry	--	1975, April 18	Sample V-26, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Bikini-Bikini	R-40	<2600	--	Dry	--	1975, April 18	Sample V-21, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	2100	--	Dry	--	1975, April 18	Sample V-27, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	2000	--	Dry	--	1975, April 18	Sample V-28, fruit	Greenhouse, M.A., et al., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SECTION MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Messerschmidia	Marshall Islands, Eniw-Bikini	Co-137	1000	--	Dry	--	1975, April 10	Sample V-20, leaves	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	K-40	1300	--	Dry	--	1975, April 10	Sample V-11, leaves	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Co-137	1000	--	Dry	--	1975, April 10	Sample V-17, leaves	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Co-60	960	--	Dry	--	1975, March 10	Sample V-74, leaves	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	Co-137	910	--	Dry	--	1976, April 7	Sample V-16	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	910	--	Dry	--	1975, April 10	Sample V-29, fruit	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	Co-137	840	--	Dry	--	1976, April 6	Sample V-78	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	670	--	Dry	--	1975, April 10	Sample V-27	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	650	--	Dry	--	1975, April 10	Sample V-26, leaves	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	630	--	Dry	--	1975, April 10	Sample V-28, fruit	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	570	--	Dry	--	1976, April 7	Sample V-11	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	560	--	Dry	--	1976, April 7	Sample V-22	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	Co-60	470	--	Dry	--	1976, April 7	Sample V-12	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	460	--	Dry	--	1976, April 7	Sample V-18	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	410	--	Dry	--	1976, April 7	Sample V-16	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	370	--	Dry	--	1975, April 10	Sample V-25, leaves	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	K-40	360	--	Dry	--	1975, April 10	Sample V-17, leaves	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	Co-60	330	--	Dry	--	1976, April 7	Sample V-9	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	320	--	Dry	--	1976, April 7	Sample V-21	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	310	--	Dry	--	1976, April 8	Sample V-25	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	K-40	280	--	Dry	--	1976, April 6	Sample V-78, leaves	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	Co-60	250	--	Dry	--	1976, April 7	Sample V-18	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	Co-60	250	--	Dry	--	1975, April 10	Sample V-25, leaves	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniw-Bikini	Co-60	<76	--	Dry	--	1976, April 7	Sample V-16	Greenhouse, N.A., et al., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBERS ANALYZED	DATE	COMMENT	REFERENCE
Bananachaidia	Marshall Islands, Eniw-Bikini	Co-60	<37	--	Dry	--	1975, April 14	Sample V-29, fruit	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Co-60	<23	--	Dry	--	1975, April 18	Sample V-17, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Eniw-Bikini	Co-60	<17	--	Dry	--	1975, April 14	Sample V-16, leaves	Greenhouse, H.A., et al., 1977
Millet	USSR	Uranium	12	--	Ash	--	1963-1965	Grains	Fedorov, V.A., et al., 1969
	USSR	Sr-90	8.5	--	Wet	12	1964		Kaizhnikov, V.A., et al., 1966
	USSR	Sr-90	3.9	--	Wet	47	1966	Grains	Petukhova, E.V., et al., 1969
	USSR	Cs-137	3.5	--	Wet	47	1966	Grains	Petukhova, E.V., et al., 1969
	USSR, central region	Ba-226	1.3	0.3-2.1	Dry	8	--		Mukhin, I.E., et al., 1965
	USSR	Uranium	0.5	--	Wet	--	1963-1965	Grains	Fedorov, V.A., et al., 1969
	India, Bombay	Po-210	<0.1	--	Wet	4	--		Khandekar, R.V., 1977
	Hungary, Győr-Sopron	Total beta	1500	--	Dry	--	1971-1974		Stubo, A., 1977
Mushrooms	Hungary, Győr-Sopron	K-40	1300	--	Dry	--	1971-1974		Stubo, A., 1977
	Hungary, Győr-Sopron	Sr-90	0.4	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
Mustard, potherb	Japan, Fukuoka, Shimo	Cs-137	4	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
	Japan, Fukuoka, Yase	Cs-137	2.6	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
	Japan, Fukuoka, Yase	Sr-90	2.5	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
	Japan, Fukuoka, Yase	Sr-90	2.5	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
Nut, Brazil	Brazil, Amazon Valley	Total alpha	660	--	Wet	--	--	Sample Cp-24	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	520	--	Wet	--	--	Sample Cp-22	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	340	--	Wet	--	--	Sample Cp-17	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	330	--	Wet	--	--	Sample Cp-19	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	320	--	Wet	--	--	Sample Cp-8	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	300	--	Wet	--	--	Sample Cp-16	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	270	--	Wet	--	--	Sample Cp-21	Penna-Franca, E., et al., 1968

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SPECIFIC ISOTOPE	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	UNIT	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Nut. Brazil	Brazil, Amazon Valley	Total alpha	270	--	Net	--	--	Sample Cp-25	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	170	--	Net	--	--	Sample Cp-9	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	170	--	Net	--	--	Sample Cp-23	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	130	--	Net	--	--	Sample Cp-24	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	130	--	Net	--	--	Sample Cp-28	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	110	--	Net	--	--	Sample Cp-1	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	110	--	Net	--	--	Sample Cp-22	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	110	--	Net	--	--	Sample Cp-17	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	99	--	Net	--	--	Sample Cp-4	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	80	--	Net	--	--	Sample Cp-19	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	76	--	Net	--	--	Sample Cp-20	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	72	--	Net	--	--	Sample Cp-8	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	71	--	Net	--	--	Sample Cp-16	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Total alpha	69	--	Net	--	--	Sample Cp-2	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	69	--	Net	--	--	Sample Cp-25	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	68	--	Net	--	--	Sample Cp-25	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	66	--	Net	--	--	Sample Cp-16	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	65	--	Net	--	--	Sample Cp-17	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	64	--	Net	--	--	Sample Cp-19	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	64	--	Net	--	--	Sample Cp-8	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	60	--	Net	--	--	Sample Cp-21	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	52	--	Net	--	--	Sample Cp-22	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	44	--	Net	--	--	Sample Cp-21	Penna-Franda, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	37	--	Net	--	--	Sample Cp-9	Penna-Franda, E., et al., 1968

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Pot. Brazil	Brazil, Amazon Valley	Ra-226	34	--	Wet	--	--	Sample Cp-4	Penna-Franca, E., et al., 1968
	USA, New York, Albany	Ra-226	34	<0.1-61	Wet	--	--	Kernels. Wide variability between and within batches.	Gabry, J.J., et al., 1969
	Brazil, Amazon Valley	Total alpha	32	--	Wet	--	--	Sample Cp-18	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	32	--	Wet	--	--	Sample Cp-1	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	30	--	Wet	--	--	Sample Cp-23	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	30	--	Wet	--	--	Sample Cp-9	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	26	--	Wet	--	--	Sample Cp-1	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	18	--	Wet	--	--	Sample Cp-2	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	14	--	Wet	--	--	Sample Cp-20	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	13	--	Wet	--	--	Sample Cp-23	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	13	--	Wet	--	--	Sample Cp-20	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	8.1	--	Wet	--	--	Sample Cp-4	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	7.3	--	Wet	--	--	Sample Cp-18	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	6.0	--	Wet	--	--	Sample Cp-2	Penna-Franca, E., et al., 1968
	Brazil, Amazon Valley	Ra-226	2.8	--	Wet	--	--	Sample Cp-18	Penna-Franca, E., et al., 1968
Oat	South Africa, Pellindaba	Total beta	3500	--	Dry	--	1966, September	Farm 10 km E of Pellindaba	Van de, D., et al., 1967
	South Africa, Pellindaba	Total beta	3100	--	Dry	--	1966, June	Farm 120 km S of Pellindaba	Van de, D., et al., 1967
	South Africa, Pellindaba	Total beta	3000	--	Dry	--	1966, August	Farm 13 km S of Pellindaba	Van de, D., et al., 1967
	South Africa, Pellindaba	Total beta	2700	--	Dry	--	1966, August	Farm 120 km S of Pellindaba	Van de, D., et al., 1967
	South Africa, Pellindaba	Total beta	2600	--	Dry	--	1966, June	Farm 13 km S of Pellindaba	Van de, D., et al., 1967
	South Africa, Pellindaba	Total beta	2500	--	Dry	--	1966, June		Van de, D., et al., 1967
	South Africa, Pellindaba	Total beta	2300	--	Dry	--	1966, July	Farm 4 km S of Pellindaba	Van de, D., et al., 1967
	South Africa, Pellindaba	Total beta	1600	--	Dry	--	1966, September	Farm 4 km S of Pellindaba	Van de, D., et al., 1967

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Oat	South Africa, Pellindaba	Total beta	1300	--	Dry	--	1966, April		Van As, D., et al., 1967
	South Africa, Pellindaba	Total beta	1100	--	Dry	--	1966, April	Para 1 to 4 of Pellindaba	Van As, D., et al., 1967
	South Africa, Pellindaba	Total beta	1100	--	Dry	--	1966, February		Van As, D., et al., 1967
	South Africa, Pellindaba	Total beta	1100	--	Dry	--	1966, August		Van As, D., et al., 1967
	USSR	Uranium	64	--	Ash	--	1963-1965	Grains	Fedorov, V.A., et al., 1969
	USSR	Sr-90	0.5	--	Wet	14	1966		Kuznetsov, V.A., et al., 1966
	USSR, central region	Ra-226	3.8	0.6-7.3	Dry	16	--		Mukhin, I.E., et al., 1965
	USSR, central region	Ra-226	3.8	--	Dry	6	--	Area 4	Mukhin, I.E., et al., 1965
	USSR, central region	Ra-226	3.3	--	Dry	5	--	Area 3	Mukhin, I.E., et al., 1965
	Denmark, St. Jydelevad	Sr-90	2.5	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USSR, central region	Ra-226	2.4	--	Dry	3	--	Area 2	Mukhin, I.E., et al., 1965
	USSR	Uranium	1.8	--	Wet	--	1963-1965	Grains	Fedorov, V.A., et al., 1969
	Denmark, Askov	Sr-90	1.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tylstrup	Sr-90	1.5	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USSR, central region	Ra-226	1.5	--	Dry	4	--	Area 1	Mukhin, I.E., et al., 1965
	Denmark, Ahirkeby	Cs-137	1.4	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tystofte	Sr-90	1.3	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Ahirkeby	Sr-90	1.3	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, St. Jydelevad	Cs-137	1.2	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Askov	Cs-137	1.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Odum	Cs-137	1.0	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Ledreborg	Cs-137	0.9	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tylstrup	Cs-137	0.8	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tystofte	Cs-137	0.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Ledreborg	Sr-90	0.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Abed	Sr-90	0.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Abed	Cs-137	0.6	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Odum	Sr-90	0.6	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Askov	Ra-54	0.2	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Abed	Ra-54	0.2	--	Wet	--	1977		Aarkrog, A., et al., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SUCLIDS MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Oat	Denmark, Tylstrup	Na-24	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
Okra (Abelmoschus esculentus)	India, Kerala Coast	Total beta	1200	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
	India, Kerala Coast	K-40	720	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
	India, Kerala Coast	Total alpha	66	33-120	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
	India, Kerala Coast	Na-226	38	0.4-74	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
	India, Kerala Coast	85 keV gamma	25	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
Onion	USSR, Moscow	Na-226	22	--	Ash	26	1961-1966	Random samples from all wholesale markets supplying the city	Nareki, A.W., et al., 1966
	USA, Nevada, Indian Springs	K-3	<11	--	Wet	--	1974, July 6		Andrews, V.E., et al., 1978
	USA, Nevada, Ninko	K-3	<11	--	Wet	--	1974, August 5		Andrews, V.E., et al., 1978
	Iran, Bamsar	Na-226	7.4	--	Ash	--	1975	Field 3. Area of high natural radioactivity.	Khademi, B., et al., 1980
Onion, spring	USSR	Cs-137	3.3	--	Wet	--	1964		Knishnikov, V.A., et al., 1966
Onion	USSR	Cs-137	2.6	--	Wet	--	1964		Knishnikov, V.A., et al., 1966
Onion, spring	USSR	Sr-90	1.9	--	Wet	35	1964		Knishnikov, V.A., et al., 1966
Onion	USSR, central region	Na-226	1.4	--	Wet	5	--	Area 4	Mukhin, I.B., et al., 1965
Onion, Welsh	Japan, Kanagawa, Yokohama	Cs-137	1.3	--	Wet	--	1962, March		National Institute of Agricultural Sciences, 1964
	Japan, Kanagawa, Yokohama	Sr-90	1.1	--	Wet	--	1962, March		National Institute of Agricultural Sciences, 1964
Onion	USSR	Sr-90	1.0	--	Wet	54	1964		Knishnikov, V.A., et al., 1966
Onion, spring	USSR	Sr-90	0.8	--	Wet	2	1964		Knishnikov, V.A., et al., 1966
Onion	USSR	Sr-90	0.8	--	Wet	8	1963		Knishnikov, V.A., et al., 1966
	USA, Nevada, Ninko	Sr-90	0.3	--	Wet	--	1974, August 5		Andrews, V.E., et al., 1978
	USSR	Sr-90	0.4	--	Wet	65	1966		Potukhova, E.V., et al., 1969

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Apple	USSR, Central region	Ra-226	0.1	--	Wet	--	--	Area 3	Mukhin, I.E., et al., 1965
	USA, Nevada, Nink	Sr-90	<0.3	--	Wet	--	1974, August 5		Andrade, V.E., et al., 1978
	USSR, central region	Ra-226	0.3	<0.1-1.1	Dry	22	--		Mukhin, I.E., et al., 1965
	USSR, central region	Ra-226	0.3	--	Wet	3	--	Area 2	Mukhin, I.E., et al., 1965
	USSR, Central region	Ra-226	0.2	--	Wet	4	--	Area 1	Mukhin, I.E., et al., 1965
	USSR, Rostov-on-the-Don	Pb-210	0.1	--	Wet	9	--		Ladinskaya, L.A., et al., 1973
	USSR, Rostov-on-the-Don	Po-210	<0.1	--	Wet	9	--		Ladinskaya, L.A., et al., 1973
	Japan, Osaka, Osaka	Sr-90	<0.1	--	Wet	--	1975, July		National Institute of Radiological Sciences, 1980
	Japan, Osaka, Osaka	Cs-137	<0.1	--	Wet	--	1979, July		National Institute of Radiological Sciences, 1980
	USSR, Moscow	Ra-226	0.1	--	Wet	26	1961-1964	Random samples from all wholesale markets supplying the city	Narol, A.W., et al., 1966
Orange	Brazil, Araxa-Tapira area	Ra-228	6100	--	Ash	--	--	Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
	Brazil, Araxa-Tapira area	Th-228	1100	--	Ash	--	--	Area of high natural radioactivity	Penna-Franca, E., et al., 1965
Orange, mandarin	South Africa, Pellindaba	Total beta	960	--	Dry	--	1966, April	Farm 16 km NW of Pellindaba	Van As, D., et al., 1967
	South Africa, Pellindaba	Total beta	930	--	Dry	--	1966, October	Farm 16 km NW of Pellindaba	Van As, D., et al., 1967
	South Africa, Pellindaba	Total beta	890	--	Dry	--	1966, August	Farm 16 km NW of Pellindaba	Van As, D., et al., 1967
Orange	South Africa, Pellindaba	Total beta	890	--	Dry	--	1966, October	Farm 16 km NW of Pellindaba	Van As, D., et al., 1967
Orange, mandarin	South Africa, Pellindaba	Total beta	850	--	Dry	--	1966, February	Farm 16 km NW of Pellindaba	Van As, D., et al., 1967
	South Africa, Pellindaba	Total beta	850	--	Dry	--	1966, April	Farm 16 km NW of Pellindaba	Van As, D., et al., 1967
Orange	South Africa, Pellindaba	Total beta	760	--	Dry	--	1966, August	Farm 16 km NW of Pellindaba	Van As, D., et al., 1967
Orange, mandarin	South Africa, Pellindaba	Total beta	630	--	Dry	--	1966, June	Farm 16 km NW of Pellindaba	Van As, D., et al., 1967
Orange	Brazil, Araxa-Tapira area	Ra-226	560	--	Ash	--	--	Area of high natural radioactivity	Penna-Franca, E., et al., 1965
	South Africa, Pellindaba	Total beta	520	--	Dry	--	1966, June	Farm 16 km NW of Pellindaba	Van As, D., et al., 1967

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Orange	Iran, Bamser	Ra-226	190	--	Ash	--	1975	Field 2, south. of high natural radioactivity.	Khaderi, B., et al., 1980
	Iran, Bamser	Ra-226	140	--	Ash	--	1973	Field 1, north. of high natural radioactivity.	Khaderi, B., et al., 1980
	Iran, Bamser	Ra-226	140	--	Ash	--	1974	Field 1, north. of high natural radioactivity.	Khaderi, B., et al., 1980
	Iran, Bamser	Ra-226	73	--	Ash	--	1971	Field 1, south. of high natural radioactivity.	Khaderi, B., et al., 1980
	Iran, Bamser	Ra-226	70	--	Ash	--	1971	Field 1, north. of high natural radioactivity.	Khaderi, B., et al., 1980
	USA, Tennessee, Oak Ridge	K-40	56	--	Wet	1	--	Market samples, edible portion.	Oakes, T.E., et al., 1977
	Japan	K-40	34	--	Processed for eating	--	1973, July 10	Canned, syrup included	Simpson, R.E., et al., 1974
	Taiwan	K-40	31	--	Processed for eating	--	1973, January 2	Canned, syrup included	Simpson, R.E., et al., 1974
	Taiwan	K-40	26	--	Processed for eating	--	1973, February 26	Canned, syrup included	Simpson, R.E., et al., 1974
Orange, mandarin	Japan	K-40	26	--	Processed for eating	--	1973, April 30	Canned, syrup included	Simpson, R.E., et al., 1974
Orange	Taiwan	K-40	23	--	Processed for eating	--	1973, January 8	Canned, syrup included	Simpson, R.E., et al., 1974
Orange, mandarin	Japan	K-40	22	--	Processed for eating	--	1973, June 20	Canned	Simpson, R.E., et al., 1974
Orange	Iran, Bamser	Ra-226	13	--	Wet	--	1975	Field 3. Area of high natural radioactivity.	Khaderi, B., et al., 1980
	Brazil, Rio de Janeiro	Ra-226	12	--	Ash	--	--		Lobao, H., et al., 1973
	Iran, Bamser	Ra-226	7.4	--	Ash	--	1974	Field 3. Area of high natural radioactivity.	Khaderi, B., et al., 1980
Orange, mandarin	Japan, Oita	Cs-137	3.1	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
	Japan, Shizuoka	Cs-137	2.3	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
	Japan, Kanagawa	Cs-137	2.2	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
	Japan, Wakayama	Cs-137	1.5	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASUREMENT	RAW RADIOACTIVITY (Bq kg ⁻¹)	CORRECTION OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Orange, sunset	Japan, Ehime	Cs-137	1.4	--	Wet	--	1963, February		National Institute of Radiological Sciences, 1964
Orange, mandarin	Japan, Saga	Cs-137	1.3	--	Wet	--	1963, February		National Institute of Radiological Sciences, 1964
	Japan, Hiroshima	Cs-137	1.2	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
	Japan, Yamaguchi	Cs-137	1.1	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
Orange	USA, Tennessee, Oak Ridge	Ru-106	<0.7	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Orange, narlarin	Japan, Oita	Sr-90	0.6	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
Orange, sunset	Japan, Ehime	Sr-90	0.6	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
Orange, mandarin	Japan, Saga	Sr-90	0.5	--	Wet	--	1963, February		National Institute of Radiological Sciences, 1964
	Japan, Wakayama	Sr-90	0.5	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
	Japan, Yamaguchi	Sr-90	0.4	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
Orange	Japan	Ru-106	<0.4	--	Processed for eating	--	1973, July 10	Canned, syrup included	Simpson, R.E., et al., 1974
Orange, mandarin	Japan	Ru-106	<0.4	--	Processed for eating	--	1973, June 20	Canned	Simpson, R.E., et al., 1974
	Japan	Ru-106	<0.4	--	Processed for eating	--	1973, April 30	Canned, syrup included	Simpson, R.E., et al., 1974
Orange	Taiwan	Ru-106	<0.4	--	Processed for eating	--	1973, February 26	Canned, syrup included	Simpson, R.E., et al., 1974
	Taiwan	Ru-106	<0.4	--	Processed for eating	--	1973, January 8	Canned, syrup included	Simpson, R.E., et al., 1974
	Taiwan	Ru-106	<0.4	--	Processed for eating	--	1973, January 2	Canned, syrup included	Simpson, R.E., et al., 1974
	Taiwan	Cs-137	<0.4	--	Processed for eating	--	1975, January 2	Canned, syrup included	Simpson, R.E., et al., 1974
	Taiwan	Cs-137	<0.4	--	Processed for eating	--	1975, January 8	Canned, syrup included	Simpson, R.E., et al., 1974

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Orange	Taiwan	Cs-137	<0.4	--	Processed for eating	--	1973, February 26	Canned, syrup included	Simpson, R.E., et al., 1974
Orange, mandarin	Japan	Cs-137	<0.4	--	Processed for eating	--	1973, April 30	Canned, syrup included	Simpson, R.E., et al., 1974
	Japan	I-131	<0.4	--	Processed for eating	--	1973, April 30	Canned, syrup included	Simpson, R.E., et al., 1974
Orange	Taiwan	I-131	<0.4	--	Processed for eating	--	1973, February 26	Canned, syrup included	Simpson, R.E., et al., 1974
	Taiwan	I-131	<0.4	--	Processed for eating	--	1973, January 8	Canned, syrup included	Simpson, R.E., et al., 1974
	Taiwan	I-131	<0.4	--	Processed for eating	--	1973, January 2	Canned, syrup included	Simpson, R.E., et al., 1974
	Taiwan	Sr-90	0.4	--	Processed for eating	--	1973, February 26	Canned, syrup included	Simpson, R.E., et al., 1974
	Taiwan	Sr-90	0.4	--	Processed for eating	--	1973, January 2	Canned, syrup included	Simpson, R.E., et al., 1974
	Japan	Cs-137	<0.4	--	Processed for eating	--	1973, June 20	Canned	Simpson, R.E., et al., 1974
	Japan	I-131	<0.4	--	Processed for eating	--	1973, July 10	Canned, syrup included	Simpson, R.E., et al., 1974
Orange, mandarin	Japan	I-131	<0.4	--	Processed for eating	--	1973, July 10	Canned, syrup included	Simpson, R.E., et al., 1974
	Japan	I-131	<0.4	--	Processed for eating	--	1973, June 20	Canned	Simpson, R.E., et al., 1974
Orange	USA, Tennessee, Oak Ridge	Ba-226	<0.4	--	Net	--	--	Market samples, edible portion	Oaken, T.W., et al., 1977
Orange, mandarin	Japan, Kanagawa	Sr-90	0.3	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
Orange	Taiwan	Sr-90	0.3	--	Processed for eating	--	1973, January 8	Canned, syrup included	Simpson, R.E., et al., 1974
Orange, mandarin	Japan, Shizuoka	Sr-90	0.2	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
	Japan, Hiroshima	Sr-90	0.2	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
Orange	Japan	Sr-90	0.2	--	Processed for eating	--	1973, July 10	Canned, syrup included	Simpson, R.E., et al., 1974

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FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Orange	USA, Tennessee, Oak Ridge	Co-60	<0.2	--	Wet	1	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Sb-125	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Orange, Nandarin	Japan	Sr-90	<0.1	--	Processed for eating	--	1975, June 23	Canned	Simpson, R.E., et al., 1974
	Japan	Sr-90	<0.1	--	Processed for eating	--	1975, April 30	Canned, syrup included	Simpson, R.E., et al., 1974
Orange	USA, Tennessee, Oak Ridge	Sr-90, Pb-210, Total beta	<0.1	--	Wet	1	--	Market sample, edible portion.	Oakes, T.V., et al., 1977
Pandanus	Marshall Islands, Bikini-Bikini	Cs-137	35000	--	Dry	--	1975, April 15	Sample V-30	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	24000	--	Dry	--	1975, April 5	Sample V-31, immature fruit	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	16000	--	Dry	--	1975, April 18	Sample V-35	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	16000	--	Dry	--	1975, April 16	Sample V-36	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	16000	--	Dry	--	1974, April 12	Sample V-91A	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	12000	--	Dry	--	1974, April 12	Sample V-89A, edible portion	Greenhouse, N.A., et al., 1977
	Marshall Islands, Eniwetok-Rongelap	Cs-137	7100	--	Dry	--	1974, April 6	Sample V-88A, edible fruit	Greenhouse, N.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	Cs-137	4300	--	Dry	--	1976, April 3	Sample V-26C1	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini Atoll	Cs-137	3000	--	Dry	--	1971, November		Lynch, G.D., Jr., et al., 1975
	Marshall Islands, Rongelap-Rongelap	Cs-137	2700	--	Dry	--	1974, April 4	Sample V-84, edible fruit	Greenhouse, N.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	Cs-137	2700	--	Dry	--	1976, April 3	Sample V-26B1, edible fruit	Greenhouse, N.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	Cs-137	2600	--	Dry	--	1976, April 3	Sample V-26B1	Greenhouse, N.A., et al., 1977
	Marshall Islands, Bikini Atoll	Sr-90	2100	--	Dry	--	1971, November		Lynch, G.D., Jr., et al., 1975
	Marshall Islands, Rongelap-Rongelap	Cs-137	1400	--	Dry	--	1974, April 5	Sample V-85A, edible fruit	Greenhouse, N.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	Cs-137	870	--	Dry	--	1976, April 3	Sample V-86A	Greenhouse, N.A., et al., 1977
	Mal and Islands, Guam, Agaña	K-40	810	--	Dry	--	1975, November		Nelson, V.A., 1979

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	CORRECTION	REFERENCE
PACIFIC ISLANDS	Marshall Islands, Bikini-Bikini	Co-60	790	--	Dry	--	1974, April 12	Sample V-85A, edible portion	Greenhouse, H.A., et al., 1977
	Marshall Islands, Ujae-Ujae	Co-137	750	--	Dry	--	1974, April 1	Sample V-87, edible portion	Greenhouse, H.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	K-40	740	--	Dry	--	1976, April 3	Sample V-26D1	Greenhouse, H.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	Cs-137	690	--	Dry	--	1976, April 3	Sample V-26A1	Greenhouse, H.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	Cs-137	670	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Bikini-Bikini	Co-60	640	--	Dry	--	1976, April 5	Sample V-3A, immature fruit	Greenhouse, H.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	K-40	630	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Dublon Island	K-40	630	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Pefan Island	K-40	590	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Rongelap-Rongelap	K-40	560	--	Dry	--	1976, April 3	Sample V-26B1	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	K-40	520	--	Dry	--	1975, April 16	Sample V-30	Greenhouse, H.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	Co-60	510	--	Dry	--	1974, April 6	Sample V-88A, edible fruit	Greenhouse, H.A., et al., 1977
	Palau Islands, Koror Island	K-40	480	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Bikini-Bikini	Co-60	440	--	Dry	--	1974, April 12	Sample V-91A	Greenhouse, H.A., et al., 1977
	Marshall Islands, Rongelap-Rongelap	K-40	400	--	Dry	--	1976, April 3	Sample V-26G1, edible fruit	Greenhouse, H.A., et al., 1977
	Caroline Islands, Ponape Island, Kolonia	K-40	360	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Rongelap-Rongelap	K-40	360	--	Dry	--	1976, April 3	Sample V-86A	Greenhouse, H.A., et al., 1977
	Palau Islands, Babelthap Island	K-40	310	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Rongelap-Rongelap	Cs-137	300	--	Dry	--	1976, April 3	Sample V-26D1	Greenhouse, H.A., et al., 1977
	Caroline Islands, Ponape District, Wapoli Island	K-40	290	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Rongelap-Rongelap	K-40	290	--	Dry	--	1974, April 1	Sample V-106A, edible portion	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini Atoll	K-40	280	--	Dry	--	1971, November		Lyach, O.D., Jr., et al., 1975
	Caroline Islands, Truk Atoll, Woon Island	K-40	270	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Rongelap-Rongelap	K-40	250	--	Dry	--	1974, April 5	Sample V-85A, edible fruit	Greenhouse, H.A., et al., 1977

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FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLE ANALYZED	DATE	COMMENT	REFERENCE
Pandanus	Mariana Islands, Guam, Dededo	K-40	230	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Ponqelap-Ponqelap	Co-60	230	--	Dry	--	1976, April 3	Sample V-26C1	Greenhouse, M.A., et al., 1977
	Marshall Islands, Majuro Atoll, Laura Village	Cs-137	170	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Eastern Gateway	K-40	150	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Ponqelap-Ponqelap	K-40	<150	--	Dry	--	1974, April 4	Sample V-84, edible fruit	Greenhouse, M.A., et al., 1977
	Marshall Islands, Noto-Noto	Cs-137	130	--	Dry	--	1974, April 4	Sample V-106A, edible portion	Greenhouse, M.A., et al., 1977
	Marshall Islands, Ponqelap-Ponqelap	K-40	120	--	Dry	--	1974, April 3	Sample V-26A1	Greenhouse, M.A., et al., 1977
	Marshall Islands, Majuro Atoll, Laura Village	K-40	85	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Cs-137	70	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Eastern Gateway	Cs-137	70	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Otirik-Otirik	K-40	59	--	Dry	--	1974, April 4	Sample V-87, edible portion	Greenhouse, M.A., et al., 1977
	Mariana Islands, Guam, Agaña	Cs-137	41	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Otirik-Otirik	Co-60	<33	--	Dry	--	1974, April 4	Sample V-87	Greenhouse, M.A., et al., 1977
	Mariana Islands, Guam, Dededo	Sr-90	<32	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Ponqelap-Ponqelap	Co-60	<32	--	Dry	--	1976, April 3	Sample V-86A	Greenhouse, M.A., et al., 1977
	Palau Islands, Sabellthap Island	Cs-137	25	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Site 17.3	Sr-90	24	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Koror Island	Cs-137	20	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Agat	Sr-90	<20	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Sabellthap Island	Sr-90	<13	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Koror Island	Sr-90	13	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Sr-90	10	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Moen Island	Cs-137	9.3	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape District, Napele Island	Cs-137	4.5	--	Dry	--	1975, November		Nelson, V.A., 1979

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FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Pandanus	Mariana Islands, Guam, Agaña	Sr-90	<0.5	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Dublon Island	Cs-137	8.5	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Pefan Island	Cs-137	5.6	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Dublon Island	Sr-90	<0.4	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Noon Island	Sr-90	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape District, Wapoli Island	Sr-90	<3.7	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Pefan Island	Sr-90	2.2	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Eastern Gateway	Sr-90	<0.7	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Babelthaup Island	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Kocor Island	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Laura Village	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Mile 17.3	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Agaña	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Agaña	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Dededo	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Dublon Island	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Papaya	Marshall Islands, Bikini-Bikini	Cs-137	28000	--	Dry	--	1975, April 14	Sample V-47, fruit	Greenhouse, W.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	25000	--	Dry	--	1975, April 14	Sample V-49, meat	Greenhouse, W.A., et al., 1977
	Marshall Islands, Bikini Atoll	Cs-137	11000	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini Atoll	Cs-137	5900	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini-Bikini	Cs-137	5700	--	Dry	--	1974, April 4	Sample V-102, meat	Greenhouse, W.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	3700	--	Dry	--	1974, April 5	Sample V-5A, fruit, immature	Greenhouse, W.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	3200	--	Dry	--	1975, April 14	Sample V-5B, skin, immature	Greenhouse, W.A., et al., 1977
	Marshall Islands, Bikini Atoll	Sr-90	2700	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	RAW RADIOACTIVITY (Bq kg ⁻¹)	BASED ON RADIOACTIVITY (Bq kg ⁻¹)	BASED	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Papaya	Marshall Islands, Bikini Atoll	K-40	2600	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
	Mariana Islands, Guam, Agaña	K-40	1600	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Tazaran	K-40	1500	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Bikini-Bikini	K-40	1200	--	Dry	--	1976, April 5	Sample V-51, fruit, immature	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	K-40	<1200	--	Dry	--	1975, April 16	Sample V-47, meat	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini Atoll	K-40	1100	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
	Marshall Islands, Bikini-Bikini	K-40	<1000	--	Dry	--	1976, April 16	Sample V-49, fruit	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini Atoll	K-40	850	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
	Caroline Islands, Truk Atoll, Pofen Island	K-40	780	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	K-40	700	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Laura Village	K-40	700	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Babelthap Island	K-40	520	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Babelon Island	K-40	410	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Babelon Island	K-40	70	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Laura Village	Cs-137	67	--	Dry	--	1975, November		Nelson, V.A., 1979
	Marshall Islands, Majuro Atoll, Laura Village	Sr-90	29	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Agaña	Sr-90	<26	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Pofen Island	Cs-137	26	--	Dry	--	1975, November		Nelson, V.A., 1979
	Mariana Islands, Guam, Agaña	Cs-137	15	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Cs-137	9.3	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Babelthap Island	Sr-90	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Sr-90	7.4	--	Dry	--	1975, November		Nelson, V.A., 1979
	Caroline Islands, Truk Atoll, Pofen Island	Sr-90	<6.7	--	Dry	--	1975, November		Nelson, V.A., 1979
	Palau Islands, Babelthap Island	Cs-137	4.4	--	Dry	--	1975, November		Nelson, V.A., 1979

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

Food Crop	Geographical Origin	Isotopes Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Units Analyzed	Date	Comments	Reference
Peanut	USDA, central region	Ra-226	0.0	--	807	--	Area 9	Hallin, L.H., et al., 1969
	USDA	Ra-226	0.0	--	801	1966	Gravels	Peterson, R.V., et al., 1969
	USDA, Volga river region	Bismuth	0.7	--	801	1964-1965	Central region	Polonsky, R.D., et al., 1967
	USDA, Kazakhstan, Cape Cod, North Atlantic	Cs-137	0.4	--	801	1975	Shelled	Hardy, E.P., Jr., 1977
	Monarch, Ireland	Ra-226	0.2	--	801	1977, September		Lockwood, A., et al., 1978
	USDA, Kazakhstan, Cape Cod, North Atlantic	Ra-226	0.2	--	801	1975	Shelled	Hardy, E.P., Jr., 1977
	USDA, Kazakhstan, Cape Cod, North Atlantic	Ra-226	<0.1	--	801	1975	Shelled	Hardy, E.P., Jr., 1977
	USDA, Kazakhstan, Cape Cod, North Atlantic	Ra-226, Pb-210	<0.1	--	801	1975	Shelled	Hardy, E.P., Jr., 1977
	Monarch, The Islands	Cs-137	0.1	--	801	1977		Lockwood, A., et al., 1978
	Monarch, The Islands	Ra-226	<0.1	--	801	1977, September		Lockwood, A., et al., 1978
	USDA, Volga River region	Bismuth	<0.1	--	801	1964-1965	Central region, Completed value	Polonsky, R.D., et al., 1967
	USDA, Volga River region	Bismuth	<0.1	--	801	1964-1965	Environmental region, Completed value	Polonsky, R.D., et al., 1967
	USDA, Kazakhstan, Cape Cod, North Atlantic	Ra-226	<0.1	--	801	1975	Shelled	Hardy, E.P., Jr., 1977
	USDA, Kazakhstan, Cape Cod, North Atlantic	Ra-226, Pb-210	<0.1	--	801	1975	Shelled	Hardy, E.P., Jr., 1977
	USDA, Kazakhstan, Cape Cod, North Atlantic	Cs-137	<0.1	--	801	1975	Shelled	Hardy, E.P., Jr., 1977
Peanut, black-eyed (Vigna aluminosa)	India, Madras and Madras State	Total alpha	0.0	--	807	--	Edible portion, from areas in area of high background radioactivity	Hickory, K.B., et al., 1965
	South Africa, Polladaba	Total beta	1000	--	807	1966, December	From 15 to 27 of Polladaba	Van der, B., et al., 1967
Peanut	South Africa, Polladaba	Total beta	700	--	807	1966, February		Van der, B., et al., 1967
	Iran, Bushehr	Ra-226	63	--	150	1972	Field 1, south, area of high natural radioactivity	Khoshdel, B., et al., 1968
USDA, Washington, Sanford site	USDA, Washington, Sanford site	Ra-226	50	--	801	1979	Sequestration facility	Newton, J.H., et al., 1980
	Iran, Bushehr	Ra-226	55	--	150	1974	Field 1, south, area of high natural radioactivity	Khoshdel, B., et al., 1980
USDA, Washington, Sanford site	USDA, Washington, Sanford site	Ra-226	44	--	801	1979	Sequestration facility	Newton, J.H., et al., 1980

Table 1. Radioactivity occurring in Food Crops, by Food Item

FOOD CROP	GEOGRAPHICAL ORIGIN	RADIATION MEASUREMENTS (mR hr ⁻¹)	DATE OF RADIOACTIVITY (mR hr ⁻¹)	DATE OF ANALYSIS	DATE	COUNTRY	REFERENCE
Peas	Australia, Victoria	Ba-106	<0.4	Not	1973, April 24		Slipson, B.S., et al., 1974
	Australia, Victoria	Cs-137	<0.4	Not	1973, April 24		Slipson, B.S., et al., 1974
	Australia, Victoria	Z-131	<0.4	Not	1973, April 24		Slipson, B.S., et al., 1974
	USA, Tennessee, Oak Ridge	Ba-226	<0.4	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.3	Not	--	Market samples	Oakes, T.S., et al., 1977
	USA, Tennessee, Oak Ridge	Ta-232	<0.3	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977
	USA, Tennessee, Oak Ridge	Co-60	<0.2	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977
	Australia, Victoria	Zr-90	<0.1	Not	1973, April 24		Slipson, B.S., et al., 1974
	USA, Tennessee, Oak Ridge	Zr-95, Sb-95, Total beta	<0.1	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977
	South Africa, Polladaba	Total beta	2100	Det	1966, February		Van der, D., et al., 1967
Pepper, chili	South Africa, Polladaba	Total beta	1900	Det	1966, June		Van der, D., et al., 1967
Pepper, bell	USA, Tennessee, Oak Ridge	Zr-40	63	Det	--	Market samples, edible portion	Oakes, T.S., et al., 1977
Pepper, Belgian	USA, Missouri	Ba-226	23	Det	1961-1964	Market samples from all wholesale markets supplying the city	Havel, L.H., et al., 1966
Pepper (Capsicum frutescens)	India, Kerala and Madras States	Total alpha	15	Det	--	Edible portion. From farms in area of high background radioactivity.	Hastey, K.S., et al., 1965
Pepper, bell	USA, Tennessee, Oak Ridge	Ba-106	<0.3	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977
Pepper, green	USA, Tennessee, Oak Ridge	Ba-226	<0.3	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977
Pepper, green	USA	Zr-90	0.4	Not	1964		Hightower, T.A., et al., 1966
Pepper, bell	USA, Tennessee, Oak Ridge	Co-60	<0.3	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977
Pepper, bell	USA, Tennessee, Oak Ridge	Ba-125	<0.3	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977
Pepper, bell	USA, Tennessee, Oak Ridge	Cs-137	<0.3	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977
Pepper, bell	USA, Tennessee, Oak Ridge	Ta-232	<0.3	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977
Pepper, bell	USA, Tennessee, Oak Ridge	Zr-95, Sb-95, Total beta	<0.1	Not	--	Market samples, edible portion	Oakes, T.S., et al., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

Food Crop	Geographical Origin	Isotope measured	Mean radioactivity (mR kg ⁻¹)	Range of radioactivity (mR kg ⁻¹)	Sample size	Number analyzed	Date	Comments	Reference
Muscadine	Tulsa	Z-131	<0.4	--	Processed for eating	--	1973, March 13	Canned, syrup included	Slipson, R.D., et al., 1974
	Tulsa	Z-131	<0.4	--	Processed for eating	--	1973, March 5	Canned, syrup included	Slipson, R.D., et al., 1974
	Boston	Cu-137	<0.4	--	Processed for eating	--	1973, May 7	Canned, syrup included	Slipson, R.D., et al., 1974
	Boston	Zr-90	0.2	--	Processed for eating	--	1973, May 7	Canned, syrup included	Slipson, R.D., et al., 1974
	Tulsa	Zr-90	<0.1	--	Processed for eating	--	1973, March 13	Canned, syrup included	Slipson, R.D., et al., 1974
	Tulsa	Zr-90	<0.1	--	Processed for eating	--	1973, March 5	Canned, syrup included	Slipson, R.D., et al., 1974
Blackberry (Rosa pratincola)	India, Kerala Coast	R-40	970	620-1200	Det	12	--	Sample area included remaining bearing high radiation belt	Hirst, F.B., et al., 1970
	India, Kerala Coast	Total beta	930	--	Det	12	--	Sample area included remaining bearing high radiation belt	Hirst, F.B., et al., 1970
	India, Kerala Coast	Total alpha	13	<0.4-66	Det	12	--	Sample area included remaining bearing high radiation belt	Hirst, F.B., et al., 1970
	India, Kerala and Madras States	Total alpha	11	--	Det	--	--	Edible portion. From area in area of high background radioactivity.	Hirst, F.B., et al., 1965
	India, Kerala Coast	85 Sr gamma	3.6	--	Det	12	--	Sample area included remaining bearing high radiation belt	Hirst, F.B., et al., 1970
	India, Kerala Coast	Ra-226	3.3	<0.4-42	Det	12	--	Sample area included remaining bearing high radiation belt	Hirst, F.B., et al., 1970
	USA, Washington, Sanford Site	R-40	67	--	Det	1	1976	Sequence vicinity	Keston, J.B., et al., 1980
	USA, Washington, Sanford Site	R-40	40	--	Det	1	1976	Sanayale location	Keston, J.B., et al., 1980
	USA, California, Santa Rosa	R-3	21	--	Det	--	1974, July 6		Agnew, V.B., et al., 1976
	USA, Nevada, Loveland	R-3	<11	--	Det	--	1974, July 15		Agnew, V.B., et al., 1976
Pine, douglas	USA, Nevada, Fabray	R-3	<11	--	Det	--	1974, June 26		Agnew, V.B., et al., 1976
	Japan, Yamaguchi	Cu-137	1.5	--	Det	--	1982, July		National Institute of Agricultural Sciences, 1982
Pine	USA, Washington, Sanford Site	Cu-137	<1.1	--	Det	1	1979	Sequence vicinity	Keston, J.B., et al., 1980

POSSIBLE CROPS	ORIGIN COUNTRIES	INITIAL SURVEYS	RADIOACTIVITY (cp kg-1)	CONCENTRATION OF POTASSIUM (ppm kg-1)	TYPE OF ANALYSIS	NUMBER ANALYZED	DATE	SAMPLE	REFERENCE
Potato	South Africa, Polladaba	Total beta	1100	--	Dry	--	1965, November	From 13 to 25 of Polladaba	Van der, B., et al., 1965
Potato, sweet	Japan, Sasebo-Nachi area	Ba-226	290	--	Ash	6	--	Market samples	Kuroda, Y., 1966
Potato	India, Bombay area	Ba-40	190	--	Soil	--	1971	Market samples	Kalita, B.V., et al., 1980
Potato, sweet	Japan, Okazawa City vicinity	Ba-226	100	--	Ash	2	--	Artificial sample basis refined	Kuroda, Y., 1966
Potato	India, Bombay area	Ba-40	100	--	Soil	--	1970	Market samples	Kalita, B.V., et al., 1980
Potato	India, Bombay area	Ba-40	170	--	Soil	--	1971	Market samples	Kalita, B.V., et al., 1980
Potato	India, Bombay area	Ba-40	160	--	Soil	--	1970	Market samples	Kalita, B.V., et al., 1980
Potato, Irish	India, Bombay area	Ba-40	140	--	Soil	--	1973	Market samples	Kalita, B.V., et al., 1980
Potato, Irish	USA, Tennessee, Oak Ridge	C-40	120	--	Soil	--	--	Market samples, edible portion	Oakes, B.V., et al., 1977
Potato, sweet	USA, Tennessee, Oak Ridge	Ba-40	110	--	Soil	--	--	Market samples, edible portion	Oakes, B.V., et al., 1977
Potato	Brazil, Rio de Janeiro	Ba-226	60	--	Ash	--	--	Market samples	Lobos, R., et al., 1973
Potato	USSR	Potassium	37	--	Ash	--	1963-1965	Market samples	Pedgley, V.A., et al., 1969
Potato	USSR, Moscow	Ba-226	24	--	Ash	10	1961-1964	Market samples from all-Union subjects supplied the city	Kuroi, A.V., et al., 1966
Potato, Irish	Iran, Isfahan	Ba-226	24	--	Ash	--	1975	Field 3. Area of high natural radioactivity.	Khoshdel, B., et al., 1980
Potato	Iran, Isfahan	Ba-226	22	--	Ash	--	1976	Field 3. Area of high natural radioactivity.	Khoshdel, B., et al., 1980
Potato, Irish	USA, Tennessee, Oak Ridge	Potassium	20	--	Dry	6	1977-1978	Total per potato skin from white oak creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
Potato, sweet	USA, Tennessee, Oak Ridge	Ba-104	43.2	--	Soil	--	--	Market samples, edible portion	Oakes, B.V., et al., 1977
Potato (Helianthus tuberosus)	Italy, Ispra	Ba-90	0.1	--	Soil	--	1967	Market samples	De Bertoli, R.D., et al., 1968
Potato	USSR	Cs-137	0.1	--	Soil	--	1964	Market samples	Kushnarev, V.A., et al., 1966
Potato, sweet	Japan, Kagoshima	Cs-137	3.3	--	Soil	--	1961, October	Market samples	National Institute of Agricultural Sciences, 1966
Potato, Irish	USA, Tennessee, Oak Ridge	Potassium	3.0	--	Dry	3	1975-1978	Total per whole potato from white oak creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
Potato	USSR	Cs-137	2.5	--	Soil	--	1965	Market samples	Kushnarev, V.A., et al., 1968
Potato, white	Brazil, Rio de Janeiro	Ba-226	2.4	--	Ash	--	--	Market samples	Lobos, R., et al., 1973
Potato	USSR	Cs-137	2.3	--	Soil	--	1963	Market samples	Kushnarev, V.A., et al., 1968

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Potato, sweet	Japan, Fukuji	Cs-137	1.9	--	Wet	--	1961, October		National Institute of Agricultural Sciences, 1966
Potato	Japan, Hokkaido, Sapporo	Cs-137	1.8	--	Wet	--	1962, April		National Institute of Agricultural Sciences, 1966
Potato, sweet	Japan, Aichi	Cs-137	1.6	--	Wet	--	1961, October		National Institute of Agricultural Sciences, 1966
	Japan	Cs-137	1.4	--	Wet	--	1961, September		National Institute of Agricultural Sciences, 1966
	Japan, Ibaragi	Cs-137	1.2	--	Wet	--	1961, October		National Institute of Radiological Sciences, 1966
	Japan, Kanagawa, Kawasaki	Cs-137	1.2	--	Wet	--	1962, January		National Institute of Agricultural Sciences, 1966
Potato	USSR	Cs-137	1.2	--	Wet	106	1966		Petukhova, E.V., et al., 1969
Potato (Solana tuberosa)	Italy, Impra	Cs-137	1.1	--	Wet	--	1967		De Bertoli, M.D., et al., 1968
Potato	USSR, Volga River region	Sodium	1.1	--	Wet	14	1966-1965	Experimental region	Belova, E.S., et al., 1967
Potato, Irish	USA, Tennessee, Oak Ridge	Sr-90	<1.0	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Potato	USSR	Strontium	1.0	--	Wet	--	1963-1965	Tubers	Fedorov, Y.A., et al., 1969
Potato, sweet	Japan, Kagoshima	Sr-90	0.9	--	Wet	--	1961, October		National Institute of Agricultural Sciences, 1966
Potato (var. Chippewa)	USA, Massachusetts, Cape Cod, North Eastham	Cs-137	0.8	--	Wet	--	1975	Peeled	Hardy, R.P., Jr., 1977
Potato, sweet	Japan, Saitama, Utsu	Cs-137	0.8	--	Wet	--	1961, November		National Institute of Agricultural Sciences, 1966
Potato	India, Bombay area	Pb-228	0.8	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
Potato, sweet	USA, Tennessee, Oak Ridge	Sr-90	<0.7	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Japan, Fukuji	Sr-90	0.7	--	Wet	--	1961, October		National Institute of Agricultural Sciences, 1966
Potato	USSR, central region	Ra-226	0.7	--	Wet	4	--	Area 1	Mukhin, I.N., et al., 1965
	USSR, central region	Ra-226	0.7	--	Wet	5	--	Area 3	Mukhin, I.N., et al., 1965
Potato (Solana tuberosa)	Italy, Milano	Sr-90	0.6	--	Wet	20	1967		De Bertoli, M.D., et al., 1968
Potato, sweet	Japan, Aichi	Sr-90	0.6	--	Wet	--	1961, October		National Institute of Agricultural Sciences, 1966

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Potato	India, Bombay area	Tb-228	0.6	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ra-226	0.6	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
Potato, sweet	USA, Tennessee, Oak Ridge	Ra-226	<0.5	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Potato	USSR, Central region	Ra-226	0.5	0.1-1.7	Dry	26	--		Mukhin, I.E., et al., 1965
	USSR, Central region	Ra-226	0.5	--	Wet	3	--	Area 2	Mukhin, I.E., et al., 1965
	USSR	Sr-90	0.4	--	Wet	176	1964		Knishnikov, V.A., et al., 1966
Potato, Irish	USA, Tennessee, Oak Ridge	Co-60	<0.4	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Potato	USA, New York, New York City	Sr-90	0.4	--	Processed for eating	--	1970, February		Atomic Energy Commission, 1971
	USA, Louisiana, Lafayette	I-131	<0.4	--	Processed for eating	--	1973, March 12		Slapson, R.E., et al., 1974
	USA, Louisiana, Lafayette	Ra-106	<0.4	--	Processed for eating	--	1973, March 12		Slapson, R.E., et al., 1974
	USA, Louisiana, Lafayette	Cs-137	<0.4	--	Processed for eating	--	1973, March 12		Slapson, R.E., et al., 1974
	USA, Louisiana, Lafayette	Sr-90	0.4	--	Processed for eating	--	1973, March 12		Slapson, R.E., et al., 1974
Potato, sweet	Japan, Kanagawa, Yokohama	Sr-90	0.4	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1964
Potato	India, Bombay area	Ra-226	0.4	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	USSR	Sr-90	0.3	--	Wet	40	1963, October - December		Knishnikov, V.A., et al., 1966
	USA, New York, New York City	Sr-90	0.3	--	Wet	--	1970, February		Hardy, E.P., Jr., 1976
Potato, sweet	USA, Tennessee, Oak Ridge	Co-60	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Tb-232	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Potato, Irish	USA, Tennessee, Oak Ridge	Sb-125	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Potato	USA, New York, New York City	Sr-90	0.3	--	Processed for eating	--	1970, May		Atomic Energy Commission, 1971
Potato, sweet	Japan, Saitama, Miya	Sr-90	0.3	--	Wet	--	1961, November		National Institute of Agricultural Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASUREMENT	MEAN RADIOACTIVITY (Bq kg ⁻¹)	STANDARD DEVIATION RADIOACTIVITY (Bq kg ⁻¹)	STATUS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Potato	USA, New York, New York City	3r-90	0.3	--	Processed for eating	--	1970, November		Atomic Energy Commission, 1971
	USSR	3r-90	0.3	--	Net	146	1961		Petukhova, E.V., et al., 1969
	USSR, Volga River region	Radian	0.3	--	Net	14	1964-1965	Control region	Belova, E.S., et al., 1967
	India, Bombay area	Th-232	0.3	--	Net	--	1973	Market samples	Lalit, B.V., et al., 1980
	USSR	3r-90	0.3	--	Net	--	1965		Petukhova, E.V., et al., 1969
	India, Bombay area	Th-232	0.3	--	Net	--	1972	Market samples	Lalit, B.V., et al., 1980
	USSR, Pontov-on-the-Don	Th-232	0.2	--	Net	16	--		Ladinskaya, L.A., et al., 1973
	USSR	3r-90	0.2	--	Net	10	1963, July - September		Kaishnikov, V.A., et al., 1966
	USSR	3r-90	0.2	--	Net	71	1963		Kaishnikov, V.A., et al., 1966
Potato (var. Chippewa)	USA, Massachusetts, Cape Cod, North Eastham	3r-90	0.2	--	Net	--	1975	Pooled	Hardy, E.P., Jr., 1977
Potato, Irish	USA, Tennessee, Oak Ridge	Cu-137	<0.2	--	Net	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Potato, sweet	Japan, Ibaragi	3r-90	0.2	--	Net	--	1961, October		National Institute of Radiological Sciences, 1964
Potato	USA, New York, New York City	3r-90	0.2	--	Processed for eating	--	1970, August		Atomic Energy Commission, 1971
	USA, Louisiana, Lafayette	K-40	0.2	--	Processed for eating	--	1973, March 12		Simpson, D.H., et al., 1974
	Denmark, Jutland	Cu-137	0.2	--	Net	--	1977		Barthrog, A., et al., 1978
Potato, Irish	USA, Tennessee, Oak Ridge	Plutonium	0.2	--	Dry	2	1975-1976	Total Pu. pooled potato grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
Potato	USA, Louisiana, Lafayette	K-40	0.2	--	Net	--	1973, March 12		Simpson, D.H., et al., 1974
	India, Bombay area	Th-232	0.2	--	Net	--	1973	Market samples	Lalit, B.V., et al., 1980
	USSR, Moscow	Th-232	0.2	--	Net	14	1961-1964	Random samples from all wholesale markets supplying the city	Varela, A.H., et al., 1966
	USA, New York, New York City	Th-232	0.1	--	Net	--	--		Norman, B.S., et al., 1971
	USA, New York, New York City	Th-232	<0.1	--	Net	--	--		Norman, B.S., et al., 1971
	Poland, Hucary Valley	Th-232	<0.1	--	Net	--	--		Pietruch-Flis, S., 1972

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Crop

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Potato (var. Chipewake)	Poland, Kowary Valley, Silesia	Ba-226	<0.1	--	Net	--	--		Pietrusak-Pila, R., 1972
	Poland, Warsaw	Ba-226	<0.1	--	Net	--	--		Pietrusak-Pila, R., 1972
	USSR, Rostov-on-the-Don	Po-210	<0.1	--	Net	16	--		Ladinskaya, L.A., et al., 1973
	USA, Ohio, Bollbrook	Pu-238	<0.1	--	Net	4	1980		Parmer, S.H., et al., 1981
	USA, Ohio, Centerville	Pu-238	<0.1	--	Net	4	1980		Parmer, S.H., et al., 1981
	USA, Ohio, Ellettsburg	Pu-238	<0.1	--	Net	4	1980		Parmer, S.H., et al., 1981
	USSR	Sr-90	0.1	--	Net	13	1963, January - March		Kaishnikov, V.A., et al., 1966
	USA, California, San Francisco	Sr-90	<0.1	--	Net	--	1976, March		Hardy, R.P., Jr., 1976
	USA, Oklahoma, Afton	Pu-226	<0.1	--	Net	--	1975	High Ba-226 in local water supply	Keefer, D.H., et al., 1980
	USA, New York	Pu-239, 240	<0.1	--	Net	--	1972	Peel	Bennett, B.G., 1975
Potato, sweet	USA, Massachusetts, Cape Cod, North Eastham	Am-241	<0.1	--	Net	--	--	Peel	Hardy, R.P., Jr., 1977
	USA, Massachusetts, Cape Cod, North Eastham	Pu-239, 240	<0.1	--	Net	--	1975	Peel	Hardy, R.P., Jr., 1977
	USA, Massachusetts, Cape Cod, North Eastham	Am-241	<0.1	--	Net	--	1975	Peel	Hardy, R.P., Jr., 1977
	USA, Massachusetts, Cape Cod, North Eastham	Pu-239, 240	<0.1	--	Net	--	1975	Peel	Hardy, R.P., Jr., 1977
	USA, Massachusetts, Cape Cod, North Eastham	Sr-90	<0.1	--	Net	--	1975	Peel	Hardy, R.P., Jr., 1977
	USA, Massachusetts, Cape Cod, North Eastham	Cs-137	0.1	--	Net	--	1975	Peel	Hardy, R.P., Jr., 1977
	USA, Tennessee, Oak Ridge	Sr-90, Pb-90, Total beta	<0.1	--	Net	--	--	Market sample, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Sr-90, Pb-90, Total beta	<0.1	--	Net	--	--	Market sample, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Ba-226	<0.1	--	Net	--	--	Market sample, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Ta-232	<0.1	--	Net	--	--	Market sample, edible portion	Oakes, T.W., et al., 1977
Potato	USA, California, San Francisco	Sr-90	<0.1	--	Processed for fat	--	1970, March		Atomic Energy Commission 1971
	USA, California, San Francisco	Sr-90	<0.1	--	Processed for fat	--	1970, June		Atomic Energy Commission 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYSED	DATE	COMMENT	REFERENCE
Potato	Japan, Hokkaido, Sapporo	Sr-90	0.1	--	Wet	--	1962, April		National Institute of Agricultural Sciences, 1964
Potato, sweet	Japan, Kanagawa, Kawasaki	Sr-90	0.1	--	Wet	--	1962, January		National Institute of Agricultural Sciences, 1964
Potato	Denmark, Aakov	Sr-90	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, St. Jyndeved	Sr-90	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Blangstedgaard	Sr-90	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tystofte	Sr-90	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Ledrøborg	Sr-90	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Bled	Sr-90	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Skirtoby	Sr-90	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, The Islands	Cs-137	0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tystrup	Sr-90	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Stedsgaard	Sr-90	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Odum	Sr-90	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USA, California, San Francisco	Sr-90	0.1	--	Processed for eating	--	1970, September		Atomic Energy Commission, 1971
	USA, California, San Francisco	Sr-90	<0.1	--	Processed for eating	--	1970, December		Atomic Energy Commission, 1971
Potato (Solana tuberosa)	Italy, Bolgno, Campania, Lazio	Sr-90	<0.1	--	Wet	--	1970, January - March		Comitato Nazionale per l'Energia Nucleare, 1971
	Italy, Abruzzi, Lazio	Sr-90	<0.1	--	Wet	--	1970, July - September		Comitato Nazionale per l'Energia Nucleare, 1971
Potato, sweet	Japan, Okayama City vicinity	Sr-226	<0.1	--	Wet	2	--	Author's sample basis revised	Kuroda, T., 1968
Potato	USSR, Volga River region	Uranium	<0.1	--	Wet	14	1964-1965	Control region. Computed value.	Belova, R.S., et al., 1967
	USSR, Volga River region	Uranium	<0.1	--	Wet	14	1964-1965	Experimental region. Computed value.	Belova, R.S., et al., 1967
	Italy, Varese	Sr-226	<0.1	--	Wet	--	--	Edible parts.	De Bertoli, M.D., et al., 1972
	Germany (W)	Sr-226	<0.1	--	Wet	22	--		De Bertoli, M.D., et al., 1972
	Germany (S)	Sr-226	<0.1	--	Wet	17	--		De Bertoli, M.D., et al., 1972
	India, Bombay	Po-210	<0.1	--	Wet	2	--		Rhandekar, R.N., 1977
	USSR, central region	Sr-226	0.1	--	Wet	9	--	Area 4	Mukhin, I.N., et al., 1965
	India, Bombay area	Sr-226	0.1	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Potato	India, Bombay area	Th-228	<0.1	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.1	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
Potato, sweet	Japan, Saikyo-sachi area	Pb-210	<0.1	--	Wet	--	--		Kuroda, T., 1968
Potato	USSR	Pb-210	<0.1	--	Wet	--	--		Yemelayeva-Nakovskaya, A.P., et al., 1969
	Germany, Southern Black Forest, Bosenbachwald	Ra-226	--	1.1-1.5	Wet	--	--		Schettolhoff, H., et al., 1980
	South Africa, Polindaba	Total Alpha	0.0	--	Dry	--	1964, November	Para 13 km SE of Polindaba	Van de, S., et al., 1965
Pulse	India, Bombay area	K-40	450	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	450	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	440	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	410	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	370	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ra-226	0.9	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ra-226	0.5	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ra-226	0.4	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ra-226	0.3	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
Pulse (Cajanus cajan)	India, Bombay	Pb-210	0.2	--	Wet	--	1971, September	Red gram. Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.2	--	Wet	--	1972, November	Red gram. Market samples	Lalit, B.V., et al., 1980
Pulse	India, Bombay area	Th-228	0.2	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.2	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ra-226	0.2	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.2	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Wet	2	--	Black gram	Khandekar, B.N., 1977
	India, Bombay	Pb-210	<0.1	--	Wet	2	--	Green gram	Khandekar, B.N., 1977
	India, Bombay	Pb-210	<0.1	--	Wet	2	--	Bengal gram	Khandekar, B.N., 1977
	India, Bombay	Pb-210	<0.1	--	Wet	1	--	Red gram	Khandekar, B.N., 1977
Pulse (Cajanus cajan)	India, Bombay	Pb-210	0.1	--	Wet	--	1970, October	Red gram. Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Wet	--	1971, May	Red gram. Market samples	Lalit, B.V., et al., 1977
	India, Bombay	Pb-210	<0.1	--	Wet	--	1972, May	Red gram. Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Wet	--	1973, May	Red gram. Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Wet	--	1974, May	Red gram. Market samples	Lalit, B.V., et al., 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

Food Crop	Geographical origin	Isotopes measured	Mean radioactivity (Bq kg ⁻¹)	Range of radioactivity (Bq kg ⁻¹)	Units	Number analysed	Date	Comments	Reference
Peanut (Cajanus cajan)	India, Bombay	Pb-210	0.1	--	Net	--	1975, February	Red gram, Market samples	Lalit, B.V., et al., 1980
Peanut	India, Bombay area	Pb-228	CO-1	--	Net	--	1970	Market samples	Lalit, B.V., et al., 1980
Peanut	India, Bombay area	Pb-228	CO-1	--	Net	--	1971	Market samples	Lalit, B.V., et al., 1980
Peanut	Marshall Islands, Bikini-Rikiti	Cs-137	12000	--	DrY	--	1976, April 5	Sample V-2A, flesh	Greenhouse, V.A., et al., 1977
Peanut	South Africa, Polladaba	Total beta	3700	--	DrY	--	1964, February	--	Van der, D., et al., 1967
Peanut, white	Marshall Islands, Bikini-Rikiti	Sr-90	950	--	DrY	--	1976, April 5	Sample V-2A, flesh	Greenhouse, V.A., et al., 1977
Quince	Marshall Islands, Bikini-Rikiti	Cs-137	930	--	DrY	--	1976, April 5	Sample V-2A, flesh	Greenhouse, V.A., et al., 1977
Quince	India, Bombay	Pb-210	CO-1	--	Net	2	--	--	Phandekar, S.H., 1977
Quince	South Africa, Polladaba	Total beta	1200	--	DrY	--	1966, February	--	Van der, D., et al., 1967
Radish	Bangladesh, Khulna	Cs-137	1200	--	Net	--	1972-1976	Boat	Rob Nolla, M.A., 1978
Radish	USA, New Mexico, Los Alamos	Cs-137	250	--	DrY	8	1976	26-day growth. Samples from horticultural Canyon garden plot.	Rakenson, T.R., et al., 1978
Radish	USA, New Mexico, Los Alamos	Cs-137	190	--	DrY	6	1976	37-day growth. Samples from horticultural Canyon garden plot.	Rakenson, T.R., et al., 1978
Radish	Bangladesh, Dhaka	Cs-137	48	--	Net	--	1972-1976	--	Rob Nolla, M.A., 1978
Radish	USA, Tennessee, Oak Ridge	Plutonium	15	--	DrY	5	1975-1976	Total Pb, green white Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
Radish	USA, Nevada, Pahremp	Sr-90	<11	--	Net	--	1976, June 25	--	Andrews, V.R., et al., 1978
Radish	USA, New Mexico, Los Alamos	Pb-228	10	--	DrY	6	1976	37-day growth. Samples from horticultural Canyon garden plot.	Rakenson, T.R., et al., 1978
Radish	USA, New Mexico, Los Alamos	Pb-228	10	--	DrY	8	1976	26-day growth. Samples from horticultural Canyon garden plot.	Rakenson, T.R., et al., 1978
Radish	Bangladesh	Pb-228	7.0	--	Net	--	1972-1976	--	Rob Nolla, M.A., 1978
Radish	Japan, Kagoshima, Echigo	Sr-90	5.8	--	Net	--	1965, October	--	National Institute of Radiological Sciences, 1968
Radish	Japan, Kagoshima, Sendai	Sr-90	6.5	--	Net	--	1965, October	--	National Institute of Radiological Sciences, 1968
Radish	Japan, Kagoshima, Chikita-ya	Sr-90	2.6	--	Net	--	1976, September	--	National Institute of Radiological Sciences, 1980
Radish	Bangladesh, Khulna	Sr-90	2.4	--	Net	--	1972-1976	--	Rob Nolla, M.A., 1978
Radish	Japan, Shimane, Oda	Sr-90	2.3	--	Net	--	1976, Jul	Shole	National Institute of Radiological Sciences, 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food No.

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Radish	USSR	Uranium	2.3	--	Ash	--	1963-1965	Root	Fedorov, Y.A., et al., 1969
Radish, Japanese	Japan, Kagoshima, Ei	Sr-90	2.0	--	Wet	--	1964, November	Root	National Institute of Radiological Sciences, 1965
	Japan, Okayama, Okayama	Sr-90	1.0	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Akita, Kanabe	Sr-90	1.6	--	Wet	--	1971, August	Whole	National Institute of Radiological Sciences, 1972
Radish	USSR	Cs-137	1.5	--	Wet	--	1966		Krishnakov, V.A., et al., 1966
	USA, New Mexico, Los Alamos	Pu-239	1.5	--	Dry	6	1976	37-day growth. Samples from Montanada Canyon garden plot.	Hakenson, T.E., et al., 1976
Radish, Japanese	Japan, Niigata, Nagaoka	Cs-137	1.4	--	Wet	--	1963, October	Root	National Institute of Radiological Sciences, 1964
	Japan, Akita, Akita	Sr-90	1.8	--	Wet	--	1966, July	Root	National Institute of Radiological Sciences, 1969
	Japan, Hokkaido, Ishikawa	Sr-90	1.4	--	Wet	--	1970, July	Whole	National Institute of Radiological Sciences, 1971
	Japan, Akita, Tomo	Sr-90	1.3	--	Wet	--	1966, July	Root	National Institute of Radiological Sciences, 1969
	Japan, Kagoshima, Kajiki	Sr-90	1.3	--	Wet	--	1970, December	Whole	National Institute of Radiological Sciences, 1971
	Japan, Fuku, Nibara	Sr-90	1.2	--	Wet	--	1970, December	Whole	National Institute of Radiological Sciences, 1971
Radish	Japan, Fuku, Ono	Sr-90	1.1	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1968
Radish, Japanese	Japan, Niigata, Nagaoka	Sr-90	1.1	--	Wet	--	1963, October	Root	National Institute of Radiological Sciences, 1964
	Japan, Fuku, Tsuruga	Sr-90	1.1	--	Wet	--	1974, November	Whole	National Institute of Radiological Sciences, 1976
	Japan, Shizuoka, Ohta	Sr-90	1.1	--	Wet	--	1974, November	Whole	National Institute of Radiological Sciences, 1976
	Japan, Kagoshima, Ei	Cs-137	1.1	--	Wet	--	1964, November	Root	National Institute of Radiological Sciences, 1965
Radish	USA, New Mexico, Los Alamos	Pu-239	1.1	--	Dry	8	1976	34-day growth. Samples from Montanada Canyon garden plot.	Hakenson, T.E., et al., 1976

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	STATUS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Radish, Japanese	Japan, Hokkaido, Itosaka	Sr-90	1.0	--	Not	--	1971, July		National Institute of Radiological Sciences, 1972
Radish	Japan, Fuku, Oso	Cs-137	1.0	--	Not	--	1962, July		National Institute of Agricultural Sciences, 1964
Radish, Japanese	Japan, Hokkaido, Obihiro	Cs-137	1.0	--	Not	--	1963, August		National Institute of Radiological Sciences, 1966
	Japan, Fukushima, Ohsaka	Sr-90	1.0	--	Not	--	1971, April	Whole	National Institute of Radiological Sciences, 1972
Radish	Bangladesh, Dacca	Sr-90	1.0	--	Not	--	1972-1974		Webb, H.A., 1978
Radish, Japanese	Japan, Akita, Akita	Cs-137	1.0	--	Not	--	1964, July	Root	National Institute of Radiological Sciences, 1967
Radish	USSR	Sr-90	0.9	--	Not	16	1964		Krishnakumar, V.S., et al., 1976
Radish, Japanese	Japan, Fukushima, Futaba	Sr-90	0.9	--	Not	--	1971, October	Whole	National Institute of Radiological Sciences, 1972
	Japan, Shizuoka, Fuji	Sr-90	0.9	--	Not	--	1971, November	Whole	National Institute of Radiological Sciences, 1972
	Japan, Fuku, Nikata	Sr-90	0.9	--	Not	--	1971, December		National Institute of Radiological Sciences, 1972
	Japan, Shizuoka, Gotohaka	Sr-90	0.9	--	Not	--	1974, November		National Institute of Radiological Sciences, 1980
	Japan, Saitama, Tsuki	Sr-90	0.9	--	Not	--	1964, July	Whole	National Institute of Radiological Sciences, 1967
	Japan, Hiroshima, Kabe	Sr-90	0.9	--	Not	--	1964, June	Root	National Institute of Radiological Sciences, 1965
	Japan, Shizuoka, Ohta	Sr-90	0.8	--	Not	--	1978, August		National Institute of Radiological Sciences, 1979
	Japan, Fukuoka, Sazawa	Sr-90	0.7	--	Not	--	1971, December	Whole	National Institute of Radiological Sciences, 1972
	Japan, Kagoshima, Aita	Sr-90	0.7	--	Not	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
	Japan, Kagoshima, Aita	Cs-137	0.7	--	Not	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
	Japan, Aichi, Akabane	Sr-90	0.7	--	Not	--	1971, April	Whole	National Institute of Radiological Sciences, 1972

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	STANDARD DEVIATION OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Radish, Japanese	Japan, Shimane, Oda	Cs-137	0.7	--	Net	--	1974, July	Whole	National Institute of Radiological Sciences, 1974
	Japan, Shimane, Oda	Sr-90	0.7	--	Net	--	1979, July		National Institute of Radiological Sciences, 1980
	Japan, Saitama, Sayito	Sr-90	0.6	--	Net	--	1966, December	Root	National Institute of Agricultural Sciences, 1967
	Japan, Yamagata, Sae	Cs-137	0.6	--	Net	--	1978, October	Whole	National Institute of Radiological Sciences, 1978
	Japan, Niigata, Akatsukadani	Cs-137	0.6	--	Net	--	1974, July	Whole	National Institute of Radiological Sciences, 1976
	Japan, Shimane, Oda	Cs-137	0.6	--	Net	--	1978, August		National Institute of Radiological Sciences, 1979
	Japan, Kochi, Kochi	Sr-90	0.6	--	Net	--	1979, January		National Institute of Radiological Sciences, 1980
	Japan, Saitama, Iwaki	Cs-137	0.6	--	Net	--	1966, July	Whole	National Institute of Radiological Sciences, 1969
	Japan, Kochi, Takasaka-gun	Sr-90	0.6	--	Net	--	1981, January		National Institute of Radiological Sciences, 1981
	Japan, Yamaguchi, Otsu-gun	Sr-90	0.6	--	Net	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Akita, Tenno	Cs-137	0.6	--	Net	--	1964, July	Root	National Institute of Radiological Sciences, 1965
	Japan, Hokkaido, Sapporo	Sr-90	0.6	--	Net	--	1970	Whole	National Institute of Radiological Sciences, 1971
	Japan, Hokkaido, Asahikawa	Cs-137	0.6	--	Net	--	1970, July	Whole	National Institute of Radiological Sciences, 1971
	Japan, Akita, Akita	Sr-90	0.6	--	Net	--	1980, September		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Nakahara	Sr-90	0.5	--	Net	--	1971, Jan	Whole	National Institute of Radiological Sciences, 1972
	Japan, Shizuoka, Fuji	Cs-137	0.5	--	Net	--	1971, November	Whole	National Institute of Radiological Sciences, 1972
	Japan, Hokkaido, Obihiro	Sr-90	0.5	--	Net	--	1965, August		National Institute of Radiological Sciences, 1966
	Japan, Kagoshima, Kotabe	Cs-137	0.5	--	Net	--	1965, October		National Institute of Radiological Sciences, 1966

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SAMPLES ANALYZED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	SCOPE OF RADIOACTIVITY (Bq kg ⁻¹)	ISOTOPE	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Radish, Japanese	Japan, Shimane, Yoshikawa	3r-90	0.5	--	Wat	--	1964, November		National Institute of Radiological Sciences, 1966
	Japan, Kagoshima, Hayato	Cu-137	0.5	--	Wat	--	1964, June	Whole	National Institute of Radiological Sciences, 1970
	Japan, Kagoshima, Ibusuki	3r-90	0.5	--	Wat	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
	Japan, Fukuoka, Fukuoka	3r-90	0.5	--	Wat	--	1971, May	Whole	National Institute of Radiological Sciences, 1972
	Japan, Aomori, Aomori	3r-90	0.5	--	Wat	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
	Japan, Yamagata, Ito	3r-90	0.5	--	Wat	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
	Japan, Kagoshima, Kaimon	3r-90	0.5	--	Wat	--	1970, November		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Shino	3r-90	0.5	--	Wat	--	1970, June	Whole	National Institute of Radiological Sciences, 1971
	Japan, Niigata, Nishikawabara	3r-90	0.5	--	Wat	--	1970, July	Whole	National Institute of Radiological Sciences, 1971
	Japan, Kyoto, Kyoto	3r-90	0.5	--	Wat	--	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Aomori, Sannabe	3r-90	0.4	--	Wat	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Hanabishi	3r-90	0.5	--	Wat	--	1962, November		National Institute of Agricultural Sciences, 1968
Radish, Japanese	Japan, Iohikawa, Kanazawa	3r-90	0.4	--	Wat	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Kagoshima, Hayato	3r-90	0.4	--	Wat	--	1964, June	Whole	National Institute of Radiological Sciences, 1970
	Japan, Kagoshima, Ibusuki	Cu-137	0.4	--	Wat	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
	Japan, Aichi, Toyota	3r-90	0.4	--	Wat	--	1971, April	Whole	National Institute of Radiological Sciences, 1972
	Japan, Tottori, Tottori	3r-90	0.4	--	Wat	--	1978, December		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Saico	3r-90	0.4	--	Wat	--	1968, July	Whole	National Institute of Radiological Sciences, 1969

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASUREMENT	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLE ANALYSED	DATE	COMMENT	REFERENCE
Radish, Japanese	Japan, Niigata, Saio	Cs-137	0.4	--	Vet	--	1964, July	Whole	National Institute of Radiological Sciences, 1969
	Japan, Shizuoka, Fujieda	Sr-90	0.4	--	Vet	--	1970, November	Whole	National Institute of Radiological Sciences, 1971
Radish	Japan, Fukuoka, Kamizaka	Cs-137	0.4	--	Vet	--	1962, November		National Institute of Agricultural Sciences, 1964
Radish, Japanese	Japan, Fukuoka, Sawara	Cs-137	0.3	--	Vet	--	1971, December		National Institute of Radiological Sciences, 1972
	Japan, Kyoto, Akashi	Sr-90	0.3	--	Vet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Yawata	Cs-137	0.3	--	Vet	--	1974, November	Whole	National Institute of Radiological Sciences, 1976
	Japan, Saitama, Izatsuki	Sr-90	0.3	--	Vet	--	1969, April	Whole	National Institute of Radiological Sciences, 1970
	Japan, Saitama, Izatsuki	Cs-137	0.3	--	Vet	--	1969, April	Whole	National Institute of Radiological Sciences, 1970
	Japan, Niigata, Kitakubara	Sr-90	0.3	--	Vet	--	1974, July	Whole	National Institute of Radiological Sciences, 1976
	Japan, Aomori, Aomori	Cs-137	0.3	--	Vet	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
	Japan, Fukuoka, Fukuoka	Sr-90	0.3	--	Vet	--	1980, November		National Institute of Radiological Sciences, 1981
Radish	Japan, Kanagawa, Kawasaki	Cs-137	0.3	--	Vet	--	1961, January		National Institute of Agricultural Sciences, 1964
Radish, Japanese	Japan, Tottori, Izumi-gawa	Sr-90	0.3	--	Vet	--	1980, December		National Institute of Radiological Sciences, 1981
Radish	USSR	Uranium	0.3	--	Vet	--	1961-1965	Root	Paderov, V.A., et al., 1965
Radish, Japanese	Japan, Fukushima, Fukushima	Cs-137	0.2	--	Vet	--	1971, May	Whole	National Institute of Radiological Sciences, 1972
	Japan, Niigata, Wakakubara	Cs-137	0.2	--	Vet	--	1971, June	Whole	National Institute of Radiological Sciences, 1972
	Japan, Aichi, Kaseba	Cs-137	0.2	--	Vet	--	1971, August	Whole	National Institute of Radiological Sciences, 1972
	Japan, Fukuoka, Mikata	Cs-137	0.2	--	Vet	--	1971, December		National Institute of Radiological Sciences, 1972

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYSED	DATE	COMMENT	REFERENCE
Radish, Japanese	Japan, Saitama, Sayito	Cs-137	0.2	--	Wet	--	1966, December	Root	National Institute of Agricultural Sciences, 1967
	Japan, Shizuoka, Gotohba	Cs-137	0.1	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Fukuoka	Sr-90	0.2	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Kagoshima, Kagoshima	Sr-90	0.2	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Kagoshima, Kagoshima	Cs-137	0.2	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Yamagata, Yamagata	Sr-90	0.2	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Saga, Saga	Sr-90	0.2	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Osaka, Osaka	Sr-90	0.2	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Hokkaido, Asahikawa	Sr-90	0.2	--	Wet	--	1969, July	Whole	National Institute of Radiological Sciences, 1970
	Japan, Hokkaido, Asahikawa	Cs-137	0.2	--	Wet	--	1969, July	Whole	National Institute of Radiological Sciences, 1970
	Japan, Saitama, Miya	Sr-90	0.2	--	Wet	--	1969, July	Whole	National Institute of Radiological Sciences, 1970
	Japan, Saitama, Miya	Cs-137	0.2	--	Wet	--	1969, July		National Institute of Radiological Sciences, 1970
	Japan, Yamagata, Higashiyama	Sr-90	0.2	--	Wet	--	1974, October	Whole	National Institute of Radiological Sciences, 1974
	Japan, Kanagawa, Utsunomiya	Cs-137	0.2	--	Wet	--	1974, November		National Institute of Radiological Sciences, 1976
	Japan, Fukuoka, Fukuoka	Sr-90	0.2	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Fukuoka, Fukuoka	Cs-137	0.2	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Kagoshima, Kaimon	Cs-137	0.2	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Kagawa, Saka	Sr-90	0.2	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	PLANT	HARVEST ANALYSED	DATE	CULTIVAR	REFERENCE
Radish, Japanese	Japan, Hiroshima, Haba	Cs-137	0.2	--	Vet	--	1964, June	Root	National Institute of Radiological Sciences, 1965
	Japan, Niigata, Nishikawabara	Cs-137	0.2	--	Vet	--	1970, July	Whole	National Institute of Radiological Sciences, 1971
	Japan, Niigata, Soudai	Sr-90	0.2	--	Vet	--	1980, December		National Institute of Radiological Sciences, 1981
	Japan, Okinawa, Nakagami-gun	Sr-90	0.2	--	Vet	--	1980, December		National Institute of Radiological Sciences, 1981
	Japan, Nagasaki, Nagasaki	Sr-90	0.2	--	Vet	--	1981, January		National Institute of Radiological Sciences, 1981
Radish	USA, Nevada, Adavon	Pu-238	<0.1	--	Vet	--	1976, August 3	Statistically insignificant	Andrews, V.E., et al., 1976
	USA, Nevada, Adavon	Pu-239	<0.1	--	Vet	--	1976, August 3	Statistically insignificant	Andrews, V.E., et al., 1976
	USA, Nevada, Hysla	Pu-238	<0.1	--	Vet	--	1976, August 3		Andrews, V.E., et al., 1976
	USA, Nevada, Hysla	Pu-239	<0.1	--	Vet	--	1976, August 3		Andrews, V.E., et al., 1976
Radish, Japanese	Japan, Hokkaido, Atsuta	Cs-137	<0.1	--	Vet	--	1971, July	Whole	National Institute of Radiological Sciences, 1972
	Japan, Fukushima, Futaba	Cs-137	<0.1	--	Vet	--	1971, October	Whole	National Institute of Radiological Sciences, 1972
	Japan, Nagano, Saku	Cs-137	<0.1	--	Vet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Fukuoka	Cs-137	<0.1	--	Vet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Hyogo, Ashahi	Cs-137	<0.1	--	Vet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Yamagata, Yamaoka	Cs-137	<0.1	--	Vet	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Tokyo, Machiyo-Island	Sr-90	<0.1	--	Vet	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Tokyo, Machiyo-Island	Cs-137	<0.1	--	Vet	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Niigata	Sr-90	0.1	--	Vet	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Niigata	Cs-137	0.1	--	Vet	--	1980, November		National Institute of Radiological Sciences, 1980

Table 1. Naturally Occurring radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLEIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SIZES	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Radish, Japanese	Japan, Okayama, Okayama	Cs-137	<0.1	--	Not	--	1986, November		National Institute of Radiological Sciences, 1988
	Japan, Saga, Saga	Cs-137	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Ishikawa, Kanazawa	Cs-137	<0.1	--	Not	--	1986, November		National Institute of Radiological Sciences, 1981
	Japan, Osaka, Osaka	Cs-137	<0.1	--	Not	--	1986, November		National Institute of Radiological Sciences, 1981
	Japan, Aomori, Sannoko	Cs-137	<0.1	--	Not	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Nagasaki, Sendai	Cs-137	0.1	--	Not	--	1965, October		National Institute of Radiological Sciences, 1966
	Japan, Shizuoka, Yoshitake	Cs-137	<0.1	--	Not	--	1965, November		National Institute of Radiological Sciences, 1966
	Japan, Yamagata, Higashimatsu	Cs-137	0.1	--	Not	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
	Japan, Kanagawa, Biwa	Sr-90	<0.1	--	Not	--	1974, November	Whole	National Institute of Radiological Sciences, 1976
	Japan, Aomori, Oda	Cs-137	0.1	--	Not	--	1974, November	Whole	National Institute of Radiological Sciences, 1976
	Japan, Aichi, Toyota	Cs-137	<0.1	--	Not	--	1971, April	Whole	National Institute of Radiological Sciences, 1973
	Japan, Aichi, Aikano	Cs-137	0.1	--	Not	--	1971, April	Whole	National Institute of Radiological Sciences, 1973
	Japan, Niigata, Hitakabara	Cs-137	0.1	--	Not	--	1974, July	Whole	National Institute of Radiological Sciences, 1976
	Japan, Niigata, Matsumoto	Sr-90	0.1	--	Not	--	1974, July	Whole	National Institute of Radiological Sciences, 1976
	Japan, Fuku, Fuku	Cs-137	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Fukuoka, Kasuga	Sr-90	0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Fukuoka, Kasuga	Cs-137	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Okayama, Okayama	Sr-90	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1981

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASE	SAMPLES ANALYZED	DATE	COUNTRY	REFERENCE
Radish, Japanese	Japan, Wakayama, Wakayama	Cs-137	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1981
Radish	Japan, Kanagawa, Kawasaki	Sr-90	0.1	--	Net	--	1962, January		National Institute of Agricultural Sciences, 1966
Radish, Japanese	Japan, Tottori, Tottori	Cs-137	<0.1	--	Net	--	1978, December		National Institute of Radiological Sciences, 1980
	Japan, Kochi, Kochi	Cs-137	<0.1	--	Net	--	1979, January		National Institute of Radiological Sciences, 1980
	Japan, Okinawa, Natsuren	Sr-90	<0.1	--	Net	--	1979, February		National Institute of Radiological Sciences, 1980
	Japan, Okinawa, Natsuren	Cs-137	<0.1	--	Net	--	1979, January		National Institute of Radiological Sciences, 1980
	Japan, Shimane, Ota	Cs-137	0.1	--	Net	--	1979, July		National Institute of Radiological Sciences, 1980
	Japan, Hokkaido, Ishikari-gun	Cs-137	<0.1	--	Net	--	1979, September		National Institute of Radiological Sciences, 1980
	Japan, Tokyo, Shinjuku	Sr-90	0.1	--	Net	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Tokyo, Shinjuku	Cs-137	<0.1	--	Net	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Tottori, Iwami-gun	Cs-137	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1981
	Japan, Kochi, Tadaoka-gun	Cs-137	<0.1	--	Net	--	1981, January		National Institute of Radiological Sciences, 1981
	Japan, Hiroshima, Hiroshima	Sr-90	<0.1	--	Net	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Hiroshima, Hiroshima	Cs-137	<0.1	--	Net	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Yamaguchi, Ota-gun	Cs-137	<0.1	--	Net	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Fukuoka, Shimo	Cs-137	<0.1	--	Net	--	1970, June	Whole	National Institute of Radiological Sciences, 1971
	Japan, Hokkaido, Sapporo	Cs-137	<0.1	--	Net	--	1970, July	Whole	National Institute of Radiological Sciences, 1971
	Japan, Shizuoka, Fujieda	Cs-137	<0.1	--	Net	--	1970, November	Whole	National Institute of Radiological Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Paul Shaw

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCES
Radish, Japanese	Japan, Fuku, Nibana	Cs-137	<0.1	--	Vol	--	1970, December	Whole	National Institute of Radiological Sciences, 1971
	Japan, Kagoshima, Kefiki	Cs-137	0.1	--	Vol	--	1970, December	Whole	National Institute of Radiological Sciences, 1971
	Japan, Akita, Akita	Cs-137	<0.1	--	Vol	--	1980, September		National Institute of Radiological Sciences, 1980
	Japan, Miyagi, Sendai	Cs-137	<0.1	--	Vol	--	1980, December		National Institute of Radiological Sciences, 1981
	Japan, Okinawa, Nakagami-gun	Cs-137	<0.1	--	Vol	--	1980, December		National Institute of Radiological Sciences, 1981
	Japan, Nagasaki, Nagasaki	Cs-137	<0.1	--	Vol	--	1981, January		National Institute of Radiological Sciences, 1981
	Japan, Kanagawa, Yokohama	Sr-90	<0.1	--	Vol	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Kanagawa, Yokohama	Cs-137	<0.1	--	Vol	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Aichi, Atsumi-gun	Sr-90	<0.1	--	Vol	--	1981, May		National Institute of Radiological Sciences, 1981
	Japan, Aichi, Atsumi-gun	Cs-137	<0.1	--	Vol	--	1981, May		National Institute of Radiological Sciences, 1981
	Japan, Kyoto, Kyoto	Cs-137	0.0	--	Vol	--	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Kyoto, Kyoto	Cs-137	0.0	--	Vol	--	1980, October		National Institute of Radiological Sciences, 1980
Raspberry	Hungary, Győr-Sopron	Total beta	350	--	Dry	--	1971-1974		Swabe, A., 1977
	Hungary, Győr-Sopron	K-40	290	--	Dry	--	1971-1974		Swabe, A., 1977
Tea	India, Bombay	Po-210	<0.1	--	Vol	3	--		Khandekar, R.N., 1977
Rice	India, Bombay area	K-40	87	--	Vol	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	62	--	Vol	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	62	--	Vol	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	56	--	Vol	--	1974	Market samples	Lalit, B.V., et al., 1980
	USSR, Moscow	Ba-226	51	--	Ash	1	1961-1964	Random samples from all wholesale markets supplying the city	Karol, A.W., et al., 1966
	India, Bombay area	K-40	46	--	Vol	--	1974	Market samples	Lalit, B.V., et al., 1980
	Japan, Saeki-machi area	Ba-226	93	--	Ash	16	--		Kuroda, Y., 1966
	India, Burma Coast	Total beta	40	--	Dry	6	--	Sample area included samples bearing high radiation belt	Hickley, R.B., et al., 1970

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE RADIO. NO.	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Rice	India, Kerala Coast	K-40	35	20-53	Dry	6	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	Japan, Okayama City vicinity	Ba-226	20	--	Ash	9	--	Author's sample basis revised	Kuroda, T., 1968
	Japan	Cs-137	4.1	--	Wet	--	1963	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	USSR	Cs-137	4.1	--	Wet	--	1964		Knishnikov, V.A., et al., 1966
	Japan	Sr-90	3.3	--	Wet	--	1963	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	India, Kerala Coast	Total alpha	3.0	0.5-7.6	Dry	6	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	Japan	Cs-137	2.7	--	Wet	--	1959	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan	Cs-137	2.5	--	Wet	--	1964	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	India, Kerala Coast	85 keV gamma	2.2	--	Dry	4	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	Japan	Cs-137	1.9	--	Wet	--	1962	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	USSR	Cs-137	1.7	--	Wet	25	1966		Petukhova, E.V., et al., 1977
	Japan	Sr-90	1.6	--	Wet	--	1964	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan	Sr-90	1.4	--	Wet	--	1959	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan	Sr-90	1.4	--	Wet	--	1962	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan	Cs-137	1.3	--	Wet	--	1961	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Brazil, Rio de Janeiro	Ba-226	1.3	--	Ash	--	--		Lobao, W., et al., 1973
	Japan	Sr-90	1.2	--	Wet	--	1958	Brown rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan, Akita, Akita	Cs-137	1.2	--	Wet	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
	Japan, Iwate, Morioka	Cs-137	1.2	--	Wet	--	1969, October	Polished	National Institute of Radiological Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Rice	Japan	Cs-137	1.1	--	Net	--	1960	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	USSR	Sr-90	1.1	--	Net	12	1964		Kaishnikov, V.A., et al., 1966
	Japan, Hokkaido, Sapporo	Cs-137	0.9	--	Net	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
	Japan	Cs-137	0.6	--	Net	--	1965	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan	Sr-90	0.6	--	Net	--	1957	Brown rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan, Miyagi, Sendai	Cs-137	0.6	--	Net	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
	Japan, Niigata, Tokada	Cs-137	0.7	--	Net	--	1969, September	Polished	National Institute of Radiological Sciences, 1971
	India, Bombay area	Th-228	0.6	--	Net	--	1970	Market samples.	Lalit, S.V., et al., 1980
	Japan	Cs-137	0.6	--	Net	--	1968	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan	Cs-137	0.6	--	Net	--	1969	Polished.	National Institute of Agricultural Sciences, 1971
	Japan, Akita, Akita	Sr-90	0.6	--	Net	--	1970, September	Brown	National Institute of Agricultural Sciences, 1971
	Japan	Sr-90	0.6	--	Net	--	1965	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan, Tokyo, Tachikawa	Cs-137	0.6	--	Net	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
	India, Bombay area	Th-228	0.5	--	Net	--	1971	Market samples	Lalit, S.V., et al., 1980
	Japan	Cs-137	0.5	--	Net	--	1967	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan, Iwate, Morioka	Sr-90	0.5	--	Net	--	1970, September	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Niigata, Tokada	Sr-90	0.5	--	Net	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Mie, Tsu	Sr-90	0.5	--	Net	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Tottori, Tottori	Cs-137	0.5	--	Net	--	1969, October	Polished	National Institute of Radiological Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Rice	India, Bombay	Pb-210	0.5	--	Wet	--	1975, January	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.5	--	Wet	--	1971, October	Market samples	Lalit, B.V., et al., 1980
	India, Kerala Coast	Ba-228	<0.4	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	Japan	Cs-137	0.4	--	Wet	--	1966	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan, Hokkaido, Sapporo	Sr-90	0.4	--	Wet	--	1970, September	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Tokyo, Tachikawa	Sr-90	0.4	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
	Japan	Sr-90	0.4	--	Wet	--	1970	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan, Ishikawa, Kanazawa	Sr-90	0.4	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Akita, Akita	Cs-137	0.4	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Ishikawa, Kanazawa	Cs-137	0.4	--	Wet	--	1969, September	Polished	National Institute of Radiological Sciences, 1971
	Japan, Mie, Tsu	Cs-137	0.4	--	Wet	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
	USSR	Sr-90	0.4	--	Wet	25	1966	Grains	Petukhova, E.V., et al., 1969
	India, Bombay	Pb-210	0.4	--	Wet	--	1975, July	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.4	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ba-226	0.3	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.3	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Japan, Niigata, Sendai	Sr-90	0.3	--	Wet	--	1970, September	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Saitama, Konomi	Sr-90	0.3	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
	Japan	Sr-90	0.3	--	Wet	--	1960	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan	Sr-90	0.3	--	Wet	--	1961	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Rice	Japan	Sr-90	0.3	--	Not	--	1966	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan	Sr-90	0.3	--	Not	--	1967	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan	Sr-90	0.3	--	Not	--	1968	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan	Sr-90	0.3	--	Not	--	1969	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Japan, Tottori, Tottori	Sr-90	0.3	--	Not	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Fukuoka, Fukuoka	Sr-90	0.3	--	Not	--	1970, November	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Fukuoka, Fukuoka	Cs-137	0.3	--	Not	--	1978, December		National Institute of Radiological Sciences, 1979
	Japan	Sr-90	0.3	--	Not	--	1963	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan, Saitama, Saitama	Cs-137	0.3	--	Not	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
	Japan, Fukuoka, Fukuoka	Cs-137	0.3	--	Not	--	1969, November	Polished	National Institute of Radiological Sciences, 1971
	USSR, Moscow	Ra-226	0.3	--	Not	1	1961-1964	Random samples from all wholesale markets supplying the city	Narel, B.N., et al., 1966
	India, Bombay	Pb-210	0.3	--	Not	--	1974, July	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Pb-220	0.3	--	Not	--	1973	Market samples	Lalit, B.V., et al., 1980
	Japan, Okayama, Okayama	Cs-137	0.2	--	Not	--	1979, January		National Institute of Radiological Sciences, 1980
	India, Bombay area	Ra-226	0.2	--	Not	--	1971	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ra-226	0.2	--	Not	--	1972	Market samples	Lalit, B.V., et al., 1980
	Japan, Ibaraki, Ibaraki	Sr-90	0.2	--	Not	--	1970, September	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Yamaguchi, Yamaguchi	Sr-90	0.2	--	Not	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Osaka, Osaka	Sr-90	0.2	--	Not	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Rice	Ja. Okayama, Okayama	Sr-90	0.2	--	Net	--	1970, November	Brown	National Institute of Agricultural Sciences, 1971
	Japan, Nagoshima, Nagoshima	Cs-137	0.2	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Hyogo, Kobe	Cs-137	0.2	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Saki	Cs-137	0.2	--	Net	--	1978, October		National Institute of Radiological Sciences, 1979
	Japan, Iwatori, Iwatori	Cs-137	0.2	--	Net	--	1979, January		National Institute of Radiological Sciences, 1979
	Japan, Okayama, Seto	Cs-137	0.2	--	Net	--	1979, January		National Institute of Radiological Sciences, 1979
	Japan	Sr-90	0.2	--	Net	--	1964	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan, Yamaguchi, Kofu	Cs-137	0.2	--	Net	--	1965, September	Polished	National Institute of Radiological Sciences, 1971
	Japan, Osaka, Osaka	Cs-137	0.2	--	Net	--	1965, November	Polished	National Institute of Radiological Sciences, 1971
	Japan, Okayama, Okayama	Cs-137	0.2	--	Net	--	1969, November	Polished	National Institute of Radiological Sciences, 1971
	Japan, Fukuoka, Kasuga	Cs-137	0.2	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	India, Bombay	Pb-210	0.2	--	Net	--	1973, April	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.2	--	Net	--	1973, October	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.2	--	Net	--	1974, October	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.2	--	Net	--	1975, December	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.2	--	Net	--	1976, August	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.2	--	Net	--	1970, April	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ra-226	0.2	--	Net	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ra-226	0.2	--	Net	--	1974	Market samples	Lalit, B.V., et al., 1980
	Japan, Hyogo, Akashi	Cs-137	<0.1	--	Net	--	1979, January		National Institute of Radiological Sciences, 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Rice	Japan, Okayama, Okayama	Sr-90	<0.1	--	Net	--	1979, January		National Institute of Radiological Sciences, 1980
	Japan, Saga, Saga	Sr-90	<0.1	--	Net	--	1979, January		National Institute of Radiological Sciences, 1980
	Japan, Saga, Saga	Cs-137	<0.1	--	Net	--	1979, January		National Institute of Radiological Sciences, 1980
	Japan, Fukushima, Fukushima	Sr-90	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Fukushima, Fukushima	Cs-137	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Narihara-gun	Sr-90	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Narihara-gun	Cs-137	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Tsukushino	Sr-90	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Tsukushino	Cs-137	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Fukuoka	Sr-90	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Fukuoka	Cs-137	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Kyoto, Kyoto	Sr-90	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Kyoto, Kyoto	Cs-137	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	USA, New York, New York City	Ba-226	<0.1	--	Net	--	--		Horse, R.S., et al., 1971
	USA, New York, New York City	Pb-210	<0.1	--	Net	--	--		Horse, R.S., et al., 1971
	Japan, Hokkaido, Sapporo	Sr-90	<0.1	--	Net	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Akita, Akita	Sr-90	<0.1	--	Net	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Iwate, Morioka	Sr-90	<0.1	--	Net	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYSED	DATE	COMMENT	REFERENCE
Rice	Japan, Miyagi, Sendai	Sr-90	<0.1	--	Wet	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Ibaraki, Nito	Sr-90	<0.1	--	Wet	--	1969, September	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Saitama, Konosu	Sr-90	<0.1	--	Wet	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Tokyo, Tachikawa	Sr-90	<0.1	--	Wet	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Hokkaido, Sapporo	Sr-90	0.1	--	Wet	--	1970, September	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Akita, Akita	Sr-90	<0.1	--	Wet	--	1970, September	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Iwate, Morioka	Sr-90	<0.1	--	Wet	--	1970, September	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Miyagi, Sendai	Sr-90	<0.1	--	Wet	--	1970, September	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Ibaraki, Nito	Sr-90	<0.1	--	Wet	--	1970, September	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Saitama, Konosu	Sr-90	<0.1	--	Wet	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Tokyo, Tachikawa	Sr-90	<0.1	--	Wet	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Yamaguchi, Kofu	Sr-90	<0.1	--	Wet	--	1969, September	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Niigata, Tokada	Sr-90	<0.1	--	Wet	--	1969, September	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Ishikawa, Kanabara	Sr-90	<0.1	--	Wet	--	1969, September	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Mie, Tan	Sr-90	<0.1	--	Wet	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Osaka, Osaka	Sr-90	<0.1	--	Wet	--	1969, November	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Okayama, Okayama	Sr-90	<0.1	--	Wet	--	1969, November	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Tottori, Tottori	Sr-90	<0.1	--	Wet	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL COORDS	SOCIAL NUMBER	BASE RADIOACTIVITY (Bq kg ⁻¹)	BASE OF RADIOACTIVITY (Bq kg ⁻¹)	DATE	ANALYST	DATE	COMMENT	REFERENCE
Rice	Japan, Fukuoka, Fukuoka	Sr-90	<0.1	--	Not	--	--	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Yamaguchi, Kofu	Sr-90	<0.1	--	Not	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Niigata, Takada	Sr-90	0.1	--	Not	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Ishikawa, Kanazawa	Sr-90	<0.1	--	Not	--	1970, August	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Mie, Tse	Sr-90	<0.1	--	Not	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Osaka, Osaka	Sr-90	<0.1	--	Not	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Okayama, Okayama	Sr-90	<0.1	--	Not	--	1970, November	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Tottori, Tottori	Sr-90	<0.1	--	Not	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
	Japan, Fukuoka, Fukuoka	Sr-90	0.1	--	Not	--	1970, November	Polished	National Institute of Agricultural Sciences, 1971
	USA, New York, New York City	Sr-90	<0.1	--	Not	--	1976, February		Hardy, E.P., Jr., 1976
	USA, California, San Francisco	Sr-90	<0.1	--	Not	--	1976, March		Hardy, E.P., Jr., 1976
	USA, New York	Pu-239,240	<0.1	--	Not	--	1972		Bennett, S.G., 1975
	Japan, Osaka, Osaka	Sr-90	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Osaka, Osaka	Cs-137	0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Saga, Saga	Sr-90	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Saga, Saga	Cs-137	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Nagasaki, Nagasaki	Sr-90	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Yamagata, Yamagata	Sr-90	<0.1	--	Not	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Yamagata, Yamagata	Cs-137	<0.1	--	Not	--	1980, December		National Institute of Radiological Sciences, 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Base

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Rice	Japan, Kanagawa, Tokohama	3r-90	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Kanagawa, Tokohama	Cs-137	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Aichi, Nagoya	3r-90	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Aichi, Nagoya	Cs-137	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Hyogo, Kobe	3r-90	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Tottori, Tottori	3r-90	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Ishikawa, Kanatsawa	Cs-137	<0.1	--	Net	--	1980, September		National Institute of Radiological Sciences, 1980
	Japan, Tokyo, Shinjuku	3r-90	<0.1	--	Net	--	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Tokyo, Shinjuku	Cs-137	<0.1	--	Net	--	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Niigata	3r-90	<0.1	--	Net	--	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Niigata	Cs-137	<0.1	--	Net	--	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Shizuoka, Matsuyama	3r-90	<0.1	--	Net	--	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Shizuoka, Matsuyama	Cs-137	<0.1	--	Net	--	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Hokkaido, Sapporo	3r-90	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Hokkaido, Sapporo	Cs-137	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Akita, Akita	3r-90	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Ibaragi, Nito	Cs-137	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Shizuoka, Shizuoka	3r-90	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Rice	Japan, Shizuoka, Shizuoka	Cs-137	<0.1	--	Vol	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Yamaguchi, Yamaguchi	Sr-90	<0.1	--	Vol	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Yamaguchi, Yamaguchi	Cs-137	<0.1	--	Vol	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Okinawa, Matsuno	Sr-90	<0.1	--	Vol	--	1978, September		National Institute of Radiological Sciences, 1979
	Japan, Okinawa, Matsuno	Cs-137	0.1	--	Vol	--	1978, September		National Institute of Radiological Sciences, 1979
	Japan, Niigata, Saki	Sr-90	<0.1	--	Vol	--	1978, October		National Institute of Radiological Sciences, 1979
	Japan, Fukuoka, Basafu	Sr-90	<0.1	--	Vol	--	1978, December		National Institute of Radiological Sciences, 1979
	Japan, Aomori, Aomori	Sr-90	<0.1	--	Vol	--	1977, January		National Institute of Radiological Sciences, 1979
	Japan, Okayama, Soto	Sr-90	<0.1	--	Vol	--	1976, January		National Institute of Radiological Sciences, 1979
	Japan, Aichi, Nagoya	Sr-90	<0.1	--	Vol	--	1976, December		National Institute of Radiological Sciences, 1980
	Japan, Aichi, Nagoya	Cs-137	<0.1	--	Vol	--	1976, December		National Institute of Radiological Sciences, 1980
	Japan, Kyoto, Akashi	Sr-90	<0.1	--	Vol	--	1979, January		National Institute of Radiological Sciences, 1980
	Japan, Tottori, Tottori	Cs-137	<0.1	--	Vol	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Kochi, Kochi	Sr-90	<0.1	--	Vol	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Kochi, Kochi	Cs-137	<0.1	--	Vol	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Wakayama, Wakayama	Sr-90	<0.1	--	Vol	--	1981, January		National Institute of Radiological Sciences, 1980
	Japan, Wakayama, Wakayama	Cs-137	<0.1	--	Vol	--	1981, January		National Institute of Radiological Sciences, 1980
	Japan, Ibaragi, Nito	Sr-90	<0.1	--	Vol	--	1980, October		National Institute of Radiological Sciences, 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Base

FOOD CROP	GEOGRAPHICAL ORIGIN	SAMPLE NUMBER	238U RADIOACTIVITY (Bq kg ⁻¹)	235U RADIOACTIVITY (Bq kg ⁻¹)	232Th RADIOACTIVITY (Bq kg ⁻¹)	DATE	COMMENT	REFERENCE
Rice	Japan, Ibaragi, Maeda	Cu-137	0.1	--	Not	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Nishikawabata-gun	3r-90	<0.1	--	Not	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Niigata, Nishikawabata-gun	Cu-137	<0.1	--	Not	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Nagano, Minakawa-gun	3r-90	<0.1	--	Not	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Nagano, Minakawa-gun	Cu-137	<0.1	--	Not	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Hyogo, Ashahi	3r-90	<0.1	--	Not	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Hyogo, Ashahi	Cu-137	<0.1	--	Not	1980, October		National Institute of Radiological Sciences, 1980
	Japan, Hokkaido, Ishikari-gun	3r-90	<0.1	--	Not	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Hokkaido, Ishikari-gun	Cu-137	<0.1	--	Not	1980, November		National Institute of Radiological Sciences, 1980
	USA, New York, New York City	3r-90	<0.1	--	Processed for eating	1970, February		Atomic Energy Commission, 1971
	USA, California, San Francisco	3r-90	<0.1	--	Processed for eating	1970, March		Atomic Energy Commission, 1971
	USA, New York, New York City	3r-90	<0.1	--	Processed for eating	1970, May		Atomic Energy Commission, 1971
	USA, California, San Francisco	3r-90	<0.1	--	Processed for eating	1970, June		Atomic Energy Commission, 1971
	USA, New York, New York City	3r-90	<0.1	--	Processed for eating	1970, August		Atomic Energy Commission, 1971
	USA, California, San Francisco	3r-90	<0.1	--	Processed for eating	1970, September		Atomic Energy Commission, 1971
	USA, New York, New York City	3r-90	<0.1	--	Processed for eating	1970, November		Atomic Energy Commission, 1971
	USA, California, San Francisco	3r-90	<0.1	--	Processed for eating	1970, December		Atomic Energy Commission, 1971
	Japan	3r-90	<0.1	--	Not	1958	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	STATE	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Rice	Japan	Sr-90	<0.1	--	Yot	--	1959	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	0.1	--	Yot	--	1960	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	<0.1	--	Yot	--	1961	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	0.1	--	Yot	--	1962	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	<0.1	--	Yot	--	1965	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	<0.1	--	Yot	--	1966	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	<0.1	--	Yot	--	1967	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	<0.1	--	Yot	--	1968	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	<0.1	--	Yot	--	1969	Polished	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	<0.1	--	Yot	--	1970	Polished	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	<0.1	--	Yot	--	1957	Polished rice. Estimated from graph	National Institute of Radiological Sciences, 1971
	Japan, Okayama City vicinity	Sr-226	<0.1	--	Yot	9	--	Author's sample basis revised	Kuroda, T., 1968
	Japan, Ishikawa, Kanazawa	Sr-90	<0.1	--	Yot	--	1980, September		National Institute of Radiological Sciences, 1980
	India, Bombay	Po-210	0.1	--	Yot	3	--		Khandekar, R.P., 1977
	Japan, Shimane, Matsue	Sr-90	<0.1	--	Yot	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Shimane, Matsue	Cs-137	0.1	--	Yot	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Okayama, Akaiwa-gun	Sr-90	<0.1	--	Yot	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Okayama, Akaiwa-gun	Cs-137	<0.1	--	Yot	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Kasuga	Sr-90	<0.1	--	Yot	--	1980, December		National Institute of Radiological Sciences, 1980
	Japan, Okinawa, Nakagusaki-gun	Cs-137	<0.1	--	Yot	--	1980, December		National Institute of Radiological Sciences, 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	DATE	NUMBER ANALYSED	DATE	COMMENT	REFERENCES
Rice	Japan, Aomori, Hiroaki	Sr-90	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
	Japan, Aomori, Hiroaki	Cs-137	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
	Japan, Hiroshima, Hiroshima	Sr-90	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
	Japan, Hiroshima, Hiroshima	Cs-137	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
	Japan, Nagasaki, Nagasaki	Sr-90	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
	Japan, Nagasaki, Nagasaki	Cs-137	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
	India, Bombay	Pb-210	<0.1	--	Not	--	1974, January	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Not	--	1976, January	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Not	--	1976, April	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Not	--	1976, November	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Not	--	1977, October	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Not	--	1977, August	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Not	--	1977, January	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Not	--	1977, July	Market samples	Lalit, B.V., et al., 1980
	Japan, Sancho-nachi area	Ba-226	<0.1	--	Not	16	--		Kuroda, T., 1968
	Japan, Ibaragi, Nito	Sr-90	0.0	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Okinawa, Nakagami-gun	Sr-90	0.0	--	Not	--	1980, December		National Institute of Radiological Sciences,
Wye	USSR	Uranium	82	--	Not	--	1962-1965	Grains	Fedorov, V.A., et al., 1969
	USSR	Cs-137	13	--	Not	--	1964		Knishnikov, V.A., et al., 1966
	USSR	Sr-90	7.8	--	Not	28	1964		Knishnikov, V.A., et al., 1966
	USSR	Cs-137	4.0	--	Not	29	1966	Flour	Potukhova, E.V., et al., 1969
	USSR	Cs-137	4.0	--	Not	25	1966	Grains	Potukhova, E.V., et al., 1969
	USSR	Sr-90	1.9	--	Not	93	1966	Flour	Potukhova, E.V., et al., 1969
	USSR, central region	Ba-226	1.7	--	Not	5	--	Area 2	Rukhin, I.B., et al., 1965

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	BASE RADIOACTIVITY (Bq kg ⁻¹)	BASE OF RADIOACTIVITY (Bq kg ⁻¹)	BASE	UNITS ADJUSTED	DATE	COMMENT	REFERENCE
Rye	Denmark, Studsgard	Sr-90	1.5	--	Wet	--	1977	Grains	Aarkrog, A., et al., 1978
	USSR	Sr-90	1.5	--	Wet	25	1966		Petukhova, E.V., et al., 1969
	Denmark, St. Jydeved	Sr-90	1.4	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USSR, central region	Ba-226	1.3	--	Dry	4	--	Area 4	Rukhin, I.N., et al., 1965
	Denmark, Løkov	Cs-137	1.2	--	Wet	--	1977	Area 4	Aarkrog, A., et al., 1978
	Denmark, St. Jydeved	Cs-137	1.2	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Ålbirkeby	Cs-137	1.2	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Studsgard	Cs-137	1.2	--	Wet	--	1977	Area 3	Aarkrog, A., et al., 1978
	USSR, central region	Ba-226	1.1	--	Dry	6	--		Rukhin, I.N., et al., 1965
	Denmark, Løkov	Sr-90	1.0	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Ålbirkeby	Sr-90	1.0	--	Wet	--	1977	Grains	Aarkrog, A., et al., 1978
	USSR	Uranium	1.0	--	Wet	--	1964-1965		Fedorov, V.A., et al., 1969
	USSR, central region	Ba-226	0.9	0.2-2.4	Dry	21	--		Rukhin, I.N., et al., 1965
	Denmark	Sr-90	0.8	--	Wet	--	1976	Experimental region	Aarkrog, A., et al., 1978
	USSR, Volga River region	Radium	0.8	--	Wet	13	1964-1965		Belova, R.S., et al., 1967
	USSR, central region	Ba-226	0.8	--	Wet	5	--	Area 1	Rukhin, I.N., et al., 1965
	Denmark, Odne	Cs-137	0.7	--	Wet	--	1977	Control region	Aarkrog, A., et al., 1978
	Denmark, Tystofte	Cs-137	0.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Ledreborg	Cs-137	0.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tylstrup	Sr-90	0.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Odne	Sr-90	0.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Ledreborg	Sr-90	0.6	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tystofte	Sr-90	0.5	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Tylstrup	Cs-137	0.5	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USSR, Volga River region	Radium	0.5	--	Wet	5	1964-1965		Belova, R.S., et al., 1967
	Denmark	Cs-137	0.4	--	Wet	--	1976	Experimental region. Computed value.	Aarkrog, A., et al., 1978
	USSR, Volga River region	Uranium, natural	0.3	--	Wet	13	1964-1965		Belova, R.S., et al., 1967
	USSR	Po-210	0.2	--	Wet	9	--		Torgolayeva-Makovskaya, A.P., et al., 1969
	Poland, Gwary Valley	Ba-226	<0.1	--	Wet	--	--	Control region	Piotruch-Pis, S., 1972
	Poland, Warsaw	Ba-226	<0.1	--	Wet	--	--		Piotruch-Pis, S., 1972
	Denmark, Odne	Ba-54	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978

Table 1. Natural Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASUREMENT	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	MOISTURE BASIS	SAMPLES ANALYZED	DATE	CONTENT	REFERENCES
Rye	Donnerberg, Ashov	Hu-54	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Donnerberg, Skirkeby	Hu-54	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
Scavola	Marshall Islands, Bikini-Bikini	Cs-137	54000	--	Dry	--	1975, April 10	Sample V-2, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	41000	--	Dry	--	1975, April 10	Sample V-8, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	19000	--	Dry	--	1976, April 7	Sample V-14	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	10000	--	Dry	--	1975, April 10	Sample V-3, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	15000	--	Dry	--	1975, April 10	Sample V-7, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	15000	--	Dry	--	1975, April 10	Sample V-4, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	13000	--	Dry	--	1975, April 10	Sample V-5, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	12000	--	Dry	--	1976, April 7	Sample V-8	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	9000	--	Dry	--	1975, April 10	Sample V-6, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	7900	--	Dry	--	1976, April 7	Sample V-10	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	6600	--	Dry	--	1975, April 10	Sample V-9, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	6400	--	Dry	--	1975, April 10	Sample V-13, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	5200	--	Dry	--	1976, April 7	Sample V-17	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	5100	--	Dry	--	1975, April 10	Sample V-1, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	4800	--	Dry	--	1975, April 10	Sample V-12, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	4100	--	Dry	--	1976, April 12	Sample V-68, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	4100	--	Dry	--	1975, April 10	Sample V-71, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	3600	--	Dry	--	1975, April 10	Sample V-10, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	Cs-137	3400	--	Dry	--	1976, April 10	Sample V-11, leaves	Greenhouse, H.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	3100	--	Dry	--	1976, April 7	Sample V-19	Greenhouse, H.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	2200	--	Dry	--	1976, April 8	Sample V-25	Greenhouse, H.A., et al., 1977
	Marshall Islands, Eniwetok	Cs-137	2100	--	Dry	--	1976, April 7	Sample V-23	Greenhouse, H.A., et al., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Base

FOOD CROP	GEOGRAPHICAL ORIGIN	SPECIFIC RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	UNIT	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Scaevola	Marshall Islands, Ene-Bikini	Cs-137	2000	Bq	--	1976, April 8	Sample V-28	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	Cs-137	2000	Bq	--	1976, April 7	Sample V-20	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	Cs-137	1500	Bq	--	1975, April 14	Sample V-16, leaves	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	Cs-137	1300	Bq	--	1976, April 7	Sample V-15	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	1800	Bq	--	1975, April 10	Sample V-10, leaves	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	940	Bq	--	1975, April 10	Sample V-9, leaves	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	Co-60	850	Bq	--	1976, April 7	Sample V-14	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	640	Bq	--	1974, April 6	Sample V-81	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	630	Bq	--	1975, April 14	Sample V-12, leaves	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	620	Bq	--	1975, April 10	Sample V-11, leaves	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	Cs-137	600	Bq	--	1975, April 14	Sample V-15, leaves	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	Cs-137	580	Bq	--	1976, April 6	Sample V-81	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	530	Bq	--	1975, April 16	Sample V-13, leaves	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	520	Bq	--	1975, April 16	Sample V-12, leaves	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	490	Bq	--	1975, April 14	Sample V-15	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	470	Bq	--	1975, April 10	Sample V-1, leaves	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	440	Bq	--	1976, April 7	Sample V-19	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	440	Bq	--	1976, April 7	Sample V-17	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	410	Bq	--	1976, April 8	Sample V-24	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	380	Bq	--	1976, April 7	Sample V-15	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	350	Bq	--	1976, April 4	Sample V-27	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	Cs-137	340	Bq	--	1975, April 14	Sample V-16, leaves	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	R-40	340	Bq	--	1974, April 6	Sample V-69	Greenhouse, E.A., et al., 1977
	Marshall Islands, Ene-Bikini	Cs-137	340	Bq	--	1974, April 4	Sample V-27	Greenhouse, E.A., et al., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Screwbea	Marshall Islands, Man-Bikini	K-40	290	--	Dry	--	1976, April 7	Sample V-23	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	Co-60	270	--	Dry	--	1976, April 7	Sample V-8	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	Co-60	230	--	Dry	--	1976, April 7	Sample V-17	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	K-40	<210	--	Dry	--	1976, April 18	Sample V-16, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	Co-60	190	--	Dry	--	1976, April 7	Sample V-23	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	Co-60	190	--	Dry	--	1976, April 7	Sample V-20	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	Co-60	190	--	Dry	--	1976, April 7	Sample V-10	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	Cs-137	180	--	Dry	--	1976, April 6	Sample V-69, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	Co-60	<72	--	Dry	--	1976, April 8	Sample V-25	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	Co-60	<39	--	Dry	--	1976, April 8	Sample V-28	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	Co-60	<20	--	Dry	--	1975, April 18	Sample V-15, leaves	Greenhouse, M.A., et al., 1977
	Marshall Islands, Man-Bikini	Co-60	<18	--	Dry	--	1975, April 18	Sample V-18, leaves	Greenhouse, M.A., et al., 1977
	Japan, Tottori	Cs-137	35	--	Wet	--	1962, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Shiga	Cs-137	29	--	Wet	--	1961, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Chiba	Cs-137	28	--	Wet	--	1961, Autumn		National Institute of Radiological Sciences, 1964
Soybean	Japan, Sapporo	Cs-137	22	--	Wet	--	1962, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Kuchino	Cs-137	19	--	Wet	--	1962, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Shiga	Sr-90	18	--	Wet	--	1961, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Kuchino	Sr-90	16	--	Wet	--	1962, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Tottori	Sr-90	11	--	Wet	--	1962, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Shikano	Cs-137	9.1	--	Wet	--	1961, Autumn		National Institute of Radiological Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Soybeans	Japan, Echigo	Cs-137	5.2	--	Vet	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Nagoya	Cs-137	5.1	--	Vet	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Sapporo	Sr-90	4.9	--	Vet	--	1961, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Shiokaze	Cs-137	4.9	--	Vet	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Sapporo	Sr-90	4.4	--	Vet	--	1962, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Gifu	Sr-90	4.3	--	Vet	--	1961, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Chiba	Sr-90	4.0	--	Vet	--	1962, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Sapporo	Cs-137	3.7	--	Vet	--	1961, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Chiba	Cs-137	3.2	--	Vet	--	1961, September	Bean juice (Touyuu)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Cs-137	3.0	--	Vet	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Okayama	Sr-90	3.0	--	Vet	--	1962, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Sendai	Cs-137	3.0	--	Vet	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Cs-137	2.9	--	Vet	--	1960, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Okayama	Cs-137	2.8	--	Vet	--	1962, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Nagoya	Sr-90	2.8	--	Vet	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Nagoya	Cs-137	2.8	--	Vet	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Shizuoka	Sr-90	2.7	--	Vet	--	1961, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Chiba	Cs-137	2.2	--	Vet	--	1961, Autumn		National Institute of Radiological Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLE ANALYZED	DATE	COMMENT	REFERENCE
Soybeans	Japan, Echigo	Cs-137	2.0	--	Net	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Ishitawa	Cs-137	2.0	--	Net	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Saitama	Sr-90	2.0	--	Net	--	1962, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Sr-90	1.9	--	Net	--	1961, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Chiba	Sr-90	1.8	--	Net	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Cs-137	1.8	--	Net	--	1962, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Sr-90	1.7	--	Net	--	1960, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Sendai	Sr-90	1.7	--	Net	--	1963, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Sr-90	1.7	--	Net	--	1962, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1964
	Japan, Gifu	Cs-137	1.7	--	Net	--	1961, Autumn		National Institute of Radiological Sciences, 1964
	Japan, Shizuoka	Cs-137	1.6	--	Net	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Saitama	Cs-137	1.6	--	Net	--	1962, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1964
	Japan, Echigo	Sr-90	1.4	--	Net	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Shizuoka	Sr-90	1.4	--	Net	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Nagoya	Sr-90	1.4	--	Net	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Sendai	Cs-137	1.3	--	Net	--	1961, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Echigo	Sr-90	1.3	--	Net	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Ishitawa	Sr-90	1.2	--	Net	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RAANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Soybean	Japan, Sendai	Sr-90	1.2	--	Wet	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Fushibashi	Cs-137	1.2	--	Wet	--	1963, April	Bean juice (Toufu)	National Institute of Radiological Sciences, 1964
	Japan, Shinsaku	Sr-90	1.1	--	Wet	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
	Japan, Tokyo	Cs-137	1.1	--	Wet	--	1963, April	Bean juice (Toufu)	National Institute of Radiological Sciences, 1964
	Japan, Saitama	Cs-137	1.0	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Fushibashi	Cs-137	1.0	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Tokyo	Cs-137	1.0	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Sr-90	1.0	--	Wet	--	1962, September	Bean juice (Toufu)	National Institute of Radiological Sciences, 1964
	Japan, Tokyo	Sr-90	0.9	--	Wet	--	1962, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1964
	Japan, Tokyo	Cs-137	0.9	--	Wet	--	1962, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Cs-137	0.8	--	Wet	--	1963, May	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Saitama	Sr-90	0.7	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Cs-137	0.6	--	Wet	--	1963, May	Bean juice (Toufu)	National Institute of Radiological Sciences, 1964
	USA, Tennessee, Oak Ridge	Plutonium	0.6	--	Dry	7	1975-1976	Total Pu, whole bean grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
	USA, Tennessee, Oak Ridge	Plutonium	0.6	--	Dry	3	1975-1976	Total Pu, shelled bean grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239	<0.5	--	Dry	--	1979-1980	Beans. Field 2 soil, control.	Smith, H.W., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.6	--	Dry	--	1979-1980	Beans. Field 2 soil, control.	Smith, H.W., et al., 1981

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Soybeans	Japan, Tokyo	Sr-90	0.4	--	Wet	--	1964, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Saitama	Cs-137	0.4	--	Wet	--	1963, April	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Saitama	Sr-90	0.3	--	Wet	--	1962, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Sr-90	0.3	--	Wet	--	1962, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Tokyo	Sr-90	0.3	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Sr-90	0.3	--	Wet	--	1963, May	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Cs-137	0.2	--	Wet	--	1964, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Tokyo	Cs-137	0.2	--	Wet	--	1964, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Chiba	Sr-90	0.2	--	Wet	--	1963, May	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Funabashi	Sr-90	0.2	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Funabashi	Sr-90	0.2	--	Wet	--	1963, April	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
	Japan, Tokyo	Sr-90	0.2	--	Wet	--	1963, April	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Beans, Field 1 soil, lime and chelate added.	Smith, N.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	2	1979-1980	Beans, control, grown on floodplain soil.	Smith, N.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	1	1979-1980	Beans, grown on floodplain soil, lime added.	Smith, N.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Beans, grown on floodplain soil, lime and chelate added.	Smith, N.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Beans, Field 1 soil, lime added.	Smith, N.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Beans, Field 1 soil, lime added.	Smith, N.H., et al., 1981

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SAMPLE NUMBER	RAW RADIOACTIVITY (Bq kg ⁻¹)	LEVEL OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLE ANALYZED	DATE	COMMENT	REFERENCE
Soybean	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Beans. Field 2 soil, lime added.	Smith, R.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Beans. Field 2 soil, lime and chelate added.	Smith, R.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	2	1979-1980	Beans, grown on floodplain soil, lime added	Smith, R.H., et al., 1981
	USA, South Carolina, Aiken	Pistonian	<0.1	--	Dry	9	1975, November	Total Pu, field combined, South field at Savannah River Plant	Adriano, R.C., et al., 1980
	Japan, Saitama	Cs-137	0.1	--	Wet	--	1963, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1966
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	2	1979-1980	Beans, grown on floodplain soil, lime and chelate added.	Smith, R.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	0.1	--	Dry	2	1979-1980	Beans, control, grown on floodplain soil.	Smith, R.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	--	1979-1980	Beans. Field 1 soil, control	Smith, R.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	1	1979-1980	Beans. Field 1 soil, lime added	Smith, R.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	1	1979-1980	Beans. Field 1 soil, lime and chelate added.	Smith, R.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	--	1979-1980	Beans. Field 2 soil, lime added.	Smith, R.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	2	1979-1980	Beans. Field 2 soil, lime and chelate added.	Smith, R.H., et al., 1981
	Japan, Saitama	Sr-90	0.1	--	Wet	--	1963, April	Bean juice (Tosyo)	National Institute of Radiological Sciences, 1966
Splach	Hungary	Total beta	2400	--	Dry	41	1975, Spring		Szabo, A., 1977
	Hungary	Total beta	2200	--	Dry	37	1975, Fall		Szabo, A., 1977
	Hungary	K-40	2100	--	Dry	41	1975, Spring		Szabo, A., 1977
	Hungary	K-40	2000	--	Dry	37	1975, Fall		Szabo, A., 1977
	Bangladesh, Barua	Cs-137	900	--	Wet	--	1972-1974	Local	Rab Helle, H.A., 1978
	Bangladesh, Khulna	Cs-137	320	--	Wet	--	1972-1974	Local	Rab Helle, H.A., 1978
	India, Bombay area	K-40	170	--	Wet	--	1970	Market samples	Lalit, S.V., et al., 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Spinach	India, Bombay area	K-40	140	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	120	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	100	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	100	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Bangladesh, Dacca	Cs-137	44	--	Wet	--	1972-1974		Rob Hella, M.A., 1978
	Bangladesh	Tl-208	28	--	Wet	--	1972-1974	Local	Rob Hella, M.A., 1978
	Bangladesh, Dacca	Sr-90	19	--	Wet	--	1972-1974		Rob Hella, M.A., 1978
	Bangladesh, Dacca	Sr-90	17	--	Wet	--	1972-1974	Local	Rob Hella, M.A., 1978
	Bangladesh	Tl-208	14	--	Wet	--	1972-1974		Rob Hella, M.A., 1978
	Japan, Hokkaido, Obihiro	Cs-137	0.0	--	Wet	--	1963, May		National Institute of Agricultural Sciences, 1964
	Japan, Shizuoka, Yoshivara	Cs-137	5.6	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
	Japan, Fuku, Ogo	Cs-137	4.3	--	Wet	--	1963, June		National Institute of Agricultural Sciences, 1964
	Japan, Wakayama, Wakayama	Cs-137	4.3	--	Wet	--	1963, January		National Institute of Agricultural Sciences, 1964
	Japan, Ibaragi, Tsuchiura	Cs-137	4.1	--	Wet	--	1963, May		National Institute of Agricultural Sciences, 1964
	Japan, Tokyo, Sotogaya	Cs-137	4.0	--	Wet	--	1963, December		National Institute of Agricultural Sciences, 1964
	Japan, Fuku, Ogo	Sr-90	3.9	--	Wet	--	1963, June		National Institute of Agricultural Sciences, 1964
	Japan, Kanagawa, Atsugi	Cs-137	3.8	--	Wet	--	1964, March		National Institute of Radiological Sciences, 1964
	Japan, Hiroshima, Fukuyama	Cs-137	3.7	--	Wet	--	1964, May		National Institute of Agricultural Sciences, 1964
	Japan, Kanagawa, Atsugi	Cs-137	3.6	--	Wet	--	1964, January		National Institute of Radiological Sciences, 1964
	Japan, Niigata, Iwanuma	Cs-137	3.3	--	Wet	--	1963, March		National Institute of Agricultural Sciences, 1964
	Japan, Hiroshima, Haba	Cs-137	3.1	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
	Japan, Shizuoka, Yoshivara	Sr-90	3.0	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	STANDARD DEVIATION RADIOACTIVITY (Bq kg ⁻¹)	STATUS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Spinach	Japan, Kagoshima, Kokubu	Cs-137	2.8	--	Not	--	1962, December	Local	National Institute of Agricultural Sciences, 1968
	Japan, Kanagawa, Atsugi	Sr-90	2.8	--	Not	--	1964, January		National Institute of Radiological Sciences, 1968
	Japan, Fukushima, Okama	Sr-90	2.7	--	Not	--	1971, April		National Institute of Radiological Sciences, 1972
	Bangladesh, Khulna	Sr-90	2.6	--	Not	--	1972-1974		Rob Nolla, N.A., 1978
	Japan, Saitama, Omiya	Cs-137	2.6	--	Not	--	1963, February		National Institute of Agricultural Sciences, 1968
	Japan, Fuku, Tsuruga	Sr-90	2.5	--	Not	--	1971, May		National Institute of Radiological Sciences, 1972
	Japan, Kanagawa, Atsugi	Sr-90	2.4	--	Not	--	1964, March		National Institute of Radiological Sciences, 1968
Spinach (<i>Spinacia oleracea</i>)	Italy, Milano	Sr-90	2.2	--	Not	20	1967	Market samples	De Bertoli, N.D., et al., 1967
Spinach	Japan, Saitama, Omiya	Sr-90	2.0	--	Not	--	1963, February		National Institute of Agricultural Sciences, 1968
	Japan, Ibaragi, Tsuchiura	Sr-90	1.9	--	Not	--	1962, May		National Institute of Agricultural Sciences, 1968
	Japan, Kagoshima, Kaimon	Sr-90	1.9	--	Not	--	1978, November		National Institute of Radiological Sciences, 1979
	Japan, Wakayama, Iwade	Cs-137	1.8	--	Not	--	1963, January		National Institute of Agricultural Sciences, 1968
Spinach (<i>Spinacia oleracea</i>)	Italy, Impra	Sr-90	1.8	--	Not	20	1966		De Bertoli, N.D., et al., 1967
Spinach	Japan, Kanagawa, Toruka	Cs-137	1.7	--	Not	--	1965, March		National Institute of Radiological Sciences, 1968
	Japan, Kanagawa, Kawasaki	Cs-137	1.7	--	Not	--	1961, December		National Institute of Agricultural Sciences, 1968
	Japan, Kagoshima, Kokubu	Sr-90	1.6	--	Not	--	1962, December		National Institute of Agricultural Sciences, 1968
	Japan, Osaka, Ikeda	Cs-137	1.6	--	Not	--	1963, May		National Institute of Agricultural Sciences, 1968
	Japan, Tokyo, Setagaya	Sr-90	1.5	--	Not	--	1961, December		National Institute of Agricultural Sciences, 1968
	Japan, Fuku, Kamakura	Cs-137	1.8	--	Not	--	1962, November		National Institute of Agricultural Sciences, 1968

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLEON RADIONUCLIDE	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	STATUS	STATUS ANALYSED	DATE	COMMENT	REFERENCE
Spinach	Japan, Miyagi, Iwatsubo	Sr-90	1.3	--	Not	--	1963, March		National Institute of Agricultural Sciences, 1966
	Japan, Fuku, Kasinaka	Sr-90	1.3	--	Not	--	1964, November		National Institute of Agricultural Sciences, 1966
	Japan, Hokkaido, Atsuta	Sr-90	1.3	--	Not	--	1971, June		National Institute of Radiological Sciences, 1972
	Japan, Kanagawa, Tozuka	Sr-90	1.3	--	Not	--	1965, March		National Institute of Radiological Sciences, 1965
Spinach (<i>Spinacia oleracea</i>)	Italy, Ispra	Cs-137	1.3	--	Not	20	1966	Market samples. Computed value.	De Sottoli, H.D., et al., 1967
Spinach	Japan, Saitama, Sugito	Sr-90	1.2	--	Not	--	1966, December		National Institute of Agricultural Sciences, 1967
	Japan, Kagoshima, Kainoa	Cs-137	1.1	--	Not	--	1979, November		National Institute of Radiological Sciences, 1979
	Japan, Saitama, Utsa	Sr-90	1.1	--	Not	--	1969, March		National Institute of Radiological Sciences, 1969
	Japan, Shimane, Ohta	Sr-90	1.0	--	Not	--	1978, August		National Institute of Radiological Sciences, 1979
	Japan, Saitama, Sugito	Cs-137	0.9	--	Not	--	1966, December		National Institute of Agricultural Sciences, 1967
	Japan, Kagoshima, Kagoshima	Cs-137	0.9	--	Not	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Aichi, Akabane	Sr-90	0.9	--	Not	--	1971, April		National Institute of Radiological Sciences, 1972
	Japan, Aichi, Senago	Sr-90	0.9	--	Not	--	1967, April		National Institute of Radiological Sciences, 1968
	Japan, Hokkaido, Asahikawa	Sr-90	0.9	--	Not	--	1970, June		National Institute of Radiological Sciences, 1971
	Japan, Shizuoka, Fujieda	Sr-90	0.9	--	Not	--	1976, November		National Institute of Radiological Sciences, 1977
	Japan, Wakayama, Iwado	Sr-90	0.9	--	Not	--	1963, January		National Institute of Agricultural Sciences, 1966
	Japan, Osaka, Kuroyama	Cs-137	0.9	--	Not	--	1963, May		National Institute of Agricultural Sciences, 1966
	Japan, Fukuoka, Fukuoka	Sr-90	0.8	--	Not	--	1976, November		National Institute of Radiological Sciences, 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SPECIES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COUNTRY	REFERENCE
Spinach	Japan, Tanaguchi, Otsu-gun	Sr-90	0.6	--	Vol	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Niigaki, Furukawa	Sr-90	0.7	--	Vol	--	1974, May		National Institute of Radiological Sciences, 1976
	Japan, Niigaki, Furukawa	Cs-137	0.7	--	Vol	--	1974, May		National Institute of Radiological Sciences, 1976
	Japan, Hiroshima, Fukuyama	Sr-90	0.7	--	Vol	--	1962, May		National Institute of Agricultural Sciences, 1964
	Japan, Kanagawa, Kawasaki	Sr-90	0.7	--	Vol	--	1961, December		National Institute of Agricultural Sciences, 1963
	Japan, Kochi, Takasaka-gun	Sr-90	0.6	--	Vol	--	1980, January		National Institute of Radiological Sciences, 1980
	Japan, Fukushima, Okama	Cs-137	0.6	--	Vol	--	1971, April		National Institute of Radiological Sciences, 1972
	Japan, Fukushima, Futaba	Sr-90	0.6	--	Vol	--	1971, November		National Institute of Radiological Sciences, 1972
	Japan, Kanagawa, Odawara	Cs-137	0.6	--	Vol	--	1971, January		National Institute of Radiological Sciences, 1976
	Japan, Saitama, Saitama	Sr-90	0.6	--	Vol	--	1970, November		National Institute of Radiological Sciences, 1979
	Japan, Fukuoka, Hibana	Cs-137	0.6	--	Vol	--	1974, November		National Institute of Radiological Sciences, 1976
	Japan, Saitama, Iwaki	Sr-90	0.6	--	Vol	--	1969, March		National Institute of Radiological Sciences, 1969
	Japan, Hokkaido, Ishikawa	Cs-137	0.6	--	Vol	--	1970, June		National Institute of Radiological Sciences, 1971
	Japan, Hokkaido, Obihiro	Sr-90	0.6	--	Vol	--	1962, May		National Institute of Agricultural Sciences, 1964
	Japan, Tottori, Tottori	Sr-90	0.5	--	Vol	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Hokkaido, Ishikari-gun	Sr-90	0.5	--	Vol	--	1979, September		National Institute of Radiological Sciences, 1980
	Japan, Yamagata, Yamagata	Sr-90	0.5	--	Vol	--	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Aichi, Toyota	Sr-90	0.5	--	Vol	--	1971, April		National Institute of Radiological Sciences, 1972

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Base

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Spinach	Japan, Aichi, Atsuta	Cs-137	0.5	--	Wet	--	1971, April		National Institute of Radiological Sciences, 1972
	Japan, Shizuoka, Fuji	Sr-90	0.5	--	Wet	--	1971, November		National Institute of Radiological Sciences, 1972
	Japan, Ibaraki, Nito	Sr-90	0.5	--	Wet	--	1974, December		National Institute of Radiological Sciences, 1976
	Japan, Saitama, Iyaki	Cs-137	0.5	--	Wet	--	1969, March		National Institute of Radiological Sciences, 1969
	Japan, Fukuoka, Kasuya-gun	Sr-90	0.5	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Fukuoka, Shino	Sr-90	0.5	--	Wet	--	1970, June		National Institute of Radiological Sciences, 1971
	Japan, Osaka, Ikeda	Sr-90	0.5	--	Wet	--	1963, May		National Institute of Agricultural Sciences, 1964
	Japan, Osaka, Hirayama	Sr-90	0.5	--	Wet	--	1963, May		National Institute of Agricultural Sciences, 1964
	Japan, Shizuoka, Ota	Sr-90	0.4	--	Wet	--	1979, July		National Institute of Radiological Sciences, 1980
	Japan, Miyagi, Sendai	Sr-90	0.4	--	Wet	--	1980, April		National Institute of Radiological Sciences, 1980
	Japan, Kyoto, Kyoto	Sr-90	0.4	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Fukui, Tsuruga	Cs-137	0.4	--	Wet	--	1971, May		National Institute of Radiological Sciences, 1972
	Japan, Hokkaido, Atsuma	Cs-137	0.4	--	Wet	--	1971, June		National Institute of Radiological Sciences, 1972
	Japan, Kanagawa, Miura	Sr-90	0.4	--	Wet	--	1971, June		National Institute of Radiological Sciences, 1972
	Japan, Ibaraki, Tokaiura	Sr-90	0.4	--	Wet	--	1971, November		National Institute of Radiological Sciences, 1972
	Japan, Ibaraki, Tokai	Cs-137	0.4	--	Wet	--	1974, December		National Institute of Radiological Sciences, 1976
	Japan, Ibaraki, Nito	Cs-137	0.4	--	Wet	--	1974, December		National Institute of Radiological Sciences, 1976
	Japan, Nagano, Saku	Sr-90	0.4	--	Wet	--	1978, November		National Institute of Radiological Sciences, 1979

Table 1. Naturally occurring radioactivity in food crops, by food item

Food crop	Geographical origin	Isotope measured	Radioactivity (Bq kg ⁻¹)	Range of radioactivity (Bq kg ⁻¹)	Significance	Year analyzed	Year	Source
Spinach	Japan, Miyagi, Shirakashi	Str-90	0.4	--	Not	--	1974, May	National Institute of Radiological Sciences, 1976
	Japan, Fukuoka, Sibusa	Str-90	0.4	--	Not	--	1974, November	National Institute of Radiological Sciences, 1976
	Japan, Saitama, Niiha	Cs-137	0.4	--	Not	--	1969, March	National Institute of Radiological Sciences, 1969
	Japan, Tottori, Kuroyoshi	Str-90	0.4	--	Not	--	1960, November	National Institute of Radiological Sciences, 1961
	Japan, Hokkaido, Sapporo	Str-90	0.4	--	Not	--	1970, June	National Institute of Radiological Sciences, 1971
	Japan, Shizuoka, Fujieda	Cs-137	0.4	--	Not	--	1970, November	National Institute of Radiological Sciences, 1971
	Japan, Hiroshima, Kabe	Str-90	0.4	--	Not	--	1962, May	National Institute of Radiological Sciences, 1964
	India, Bombay area	Ra-226	0.4	--	Not	--	1974	Leit, B.V., et al., 1968
	Japan, Nagano, Nagano	Str-90	0.3	--	Not	--	1979, November	National Institute of Radiological Sciences, 1980
	Japan, Shizuoka, Shizuoka	Str-90	0.3	--	Not	--	1979, November	National Institute of Radiological Sciences, 1980
	Japan, Tokyo, Shinjuku	Str-90	0.3	--	Not	--	1980, December	National Institute of Radiological Sciences, 1981
	Japan, Ibaraki, Tobai	Str-90	0.3	--	Not	--	1974, December	National Institute of Radiological Sciences, 1976
	Japan, Aichi, Tamago	Cs-137	0.3	--	Not	--	1967, April	National Institute of Radiological Sciences, 1968
	Japan, Fukuoka, Shimo	Cs-137	0.3	--	Not	--	1970, June	National Institute of Radiological Sciences, 1971
	Japan, Okayama, Okayama	Str-90	0.3	--	Not	--	1963, January	National Institute of Radiological Sciences, 1966
	Japan, Saitama, Saitama	Str-90	0.3	--	Not	--	1981, June	National Institute of Radiological Sciences, 1981
	India, Bombay area	Ra-226	0.3	--	Not	--	1973	Leit, B.V., et al., 1968
	India, Bombay area	Ra-226	0.3	--	Not	--	1976	Leit, B.V., et al., 1968
	India, Bombay area	Ra-226	0.3	--	Not	--	1972	Leit, B.V., et al., 1968
	India, Bombay area	Ra-226	0.3	--	Not	--	1976	Leit, B.V., et al., 1968
	India, Bombay	Po-210	0.3	0.8-10	Not	7	--	Handout, B.V., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL COUNTRY	ISOTOPE MEASURED	RAW RADIOACTIVITY (Bq kg ⁻¹)	BASES OF RADIOACTIVITY (Bq kg ⁻¹)	BASES	SAMPLES ANALYZED	DATE	CORRECTION	REFERENCE
Spinach	Japan, Aichi, Toyohashi	Sr-90	0.2	--	Wet	--	1970, June		National Institute of Radiological Sciences, 1979
	Japan, Fukuoka, Fukuoka	Cs-137	0.2	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Osaka, Osaka	Sr-90	0.2	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Hiroshima, Hiroshima	Sr-90	0.2	--	Wet	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Hyogo, Akashi	Sr-90	0.2	--	Wet	--	1980, January		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Futaba	Cs-137	0.2	--	Wet	--	1971, November		National Institute of Radiological Sciences, 1972
	Japan, Shizuoka, Fuji	Cs-137	0.2	--	Wet	--	1971, November		National Institute of Radiological Sciences, 1972
	Japan, Shizuoka, Gotemba	Cs-137	0.2	--	Wet	--	1970, November		National Institute of Radiological Sciences, 1979
	Japan, Tokyo, Shinjuku	Cs-137	0.2	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1981
	Japan, Nagasaki, Nagasaki	Sr-90	0.2	--	Wet	--	1981, January		National Institute of Radiological Sciences, 1981
	Japan, Kanagawa, Yokohama	Sr-90	0.2	--	Wet	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Tottori, Kurayoshi	Cs-137	0.2	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Hokkaido, Sapporo	Cs-137	0.2	--	Wet	--	1970, June		National Institute of Radiological Sciences, 1971
	Japan, Niigata, Niigata	Cs-137	0.2	--	Wet	--	1981, June		National Institute of Radiological Sciences, 1981
	India, Bombay area	Ba-226	0.2	--	Wet	--	1973	Market samples	Lalit, S.V., et al., 1980
	India, Bombay area	Ba-226	0.2	--	Wet	--	1971	Market samples	Lalit, S.V., et al., 1980
	India, Bombay area	Th-228	0.2	--	Wet	--	1971	Market samples	Lalit, S.V., et al., 1980
	India, Bombay area	Th-228	0.2	--	Wet	--	1972	Market samples	Lalit, S.V., et al., 1980
	Japan, Aichi, Toyohashi	Cs-137	<0.1	--	Wet	--	1970, June		National Institute of Radiological Sciences, 1979
	Japan, Nagano, Nagano	Cs-137	<0.1	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, b, Pool Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	MEAN RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	UNITS ANALYZED	DATE	COMMENT	REFERENCE
Spinach	Japan, Shimane, Shimaoka	Cs-137	<0.1	--	Net	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Fukuoka	Cs-137	0.1	--	Net	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Kagoshima, Kagoshima	Sr-90	0.1	--	Net	1979, November		National Institute of Radiological Sciences, 1980
	Japan, Okinawa, Naha	Cs-137	<0.1	--	Net	1979, February		National Institute of Radiological Sciences, 1980
	Japan, Shimane, Ota	Cs-137	0.1	--	Net	1979, July		National Institute of Radiological Sciences, 1980
	Japan, Hokkaido, Ishikari-ku	Cs-137	<0.1	--	Net	1979, September		National Institute of Radiological Sciences, 1980
	Japan, Miyagi, Sendai	Cs-137	<0.1	--	Net	1980, April		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Fukuoka	Cs-137	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Okayama, Okayama	Sr-90	0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Okayama, Okayama	Cs-137	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Hiroshima, Matsuyama	Sr-90	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Hiroshima, Matsuyama	Cs-137	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Saga, Saga	Sr-90	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Saga, Saga	Cs-137	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Ibaraki, Maebashi	Sr-90	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Ibaraki, Maebashi	Cs-137	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Fukuoka	Sr-90	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Fukuoka, Fukuoka	Cs-137	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Japan, Osaka, Osaka	Cs-137	0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SIZE	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Spinach	Japan, Fukuoka, Kasuya-gun	Cs-137	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Kochi, Kochi	Sr-90	<0.1	--	Net	--	1981, January		National Institute of Radiological Sciences, 1981
	Japan, Kochi, Kochi	Cs-137	<0.1	--	Net	--	1981, January		National Institute of Radiological Sciences, 1981
	Japan, Hiroshima, Hiroshima	Cs-137	0.1	--	Net	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Yamaguchi, Otsu-gun	Cs-137	<0.1	--	Net	--	1981, February		National Institute of Radiological Sciences, 1981
	Japan, Hyogo, Akashi	Cs-137	<0.1	--	Net	--	1980, January		National Institute of Radiological Sciences, 1980
	Japan, Kochi, Takamaki-gun	Cs-137	<0.1	--	Net	--	1980, January		National Institute of Radiological Sciences, 1980
	Japan, Aichi, Toyota	Cs-137	0.1	--	Net	--	1971, April		National Institute of Radiological Sciences, 1972
	Japan, Kanagawa, Hlura	Cs-137	0.1	--	Net	--	1971, June		National Institute of Radiological Sciences, 1972
	Japan, Ibaraki, Tokaiura	Cs-137	<0.1	--	Net	--	1971, November		National Institute of Radiological Sciences, 1972
	Japan, Kanagawa, Odawara	Sr-90	0.1	--	Net	--	1975, January		National Institute of Radiological Sciences, 1976
	Japan, Shizuoka, Ohta	Cs-137	0.1	--	Net	--	1978, August		National Institute of Radiological Sciences, 1979
	Japan, Nagano, Saku	Cs-137	<0.1	--	Net	--	1978, November		National Institute of Radiological Sciences, 1979
	Japan, Niigata, Shirakashi	Cs-137	0.1	--	Net	--	1978, May		National Institute of Radiological Sciences, 1978
	Japan, Okinawa, Nakagami-gun	Sr-90	0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1981
	Japan, Okinawa, Nakagami-gun	Cs-137	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1981
	Japan, Nagasaki, Nagasaki	Cs-137	<0.1	--	Net	--	1981, January		National Institute of Radiological Sciences, 1981
	Japan, Fukushima, Fukushima	Sr-90	<0.1	--	Net	--	1980, November		National Institute of Radiological Sciences, 1981

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASE	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Spinach	Japan, Fukushima, Fukushima	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Fuku, Fuku	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Fuku, Fuku	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Japan, Aichi, Aizumi-gun	Sr-90	0.1	--	Wet	--	1961, May		National Institute of Radiological Sciences, 1981
	Japan, Aichi, Aizumi-gun	Cs-137	0.1	--	Wet	--	1981, May		National Institute of Radiological Sciences, 1981
	India, Bombay area	Th-228	0.1	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Japan, Okinawa, Satsuma	Sr-90	0.0	--	Wet	--	1979, February		National Institute of Radiological Sciences, 1980
	Japan, Kanagawa, Yokohama	Cs-137	0.0	--	Wet	--	1981, February		National Institute of Radiological Sciences, 1981
Squash	Marshall Islands, Bikini-Bikini	Cs-137	8400	--	Dry	--	1975, April 16	Sample V-51	Greenhouse, H.A., et al., 1977
	Marshall Islands, Bikini-Bikini	K-40	1400	--	Dry	--	1975, April 16	Sample V-51	Greenhouse, H.A., et al., 1977
	Brazil, Araxa-Tapira area	Na-226	480	--	Ash	--	--	Area of high natural radioactivity.	Penna-France, E., et al., 1983
	USA, New Mexico, Los Alamos, Montanada Canyon	Cs-137	350	--	Dry	24	1977	Pool of washed fruits grown in unfertilized soil	White, G.C., et al., 1981
	Brazil, Araxa-Tapira area	Th-228	310	--	Ash	--	--	Area of high natural radioactivity.	Penna-France, E., et al., 1983
	USA, New Mexico, Los Alamos, Montanada Canyon	Cs-137	230	--	Dry	24	1977	Went of pooled fruit grown in unfertilized soil	White, G.C., et al., 1981
	USA, New Mexico, Los Alamos, Montanada Canyon	Cs-137	170	--	Dry	24	1977	Pool of washed fruit grown in fertilized soil	White, G.C., et al., 1981
	USA, New Mexico, Los Alamos, Montanada Canyon	Cs-137	150	--	Dry	24	1977	Went of pooled fruit grown in fertilized soil	White, G.C., et al., 1981
Squash, yellow	USA, Tennessee, Oak Ridge	K-40	78	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Squash	Brazil, Araxa-Tapira area	Na-226	70	--	Ash	--	--	Area of high natural radioactivity.	Penna-France, E., et al., 1983
Squash, bitter melon	USA, Massachusetts, Cape Cod, North Eastham	Cs-137	5.7	--	Wet	--	1975	Pooled	Hardy, H.P., Jr., 1977
Squash	Brazil, Rio de Janeiro	Na-226	5.6	--	Ash	--	--		Lobos, H., et al., 1973
	USA, Illinois, Argonne environs	Uranium	1.5	--	Wet	--	1978		Delchert, H.W., et al., 1979

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASES	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Squash, yellow	USA, Tennessee, Oak Ridge	Na-106	<0.9	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Sb-125	<0.9	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Squash	Brazil, Rio de Janeiro	Ra-226	0.9	--	Ash	--	--		Lebao, N., et al., 1973
	USA, New Mexico, Los Alamos, Fortanada Canyon	Pu-238	0.9	--	Dry	24	1977	Pool of washed fruit grown in unfertilized soil	White, G.C., et al., 1981
Squash, butternut	USA, Massachusetts, Cape Cod, North Eastham	Cs-137	0.6	--	Wet	--	1975	Peeled	Hardy, E.P., Jr., 1977
Squash	USA, New Mexico, Los Alamos, Fortanada Canyon	Pu-238	0.6	--	Dry	24	1977	Pool of washed fruit grown in fertilized soil	White, G.C., et al., 1981
Squash, yellow	USA, Tennessee, Oak Ridge	Ra-226	<0.5	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Squash, butternut	USA, Massachusetts, Cape Cod, North Eastham	Sr-90	0.4	--	Wet	--	1975	Peeled	Hardy, E.P., Jr., 1977
Squash, yellow	USA, Tennessee, Oak Ridge	Co-60	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Squash	Bikini Island	Pu-239, 240	<0.3	--	Wet	--	1974		Nelson, V., 1978
	USA, New Mexico, Los Alamos, Fortanada Canyon	Pu-239	0.2	--	Dry	24	1977	Pool of washed fruit grown in unfertilized soil	White, G.C., et al., 1981
	USA, New Mexico, Los Alamos, Fortanada Canyon	Pu-238	0.2	--	Dry	24	1977	Heat of peeled fruit grown in unfertilized soil	White, G.C., et al., 1981
	USA, New Mexico, Los Alamos, Fortanada Canyon	Pu-239	0.2	--	Dry	24	1977	Heat of peeled fruit grown in unfertilized soil	White, G.C., et al., 1981
	USA, New Mexico, Los Alamos, Fortanada Canyon	Pu-239	0.2	--	Dry	23	1977	Pool of washed fruit grown in fertilized soil	White, G.C., et al., 1981
	USA, New Mexico, Los Alamos, Fortanada Canyon	Pu-238	<0.1	--	Dry	24	1977	Heat of peeled fruit grown in fertilized soil	White, G.C., et al., 1981
	USA, New Mexico, Los Alamos, Fortanada Canyon	Pu-239	<0.1	--	Dry	24	1977	Heat of peeled fruit grown in fertilized soil	White, G.C., et al., 1981
Squash, yellow	USA, Tennessee, Oak Ridge	Sr-95, Sb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Tb-232	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Squash, butternut	USA, Massachusetts, Cape Cod, North Eastham	As-241	<0.1	--	Wet	--	--	Peeled	Hardy, E.P., Jr., 1977
	USA, Massachusetts, Cape Cod, North Eastham	Pu-239, 240	<0.1	--	Wet	--	1975	Peeled	Hardy, E.P., Jr., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SAMPLES SURVEYED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BAIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Squash	USA, Illinois, Argonne environs	Tb-238	<0.1	--	Wet	--	1976		Gelchert, H.W., et al., 1979
	USA, Illinois, Argonne environs	Tb-238	<0.1	--	Wet	--	1976		Gelchert, H.W., et al., 1979
Squash, buttercup	USA, Massachusetts, Cape Cod, North Eastham	Ba-239, 240	<0.1	--	Wet	--	1975	Pooled	Hardy, E.P., Jr., 1977
	USA, Massachusetts, Cape Cod, North Eastham	Aa-241	<0.1	--	Wet	--	1975	Pooled	Hardy, E.P., Jr., 1977
	USA, Massachusetts, Cape Cod, North Eastham	Sr-90	<0.1	--	Wet	--	1975	Pooled	Hardy, E.P., Jr., 1977
Squash	USA, Illinois, Argonne environs	Pb-239	<0.1	--	Wet	--	1978		Gelchert, H.W., et al., 1979
	USA, Illinois, Argonne environs	Tb-232	<0.1	--	Wet	--	1978		Gelchert, H.W., et al., 1979
Strauberry	Hungary, Győr-Sopron	Total beta	630	--	Dry	--	1971-1974		Szabo, L., 1977
	Hungary, Győr-Sopron	K-40	510	--	Dry	--	1971-1974		Szabo, L., 1977
Sunflower	USSR, central region	Ba-226	1.8	0.1-2.5	Dry	12	--		Mukhin, I.R., et al., 1965
Tai-ma	Japan, Aomori, Aomori	Cs-137	3.8	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
	Japan, Aomori, Aomori	Sr-90	2.3	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Taioba	Brazil, Rio de Janeiro	Ba-226	10	--	Ash	--	--	Edible tare leaves	Lebao, E., et al., 1973
Tamarindus indica	India, Kerala and Madras States	Total alpha	0.0	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Nietz, K.S., et al., 1965
Tangalo	USA, Tennessee, Oak Ridge	K-40	44	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Ba-104	<0.4	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Ba-226	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-60	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Sr-95, Yb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Tb-125	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Tb-232	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
Tangerine	USA, Tennessee, Oak Ridge	K-40	24	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Tangerine	USA, Tennessee, Oak Ridge	Se-106	<0.9	--	Wet	--	--	Market samples, edible portion	Oaken, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Se-226	<0.5	--	Wet	--	--	Market samples, edible portion	Oaken, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Co-60	<0.2	--	Wet	--	--	Market samples, edible portion	Oaken, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Sb-125	<0.2	--	Wet	--	--	Market samples, edible portion	Oaken, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.2	--	Wet	--	--	Market samples, edible portion	Oaken, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.2	--	Wet	1	--	Market samples, edible portion	Oaken, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Kr-95, Pb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oaken, T.W., et al., 1977
Tapioca (Manihot esculenta)	India, Kerala Coast	K-40	520	250-890	Dry	16	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	India, Kerala Coast	Total beta	480	--	Dry	16	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	India, Kerala and Madras States	Total alpha	22	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
	India, Kerala Coast	85 nat gamma	17	--	Dry	16	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	India, Kerala Coast	Total alpha	16	<0.4-18	Dry	16	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	India, Kerala Coast	Se-228	11	<0.4-14	Dry	16	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
Taro	Palau Islands, Nabelthap Island	K-40	210	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Mariana Islands, Guam, Padofo	K-40	210	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	K-40	89	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Sr-90	48	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Caroline Islands, Ponape Island, Kolonia	Cs-137	12	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Mariana Islands, Guam, Padofo	Sr-90	<6.7	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Palau Islands, Nabelthap Island	Sr-90	<2.6	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Mariana Islands, Guam, Padofo	Cs-137	1.9	--	Dry	--	1975, November	Root	Nelson, V.A., 1979

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

Food Crop	Geographical Origin	Isotopes Measured	Specific Activity (mCi kg ⁻¹)	Range of Radioactivity (mCi kg ⁻¹)	Units of Measurement	Date	Comments	Reference
Wheat	Poland, Poland	Pu-239, Pu-240	<0.1	--	Bq	1975, November	Soil	Selonen, V.A., 1979
	Caribbean Islands, Venezuela, Colombia	Pu-239, Pu-240	<0.1	--	Bq	1975, November	Soil	Selonen, V.A., 1979
	Maricao Island, Cuba, Mexico	Pu-239, Pu-240	<0.1	--	Bq	1975, November	Soil	Selonen, V.A., 1979
	South Africa, Poland	Total beta	6000	--	Bq	1966, December	Part 16 kg SW of Poland	Van der, D., et al., 1967
	South Africa, Poland	Total beta	3200	--	Bq	1966, April	Part 16 kg SW of Poland	Van der, D., et al., 1967
	South Africa, Poland	Total beta	3100	--	Bq	1966, June	Part 16 kg SW of Poland	Van der, D., et al., 1967
	South Africa, Poland	Total beta	2900	--	Bq	1966, November	Part 11 kg SW of Poland	Van der, D., et al., 1968
	South Africa, Poland	Total beta	2900	--	Bq	1966, November	Part near Poland	Van der, D., et al., 1968
	South Africa, Poland	Total beta	2600	--	Bq	1966, February	Part 16 kg SW of Poland	Van der, D., et al., 1967
	South Africa, Poland	Total beta	1000	--	Bq	1966, January	Part 11 kg SW of Poland	Van der, D., et al., 1967
Wheat	U.S. New Mexico, Los Alamos	Cu-137	200	--	Bq	1976	95-day growth, green samples from Montezuma Canyon garden plot.	Makonnen, Y.H., et al., 1979
	U.S. New Mexico, Los Alamos	Cu-137	200	--	Bq	1976	95-day growth, green samples from Montezuma Canyon garden plot.	Makonnen, Y.H., et al., 1979
	Iran, Baqer	Ba-226	240	--	Bq	1971	Field 1, south, area of high natural radioactivity.	Rhodes, B., et al., 1980
	Iran, Baqer	Ba-226	190	--	Bq	1975	Field 2, north, area of high natural radioactivity.	Rhodes, B., et al., 1980
	Iran, Baqer	Ba-226	190	--	Bq	1976	Field 1, north, area of high natural radioactivity.	Rhodes, B., et al., 1980
	Iran, Baqer	Ba-226	170	--	Bq	1972	Field 1, south, area of high natural radioactivity.	Rhodes, B., et al., 1980
	Iran, Baqer	Ba-226	150	--	Bq	1975	Field 1, south, area of high natural radioactivity.	Rhodes, B., et al., 1980
	U.S. Tennessee, Oak Ridge	K-40	67	--	Bq	--	Market samples, edible portion	Oakes, F.H., et al., 1977
	U.S. Ohio, Mansfield	R-3	40	93-95	Bq	1980		Fager, S.H., et al., 1981
	England, Shetland, Essex	Cs-137	36	--	Bq	1971-1974		Rob Miller, S.H., 1978
Wheat	U.S. New Mexico, Los Alamos	Ba-226	21	--	Bq	1961-1964	Random samples from all radioactive areas supplying the city	Harrel, A.H., et al., 1965

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SPECIES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SIZE	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Tomato	USA, Ohio, Centerville	K-3	17	14-19	Wet	4	1980		Parmer, B.N., et al., 1981
	Iran, Bamsar	Na-226	15	--	Ash	--	1975	Field 3. Area of high natural radioactivity.	Khademi, B., et al., 1980
	USA, Ohio, Sallbrook	K-3	12	12-14	Wet	4	1980		Parmer, B.N., et al., 1981
	Brazil, Rio de Janeiro	Na-226	9.6	--	Ash	--	--		Lobao, E., et al., 1973
	Iran, Bamsar	Na-226	7.4	--	Ash	--	1973	Field 3. Area of high natural radioactivity.	Khademi, B., et al., 1980
Tomato (Lycopersicon esculentum)	Italy, Ispra	Sr-90	7.0	--	Wet	--	1967		De Bertoli, M.D., et al., 1968
Tomato	USSR	Cs-137	1.5	--	Wet	--	1964		Knishnikov, V.A., et al., 1966
	Japan, Chiba	Cs-137	1.4	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1964
	USSR, central region	Na-226	1.4	--	Wet	5	--	Area 4	Mukhin, I.E., et al., 1965
	USA, Illinois, Argonne environs	Uranium	1.3	--	Wet	--	1978		Gelchert, W.W., et al., 1979
	USA, Tennessee, Oak Ridge	Na-106	1.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Bangladesh, Khulna	Sr-90	1.0	--	Wet	--	1971-1974		Rab Hella, H.A., 1978
	USSR	Cs-137	0.8	--	Wet	77	1966		Potukhova, E.V., et al., 1969
	USSR, central region	Na-226	0.8	--	Wet	7	--	Area 3	Mukhin, I.E., et al., 1965
	Italy, Ispra	Cs-137	0.7	--	Wet	--	1967		De Bertoli, M.D., et al., 1968
Tomato (Lycopersicon esculentum)	USSR	Sr-90	0.7	--	Wet	23	1964		Knishnikov, V.A., et al., 1966
Tomato	USA, Tennessee, Oak Ridge	Na-226	<0.5	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USSR, central region	Na-226	0.5	--	Wet	6	--	Area 1	Mukhin, I.E., et al., 1965
	USSR	Sr-90	0.4	--	Wet	64	1964		Knishnikov, V.A., et al., 1966
	USA, New Mexico, Los Alamos	Pu-239	0.4	--	Dry	6	1976	95-day growth. Green samples from Fortanada Canyon garden plot.	Hakenson, T.E., et al., 1978
	USSR, central region	Na-226	0.4	0.1-1.8	Dry	21	--		Mukhin, I.E., et al., 1965
	USA, Tennessee, Oak Ridge	Th-232	<0.4	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Japan, Chiba	Sr-90	0.3	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1964

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SEEDS	PLANTS ANALYZED	DATE	COMMENT	REFERENCE
Tomato	USA, New Mexico, Los Alamos	Pu-238	0.3	--	Dry	6	1970	95-day growth. Ripe samples from Horanad Canyon garden plot.	Hakenson, T.E., et al., 1970
	USA, Tennessee, Oak Ridge	Sb-125	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USSR, central region	Ra-226	0.3	--	Wet	5	--	Item 2	Rukhin, I.E., et al., 1969
	USSR	Sr-90	0.2	--	Wet	77	1966		Patukhova, E.V., et al., 1969
	USA, Tennessee, Oak Ridge	Ce-60	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, Tennessee, Oak Ridge	Ce-137	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USSR, Rostov-on-the-Don	Pb-210	<0.1	--	Wet	8	--		Ladinskaya, L.A., et al., 1973
	USSR, Rostov-on-the-Don	Pu-210	<0.1	--	Wet	8	--		Ladinskaya, L.A., et al., 1973
Tomato (Lycopersicon esculentum)	Italy, Sicily	Sr-90	0.1	--	Wet	20	1967		De Bertoli, N.D., et al., 1968
Tomato	USA, Oklahoma, Afton	Ra-226	<0.1	--	Wet	--	1975	High Ra-226 in local water supply	Keefer, D.H., et al., 1980
Tomato (Lycopersicon esculentum)	Italy, Sicily	Sr-90	<0.1	--	Wet	--	1970, January - March		Comitato Nazionale per l'Energia Nucleare, 1971
	Italy, Lazio, Sicily	Sr-90	<0.1	--	Wet	--	1970, April - June		Comitato Nazionale per l'Energia Nucleare, 1971
	Italy, Campania, Sicily	Sr-90	<0.1	--	Wet	--	1970, July - September		Comitato Nazionale per l'Energia Nucleare, 1971
Tomato	USA, Tennessee, Oak Ridge	Plutonium	0.1	--	Dry	3	1975-1976	Total Pu, grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
	USA, New Mexico, Los Alamos	Pu-238	0.1	--	Dry	6	1970	95-day growth. Green samples from Horanad Canyon garden plot.	Hakenson, T.E., et al., 1970
	USA, New Mexico, Los Alamos	Pu-239	0.1	--	Dry	6	1976	95-day growth. Ripe samples from Horanad Canyon garden plot.	Hakenson, T.E., et al., 1978
Tomato (Solanum lycopersicon L.)	Spain, Palencas	Total alpha	<0.1	--	Wet	--	--	Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Randia, C., et al., 1970
Tomato	USA, Illinois, Argentine savanna	Pu-239	<0.1	--	Wet	--	1978		Gelshert, H.W., et al., 1979
	USA, Illinois, Argentine savanna	Tb-232	<0.1	--	Wet	--	1978		Gelshert, H.W., et al., 1979
	USA, Illinois, Argentine savanna	Tb-238	<0.1	--	Wet	--	1978		Gelshert, H.W., et al., 1979

Table 1. Naturally occurring radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	NUMBER OF RADIOACTIVITY (Bq kg ⁻¹)	SYSTEM	NUMBER ANALYSED	DATE	COUNTRY	REFERENCE
Turnip	USA, Illinois, Argentine environs	Th-232	<0.1	--	Vol	--	1976		Gulchert, R.W., et al., 1976
	USA, Tennessee, Oak Ridge	Sr-90, U-235, Total beta	<0.1	--	Vol	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	India, Bombay	Po-210	<0.1	--	Vol	2	--		Khandekar, R.N., 1977
	USSR, Moscow	Ra-226	0.1	--	Vol	16	1961-1964	London samples from all wholesale markets supplying the city	Narai, A.V., et al., 1966
	South Africa, Polladaba	Total alpha	0.0	--	Dry	--	1966, November	Form 11 in USSR of Polladaba	Van de, S., et al., 1965
Turnip	USA, Tennessee, Oak Ridge	K-40	56	--	Vol	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	USA, California, Salinas	K-3	90	--	Vol	--	1974, July 11	Greens	Andrews, V.E., et al., 1978
	USA, California, Salinas	K-3	20	--	Vol	--	1974, July 11	Root	Andrews, V.E., et al., 1978
	USA, California, Salinas	K-3	20	--	Vol	--	1974, July 8	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Adavon	Be-7	15	--	Vol	--	1974, July 23	Greens	Andrews, V.E., et al., 1978
	USA, Nevada, Beatty	S-3	14	--	Vol	--	1974, July 11	Greens	Andrews, V.E., et al., 1978
	USA, Nevada, Pahrump	S-3	12	--	Vol	--	1974, July 12	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Springdale	S-3	<11	--	Vol	--	1974, August 15	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Beatty	K-3	<11	--	Vol	--	1974, July 11	Root	Andrews, V.E., et al., 1978
	Japan, Akita, Tenno	Cu-137	2.0	--	Vol	--	1962, May	Leaf	National Institute of Agricultural Sciences, 1966
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	2.9	--	Dry	--	1979-1980	Greens, washed, grown in H-area.	Smith, R.N., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239, 240	2.3	--	Dry	--	1979-1980	Greens, washed, grown in H-area.	Smith, R.N., et al., 1981
Turnip	Japan, Hiroshima, Fukuyama	Cu-137	2.0	--	Vol	--	1962, November		National Institute of Agricultural Sciences, 1966
Turnip (Brassica rapa)	Italy, Milano	Sr-90	1.9	--	Vol	20	1967	Top	De Bertoli, R.D., et al., 1966
Turnip	Japan, Akita, Tenno	Sr-90	1.0	--	Vol	--	1962, May	Leaf	National Institute of Agricultural Sciences, 1966
	USA, Nevada, Adavon	Sr-90	1.6	--	Vol	--	1974, July 23	Greens	Andrews, V.E., et al., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	PSEUDO MEASURED	RAW RADIOACTIVITY (Bq kg ⁻¹)	RAW RADIOACTIVITY (Bq kg ⁻¹)	STATUS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Turnip	Japan, Tokyo, Setagaya	Cs-137	1.4	--	Wet	--	1962, October		National Institute of Agricultural Sciences, 1964
	Japan, Hiroshima, Fukuyama	Sr-90	1.3	--	Wet	--	1962, November		National Institute of Agricultural Sciences, 1964
Turnip (Brassicaoleracea S.)	Italy, Ispica	Sr-90	1.2	--	Wet	20	1966	Top. Market samples.	De Bertoli, H.B., et al., 1967
Turnip	USA, California, Livermore Valley	Ba-226	0.9	--	Dry	--	--	Garden 1, soil Ca 3,100 ppm, 10 applications of phosphogypsum fertilizer.	Lindholm, C.L., et al., 1978
Turnip (Brassicaoleracea S.)	Italy, Ispica	Cs-137	0.8	--	Wet	20	1966	Top. Market samples. Computed value.	De Bertoli, H.B., et al., 1967
Turnip	USA, Tennessee, Oak Ridge	Ba-106	<0.6	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Japan, Tokyo, Setagaya	Sr-90	0.7	--	Wet	--	1962, October		National Institute of Agricultural Sciences, 1964
	USA, Nevada, Beatty	Po-210	<0.7	--	Wet	--	1974, July 11	Greens	Andrews, V.E., et al., 1978
	USA, Nevada, Carrant	Sr-89	<0.7	--	Wet	--	1974, July 18	Greens	Andrews, V.E., et al., 1978
	USA, California, Salinas	Sr-89	<0.6	--	Wet	--	1974, July 11	Greens	Andrews, V.E., et al., 1978
	USA, Nevada, Adaven	Po-210	<0.5	--	Wet	--	1974, July 23	Greens	Andrews, V.E., et al., 1978
	USA, Nevada, Carrant	Sr-90	<0.5	--	Wet	--	1974, July 18	Greens	Andrews, V.E., et al., 1978
	USA, California, Livermore Valley	Ba-226	0.5	--	Dry	--	--	Garden 2, soil Ca 3,200 ppm, 10 applications of phosphogypsum fertilizer.	Lindholm, C.L., et al., 1978
	USA, California, Salinas	Sr-89	<0.6	--	Wet	--	1974, July 11	Root	Andrews, V.E., et al., 1978
	USA, Tennessee, Oak Ridge	Ba-226	<0.4	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
Turnip (Brassicaoleracea S.)	USA, South Carolina, Savannah River Ecology Laboratory environs	Po-210	0.3	--	Dry	--	1979-1980	Greens, control, market samples.	Smith, H.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Po-210, 200	0.3	--	Dry	--	1979-1980	Greens, control, market samples.	Smith, H.H., et al., 1981
Turnip	USA, Nevada, Carrant	Po-210	<0.3	--	Wet	--	1974, July 18	Greens	Andrews, V.E., et al., 1978
	USA, California, Salinas	Sr-90	<0.3	--	Wet	--	1974, July 11	Root	Andrews, V.E., et al., 1978
	USA, California, Salinas	Po-210	<0.3	--	Wet	--	1974, July 11	Greens	Andrews, V.E., et al., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SEEDS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Turnip	USA, California, Salinas	Sr-90	<0.3	--	Yes	--	1974, July 11	Greens	Andrews, V.E., et al., 1978
	USA, California, Salinas	Po-210	<0.2	--	Yes	--	1974, July 11	Root	Andrews, V.E., et al., 1978
	USA, Tennessee, Oak Ridge	Sr-90, Pb-210, Total beta	<0.2	--	Yes	--	--	Market samples, edible portion	Oaken, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Sr-90	<0.2	--	Yes	--	--	Market samples, edible portion	Oaken, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Cs-137	<0.2	--	Yes	--	--	Market samples, edible portion	Oaken, T.V., et al., 1977
	USA, California, Salinas	Sr-90	<0.2	--	Yes	--	1974, July 8	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Springdale	Pu-238	<0.1	--	Yes	--	1974, August 15	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Springdale	Pu-239	<0.1	--	Yes	--	1974, August 15	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Beatty	Pu-238	<0.1	--	Yes	--	1974, July 11	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Beatty	Pu-239	<0.1	--	Yes	--	1974, July 11	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Carrant	Pu-238	<0.1	--	Yes	--	1974, July 10	Root	Andrews, V.E., et al., 1978
	USA, Nevada, Carrant	Pu-239	<0.1	--	Yes	--	1974, July 10	Root	Andrews, V.E., et al., 1978
	USA, California, Bloomington	Pu-238	<0.1	--	Yes	--	1975, May 21	Root	Andrews, V.E., et al., 1978
	USA, California, Bloomington	Pu-239	<0.1	--	Yes	--	1975, May 21	Root	Andrews, V.E., et al., 1978
	USA, California, Bloomington	Pu-238	<0.1	--	Yes	--	1975, May 21	Greens	Andrews, V.E., et al., 1978
	USA, California, Bloomington	Pu-239	<0.1	--	Yes	--	1975, May 21	Greens	Andrews, V.E., et al., 1978
	USA, Tennessee, Oak Ridge	Cs-60	<0.1	--	Yes	--	--	Market samples, edible portion	Oaken, T.V., et al., 1977
	USA, Tennessee, Oak Ridge	Th-232	<0.1	--	Yes	--	--	Market samples, edible portion	Oaken, T.V., et al., 1977
	USA, California, Salinas	Po-210	<0.1	--	Yes	--	1974, July 8	Root	Andrews, V.E., et al., 1978
	USA, California, Salinas	Sr-90	<0.1	--	Yes	--	1974, July 8	Root	Andrews, V.E., et al., 1978
Watercress	Brazil, Rio de Janeiro	Ba-226	10	--	Yes	--	--		Lobos, R., et al., 1973
Watermelon	USSR	Sr-90	1.5	--	Yes	6	1964		Knishnikov, V.A., et al., 1966
		Cs-137	1.1	--	Yes	9	1966		Petukhova, E.V., et al., 1969
		Sr-90	0.3	--	Yes	10	1964		Knishnikov, V.A., et al., 1966

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASE	NUMBER ANALYZED	DATE	COMMENTS	REFERENCE
Watermelon	USSR	Sr-90	0.2	--	Wet	9	1966		Petrakhova, E.V., et al., 1969
Wheat	Hungary, Győr-Sopron	Total beta	150	--	Dry	--	1971-1974		Seabro, A., 1977
	India, Bombay area	K-40	150	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Hungary, Győr-Sopron	K-40	140	--	Dry	--	1971-1974		Seabro, A., 1977
	India, Bombay area	K-40	140	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	140	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	130	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	K-40	120	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Japan, Mie, Tsu	Sr-90	28	--	Wet	--	1963, June		National Institute of Agricultural Sciences, 1968
	Japan, Tottori, Tottori	Sr-90	18	--	Wet	--	1963, June		National Institute of Agricultural Sciences, 1968
	USSR	Cs-137	12	--	Wet	--	1964		Knaishnikov, V.A., et al., 1966
	Belgium, Gembloux	Ra-226	12	--	Ash	--	1977	Winter variety. Plot 53, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, R., et al., 1980
	Japan	Sr-90	12	--	Wet	--	1963	Estimated from graph	National Institute of Radiological Sciences, 1971
	USA, Nevada, Nopah	Sr-89	<11	--	Wet	--	1976, August 2		Andreva, V.R., et al., 1978
	Belgium, Gembloux	Ra-226	9.1	--	Ash	--	1977	Winter variety. Plot 18, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1356 kg/ha.	Kirchmann, R., et al., 1980
	Belgium, Gembloux	Ra-226	8.9	--	Ash	--	1977	Winter variety. Plot 42, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1356 kg/ha.	Kirchmann, R., et al., 1980
	Belgium, Gembloux	Ra-226	6.4	--	Ash	--	1977	Winter variety. Plot 19, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, R., et al., 1980
	Japan	Sr-90	6.3	--	Wet	--	1964	Estimated from graph	National Institute of Radiological Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYSED	DATE	COMMENT	REFERENCES
Wheat	Belgium, Gembloux	Ra-226	8.0	--	Ash	--	1977	Winter variety. Plot 21, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, P., et al., 1980
	Belgium, Gembloux	Ra-226	8.0	--	Ash	--	1977	Winter variety. Plot 15, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, P., et al., 1980
	Japan, Saitama, Kosen	Sr-90	7.9	--	Wet	--	1966, June		National Institute of Agricultural Sciences, 1965
	USSR	Sr-90	7.0	--	Wet	91	1964		Kulshreshtha, V.A., et al., 1965
	Belgium, Gembloux	Ra-226	6.7	--	Ash	--	1977	Winter variety. Plot 32, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, P., et al., 1980
	Japan, Niigata, Tahara	Sr-90	5.5	--	Wet	--	1964, June		National Institute of Agricultural Sciences, 1965
	USSR	Cs-137	5.2	--	Wet	87	1966	Grains	Petukhova, E.V., et al., 1969
	Italy, Ispra	Sr-90	4.8	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	USSR	Cs-137	4.7	--	Wet	93	1966	Flour	Petukhova, E.V., et al., 1969
	Japan	Sr-90	4.3	--	Wet	--	1964	Estimated from graph	National Institute of Radiological Sciences, 1971
	Denmark, St. Jyndeved	Sr-90	3.2	--	Wet	--	1977		Larkrog, A., et al., 1978
	USSR	Cs-137	3.1	--	Wet	85	1966	Semolina, groats	Petukhova, E.V., et al., 1969
	USSR, central region	Ra-226	2.0	--	Wet	7	--	Area 1	Mukhin, I.E., et al., 1965
	Japan	Sr-90	2.6	--	Wet	--	1955	Estimated from graph	National Institute of Radiological Sciences, 1971
	USSR, central region	Ra-226	2.6	--	Wet	5	--	Area 2	Mukhin, I.E., et al., 1965
	Japan	Sr-90	2.4	--	Wet	--	1965	Estimated from graph	National Institute of Radiological Sciences, 1971
	USA, 5 major wheat producing states	Sr-90	2.2	0.8-3.0	Wet	--	1956		National Academy of Sciences, 1962
	Japan	Sr-90	2.2	--	Wet	--	1966	Estimated from graph	National Institute of Radiological Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASES	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Wheat	USSR	Sr-90	2.2	--	Net	67	1966	Grains	Potukhova, E.V., et al., 1969
	Japan, Akita, Akita	Sr-90	1.9	--	Net	--	1969, July		National Institute of Radiological Sciences, 1971
	Denmark, Stedsgaard	Sr-90	1.7	--	Net	--	1977		Aarkrog, A., et al., 1978
	USA, 5 major wheat producing states	Sr-90	1.7	0.7-2.3	Net	--	1959		National Academy of Sciences, 1962
	Japan, Tokyo, Tachibana	Sr-90	1.5	--	Net	--	1970, June		National Institute of Radiological Sciences, 1971
	USSR, Volga River region	Radium	1.5	--	Net	29	1964-1965	Experimental region	Seiova, E.S., et al., 1967
	Japan, Niigata, Nagasaki	Sr-90	1.4	--	Net	--	1970, July		National Institute of Radiological Sciences, 1971
	Japan, Niigata, Nagasaki	Sr-90	1.3	--	Net	--	1969, June		National Institute of Radiological Sciences, 1971
	USSR	Sr-90	1.3	--	Net	93	1966	Flour	Potukhova, E.V., et al., 1969
	USA, Nevada, Nye	Sr-90	<1.2	--	Net	--	1973, August 6		Andrews, V.E., et al., 1978
	Japan, Osaka, Osaka	Sr-90	1.2	--	Net	--	1970, June		National Institute of Radiological Sciences, 1971
	Japan, Iwate, Morioka	Sr-90	1.2	--	Net	--	1969, July		National Institute of Radiological Sciences, 1971
	Denmark, Aker	Sr-90	1.2	--	Net	--	1977		Aarkrog, A., et al., 1978
	USSR, Central region	Ba-226	1.2	--	Net	5	--	Area 4	Rukhin, I.B., et al., 1965
	Italy, Ispira	Cs-137	1.1	--	Net	--	1967		De Bertoli, G.D., et al., 1968
	Japan	Sr-90	1.1	--	Net	--	1957	Estimated from graph	National Institute of Radiological Sciences, 1971
	Japan, Okayama, Okayama	Sr-90	1.1	--	Net	--	1970, June		National Institute of Radiological Sciences, 1971
	Japan, Fukuoka, Asagi	Sr-90	1.1	--	Net	--	1970, June		National Institute of Radiological Sciences, 1971
	Japan, Ibaraki, Kita	Sr-90	1.0	--	Net	--	1969, July		National Institute of Radiological Sciences, 1971
	Denmark, Stedsgaard	Cs-137	0.9	--	Net	--	1977		Aarkrog, A., et al., 1978
	Japan	Sr-90	0.0	--	Net	--	1958	Estimated from graph	National Institute of Radiological Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASE	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Wheat	Japan	Sr-90	0.9	--	Wet	--	1960	Estimated from graph	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	0.9	--	Wet	--	1961	Estimated from graph	National Institute of Radiological Sciences, 1971
	Japan, Hokkaido, Sapporo	Sr-90	0.9	--	Wet	--	1970, July		National Institute of Radiological Sciences, 1971
	Japan, Hokkaido, Sapporo	Sr-90	0.9	--	Wet	--	1969, August		National Institute of Radiological Sciences, 1971
	Japan, Osaka, Osaka	Sr-90	0.9	--	Wet	--	1969, June		National Institute of Radiological Sciences, 1971
	Denmark, Skirkeby	Sr-90	0.9	--	Wet	--	1977, Summer		Aarkrog, A., et al., 1978
	Japan	Sr-90	0.9	--	Wet	--	1967	Estimated from graph	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	0.9	--	Wet	--	1968	Estimated from graph	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	0.9	--	Wet	--	1969	Estimated from graph	National Institute of Radiological Sciences, 1971
	Japan	Sr-90	0.9	--	Wet	--	1970	Estimated from graph	National Institute of Radiological Sciences, 1971
	Denmark, Tystofte	Cs-137	0.8	--	Wet	--	1977, Summer		Aarkrog, A., et al., 1978
	Denmark, Ledreborg	Cs-137	0.8	--	Wet	--	1977, Summer		Aarkrog, A., et al., 1978
	Denmark, Ledreborg	Cs-137	0.8	--	Wet	--	1977, Winter		Aarkrog, A., et al., 1978
	Denmark, Skirkeby	Cs-137	0.8	--	Wet	--	1977, Summer		Aarkrog, A., et al., 1978
	Japan, Ibaraki, Nito	Sr-90	0.8	--	Wet	--	1970, June		National Institute of Radiological Sciences, 1971
	Japan, Fukuoka, Asagi	Sr-90	0.8	--	Wet	--	1969, June		National Institute of Radiological Sciences, 1971
	USSR, Volga River region	Radium	0.8	--	Wet	22	1964-1965	Control region	Belova, S.S., et al., 1967
	Denmark, Løkov	Cs-137	0.7	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, Ålbøl	Cs-137	0.7	--	Wet	--	1977, Summer		Aarkrog, A., et al., 1978
	Japan, Iwate, Morioka	Sr-90	0.7	--	Wet	--	1970, July		National Institute of Radiological Sciences, 1971

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPES	MEAN radioactivity (Bq kg ⁻¹)	RANGE OF radioactivity (Bq kg ⁻¹)	STATUS	ANALYST	DATE	COMMENT	REFERENCE
Wheat	Danmark, Tyllstrup	Sr-90	0.7	--	Not	--	1977, Summer		Aarkrog, A., et al., 1978
	Danmark, Tystofte	Cs-137	0.6	--	Not	--	1977, Winter		Aarkrog, A., et al., 1978
	Danmark, Åbed	Cs-137	0.6	--	Not	--	1977, Winter		Aarkrog, A., et al., 1978
	Danmark	Sr-90	0.6	--	Not	--	1976		Aarkrog, A., et al., 1978
	Japan, Saitama, Kitamoto	Sr-90	0.6	--	Not	--	1970, June		National Institute of Radiological Sciences, 1971
	Japan, Miyagi, Iwatsubo	Sr-90	0.6	--	Not	--	1969, June		National Institute of Radiological Sciences, 1971
	Danmark, Ledeborg	Sr-90	0.6	--	Not	--	1977, Winter		Aarkrog, A., et al., 1978
	Danmark, Alitheby	Sr-90	0.6	--	Not	--	1977, Winter		Aarkrog, A., et al., 1978
	Danmark, Tystofte	Sr-90	0.6	--	Not	--	1977, Summer		Aarkrog, A., et al., 1978
	Danmark, Tystofte	Sr-90	0.6	--	Not	--	1977, Winter		Aarkrog, A., et al., 1978
	Danmark, Ledeborg	Sr-90	0.6	--	Not	--	1977, Summer		Aarkrog, A., et al., 1978
	USSR	Sr-90	0.6	--	Not	0.5	1966	Semolina, groats	Petukhova, E.V., et al., 1969
	India, Bombay area	Sr-226	0.6	--	Not	--	1973	Market samples	Lalit, M.C., et al., 1980
	Danmark, Tyllstrup	Cs-137	0.5	--	Not	--	1977, Summer		Aarkrog, A., et al., 1978
	Danmark, Odse	Cs-137	0.5	--	Not	--	1977		Aarkrog, A., et al., 1978
	Danmark, Alitheby	Cs-137	0.5	--	Not	--	1977, Winter		Aarkrog, A., et al., 1978
	Japan, Yamaguchi, Kofu	Sr-90	0.5	--	Not	--	1970, June		National Institute of Radiological Sciences, 1971
	Japan, Saitama, Kitamoto	Sr-90	0.5	--	Not	--	1969, July		National Institute of Radiological Sciences, 1971
	Japan, Tokyo, Tachikawa	Sr-90	0.5	--	Not	--	1969, June		National Institute of Radiological Sciences, 1971
	Japan, Yamaguchi, Kofu	Sr-90	0.5	--	Not	--	1969, June		National Institute of Radiological Sciences, 1971
	Japan, Okayama, Okayama	Sr-90	0.5	--	Not	--	1969, June		National Institute of Radiological Sciences, 1971
	Danmark, Åbed	Sr-90	0.5	--	Not	--	1977, Summer		Aarkrog, A., et al., 1978

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYSED	DATE	COMMENT	REFERENCE
Wheat	Denmark, Århus	Sr-90	0.5	--	Wet	--	1977, Winter		Aarkrog, A., et al., 1978
	India, Bombay	Pb-210	0.5	--	Wet	--	1973, May	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ba-226	0.5	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ba-226	0.5	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.5	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Denmark, St. Jydeved	Cu-137	0.4	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Japan, Miyagi, Iwatsubo	Sr-90	0.4	--	Wet	--	1970, July		National Institute of Radiological Sciences, 1971
	Denmark, Odum	Sr-90	0.4	--	Wet	--	1977, Winter		Aarkrog, A., et al., 1978
	India, Bombay	Pb-210	0.4	--	Wet	--	1974, November	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.4	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.4	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ba-226	0.4	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Denmark, Ledreborg	Ba-54	0.3	--	Wet	--	1977		Aarkrog, A., et al., 1978
	India, Bombay	Pb-210	0.3	--	Wet	--	1974, August	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.3	--	Wet	--	1976, April	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Ba-226	0.3	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	India, Bombay area	Th-228	0.3	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	USSR, Rostov-on-the-Don	Pb-210	0.2	--	Wet	11	--		Ladinskaya, L.A., et al., 1973
	Belgium, Gembloux	Ba-226	0.2	--	Dry	--	1977	Winter variety. Plot 21, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, R., et al., 1980
	Denmark	Cu-137	0.2	--	Wet	--	1976		Aarkrog, A., et al., 1978
	Denmark, Odum	Ba-54	0.2	--	Wet	--	1977		Aarkrog, A., et al., 1978
	India, Bombay	Pb-210	0.2	--	Wet	--	1970, October	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.2	--	Wet	--	1971, February	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.2	--	Wet	--	1973, April	Market samples	Lalit, B.V., et al., 1980
	USSR, central region	Ba-226	0.2	--	Wet	6	--	Area 1	Mukhin, I.E., et al., 1965
	India, Bombay	Pb-210	0.2	--	Wet	--	1973, October	Market samples	Lalit, B.V., et al., 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SOILS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Wheat	India, Bombay	Pb-210	0.2	--	Wet	--	1974, February	Market samples	Lalit, R.T., et al., 1980
	India, Bombay area	Th-228	0.2	--	Wet	--	1971	Market samples	Lalit, R.T., et al., 1980
	Belgium, Gembloux	Pb-226	0.2	--	Dry	--	1977	Winter variety. Plot 53, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 358 kg/ha	Kirchmann, R., et al., 1980
	Belgium, Gembloux	Ra-226	0.2	--	Dry	--	1977	Winter variety. Plot 18, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1356 kg/ha	Kirchmann, R., et al., 1980
	Belgium, Gembloux	Ra-226	0.2	--	Dry	--	--	Winter variety. Plot 42, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1356 kg/ha	Kirchmann, R., et al., 1980
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	3	1979-1980	Grains. Field 2 soil, lime added.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	--	1979-1980	Grains. Field 2 soil, lime and chelate added.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Grains. Grown on floodplain soil, control.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	2	1979-1980	Grains. Grown on floodplain soil, lime added.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	2	1979-1980	Grains. Grown on floodplain soil, lime and chelate added.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	3	1979-1980	Grains. Field 1 soil, control.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Grains. Field 2 soil, lime added.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	--	1979-1980	Grains. Field 1 soil, lime and chelate added.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	3	1979-1980	Grains. Field 2 soil, control.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	2	1979-1980	Grains. Field 2 soil, lime added.	Smith, M.H., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-239,240	<0.1	--	Dry	2	1979-1980	Grains. Field 2 soil, lime and chelate added.	Smith, M.H., et al., 1981
	Poland, Rowary Valley	Ra-226	<0.1	--	Wet	--	--		Piorkowski-Flis, Z., 1972

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Wheat	Poland, Warsaw	Ba-226	<0.1	--	Wet	--	--		Pietrusak-Pile, S., 1972
	USSR, Rostov-on-the-Don	Po-210	0.1	--	Wet	11	--		Ladinskaya, L.A., et al., 1973
	USA, South Carolina, Aiken	Plutonium	<0.1	--	Dry	7	1975, June	Total Pu, field combined, from North Field at Savannah River Plant	Adriano, D.C., et al., 1980
	USA, South Carolina, Aiken	Plutonium	<0.1	--	Dry	8	1975, June	Total Pu, field combined, from South Field at Savannah River Plant	Adriano, D.C., et al., 1980
	USA, South Carolina, Aiken	Plutonium	<0.1	--	Dry	12	1975, June	Total Pu, laboratory thrashed, from North Field at Savannah River Plant.	Adriano, D.C., et al., 1980
	USA, South Carolina, Aiken	Plutonium	<0.1	--	Dry	18	1975, June	Total Pu, laboratory thrashed, from South Field at Savannah River Plant.	Adriano, D.C., et al., 1980
	USA, South Carolina, Aiken	Plutonium	0.1	--	Dry	--	1975, June	Total Pu, field combined, unthreshed, South Field at Savannah River Plant	Adriano, D.C., et al., 1980
	USA, South Carolina, Aiken	Plutonium	<0.1	--	Dry	6	1975, June	Total Pu, field combined, threshed, South Field at Savannah River Plant	Adriano, D.C., et al., 1980
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	1	1974-1980	Grains. Grown on floodplain soil, control (no lime or chelate added)	Smith, N.W., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	1	1974-1980	Grains. Grown on floodplain soil, lime added.	Smith, N.W., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	2	1974-1980	Grains. Grown on floodplain soil, lime and chelate added.	Smith, N.W., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	1	1974-1980	Grains. Field 1 soil, control.	Smith, N.W., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	--	1974-1980	Grains. Field 1 soil, lime added.	Smith, N.W., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	--	1974-1980	Grains. Field 1 soil, lime and chelate added.	Smith, N.W., et al., 1981
	USA, South Carolina, Savannah River Ecology Laboratory environs	Pu-238	<0.1	--	Dry	2	1974-1980	Grains. Field 2 soil, control.	Smith, N.W., et al., 1981
	Belgium, Gemboux	Ba-226	0.1	--	Dry	--	1977	Winter variety. Plot 15, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kieckheaf, R., et al., 1984

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Wheat	Denmark, Tjelttrup	Hu-56	0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	Denmark, St. Jyndeved	Hu-56	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
	USSR, central region	Pu-226	0.1	0.7-3.2	Dry	20	--		Bukhin, I.E., et al., 1965
	USSR, Volga River region	Uranium	<0.1	--	Wet	22	1964-1965	Control region. Computed value.	Belova, B.S., et al., 1967
	USSR, Volga River region	Uranium	0.1	--	Wet	29	1964-1965	Experimental region. Computed value.	Belova, B.S., et al., 1967
	India, Bombay	Pb-210	<0.1	--	Wet	3	--		Rhandekar, B.N., 1977
	India, Bombay	Pb-210	0.1	--	Wet	--	1970, April	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Wet	--	1970, July	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Wet	--	1971, April	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Wet	--	1971, May	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	<0.1	--	Wet	--	1971, July	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Wet	--	1971, October	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Wet	--	1972, February	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Wet	--	1972, May	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Wet	--	1974, July	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Wet	--	1975, March	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Wet	--	1975, July	Market samples	Lalit, B.V., et al., 1980
	USA, South Carolina, Aiken	Plutonium	<0.1	--	Wet	--	1974, Fall	Total Pu. Field adjacent to nuclear fuel reprocessing plant, sampling location 2. Samples at 3-week intervals during growth cycle.	Adriano, D.C., et al., 1975
	USA, South Carolina, Aiken	Plutonium	<0.1	--	Wet	--	1974, Fall	Total Pu. Field adjacent to nuclear fuel reprocessing plant, sampling location 1. Samples at 3-week intervals during growth cycle.	Adriano, D.C., et al., 1975
	India, Bombay	Pb-210	0.1	--	Wet	--	1974, December	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Wet	--	1975, March	Market samples	Lalit, B.V., et al., 1980
	India, Bombay	Pb-210	0.1	--	Wet	--	1975, July	Market samples	Lalit, B.V., et al., 1980

Table 1. Naturally Occurring Radioactivity in Food Crops, by Food Name

FOOD CROP	GEOGRAPHICAL ORIGIN	SPECIFIC ISOTOPE	RA-226 (Bq kg ⁻¹)	RA-232 (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Wheat	India, Bombay	Pb-210	0.1	0.1	--	Wet	--	1974, October	Market samples	Lalit, S.Y., et al., 1980
	India, Bombay	Pb-210	0.1	0.1	--	Wet	--	1976, January	Market samples	Lalit, S.Y., et al., 1980
	Belgium, Ganshoren	Ra-226	0.1	0.1	--	Dry	--	1977	Winter variety. Plot 32, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha	Kirchmann, B., et al., 1980
	Belgium, Ganshoren	Ra-226	0.1	0.1	--	Dry	--	1977	Winter variety. Plot 19, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha	Kirchmann, B., et al., 1980
Yam	Brazil, Rio de Janeiro	Ra-226	340	340	--	Ash	--	--		Lobao, N., et al., 1973
	Brazil, Rio de Janeiro	Ra-226	4.6	4.6	--	Ash	--	--		Lobao, N., et al., 1973
	India, Kerala and Madras States	Total Alpha	11	11	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Mistry, S.B., et al., 1965

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APPENDIX B

RADIOACTIVITY IN FOOD CROPS

By Geographical Origin

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Australia, Victoria	Pear	K-43	30	--	Wet	--	1973, April 24		Simpson, R.E., et al., 1974
	Pear	Ru-106	<0.4	--	Wet	--	1973, April 24		Simpson, R.E., et al., 1974
	Pear	Cs-137	<0.4	--	Wet	--	1973, April 24		Simpson, R.E., et al., 1974
	Pear	I-131	<0.4	--	Wet	--	1973, April 24		Simpson, R.E., et al., 1974
	Pear	Sr-90	<0.1	--	Wet	--	1973, April 24		Simpson, R.E., et al., 1974
Bangladesh, Khulna	Beet	Cs-137	1600	--	Wet	--	1972-1974	Root	Rab Hossain, M.A., 1978
	Beet	Cs-137	370	--	Wet	--	1972-1974	Leaf	Rab Hossain, M.A., 1978
Bangladesh, Dacca	Beet	Cs-137	320	--	Wet	--	1972-1974	Root	Rab Hossain, M.A., 1978
Bangladesh	Beet	Tl-208	97	--	Wet	--	1972-1974	Root	Rab Hossain, M.A., 1978
Bangladesh, Khulna	Beet	Sr-90	8.9	--	Wet	--	1972-1974	Leaf	Rab Hossain, M.A., 1978
Bangladesh, Dacca	Beet	Sr-90	8.6	--	Wet	--	1972-1974	Leaf	Rab Hossain, M.A., 1978
	Beet	Sr-90	7.5	--	Wet	--	1972-1974	Root	Rab Hossain, M.A., 1978
Bangladesh	Beet	Tl-208	7.4	--	Wet	--	1972-1974	Leaf	Rab Hossain, M.A., 1978
Bangladesh, Dacca	Beet	Cs-137	7.4	--	Wet	--	1972-1974	Leaf	Rab Hossain, M.A., 1978
Bangladesh, Khulna	Beet	Sr-90	1.3	--	Wet	--	1972-1974	Root	Rab Hossain, M.A., 1978
Bangladesh, Dacca	Cabbage	Sr-90	7.2	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh	Cabbage	Tl-208	4.4	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh, Khulna	Cabbage	Sr-90	2.3	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh, Dacca	Cabbage	Cs-137	1.5	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh, Khulna	Carrot	Cs-137	120	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh, Dacca	Carrot	Cs-137	52	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh	Carrot	Tl-208	17	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh, Dacca	Carrot	Sr-90	1.4	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
	Cauliflower	Cs-137	70	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh	Cauliflower	Tl-208	16	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh, Dacca	Cauliflower	Sr-90	1.9	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh, Khulna	Lettuce	Sr-90	2.3	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
	Lettuce	Cs-137	1.9	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
	Radish	Cs-137	1200	--	Wet	--	1972-1974	Root	Rab Hossain, M.A., 1978
Bangladesh, Dacca	Radish	Cs-137	48	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh	Radish	Tl-208	7.0	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh, Khulna	Radish	Sr-90	2.4	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978
Bangladesh, Dacca	Radish	Sr-90	1.0	--	Wet	--	1972-1974		Rab Hossain, M.A., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SAMPLES ANALYZED	MEAN RADIOACTIVITY (Bg kg ⁻¹)	RAANGE OF RADIOACTIVITY (Bg kg ⁻¹)	STATUS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Bangladesh, Dacca	Spinach	Cs-137	900	--	Wet	--	1972-1974	Local	Rab Hella, N.A., 1978
Bangladesh, Khulna	Spinach	Cs-137	320	--	Wet	--	1972-1974	Local	Rab Hella, N.A., 1978
Bangladesh, Dacca	Spinach	Cs-137	44	--	Wet	--	1972-1974		Rab Hella, N.A., 1978
Bangladesh	Spinach	Tl-208	28	--	Wet	--	1972-1974	Local	Rab Hella, N.A., 1978
Bangladesh, Dacca	Spinach	Sr-90	19	--	Wet	--	1972-1974		Rab Hella, N.A., 1978
	Spinach	Sr-90	17	--	Wet	--	1972-1974	Local	Rab Hella, N.A., 1978
Bangladesh	Spinach	Tl-208	14	--	Wet	--	1972-1974		Rab Hella, N.A., 1978
Bangladesh, Khulna	Spinach	Sr-90	2.6	--	Wet	--	1972-1974	Local	Rab Hella, N.A., 1978
	Tomato	Cs-137	36	--	Wet	--	1972-1974		Rab Hella, N.A., 1978
	Tomato	Sr-90	1.0	--	Wet	--	1972-1974		Rab Hella, N.A., 1978
Belgium, Gembloux	Beet, sugar	Ra-226	33	--	Ash	--	1977	Root. Plot 53, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1346 kg/ha.	Kirchmann, R., et al., 1980
	Beet, sugar	Ra-226	30	--	Ash	--	1977	Root. Plot 24, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 343 kg/ha.	Kirchmann, R., et al., 1980
	Beet, sugar	Ra-226	23	--	Ash	--	1977	Root. Plot 35, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 343 kg/ha.	Kirchmann, R., et al., 1980
	Beet, sugar	Ra-226	20	--	Ash	--	1977	Root. Plot 24, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 343 kg/ha.	Kirchmann, R., et al., 1980
	Beet, sugar	Ra-226	15	--	Ash	--	1977	Root. Plot 14, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 343 kg/ha.	Kirchmann, R., et al., 1980
	Beet, sugar	Ra-226	13	--	Ash	--	1977	Root. Plot 36, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 343 kg/ha.	Kirchmann, R., et al., 1980
	Beet, sugar	Ra-226	1.2	--	Dry	--	1977	Root. Plot 24, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 343 kg/ha.	Kirchmann, R., et al., 1980
	Beet, sugar	Ra-226	0.6	--	Dry	--	1977	Root. Plot 53, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1346 kg/ha.	Kirchmann, R., et al., 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Belgium, Gembloux	Beet, sugar	Ra-226	0.5	--	Dry	--	1977	Root. Plot 25, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 343 kg/ha.	Kirchmann, R., et al., 1980
	Beet, sugar	Ra-226	0.4	--	Dry	--	1977	Root. Plot 18, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 343 kg/ha.	Kirchmann, R., et al., 1980
	Beet, sugar	Ra-226	0.4	--	Dry	--	1977	Root. Plot 26, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 343 kg/ha.	Kirchmann, R., et al., 1980
	Beet, sugar	Ra-226	0.3	--	Dry	--	1977	Root. Plot 36, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 343 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	12	--	Ash	--	1977	Winter variety. Plot 53, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 358 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	9.1	--	Ash	--	1977	Winter variety. Plot 18, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1356 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	8.9	--	Ash	--	1977	Winter variety. Plot 22, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1356 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	8.4	--	Ash	--	1977	Winter variety. Plot 19, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 358 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	8.0	--	Ash	--	1977	Winter variety. Plot 21, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 356 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	8.0	--	Ash	--	1977	Winter variety. Plot 15, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 358 kg/ha.	Kirchmann, R., et al., 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Radionuclide Measured	Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Units	Units Analyzed	Date	Comments	Reference
Belgium, Oostvleze	Wheat	Ra-226	6.7	--	Asb	--	1977	Winter variety. Plot 32, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	0.2	--	Dry	--	1977	Winter variety. Plot 21, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	0.2	--	Dry	--	1977	Winter variety. Plot 52, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	0.2	--	Dry	--	1977	Winter variety. Plot 18, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1350 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	0.2	--	Dry	--	--	Winter variety. Plot 42, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 1350 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	0.1	--	Dry	--	1977	Winter variety. Plot 18, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	0.1	--	Dry	--	1977	Winter variety. Plot 32, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, R., et al., 1980
	Wheat	Ra-226	0.1	--	Dry	--	1977	Winter variety. Plot 19, Belgian Agricultural Research Centre. Phosphate fertilizer applied, 350 kg/ha.	Kirchmann, R., et al., 1980
British Island	Banana	Po-239,240	<0.1	--	Wet	--	1974		Nelson, V., 1976
	Papaya	Po-239,240	<0.1	--	Wet	--	1974		Nelson, V., 1976
	Squash	Po-239,240	<0.3	--	Wet	--	1974		Nelson, V., 1976
	Banana	Ra-226	20	--	Asb	--	--		Lobo, R., et al., 1973
Brazil, Rio de Janeiro	Bean	Ra-226	220	--	Asb	--	--	Area of high natural radioactivity.	Penna-Pranda, R., et al., 1965
Brazil, Aracá-Papira	Bean	Ra-226	52	--	Asb	--	--		Lobo, R., et al., 1973
Brazil, Rio de Janeiro	Bean	Ra-226	52	--	Asb	--	--	Area of high natural radioactivity.	Penna-Pranda, R., et al., 1965
Brazil, Aracá-Papira	Bean	Ra-226	52	--	Asb	--	--		Lobo, R., et al., 1973

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Brazil, Araxa-Tapira area	Bean	Ra-226	19	--	Ash	--	--	Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
Brazil, Rio de Janeiro	Beans, brown	Ra-226	17	--	Ash	--	--	Area of high natural radioactivity.	Lobao, W., et al., 1973
	Beans, black	Ra-226	17	--	Ash	--	--		Lobao, W., et al., 1973
	Beans, butter	Ra-226	13	--	Ash	--	--		Lobao, W., et al., 1973
	Beans, black	Ra-226	9.9	--	Ash	--	--		Lobao, W., et al., 1973
	Beans, horse	Ra-226	4.3	--	Ash	--	--		Lobao, W., et al., 1973
	Beans, black	Ra-226	2.7	--	Ash	--	--		Lobao, W., et al., 1973
	Beans, fradinho	Ra-226	2.6	--	Ash	--	--		Lobao, W., et al., 1973
Brazil, Araxa-Tapira area	Bean	Total alpha	--	--	Wet	--	--	Area of high natural radioactivity	Penna-Franca, E., et al., 1965
Brazil, Rio de Janeiro	Beet	Ra-226	15	--	Ash	--	--	Area of high natural radioactivity.	Lobao, W., et al., 1973
	Carrot	Ra-226	130	--	Ash	--	--		Lobao, W., et al., 1973
	Carrot	Ra-226	73	--	Ash	--	--		Lobao, W., et al., 1973
	Carrot	Ra-226	63	--	Ash	--	--		Lobao, W., et al., 1973
	Cassava	Ra-226	23	--	Ash	--	--		Lobao, W., et al., 1973
	Cassava	Ra-226	16	--	Ash	--	--		Lobao, W., et al., 1973
	Cassava	Ra-226	6.1	--	Ash	--	--		Lobao, W., et al., 1973
	Cassava	Ra-226	4.5	--	Ash	--	--		Lobao, W., et al., 1973
	Chicory	Ra-226	4.5	--	Ash	--	--		Lobao, W., et al., 1973
Brazil, Araxa-Tapira area	Couve	Ra-226	2000	--	Ash	--	--	Green vegetable related to cauliflower. Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
	Couve	Ra-226	300	--	Ash	--	--	Green vegetable related to cauliflower. Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
	Couve	Th-232	240	--	Ash	--	--	Green vegetable related to cauliflower. Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
Brazil, Rio de Janeiro	Gilo	Ra-226	0.1	--	Ash	--	--	Squash	Lobao, W., et al., 1973
	Gilo	Ra-226	3.3	--	Ash	--	--	Squash	Lobao, W., et al., 1973
	Kale	Ra-226	7.4	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Lobao, W., et al., 1973
	Kale	Ra-226	2.6	--	Ash	--	--		Lobao, W., et al., 1973
	Kale	Ra-226	0.6	--	Ash	--	--		Lobao, W., et al., 1973
Brazil, Araxa-Tapira	Kale (Brassica oleracea L.) ssp. acephala	Ra-226	1100	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Penna-Franca, E., et al., 1972

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SPECIES VARIETY	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	DATE	SOURCE ANALYSED	DATE	COMMENT	REFERENCE
Brazil, Araxá-Tapira	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	810	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	660	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	660	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	390	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	320	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	300	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	230	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	220	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	200	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	190	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	170	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	160	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	110	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972
	Kale (<i>Brassica oleracea</i> L.) ssp. acephala	Ba-220	60	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pisman, H., et al., 1972

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope Measured	Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Number Analyzed	Date	Comment	Reference
Brazil, Arara-Papira	Kale (Brassica oleracea L.) ssp. acephala	Ra-226	58	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pissuan, M., et al., 1972
	Kale (Brassica oleracea L.) ssp. acephala	Ra-226	47	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pissuan, M., et al., 1972
	Kale (Brassica oleracea L.) ssp. acephala	Ra-226	38	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pissuan, M., et al., 1972
	Kale (Brassica oleracea L.) ssp. acephala	Ra-226	38	--	Ash	--	--	From vegetable gardens located in the most radioactive areas of the region.	Pissuan, M., et al., 1972
Brazil, Rio de Janeiro	Letten	Ra-226	23	--	Ash	--	--	Area of high natural radioactivity	Lobao, E., et al., 1973
	Letten	Ra-226	6.6	--	Ash	--	--		Lobao, E., et al., 1973
	Letten	Ra-226	1.7	--	Ash	--	--		Lobao, E., et al., 1973
	Manioc	Ra-226	7100	--	Ash	--	--		Penna-Petanda, E., et al., 1965
Brazil, Arara-Papira Area	Manioc	Th-232	1800	--	Ash	--	--	Area of high natural radioactivity	Penna-Petanda, E., et al., 1965
	Manioc	Ra-226	1700	--	Ash	--	--	Area of high natural radioactivity	Penna-Petanda, E., et al., 1965
	Manioc	Ra-226	59	--	Ash	--	--	Flour	Lobao, E., et al., 1973
	Manioc	Ra-226	50	--	Ash	--	--	Flour	Lobao, E., et al., 1973
Brazil, Amazon Valley	Manioc	Ra-226	50	--	Ash	--	--	Flour	Lobao, E., et al., 1973
	Manioc	Ra-226	39	--	Ash	--	--	Flour	Lobao, E., et al., 1973
	Manioc	Total alpha	660	--	Wet	--	--	Sample Cp-28	Penna-Petanda, E., et al., 1968
	Manioc	Total alpha	520	--	Wet	--	--	Sample Cp-22	Penna-Petanda, E., et al., 1968
	Manioc	Total alpha	340	--	Wet	--	--	Sample Cp-17	Penna-Petanda, E., et al., 1968
	Manioc	Total alpha	330	--	Wet	--	--	Sample Cp-19	Penna-Petanda, E., et al., 1968
	Manioc	Total alpha	320	--	Wet	--	--	Sample Cp-8	Penna-Petanda, E., et al., 1968
	Manioc	Total alpha	300	--	Wet	--	--	Sample Cp-16	Penna-Petanda, E., et al., 1968
	Manioc	Total alpha	270	--	Wet	--	--	Sample Cp-21	Penna-Petanda, E., et al., 1968
	Manioc	Total alpha	270	--	Wet	--	--	Sample Cp-25	Penna-Petanda, E., et al., 1968
	Manioc	Total alpha	170	--	Wet	--	--	Sample Cp-9	Penna-Petanda, E., et al., 1968

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Brazil, Amazon Valley	Wet, Brazil	Total alpha	170	--	Wet	--	--	Sample Cp-23	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	130	--	Wet	--	--	Sample Cp-24	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	130	--	Wet	--	--	Sample Cp-24	Penna-Franca, E., et al., 1968
	Wet, Brazil	Total alpha	110	--	Wet	--	--	Sample Cp-1	Penna-Franca, E., et al., 1961
	Wet, Brazil	Ra-226	110	--	Wet	--	--	Sample Cp-22	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	110	--	Wet	--	--	Sample Cp-17	Penna-Franca, E., et al., 1968
	Wet, Brazil	Total alpha	99	--	Wet	--	--	Sample Cp-4	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	80	--	Wet	--	--	Sample Cp-19	Penna-Franca, E., et al., 1968
	Wet, Brazil	Total alpha	76	--	Wet	--	--	Sample Cp-20	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	72	--	Wet	--	--	Sample Cp-8	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	71	--	Wet	--	--	Sample Cp-16	Penna-Franca, E., et al., 1968
	Wet, Brazil	Total alpha	69	--	Wet	--	--	Sample Cp-2	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	69	--	Wet	--	--	Sample Cp-25	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	68	--	Wet	--	--	Sample Cp-25	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	66	--	Wet	--	--	Sample Cp-16	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	65	--	Wet	--	--	Sample Cp-17	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	64	--	Wet	--	--	Sample Cp-19	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	64	--	Wet	--	--	Sample Cp-8	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	60	--	Wet	--	--	Sample Cp-21	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	52	--	Wet	--	--	Sample Cp-22	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	44	--	Wet	--	--	Sample Cp-21	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	37	--	Wet	--	--	Sample Cp-9	Penna-Franca, E., et al., 1968
	Wet, Brazil	Ra-226	34	--	Wet	--	--	Sample Cp-6	Penna-Franca, E., et al., 1968
	Wet, Brazil	Total alpha	32	--	Wet	--	--	Sample Cp-18	Penna-Franca, E., et al., 1968

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Brazil, Amazon Valley	Nut, Brazil	Ra-223	32	--	Wet	--	--	Sample Cp-1	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-226	30	--	Wet	--	--	Sample Cp-23	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-228	30	--	Wet	--	--	Sample Cp-9	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-226	26	--	Wet	--	--	Sample Cp-1	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-226	14	--	Wet	--	--	Sample Cp-2	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-226	14	--	Wet	--	--	Sample Cp-20	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-228	13	--	Wet	--	--	Sample Cp-23	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-228	13	--	Wet	--	--	Sample Cp-20	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-226	8.1	--	Wet	--	--	Sample Cp-8	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-228	7.3	--	Wet	--	--	Sample Cp-18	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-228	6.0	--	Wet	--	--	Sample Cp-2	Penna-Franca, E., et al., 1968
	Nut, Brazil	Ra-226	2.8	--	Wet	--	--	Sample Cp-18	Penna-Franca, E., et al., 1968
Brazil, Araxa-Tapira area	Orange	Ra-228	6100	--	Ash	--	--	Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
	Orange	Th-228	1100	--	Ash	--	--	Area of high natural radioactivity	Penna-Franca, E., et al., 1965
	Orange	Ra-226	560	--	Ash	--	--	Area of high natural radioactivity	Penna-Franca, E., et al., 1965
Brazil, Rio de Janeiro	Orange	Ra-226	12	--	Ash	--	--		Lobao, N., et al., 1973
	Potato, sweet	Ra-226	68	--	Ash	--	--		Lobao, N., et al., 1973
	Potato, white	Ra-226	2.4	--	Ash	--	--		Lobao, N., et al., 1973
	Rice	Ra-226	1.3	--	Ash	--	--		Lobao, N., et al., 1973
Brazil, Araxa-Tapira area	Squash	Ra-228	480	--	Ash	--	--	Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
	Squash	Th-228	310	--	Ash	--	--	Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
	Squash	Ra-226	70	--	Ash	--	--	Area of high natural radioactivity.	Penna-Franca, E., et al., 1965
Brazil, Rio de Janeiro	Squash	Ra-226	5.6	--	Ash	--	--		Lobao, N., et al., 1973
	Squash	Ra-226	0.9	--	Ash	--	--		Lobao, N., et al., 1973
	Taioba	Ra-226	10	--	Ash	--	--	Edible taro leaves	Lobao, N., et al., 1973
	Tomato	Ra-226	9.6	--	Ash	--	--		Lobao, N., et al., 1973
	Watercress	Ra-226	10	--	Ash	--	--		Lobao, N., et al., 1973

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Section Analyzed	Unit Radioactivity (Bq kg ⁻¹)	Unit Radioactivity (Bq kg ⁻¹)	Unit of Radioactivity (Bq kg ⁻¹)	Units Analyzed	Date	Comment	Reference
Brazil, Rio de Janeiro	Yam	Ba-226	340	--	--	444	--	--	Lobo, R., et al., 1973
Caroline Islands, Pohnpei Island, Kolonia	Yam	Ba-226	6.6	--	--	444	--	--	Lobo, R., et al., 1973
	Banana	K-40	760	--	--	DrY	1975, November	--	Nelson, F.A., 1979
Banana	Banana	K-40	<1.3	--	--	DrY	1975, November	--	Nelson, F.A., 1979
	Banana	Ca-137	1.9	--	--	DrY	1975, November	--	Nelson, F.A., 1979
Broadfruit	Broadfruit	K-40	540	--	--	DrY	1975, November	--	Nelson, F.A., 1979
	Broadfruit	K-40	480	--	--	DrY	1975, November	--	Nelson, F.A., 1979
Caroline Islands, Truk Atoll, Pohnpei Island	Broadfruit	K-40	440	--	--	DrY	1975, November	--	Nelson, F.A., 1979
	Broadfruit	K-40	410	--	--	DrY	1975, November	--	Nelson, F.A., 1979
Caroline Islands, Truk Atoll, Pohnpei Island, Kolonia	Broadfruit	K-40	260	--	--	DrY	1975, November	--	Nelson, F.A., 1979
	Broadfruit	Ca-137	85	--	--	DrY	1975, November	--	Nelson, F.A., 1979
Caroline Islands, Pohnpei Island, Kolonia	Broadfruit	Ca-137	80	--	--	DrY	1975, November	--	Nelson, F.A., 1979
	Broadfruit	Ca-137	27	--	--	DrY	1975, November	--	Nelson, F.A., 1979
Broadfruit	Broadfruit	K-40	<6.3	--	--	DrY	1975, November	--	Nelson, F.A., 1979
	Broadfruit	K-40	<4.4	--	--	DrY	1975, November	--	Nelson, F.A., 1979
Caroline Islands, Truk Atoll, Pohnpei Island, Kolonia	Broadfruit	K-40	<2.4	--	--	DrY	1975, November	--	Nelson, F.A., 1979
	Broadfruit	K-40	<2.6	--	--	DrY	1975, November	--	Nelson, F.A., 1979
Caroline Islands, Pohnpei Island, Kolonia	Broadfruit	Pa-239, 240	1.0	--	--	DrY	1975, November	--	Nelson, F.A., 1979
	Broadfruit	Pa-239, 240	0.1	--	--	DrY	1975, November	--	Nelson, F.A., 1979
Caroline Islands, Truk Atoll, Pohnpei Island, Kolonia	Broadfruit	Pa-239, 240	<0.1	--	--	DrY	1975, November	--	Nelson, F.A., 1979
	Broadfruit	K-40	2600	--	--	DrY	1975, November	Milk	Nelson, F.A., 1979
Coconut	Coconut	K-40	210	--	--	DrY	1975, November	Meat	Nelson, F.A., 1979
	Coconut	K-40	200	--	--	DrY	1975, November	Copra	Nelson, F.A., 1979
Caroline Islands, Truk Atoll, Pohnpei Island, Kolonia	Coconut	K-40	140	--	--	DrY	1975, November	Meat	Nelson, F.A., 1979

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENTS	REFERENCE
Caroline Islands, Truk Atoll, Dublon Island	Cocconut	K-40	130	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Caroline Islands, Ponape Island, Kolonia	Cocconut	Cs-137	96	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefea Island	Cocconut	K-40	82	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Dublon Island	Cocconut	K-40	67	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefea Island	Cocconut	K-40	52	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Caroline Islands, Ponape Island, Kolonia	Cocconut	Pu-239,240	<.1	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Cocconut	Sr-90	<32	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Cocconut	Cs-137	16	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Noon Island	Cocconut	Cs-137	13	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Caroline Islands, Ponape Island, Kolonia	Cocconut	Cs-137	11	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefea Island	Cocconut	Cs-137	6.7	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Caroline Islands, Ponape Island, Kolonia	Cocconut	Sr-90	<3.3	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefea Island	Cocconut	Cs-137	3.3	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Noon Island	Cocconut	Sr-90	<3.3	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefea Island	Cocconut	Sr-90	<2.6	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Dublon Island	Cocconut	Sr-90	<2.6	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Cocconut	Sr-90	<2.6	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
Caroline Islands, Ponape Island, Kolonia	Cocconut	Sr-90	<2.2	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Dublon Island	Cocconut	Cs-137	1.5	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Caroline Islands, Ponape Island, Kolonia	Cocconut	Pu-239,240	<6.1	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Cocconut	Pu-239,240	<0.1	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Noon Island	Cocconut	Pu-239,240	<0.1	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Dublon Island	Pandanus	K-40	630	--	Dry	--	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefea Island	Pandanus	K-40	590	--	Dry	--	1975, November		Nelson, V.A., 1979

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

Geographical origin	Food crop	Section analyzed	Radioactivity (Bq kg ⁻¹)	Range of radioactivity (Bq kg ⁻¹)	Units analyzed	Date	Comments	References
Caroline Islands, Pohnpei Island, Kolonia	Pandanus	K-40	340	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Pohnpei District, Bepali Island	Pandanus	K-40	290	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Soke Island	Pandanus	K-40	270	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Pohnpei Island, Kolonia	Pandanus	Cs-137	70	--	Dry	1975, November		Nelson, V.A., 1979
Pandanus	Pandanus	Sr-90	10	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Soke Island	Pandanus	Cs-137	9.3	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Pohnpei District, Bepali Island	Pandanus	Cs-137	8.5	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Babelon Island	Pandanus	Cs-137	8.5	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefoa Island	Pandanus	Cs-137	5.6	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Babelon Island	Pandanus	Sr-90	<4.4	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Soke Island	Pandanus	Sr-90	<4.1	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Pohnpei District, Bepali Island	Pandanus	Sr-90	<3.7	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefoa Island	Pandanus	Sr-90	2.2	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Babelon Island	Pandanus	Pa-238, 240	<0.1	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefoa Island	Papaya	K-40	780	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Pohnpei Island, Kolonia	Papaya	K-40	700	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Babelon Island	Papaya	K-40	410	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Pohnpei Island, Kolonia	Papaya	K-40	70	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefoa Island	Papaya	Cs-137	26	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Pohnpei Island, Soke Is.	Papaya	Cs-137	9.3	--	Dry	1975, November		Nelson, V.A., 1979
Papaya	Papaya	Sr-90	7.4	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Pefoa Island	Papaya	Sr-90	<6.7	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Babelon Island	Papaya	Sr-90	<2.6	--	Dry	1975, November		Nelson, V.A., 1979
Caroline Islands, Pohnpei Island, Kolonia	Papaya	Pa-238, 240	<0.1	--	Dry	1975, November		Nelson, V.A., 1979

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Caroline Islands, Truk Atoll, Pefan Island	Papaya	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Caroline Islands, Truk Atoll, Dublon Island	Papaya	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Caroline Islands, Ponape Island, Kolonia	Taro	K-40	69	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Taro	Sr-90	48	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Taro	Cs-137	12	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Taro	Pu-239,240	<0.1	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
Colombia	Coffee	K-40	520	--	Wet	--	1973, April 24		Simpson, R.E., et al., 1974
	Coffee	K-40	490	--	Wet	--	1973, July 10		Simpson, R.E., et al., 1974
	Coffee	Cs-137	3.5	--	Processed for eating	--	1973, July 10		Simpson, R.E., et al., 1974
	Coffee	Sr-90	1.4	--	Processed for eating	--	1973, April 24		Simpson, R.E., et al., 1974
	Coffee	Sr-90	0.6	--	Processed for eating	--	1973, July 10		Simpson, R.E., et al., 1974
	Coffee	Cs-137	<0.4	--	Processed for eating	--	1973, April 24		Simpson, R.E., et al., 1974
	Coffee	I-131	<0.4	--	Processed for eating	--	1973, July 10		Simpson, R.E., et al., 1974
	Coffee	Ru-106	<0.4	--	Processed for eating	--	1973, July 10		Simpson, R.E., et al., 1974
	Coffee	I-131	<0.4	--	Processed for eating	--	1973, April 24		Simpson, R.E., et al., 1974
	Coffee	Ru-106	<0.4	--	Processed for eating	--	1973, April 24		Simpson, R.E., et al., 1974
Costa Rica	Banana	K-40	95	--	Wet	--	1973, January 2		Simpson, R.E., et al., 1974
	Banana	K-40	86	--	Wet	--	1973, February 26		Simpson, R.E., et al., 1974
	Banana	K-40	80	--	Wet	--	1973, February 13		Simpson, R.E., et al., 1974
	Banana	Ru-106	<0.4	--	Wet	--	1973, February 26		Simpson, R.E., et al., 1974

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Number Analyzed	Date	Comment	Reference
Denmark, Stejskard	Barley	Sr-90	1.6	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Alitheby	Barley	Cs-137	1.4	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, St. Jydsland	Barley	Sr-90	1.4	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Alitheby	Barley	Sr-90	1.3	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Amov	Barley	Sr-90	1.1	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Tylstrup	Barley	Sr-90	1.0	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Abod	Barley	Cs-137	0.8	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Odne	Barley	Sr-90	0.8	--	Wet	--	1977, Summer		Aachrog, A., et al., 1978
Denmark, Ledreborg	Barley	Cs-137	0.7	--	Wet	--	1977, Winter		Aachrog, A., et al., 1978
Denmark, Tylstrup	Barley	Cs-137	0.7	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Amov	Barley	Cs-137	0.7	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Tystofte	Barley	Cs-137	0.7	--	Wet	--	1977, Winter		Aachrog, A., et al., 1978
Denmark, Slagstedgaard	Barley	Sr-90	0.7	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Tystofte	Barley	Sr-90	0.7	--	Wet	--	1977, Summer		Aachrog, A., et al., 1978
Denmark, Ledreborg	Barley	Sr-90	0.7	--	Wet	--	1977, Summer		Aachrog, A., et al., 1978
Denmark, Stejskard	Barley	Cs-137	0.6	--	Wet	--	1977, Summer		Aachrog, A., et al., 1978
Denmark, Odne	Barley	Cs-137	0.6	--	Wet	--	1977, Summer		Aachrog, A., et al., 1978
Denmark, Slagstedgaard	Barley	Cs-137	0.6	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Tystofte	Barley	Cs-137	0.6	--	Wet	--	1977, Summer		Aachrog, A., et al., 1978
Denmark, Abod	Barley	Sr-90	0.6	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Odne	Barley	Sr-90	0.5	--	Wet	--	1977, Winter		Aachrog, A., et al., 1978
Denmark, Ledreborg	Barley	Sr-90	0.5	--	Wet	--	1977, Winter		Aachrog, A., et al., 1978
Denmark, Odne	Barley	Cs-137	0.4	--	Wet	--	1977, Winter		Aachrog, A., et al., 1978
Denmark, St. Jydsland	Barley	Cs-137	0.3	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Tystofte	Barley	Sr-90	0.3	--	Wet	--	1977, Winter		Aachrog, A., et al., 1978
Denmark, Ledreborg	Barley	Ra-226	0.2	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Abod	Barley	Ra-226	0.2	--	Wet	--	1977		Aachrog, A., et al., 1978
Denmark, Tystofte	Barley	Ra-226	<0.1	--	Wet	--	1977, Winter		Aachrog, A., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYSED	DATE	COMMENT	REFERENCE
Denmark, Åskov	Barley	Ra-54	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
Denmark, Tystofte	Barley	Ra-54	0.1	--	Wet	--	1977, Summer		Aarkrog, A., et al., 1978
Denmark, North Jutland	Cabbage	Sr-90	0.5	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, East Jutland	Cabbage	Sr-90	0.4	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Funen	Cabbage	Sr-90	0.4	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, West Jutland	Cabbage	Sr-90	0.3	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, South Jutland	Cabbage	Sr-90	0.3	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Zealand	Cabbage	Sr-90	0.3	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Copenhagen	Cabbage	Sr-90	0.2	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Lolland-Falster	Cabbage	Sr-90	0.2	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Bornholm	Cabbage	Sr-90	0.2	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Jutland	Cabbage	Cs-137	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
Denmark, The Islands	Cabbage	Cs-137	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
Denmark, West Jutland	Carrot	Sr-90	0.7	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, East Jutland	Carrot	Sr-90	0.6	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, South Jutland	Carrot	Sr-90	0.5	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, North Jutland	Carrot	Sr-90	0.3	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Zealand	Carrot	Sr-90	0.3	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Lolland-Falster	Carrot	Sr-90	0.3	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Funen	Carrot	Sr-90	0.2	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Bornholm	Carrot	Sr-90	0.2	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, Jutland	Carrot	Cs-137	0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
Denmark, The Islands	Carrot	Cs-137	<0.1	--	Wet	--	1977		Aarkrog, A., et al., 1978
Denmark, Copenhagen	Carrot	Sr-90	0.1	--	Wet	--	1977, September		Aarkrog, A., et al., 1978
Denmark, St. Jysøved	Oat	Sr-90	2.5	--	Wet	--	1977		Aarkrog, A., et al., 1978
Denmark, Åskov	Oat	Sr-90	1.7	--	Wet	--	1977		Aarkrog, A., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotopes Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Units	Number Analyzed	Date	Comment	Reference
Denmark, Tylstrup	Oat	Sr-90	1.5	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Ahleboj	Oat	Cs-137	1.4	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Tystofte	Oat	Sr-90	1.3	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Ahleboj	Oat	Sr-90	1.3	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, St. Jydsøvej	Oat	Cs-137	1.2	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Askov	Oat	Cs-137	1.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Odum	Oat	Cs-137	1.0	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Ledreborg	Oat	Cs-137	0.9	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Tylstrup	Oat	Cs-137	0.8	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Tystofte	Oat	Cs-137	0.7	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Ledreborg	Oat	Sr-90	0.7	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Åbed	Oat	Sr-90	0.7	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Odum	Oat	Cs-137	0.6	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Askov	Oat	Sr-90	0.6	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Åbed	Oat	H-36	0.2	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Åbed	Oat	H-36	0.2	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Tylstrup	Oat	H-36	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Åland	Pea	Sr-90	0.2	--	Bq	--	1977, September		Lackroq, A., et al., 1978
Denmark, The Islands	Pea	Cs-137	0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, The Islands	Pea	Sr-90	<0.1	--	Bq	--	1977, September		Lackroq, A., et al., 1978
Denmark, Jutland	Potato	Cs-137	0.2	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Askov	Potato	Sr-90	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, St. Jydsøvej	Potato	Sr-90	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Blaaupstved	Potato	Sr-90	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Tystofte	Potato	Sr-90	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Ledreborg	Potato	Sr-90	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Åbed	Potato	Sr-90	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Ahleboj	Potato	Sr-90	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, The Islands	Potato	Cs-137	0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Tylstrup	Potato	Sr-90	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Stedsgård	Potato	Sr-90	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Odum	Potato	Sr-90	<0.1	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Stedsgård	Potato	Sr-90	1.5	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, St. Jydsøvej	Potato	Sr-90	1.4	--	Bq	--	1977		Lackroq, A., et al., 1978
Denmark, Askov	Potato	Cs-137	1.2	--	Bq	--	1977		Lackroq, A., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Activity Measurement	Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Units Analyzed	Date	Comments	Reference
Danmark, St. Jydelevad	Wye	Cs-137	1.2	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Mikkely	Wye	Cs-137	1.2	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Stedsgaard	Wye	Cs-137	1.2	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Aukov	Wye	Sc-90	1.0	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Mikkely	Wye	Sc-90	1.0	--	Net	1977		Aarkrog, A., et al., 1978
Danmark	Wye	Sc-90	0.6	--	Net	1976		Aarkrog, A., et al., 1978
Danmark, Odum	Wye	Cs-137	0.7	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Tystofte	Wye	Cs-137	0.7	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Ledreborg	Wye	Cs-137	0.7	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Tjistrup	Wye	Sc-90	0.7	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Odum	Wye	Sc-90	0.7	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Ledreborg	Wye	Sc-90	0.6	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Tystofte	Wye	Sc-90	0.5	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Tjistrup	Wye	Cs-137	0.5	--	Net	1977		Aarkrog, A., et al., 1978
Danmark	Wye	Cs-137	0.6	--	Net	1976		Aarkrog, A., et al., 1978
Danmark, Jdm	Wye	Rn-56	<0.1	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Aukov	Wye	Rn-56	<0.1	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Mikkely	Wye	Rn-56	<0.1	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, St. Jydelevad	Wheat	Sc-90	3.2	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Stedsgaard	Wheat	Sc-90	1.7	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Aukov	Wheat	Sc-90	1.2	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Stedsgaard	Wheat	Cs-137	0.9	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Mikkely	Wheat	Sc-90	0.9	--	Net	1977, Summer		Aarkrog, A., et al., 1978
Danmark, Tystofte	Wheat	Cs-137	0.6	--	Net	1977, Summer		Aarkrog, A., et al., 1978
Danmark, Ledreborg	Wheat	Cs-137	0.8	--	Net	1977, Summer		Aarkrog, A., et al., 1978
	Wheat	Cs-137	0.0	--	Net	1977, Winter		Aarkrog, A., et al., 1978
Danmark, Mikkely	Wheat	Cs-137	0.6	--	Net	1977, Summer		Aarkrog, A., et al., 1978
Danmark, Aukov	Wheat	Cs-137	0.7	--	Net	1977		Aarkrog, A., et al., 1978
Danmark, Aukov	Wheat	Cs-137	0.7	--	Net	1977, Summer		Aarkrog, A., et al., 1978
Danmark, Tjistrup	Wheat	Sc-90	0.7	--	Net	1977, Summer		Aarkrog, A., et al., 1978
Danmark, Tystofte	Wheat	Cs-137	0.6	--	Net	1977, Winter		Aarkrog, A., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Denmark, Ålbø	Wheat	Cs-137	0.6	--	Net	--	1977, Winter		Aarkrog, A., et al., 1978
Denmark	Wheat	Sr-90	0.6	--	Net	--	1976		Aarkrog, A., et al., 1978
Denmark, Ledreborg	Wheat	Sr-90	0.6	--	Net	--	1977, Winter		Aarkrog, A., et al., 1978
Denmark, Ålbø	Wheat	Sr-90	0.6	--	Net	--	1977, Winter		Aarkrog, A., et al., 1978
Denmark, Tystø	Wheat	Sr-90	0.6	--	Net	--	1977, Summer		Aarkrog, A., et al., 1978
Denmark, Ledreborg	Wheat	Sr-90	0.6	--	Net	--	1977, Winter		Aarkrog, A., et al., 1978
Denmark, Tystø	Wheat	Sr-90	0.6	--	Net	--	1977, Summer		Aarkrog, A., et al., 1978
Denmark, Ålbø	Wheat	Cs-137	0.5	--	Net	--	1977, Summer		Aarkrog, A., et al., 1978
Denmark, Odum	Wheat	Cs-137	0.5	--	Net	--	1977		Aarkrog, A., et al., 1978
Denmark, Ålbø	Wheat	Cs-137	0.5	--	Net	--	1977, Winter		Aarkrog, A., et al., 1978
Denmark, Ålbø	Wheat	Sr-90	0.5	--	Net	--	1977, Summer		Aarkrog, A., et al., 1978
Denmark, St. Jydsø	Wheat	Sr-90	0.5	--	Net	--	1977, Winter		Aarkrog, A., et al., 1978
Denmark, Odum	Wheat	Cs-137	0.4	--	Net	--	1977		Aarkrog, A., et al., 1978
Denmark, Ledreborg	Wheat	Sr-90	0.4	--	Net	--	1977, Winter		Aarkrog, A., et al., 1978
Denmark, Ålbø	Wheat	Sr-90	0.3	--	Net	--	1977		Aarkrog, A., et al., 1978
Denmark, Odum	Wheat	Cs-137	0.2	--	Net	--	1976		Aarkrog, A., et al., 1978
Denmark, Tystø	Wheat	Sr-90	0.2	--	Net	--	1977		Aarkrog, A., et al., 1978
Denmark, St. Jydsø	Wheat	Sr-90	0.1	--	Net	--	1977		Aarkrog, A., et al., 1978
Denmark, Ålbø	Wheat	Sr-90	<0.1	--	Net	--	1977		Aarkrog, A., et al., 1978
Denmark, St. Jydsø	Wheat	Sr-90	110	--	Net	--	1973, June 20		Slagden, R.E., et al., 1978
Denmark, Ålbø	Wheat	Sr-90	100	--	Net	--	1973, July 10		Slagden, R.E., et al., 1978
Denmark, Ålbø	Wheat	Sr-90	90	--	Net	--	1973, June 11		Slagden, R.E., et al., 1978
Denmark, Ålbø	Wheat	Sr-106	<0.4	--	Net	--	1973, July 10		Slagden, R.E., et al., 1978
Denmark, Ålbø	Wheat	Sr-106	<0.4	--	Net	--	1973, June 11		Slagden, R.E., et al., 1978
Denmark, Ålbø	Wheat	Sr-106	<0.4	--	Net	--	1973, June 20		Slagden, R.E., et al., 1978
Denmark, Ålbø	Wheat	Cs-137	<0.4	--	Net	--	1973, June 20		Slagden, R.E., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SPECIES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Hungary, Győr-Sopron	Pea	Total beta	280	--	Dry	--	1971-1974		Szabo, A., 1977
	Pea	K-40	210	--	Dry	--	1971-1974		Szabo, A., 1977
	Raspberry	Total beta	350	--	Dry	--	1971-1974		Szabo, A., 1977
	Raspberry	K-40	290	--	Dry	--	1971-1974		Szabo, A., 1977
Hungary	Spinach	Total beta	2400	--	Dry	41	1975, Spring		Szabo, A., 1977
	Spinach	Total beta	2200	--	Dry	37	1975, Fall		Szabo, A., 1977
	Spinach	K-40	2100	--	Dry	41	1975, Spring		Szabo, A., 1977
	Spinach	K-40	2000	--	Dry	37	1975, Fall		Szabo, A., 1977
Hungary, Győr-Sopron	Strawberry	Total beta	630	--	Dry	--	1971-1974		Szabo, A., 1977
	Strawberry	K-40	510	--	Dry	--	1971-1974		Szabo, A., 1977
	Wheat	Total beta	150	--	Dry	--	1971-1974		Szabo, A., 1977
	Wheat	K-40	140	--	Dry	--	1971-1974		Szabo, A., 1977
India, Kerala and Madras States	Abelmoschus esculentus	Total alpha	33	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
	Ascoridium occidentale	Total alpha	15	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
India, Bombay	Apple	Po-210	0.1	--	Wet	2	--		Khandekar, R.N., 1977
	Banana	Po-210	<0.1	--	Wet	2	--		Khandekar, R.N., 1977
	Bean, french	Po-210	<0.1	--	Wet	3	--		Khandekar, R.N., 1977
	Bean, cluster	Po-210	<0.1	--	Wet	3	--		Khandekar, R.N., 1977
India, Kerala and Madras States	Bean (Dolichos biflorus)	Total alpha	22	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
India, Bombay	Bladder dock (Rumex vesicarius L.)	Po-210	0.4	--	Wet	3	--		Khandekar, R.N., 1977
	Brinjal	Po-210	0.1	--	Wet	2	--		Khandekar, R.N., 1977
India, Kerala and Madras States	Carica papaya	Total alpha	19	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
India, Bombay	Carrot	Po-210	<0.1	--	Wet	2	--		Khandekar, R.N., 1977
	Cauliflower	Po-210	<0.1	--	Wet	2	--		Khandekar, R.N., 1977
India, Bombay Area	Chauli (Vigna sinensis)	K-40	220	--	Wet	--	1974	Market samples	Lalit, S.V., et al., 1980
	Chauli (Vigna sinensis)	K-40	220	--	Wet	--	1973	Market samples	Lalit, S.V., et al., 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SPECIES	MEAN RADIOACTIVITY (Bq kg ⁻¹)	NUMBER OF SAMPLES	DATE	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
India, Bombay area	Chauli (Vigna sinensis)	K-40	210	--	--	--	1971	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	K-40	180	--	--	--	1970	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	K-40	130	--	--	--	1972	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Ba-226	0.9	--	--	--	1974	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Th-228	0.5	--	--	--	1974	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Ba-226	0.4	--	--	--	1971	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Th-228	0.4	--	--	--	1972	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Ba-226	0.3	--	--	--	1973	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Th-228	0.3	--	--	--	1973	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Ba-226	0.2	--	--	--	1970	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Th-228	0.2	--	--	--	1971	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Ba-226	0.2	--	--	--	1972	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Th-228	<0.1	--	--	--	1976	Market samples	Lalit, B.V., et al., 1980
	Chauli (Vigna sinensis)	Th-228	<0.1	--	--	--	1976	Market samples	Lalit, B.V., et al., 1980
India, Kerala Coast	Coconut	Total beta	310	--	--	6	--	Sample area included monazite bearing high radiation belt	Ministry, K.B., et al., 1970
	Coconut	K-40	300	200-370	--	6	--	Sample area included monazite bearing high radiation belt	Ministry, K.B., et al., 1970
	Coconut	Ba-226	3.3	1.1-5.9	--	6	--	Sample area included monazite bearing high radiation belt	Ministry, K.B., et al., 1970
	Coconut	Total alpha	0.7	<0.4-2.2	--	6	--	Sample area included monazite bearing high radiation belt	Ministry, K.B., et al., 1970
	Coconut	85 keV gamma	0.7	--	--	6	--	Sample area included monazite bearing high radiation belt	Ministry, K.B., et al., 1970
India, Kerala and Madras States	Cucumber (Trichosanthes anguria)	Total alpha	19	--	--	--	--	Edible portion. From farms in area of high background radioactivity.	Ministry, K.B., et al., 1965
	Cucurbit (Cucurbita pepo)	Total alpha	110	--	--	--	--	Edible portion. From farms in area of high background radioactivity.	Ministry, K.B., et al., 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
India, Kerala and Madras States	Eggplant (<i>Solanum melongena</i>)	Total alpha	15	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Mistry, K.B., et al., 1965
India, Bombay area	Peanut	K-40	180	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Peanut	K-40	140	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Peanut	K-40	130	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Peanut	K-40	120	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Peanut	K-40	82	--	Wet	--	1973	Market samples	Lalit, J.V., et al., 1980
	Peanut	Th-232	0.9	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Peanut	Ba-226	0.7	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Peanut	Ba-226	0.6	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Peanut	Th-232	0.5	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Peanut	Th-232	0.4	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Peanut	Th-232	0.4	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Peanut	Ba-226	0.3	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Peanut	Ba-226	0.2	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Peanut	Ba-226	0.2	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Peanut	Th-232	0.2	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Peanut	Po-210	<0.1	--	Wet	2	--		Khandekar, R.N., 1977
	Lady's finger	Po-210	0.1	--	Wet	3	--		Khandekar, R.N., 1977
India, Kerala and Madras States	<i>Pongifera indica</i>	Total alpha	1.5	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Mistry, K.B., et al., 1965
India, Bombay	Millet	Po-210	<0.1	--	Wet	4	--		Khandekar, R.N., 1977
India, Kerala Coast	Okra (<i>Abelmoschus esculentus</i>)	Total beta	1200	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
	Okra (<i>Abelmoschus esculentus</i>)	K-40	720	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
	Okra (<i>Abelmoschus esculentus</i>)	Total alpha	66	33-120	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
	Okra (<i>Abelmoschus esculentus</i>)	Ba-226	38	0.4-74	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
	Okra (<i>Abelmoschus esculentus</i>)	85 keV gamma	25	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
India, Kerala and Madras States	Pea, black-eyed (<i>Vigna sinensis</i>)	Total alpha	0.0	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Mistry, K.B., et al., 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SOILS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
India, Kerala and Madras States	Pepper (<i>Capiscum frutescens</i>)	Total alpha	15	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
India, Kerala Coast	Plantain (<i>Musa paradisiaca</i>)	K-40	970	620-1200	Dry	12	--	Sample area included monsoon bearing high radiation belt	Histry, K.B., et al., 1970
	Plantain (<i>Musa paradisiaca</i>)	Total beta	930	--	Dry	12	--	Sample area included monsoon bearing high radiation belt	Histry, K.B., et al., 1970
	Plantain (<i>Musa paradisiaca</i>)	Total alpha	13	0.4-66	Dry	12	--	Sample area included monsoon bearing high radiation belt	Histry, K.B., et al., 1970
India, Kerala and Madras States	Plantain (<i>Musa paradisiaca</i>)	Total alpha	11	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
India, Kerala Coast	Plantain (<i>Musa paradisiaca</i>)	85 keV gamma	9.6	--	Dry	12	--	Sample area included monsoon bearing high radiation belt	Histry, K.B., et al., 1970
	Plantain (<i>Musa paradisiaca</i>)	Ba-226	9.3	0.4-42	Dry	12	--	Sample area included monsoon bearing high radiation belt	Histry, K.B., et al., 1970
India, Bombay area	Potato	K-40	190	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Potato	K-40	180	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Potato	K-40	170	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Potato	K-40	160	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Potato	K-40	160	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Potato	Th-228	0.8	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Potato	Th-228	0.6	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Potato	Ba-226	0.6	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Potato	Ba-226	0.4	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Potato	Th-228	0.3	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Potato	Ra-226	0.3	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Potato	Ba-226	0.2	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Potato	Po-210	<0.1	--	Wet	2	--		Khendekar, S.W., 1977
India, Bombay area	Potato	Ba-226	0.1	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Potato	Th-228	<0.1	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Potato	Th-228	0.1	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Pulse	K-40	480	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Pulse	K-40	450	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Pulse	K-40	440	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Pulse	K-40	410	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Pulse	K-40	370	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

Geographical origin	Food crop	Isotope measured	Radioactivity (Bq kg ⁻¹)	Range of radioactivity (Bq kg ⁻¹)	Basis	Number analyzed	Date	Comment	Reference
India, Bombay area	Pulse	Ra-226	0.9	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Pulse	Ra-226	0.5	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Pulse	Ra-226	0.4	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Pulse	Ra-226	0.3	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Pulse (Cajanus cajan)	Pb-210	0.2	--	Wet	--	1971, September	Red gram. Market samples	Lalit, B.V., et al., 1980
	Pulse (Cajanus cajan)	Pb-210	0.2	--	Wet	--	1972, November	Red gram. Market samples	Lalit, B.V., et al., 1980
	Pulse	Th-232	0.2	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Pulse	Th-232	0.2	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Pulse	Ra-226	0.2	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Pulse	Th-232	0.2	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Pulse	Po-210	<0.1	--	Wet	2	--	Black gram	Khanderkar, B.M., 1977
	Pulse	Po-210	<0.1	--	Wet	2	--	Green gram	Khanderkar, B.M., 1977
	Pulse	Po-210	<0.1	--	Wet	2	--	Bengal gram	Khanderkar, B.M., 1977
	Pulse	Po-210	<0.1	--	Wet	3	--	Red gram	Khanderkar, B.M., 1977
	Pulse (Cajanus cajan)	Pb-210	0.1	--	Wet	--	1970, October	Red gram. Market samples	Lalit, B.V., et al., 1980
	Pulse (Cajanus cajan)	Pb-210	<0.1	--	Wet	--	1971, May	Red gram. Market samples	Lalit, B.V., et al., 1977
	Pulse (Cajanus cajan)	Pb-210	<0.1	--	Wet	--	1972, May	Red gram. Market samples	Lalit, B.V., et al., 1980
	Pulse (Cajanus cajan)	Pb-210	<0.1	--	Wet	--	1973, May	Red gram. Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Pulse (Cajanus cajan)	Pb-210	<0.1	--	Wet	--	1974, May	Red gram. Market samples	Lalit, B.V., et al., 1980
	Pulse (Cajanus cajan)	Pb-210	0.1	--	Wet	--	1975, February	Red gram. Market samples	Lalit, B.V., et al., 1980
	Pulse	Th-232	<0.1	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Pulse	Th-232	<0.1	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Purple, white	Po-210	<0.1	--	Wet	2	--		Khanderkar, P.M., 1977
	Rava	Po-210	<0.1	--	Wet	3	--		Khanderkar, B.M., 1977
	Rice	R-40	87	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Rice	R-40	62	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Rice	R-40	62	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Rice	R-40	56	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Rice	R-40	46	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Rice	Total beta	40	--	Dry	6	--	Sample area included sonsite bearing high radiation belt	Mistry, K.B., et al., 1970

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
India, Kerala Coast	Rice	K-40	35	20-53	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.D., et al., 1970
	Rice	Total alpha	3.0	0.8-7.4	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.D., et al., 1970
	Rice	85 keV gamma	2.2	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.D., et al., 1970
India, Bombay area	Rice	Th-228	0.6	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Rice	Th-228	0.5	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Rice	Pb-210	0.5	--	Wet	--	1975, January	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	0.5	--	Wet	--	1971, October	Market samples	Lalit, B.V., et al., 1980
India, Kerala Coast	Rice	Ra-226	<0.4	--	Dry	6	--	Sample area included monazite bearing high radiation belt	Mistry, K.D., et al., 1970
India, Bombay	Rice	Pb-210	0.4	--	Wet	--	1975, July	Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Rice	Th-228	0.4	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Rice	Ra-226	0.3	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Rice	Th-228	0.3	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Rice	Pb-210	0.3	--	Wet	--	1974, July	Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Rice	Th-228	0.3	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Rice	Ra-226	0.2	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Rice	Ra-226	0.2	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Rice	Pb-210	0.2	--	Wet	--	1973, April	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	0.2	--	Wet	--	1973, October	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	0.2	--	Wet	--	1974, October	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	0.2	--	Wet	--	1975, December	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	0.2	--	Wet	--	1976, August	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	0.2	--	Wet	--	1970, April	Market samples	Lalit, B.V., et al., 1980
	Rice	Ra-226	0.2	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Rice	Ra-226	0.2	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	0.1	--	Wet	3	--		Khandekar, R.N., 1977
India, Bombay	Rice	Pb-210	<0.1	--	Wet	--	1974, January	Market samples	Lalit, B.V., et al., 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
India, Bombay	Rice	Pb-210	<0.1	--	Wet	--	1976, January	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	<0.1	--	Wet	--	1976, April	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	<0.1	--	Wet	--	1976, November	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	0.1	--	Wet	--	1970, October	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	0.1	--	Wet	--	1971, August	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	0.1	--	Wet	--	1972, January	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	<0.1	--	Wet	--	1972, July	Market samples	Lalit, B.V., et al., 1980
	Rice	Pb-210	<0.1	--	Wet	--	1972, July	Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Spinach	K-40	170	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Spinach	K-40	140	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Spinach	K-40	120	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Spinach	K-40	100	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Spinach	K-40	100	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Spinach	Ba-226	0.4	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Spinach	Th-228	0.3	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Spinach	Ba-226	0.3	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Spinach	Ba-226	0.3	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Spinach	Th-228	0.3	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Spinach	Po-210	0.3	0.0-10	Wet	7	--		Khandedkar, R.N., 1977
India, Bombay area	Spinach	Ba-226	0.2	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Spinach	Ba-226	0.2	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Spinach	Th-228	0.2	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Spinach	Th-228	0.2	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Spinach	Th-228	0.1	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
India, Kerala and Madras States	Tamarindus indica	Total alpha	0.0	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
India, Kerala Coast	Tapioca (Manihot esculenta)	K-40	520	250-890	Dry	16	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
	Tapioca (Manihot esculenta)	Total beta	480	--	Dry	16	--	Sample area included monazite bearing high radiation belt	Histry, K.B., et al., 1970
India, Kerala and Madras States	Tapioca (Manihot esculenta)	Total alpha	22	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
India, Kera's Coast	Tapioca (Manihot esculenta)	85 keV gamma	17	--	Dry	16	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
	Tapioca (Manihot esculenta)	Total alpha	16	<0.4-38	Dry	16	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
	Tapioca (Manihot esculenta)	Ra-226	11	<0.4-38	Dry	16	--	Sample area included monazite bearing high radiation belt	Mistry, K.B., et al., 1970
India, Bombay	Tomato	Po-210	<0.1	--	Wet	2	--		Rhandekar, R.N., 1977
India, Bombay area	Wheat	K-40	150	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Wheat	K-40	140	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Wheat	K-40	140	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Wheat	K-40	130	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
	Wheat	K-40	120	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Wheat	Ra-226	0.4	--	Wet	--	1973	Market samples	Lalit, B.V., et al., 1980
	Wheat	Pb-210	0.5	--	Wet	--	1973, May	Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Wheat	Ra-226	0.5	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Wheat	Ra-226	0.5	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
	Wheat	Th-228	0.5	--	Wet	--	1970	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Wheat	Pb-210	0.4	--	Wet	--	1972, November	Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Wheat	Th-228	0.4	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Wheat	Th-228	0.4	--	Wet	--	1974	Market samples	Lalit, B.V., et al., 1980
	Wheat	Ra-226	0.4	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Wheat	Pb-210	0.3	--	Wet	--	1974, August	Market samples	Lalit, B.V., et al., 1980
	Wheat	Pb-210	0.3	--	Wet	--	1976, April	Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Wheat	Ra-226	0.3	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
	Wheat	Th-228	0.3	--	Wet	--	1972	Market samples	Lalit, B.V., et al., 1980
India, Bombay	Wheat	Pb-210	0.2	--	Wet	--	1970, October	Market samples	Lalit, B.V., et al., 1980
	Wheat	Pb-210	0.2	--	Wet	--	1971, February	Market samples	Lalit, B.V., et al., 1980
	Wheat	Pb-210	0.2	--	Wet	--	1973, April	Market samples	Lalit, B.V., et al., 1980
	Wheat	Pb-210	0.2	--	Wet	--	1973, October	Market samples	Lalit, B.V., et al., 1980
	Wheat	Pb-210	0.2	--	Wet	--	1974, February	Market samples	Lalit, B.V., et al., 1980
	Wheat	Th-228	0.2	--	Wet	--	1971	Market samples	Lalit, B.V., et al., 1980
India, Bombay area	Wheat	Po-210	<0.1	--	Wet	3	--		Rhandekar, R.N., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
India, Bombay	Wheat	Pb-210	0.1	--	Wet	--	1970, April	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1970, July	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	<0.1	--	Wet	--	1971, April	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	<0.1	--	Wet	--	1971, May	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	<0.1	--	Wet	--	1971, July	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1971, October	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1972, February	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1972, May	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1972, July	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1973, March	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1973, July	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1974, December	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1975, March	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1975, July	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	<0.1	--	Wet	--	1975, October	Market samples	Lalit, S.V., et al., 1980
	Wheat	Pb-210	0.1	--	Wet	--	1976, January	Market samples	Lalit, S.V., et al., 1980
India, Kerala and Madras States	Tan (Dioscorea alata)	Total alpha	11	--	Dry	--	--	Edible portion. From farms in area of high background radioactivity.	Histry, K.B., et al., 1965
Iran, Basrah	Bean	Ba-226	120	--	Ash	--	1975	Field 2, north. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Bean	Ba-226	110	--	Ash	--	1972	Field 1, north. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Bean	Ba-226	100	--	Ash	--	1974	Field 2, north. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Bean	Ba-226	96	--	Ash	--	1973	Field 1, south. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Bean	Ba-226	87	--	Ash	--	1971	Field 1, north. of high natural radioactivity.	Area Khademi, B., et al., 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SPECIES NUMBER	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SPECIES	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Iran, Haman	Bean	Na-226	85	--	ash	--	1971	Field 1, south. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Bean	Na-226	78	--	ash	--	1972	Field 1, south. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Bean	Na-226	59	--	ash	--	1975	Field 1, south. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Bean	Na-226	7.4	--	ash	--	1975	Field 3, area of high natural radioactivity.	Area Khademi, B., et al., 1980
	Corn	Na-226	30	--	ash	--	1975	Field 3, area of high natural radioactivity.	Area Khademi, B., et al., 1980
	Cucumber	Na-226	26	--	ash	--	1974	Field 1, south. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Cucumber	Na-226	22	--	ash	--	1975	Field 1, south. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Cucumber	Na-226	20	--	ash	--	1975	Field 2, north. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Cucumber	Na-226	20	--	ash	--	1971	Field 1, north. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Cucumber	Na-226	16	--	ash	--	1974	Field 3, north. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Cucumber	Na-226	14	--	ash	--	1972	Field 1, south. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Cucumber	Na-226	7.4	--	ash	--	1975	Field 1, area of high natural radioactivity.	Area Khademi, B., et al., 1980
	Eggplant	Na-226	33	--	ash	--	1973	Field 3, area of high natural radioactivity.	Area Khademi, B., et al., 1980
	Eggplant	Na-226	29	--	ash	--	1975	Field 3, area of high natural radioactivity.	Area Khademi, B., et al., 1980
	Garlic	Na-226	210	--	ash	--	1975	Field 2, north. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Garlic	Na-226	190	--	ash	--	1972	Field 1, no. of high nat. radioactivity.	Area Khademi, B., et al., 1980
	Garlic	Na-226	190	--	ash	--	1974	Field 1, south. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Garlic	Na-226	160	--	ash	--	1974	Field 2, north. of high natural radioactivity.	Area Khademi, B., et al., 1980
	Garlic	Na-226	130	--	ash	--	1975	Field 1, south. of high natural radioactivity.	Area Khademi, B., et al., 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Iran, Iran-az	Garlic	Ra-226	100	--	Ash	--	1972	Field 1, south. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Celery	Ra-226	7.4	--	Ash	--	1975	Field 3. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Orange	Ra-226	190	--	Ash	--	1975	Field 2, south. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Orange	Ra-226	140	--	Ash	--	1973	Field 1, north. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Orange	Ra-226	140	--	Ash	--	1974	Field 1, north. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Orange	Ra-226	73	--	Ash	--	1971	Field 1, south. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Orange	Ra-226	70	--	Ash	--	1971	Field 1, north. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Orange	Ra-226	13	--	Wet	--	1975	Field 3. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Orange	Ra-226	7.4	--	Ash	--	1974	Field 3. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Peach	Ra-226	63	--	Ash	--	1972	Field 1, north. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Peach	Ra-226	55	--	Ash	--	1974	Field 1, north. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Peach	Ra-226	33	--	Ash	--	1975	Field 1, south. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Pomegranate	Ra-226	240	--	Ash	--	1975	Field 2, center. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Pomegranate	Ra-226	190	--	Ash	--	1974	Field 1, south. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Pomegranate	Ra-226	150	--	Ash	--	1974	Field 2, center. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Pomegranate	Ra-226	110	--	Ash	--	1971	Field 1, north. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Pomegranate	Ra-226	41	--	Ash	--	1975	Field 1, south. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Pomegranate	Ra-226	37	--	Ash	--	1975	Field 3. Area of high natural radioactivity.	Khademi, B., et al., 1980
	Pomegranate	Ra-226	33	--	Ash	--	1974	Field 3. Area of high natural radioactivity.	Khademi, B., et al., 1980

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

Geographical origin	Food crop	Isotope measured	Radioactivity (Bq g ⁻¹)	Range of radioactivity (Bq kg ⁻¹)	Basis analyzed	Date	Comment	Reference
Iraq, Basrah	Potato	Ba-226	26	--	Ash	1975	Field 3. Area of high natural radioactivity.	Rhodesi, B., et al., 1980
	Potato	Ba-226	22	--	Ash	1976	Field 3. Area of high natural radioactivity.	Rhodesi, B., et al., 1980
	Tomato	Ba-226	240	--	Ash	1971	Field 1, south. Area of high natural radioactivity.	Rhodesi, B., et al., 1980
	Tomato	Ba-226	190	--	Ash	1975	Field 2, north. Area of high natural radioactivity.	Rhodesi, B., et al., 1980
	Tomato	Ba-226	190	--	Ash	1978	Field 1, north. Area of high natural radioactivity.	Rhodesi, B., et al., 1980
	Tomato	Ba-226	170	--	Ash	1972	Field 1, south. Area of high natural radioactivity.	Rhodesi, B., et al., 1980
Italy, Lazio	Tomato	Ba-226	150	--	Ash	1975	Field 1, south. Area of high natural radioactivity.	Rhodesi, B., et al., 1980
	Tomato	Ba-226	15	--	Ash	1975	Field 3. Area of high natural radioactivity.	Rhodesi, B., et al., 1980
	Tomato	Ba-226	7.8	--	Ash	1975	Field 3. Area of high natural radioactivity.	Rhodesi, B., et al., 1980
	Apple (Malus sylvestris)	Sr-90	5.9	--	Wet	1967		De Bortoli, R.D., et al., 1968
	Apple (Malus sylvestris)	Cs-137	5.2	--	Wet	1967		De Bortoli, R.D., et al., 1968
	Apple (Malus domestica)	Cs-137	0.7	--	Wet	1970, April - June		Comitato Nazionale per l'Energia Nucleare, 1971
Italy, Alto Adige, Campione, Emilia	Apple (Malus domestica)	Cs-137	0.6	--	Wet	1970, July - September		Comitato Nazionale per l'Energia Nucleare, 1971
	Apple (Malus domestica)	Cs-137	0.6	--	Wet	1970, October - December		Comitato Nazionale per l'Energia Nucleare, 1971
	Apple (Malus domestica)	Sr-90	<0.1	--	Wet	1970, October - December		Comitato Nazionale per l'Energia Nucleare, 1971
	Apple (Malus domestica)	Sr-90	<0.1	--	Wet	1970, January - March		Comitato Nazionale per l'Energia Nucleare, 1971
	Apple (Malus domestica)	Sr-90	<0.1	--	Wet	1970, April - June		Comitato Nazionale per l'Energia Nucleare, 1971
	Apple (Malus domestica)	Sr-90	<0.1	--	Wet	1970, July - September		Comitato Nazionale per l'Energia Nucleare, 1971
Italy, Lazio	Brassica oleracea	Sr-90	0.5	--	Wet	1970, July - September		Comitato Nazionale per l'Energia Nucleare, 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope Released	Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Number Analyzed	Date	Comment	Reference
Italy, Campania, Emilia, Lazio, Veneto	Brassica oleracea	Sr-90	0.4	--	Wet	--	1970, October - December		Comitato Nazionale Per l'Energia Nucleare, 1971
Italy, Campania, Lazio, Marche	Brassica oleracea	Sr-90	0.2	--	Wet	--	1970, January - March		Comitato Nazionale Per l'Energia Nucleare, 1971
Italy, Lazio	Brassica oleracea	Sr-90	0.2	--	Wet	--	1970, April - June		Comitato Nazionale Per l'Energia Nucleare, 1971
Italy, Ispira	Cabbage (Brassica oleracea)	Sr-90	70	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Cabbage (Brassica oleracea)	Cs-137	5.2	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
Italy, Milano	Cabbage (Brassica oleracea)	Sr-90	1.1	--	Wet	20	1967		De Bortoli, M.D., et al., 1968
	Carrot (Daucus carota)	Sr-90	1.1	--	Wet	20	1967		De Bortoli, M.D., et al., 1968
Italy, Ispira	Chard (Beta vulgaris)	Sr-90	1.7	--	Wet	20	1966	Market samples	De Bortoli, M.D., et al., 1967
Italy, Milano	Chard (Beta vulgaris)	Sr-90	1.5	--	Wet	20	1967		De Bortoli, M.D., et al., 1968
Italy, Ispira	Chard (Beta vulgaris)	Cs-137	0.6	--	Wet	20	1966	Market samples. Computed value.	De Bortoli, M.D., et al., 1967
	Chicory (Cichorium intybus)	Sr-90	1.4	--	Wet	20	1966	Market samples	De Bortoli, M.D., et al., 1967
Italy, Milano	Chicory (Cichorium intybus)	Sr-90	0.9	--	Wet	20	1967		De Bortoli, M.D., et al., 1968
Italy, Ispira	Chicory (Cichorium intybus var. Catalana)	Sr-90	0.6	--	Wet	20	1966	Market samples	De Bortoli, M.D., et al., 1967
	Chicory (Cichorium intybus)	Cs-137	0.3	--	Wet	20	1966	Market samples. Computed value.	De Bortoli, M.D., et al., 1967
	Chicory (Cichorium intybus)	Cs-137	0.3	--	Wet	20	1966	Market samples. Computed value.	De Bortoli, M.D., et al., 1967
Italy, Milano	Artichoke (Cynara scolymus)	Sr-90	1.0	--	Wet	20	1967		De Bortoli, M.D., et al., 1968
Italy, Ispira	Lettuce (Lactuca sativa)	Sr-90	120	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Lettuce (Lactuca sativa)	Cs-137	18	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Lettuce (Lactuca sativa)	Sr-90	0.7	--	Wet	20	1966	Market samples	De Bortoli, M.D., et al., 1967
Italy, Emilia, Lazio	Lettuce (Lactuca sativa)	Sr-90	0.5	--	Wet	--	1970, October - December		Comitato Nazionale Per l'Energia Nucleare, 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical origin	Food crop	Isotopes measured	Mean radioactivity (Bq kg ⁻¹)	Range of radioactivity (Bq kg ⁻¹)	Basis	Number analysed	Date	Comment	Reference
Italy, Milano	Lettuce (<i>Lactuca sativa</i>)	Sr-90	0.4	--	Wet	20	1967		De Bortoli, M.D., et al., 1968
Italy, Campania, Lazio	Lettuce (<i>Lactuca sativa</i>)	Sr-90	0.3	--	Wet	--	1970, January - March		Comitato Nazionale Per L'Energia Nucleare, 1971
Italy, Lazio	Lettuce (<i>Lactuca sativa</i>)	Sr-90	<0.1	--	Wet	--	1970, April - June		Comitato Nazionale Per L'Energia Nucleare, 1971
Italy, Abruzzi, Lazio	Lettuce (<i>Lactuca sativa</i>)	Sr-90	<0.1	--	Wet	--	1970, July - September		Comitato Nazionale Per L'Energia Nucleare, 1971
Italy, Ispra	Lettuce (<i>Lactuca sativa</i>)	Cs-137	0.1	--	Wet	20	1966	Market samples. Computed value.	De Bortoli, M.D., et al., 1967
	Maize, green (See entry)	Sr-90	210	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Maize (See entry)	Sr-90	3.7	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Maize, green (See entry)	Cs-137	1.3	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Maize (See entry)	Cs-137	1.9	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Potato (<i>Solanum tuberosum</i>)	Sr-90	4.1	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Potato (<i>Solanum tuberosum</i>)	Cs-137	1.1	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Potato (<i>Solanum tuberosum</i>)	Sr-90	0.6	--	Wet	20	1967		De Bortoli, M.D., et al., 1968
Italy, Bolgio, Campania, Lazio	Potato (<i>Solanum tuberosum</i>)	Sr-90	<0.1	--	Wet	--	1970, January - March		Comitato Nazionale Per L'Energia Nucleare, 1971
Italy, Abruzzi, Lazio	Potato (<i>Solanum tuberosum</i>)	Sr-90	<0.1	--	Wet	--	1970, July - September		Comitato Nazionale Per L'Energia Nucleare, 1971
Italy, Verona	Potato	Ra-226	<0.1	--	Wet	--	--	Edible parts.	De Bortoli, M.D., et al., 1972
Italy, Milano	Spinach (<i>Spinacia oleracea</i>)	Sr-90	2.2	--	Wet	20	1967		De Bortoli, M.D., et al., 1968
Italy, Ispra	Spinach (<i>Spinacia oleracea</i>)	Sr-90	1.6	--	Wet	20	1966	Market samples	De Bortoli, M.D., et al., 1967
	Spinach (<i>Spinacia oleracea</i>)	Cs-137	1.3	--	Wet	20	1966	Market samples. Computed value.	De Bortoli, M.D., et al., 1967
	Tomato (<i>Lycopersicon esculentum</i>)	Sr-90	7.0	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Tomato (<i>Lycopersicon esculentum</i>)	Cs-137	0.7	--	Wet	--	1967		De Bortoli, M.D., et al., 1968
	Tomato (<i>Lycopersicon esculentum</i>)	Sr-90	0.1	--	Wet	20	1967		De Bortoli, M.D., et al., 1968

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLE ANALYSED	DATE	COMMENT	REFERENCE
Italy, Sicilia	Tomato (Lycopersicon esculentum)	Sr-90	<0.1	--	Net	--	1970, January - March		Comitato Nazionale Per L'Energia Nucleare, 1971
Italy, Lazio, Sicilia	Tomato (Lycopersicon esculentum)	Sr-90	<0.1	--	Net	--	1970, April - June		Comitato Nazionale Per L'Energia Nucleare, 1971
Italy, Campania, Sicilia	Tomato (Lycopersicon esculentum)	Sr-90	<0.1	--	Net	--	1970, July - September		Comitato Nazionale Per L'Energia Nucleare, 1971
Italy, Milano	Turnip (Brassica rapa)	Sr-90	1.9	--	Net	20	1967	Topr	De Bortoli, M.D., et al., 1968
Italy, Intra	Turnip (Brassica oleracea B.)	Sr-90	1.2	--	Net	20	1966	Topr. Market samples.	De Bortoli, M.D., et al., 1967
	Turnip (Brassica oleracea B.)	Cs-137	0.8	--	Net	20	1966	Topr. Market samples. Computed value.	De Bortoli, M.D., et al., 1967
	Wheat	Sr-90	4.8	--	Net	--	1967		De Bortoli, M.D., et al., 1968
	Wheat	Cs-137	1.1	--	Net	--	1967		De Bortoli, M.D., et al., 1968
Japan, Akita	Apple	Cs-137	3.3	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Yamagata	Apple	Cs-137	2.9	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Nagano	Apple	Sr-90	1.8	--	Net	--	1962, September		National Institute of Agricultural Sciences, 1964
	Apple	Cs-137	1.5	--	Net	--	1962, September		National Institute of Agricultural Sciences, 1964
Japan, Aomori	Apple	Cs-137	1.3	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
	Apple	Cs-137	1.0	--	Net	--	1962, September		National Institute of Agricultural Sciences, 1964
	Apple	Sr-90	0.3	--	Net	--	1962, September		National Institute of Agricultural Sciences, 1964
Japan, Yamagata	Apple	Sr-90	0.3	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Aomori	Apple	Sr-90	0.1	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Akita	Apple	Sr-90	0.1	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Chiba	Avocado	Sr-90	1.6	--	Net	--	1962, September		National Institute of Agricultural Sciences, 1964

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SALTS	NUMBER ANALYZED	DATE	COMMENT	SOURCE
Japan, Chiba	Avocado	Cs-137	1.3	--	Not	--	1962, September		National Institute of Agricultural Sciences, 1964
Japan, Yamaguchi	Avocado	Cs-137	1.3	--	Not	--	1962, September		National Institute of Agricultural Sciences, 1964
	Avocado	Sr-90	0.6	--	Not	--	1962, September		National Institute of Agricultural Sciences, 1964
Japan, Isehara, Kanazawa	Cabbage	Cs-137	10	--	Not	--	1962, April		National Institute of Agricultural Sciences, 1964
Japan, Tottori, Yonago	Cabbage	Sr-90	7.0	--	Not	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Isehara, Kanazawa	Cabbage	Sr-90	6.6	--	Not	--	1962, April		National Institute of Agricultural Sciences, 1964
Japan, Nagasaki, Nagasaki	Cabbage, Chinese	Cs-137	0.9	--	Not	--	1962, June		National Institute of Agricultural Sciences, 1964
Japan, Aichi, Sunay	Cabbage	Cs-137	0.8	--	Not	--	1964, October		National Institute of Radiological Sciences, 1965
Japan, Akita, Tenno	Cabbage	Sr-90	3.9	--	Not	--	1962, June		National Institute of Agricultural Sciences, 1964
Japan, Kyoto, Kyoto	Cabbage	Cs-137	3.7	--	Not	--	1962, July		National Institute of Agricultural Sciences, 1964
Japan, Wakayama, Waiide	Cabbage, Chinese	Cs-137	3.6	--	Not	--	1962, January		National Institute of Agricultural Sciences, 1964
Japan, Niigata, Seiro	Cabbage	Cs-137	3.3	--	Not	--	1961, December		National Institute of Agricultural Sciences, 1964
Japan, Fuku	Cabbage	Sr-90	3.1	--	Not	--	1962, January		National Institute of Radiological Sciences, 1964
Japan, Tokyo, Setagaya	Cabbage	Sr-90	3.1	--	Not	--	1962, June		National Institute of Agricultural Sciences, 1964
Japan, Fuku	Cabbage	Cs-137	3.0	--	Not	--	1962, January		National Institute of Radiological Sciences, 1964
Japan, Niigata, Seiro	Cabbage, Chinese	Sr-90	2.7	--	Not	--	1962, March		National Institute of Agricultural Sciences, 1964
Japan, Nagasaki, Nagasaki	Cabbage	Sr-90	2.7	--	Not	--	1962, February		National Institute of Agricultural Sciences, 1964
Japan, Okayama, Okayama	Cabbage	Sr-90	2.5	--	Not	--	1962, June		National Institute of Agricultural Sciences, 1964

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Nagasaki, Nagasaki	Cabbage	Cs-137	2.4	--	Wet	--	1962, February		National Institute of Agricultural Sciences, 1964
Japan, Shizuoka, Yohiura	Cabbage, Chinese	Sr-90	2.3	--	Wet	--	1965, January		National Institute of Radiological Sciences, 1965
Japan, Tokyo, Setagaya	Cabbage, Chinese	Cs-137	2.2	--	Wet	--	1962, April		National Institute of Agricultural Sciences, 1964
Japan, Nagasaki, Nagasaki	Cabbage, Chinese	Sr-90	2.2	--	Wet	--	1962, June		National Institute of Agricultural Sciences, 1964
Japan, Niigata, Nagaoka	Cabbage	Cs-137	2.2	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Shizuoka, Fujieda	Cabbage	Sr-90	2.1	--	Wet	--	1965, November		National Institute of Radiological Sciences, 1965
Japan, Hokkaido, Obihiro	Cabbage, Chinese	Cs-137	2.1	--	Wet	--	1964, August		National Institute of Radiological Sciences, 1965
Japan, Aichi, Sasegawa	Cabbage, Chinese	Sr-90	2.1	--	Wet	--	1964, October		National Institute of Radiological Sciences, 1965
Japan, Hokkaido, Asahikawa	Cabbage	Cs-137	2.0	--	Wet	--	1963, January		National Institute of Agricultural Sciences, 1964
Japan, Shizuoka, Yohiura	Cabbage, Chinese	Cs-137	2.0	--	Wet	--	1965, January		National Institute of Radiological Sciences, 1965
Japan, Tottori, Yonago	Cabbage	Cs-137	1.9	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Ibaragi, Tsuchihara	Cabbage, Chinese	Sr-90	1.9	--	Wet	--	1962, October		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka, Yame	Cabbage, Chinese	Cs-137	1.9	--	Wet	--	1963, December		National Institute of Radiological Sciences, 1965
Japan, Niigata, Nagaoka	Cabbage	Sr-90	1.9	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Niigata, Seiro	Cabbage	Sr-90	1.9	--	Wet	--	1961, December		National Institute of Agricultural Sciences, 1964
Japan, Wakayama, Iwade	Cabbage, Chinese	Sr-90	1.8	--	Wet	--	1963, January		National Institute of Agricultural Sciences, 1964
Japan, Kagoshima	Cabbage, Chinese	Cs-137	1.6	--	Wet	--	1961, May - June		National Institute of Radiological Sciences, 1964
Japan, Osaka, Ikeda	Cabbage, Chinese	Sr-90	1.6	--	Wet	--	1964, November		National Institute of Radiological Sciences, 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Units	Number Analyzed	Date	Comments	Reference
Japan, Miyagi, Iwatsuna	Cabbage	Cs-137	1.5	--	Vol	--	1962, July		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka, Kasinaka	Cabbage, Chinese	Sr-90	1.5	--	Vol	--	1962, November		National Institute of Agricultural Sciences, 1964
Japan, Shimizu, Toshiwara	Cabbage	Sr-90	1.5	--	Vol	--	1965, November		National Institute of Radiological Sciences, 1966
Japan, Ibaragi, Fokai	Cabbage, Chinese	Sr-90	1.5	--	Vol	--	1964, November		National Institute of Radiological Sciences, 1965
Japan, Saikawa, Niiwa	Cabbage, Chinese	Cs-137	1.5	--	Vol	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Okayama, Okayama	Cabbage, Chinese	Cs-137	1.4	--	Vol	--	1962, August		National Institute of Agricultural Sciences, 1964
Japan, Shimizu, Fujieda	Cabbage, Chinese	Sr-90	1.4	--	Vol	--	1965, January		National Institute of Radiological Sciences, 1965
Japan, Hyogo, Ashahi	Cabbage	Cs-137	1.4	--	Vol	--	1961, December		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka, Yano	Cabbage, Chinese	Sr-90	1.3	--	Vol	--	1963, December		National Institute of Radiological Sciences, 1964
Japan, Kanagawa, Odawara	Cabbage	Cs-137	1.3	--	Vol	--	1963, November		National Institute of Radiological Sciences, 1964
Japan, Aichi, Sanago	Cabbage	Cs-137	1.3	--	Vol	--	1965, October		National Institute of Radiological Sciences, 1965
Japan, Niigata, Seiro	Cabbage, Chinese	Cs-137	1.3	--	Vol	--	1962, March		National Institute of Agricultural Sciences, 1964
Japan, Aichi, Tonno	Cabbage, Chinese	Cs-137	1.3	--	Vol	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Tottori	Cabbage, Chinese	Sr-90	1.2	--	Vol	--	1961, October		National Institute of Radiological Sciences, 1964
Japan, Tokyo, Setagaya	Cabbage, Chinese	Sr-90	1.2	--	Vol	--	1962, April		National Institute of Agricultural Sciences, 1964
Japan, Aichi, Tonno	Cabbage, Chinese	Sr-90	1.2	--	Vol	--	1963, February		National Institute of Agricultural Sciences, 1964
	Cabbage	Cs-137	1.2	--	Vol	--	1962, June		National Institute of Agricultural Sciences, 1964
Japan, Wakayama, Iwido	Cabbage	Cs-137	1.2	--	Vol	--	1962, December		National Institute of Agricultural Sciences, 1964

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Aichi, Sasebo	Cabbage	Sr-90	1.2	--	Net	--	1964, October		National Institute of Radiological Sciences, 1965
Japan, Tottori	Cabbage, Chinese	Cs-137	1.1	--	Net	--	1961, October		National Institute of Radiological Sciences, 1964
Japan, Hiroshima, Fukuyama	Cabbage	Cs-137	1.1	--	Net	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Wakayama, Wakayama	Cabbage	Cs-137	1.1	--	Net	--	1964, December		National Institute of Agricultural Sciences, 1964
Japan, Osaka, Mihara	Cabbage	Cs-137	1.1	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Kanagawa, Tokutsu	Cabbage	Sr-90	1.1	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Niigata, Iwanuma	Cabbage, Chinese	Sr-90	1.0	--	Net	--	1962, September		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka, Fuso	Cabbage	Cs-137	1.0	--	Net	--	1964, January		National Institute of Radiological Sciences, 1964
Japan, Niigata, Furukawa	Cabbage, Chinese	Sr-90	1.0	--	Net	--	1964, October		National Institute of Radiological Sciences, 1965
Japan, Saitama, Iwatsuki	Cabbage	Cs-137	1.0	--	Net	--	1965, February		National Institute of Agricultural Sciences, 1964
Japan, Aomori, Aomori	Cabbage, Chinese	Cs-137	1.0	--	Net	--	1962, March		National Institute of Agricultural Sciences, 1964
Japan, Saitama, Tokorozawa	Cabbage, Chinese	Cs-137	1.0	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka, Fukuoka	Cabbage, Chinese	Sr-90	1.0	--	Net	--	1965, January		National Institute of Radiological Sciences, 1965
Japan, Kagoshima, Kokubu	Cabbage	Cs-137	0.9	--	Net	--	1962, June		National Institute of Agricultural Sciences, 1964
Japan, Fuku, Kasinaka	Cabbage, Chinese	Cs-137	0.9	--	Net	--	1962, November		National Institute of Agricultural Sciences, 1964
Japan, Aichi, Akabane	Cabbage, Chinese	Sr-90	0.9	--	Net	--	1964, November		National Institute of Radiological Sciences, 1965
Japan, Niigata, Furukawa	Cabbage, Chinese	Sr-90	0.9	--	Net	--	1964, December		National Institute of Radiological Sciences, 1965
Japan, Hokkaido, Sapporo	Cabbage, Chinese	Cs-137	0.9	--	Net	--	1974, November		National Institute of Radiological Sciences, 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Osaka, Osaka	Cabbage	Cs-137	0.9	--	Wet	--	1963, May		National Institute of Agricultural Sciences, 1964
Japan, Asadori, Asadori	Cabbage, Chinese	Sr-90	0.9	--	Wet	--	1962, March		National Institute of Agricultural Sciences, 1964
Japan, Nakayama, Iwado	Cabbage	Sr-90	0.9	--	Wet	--	1962, December		National Institute of Agricultural Sciences, 1964
Japan, Kanagawa, Niera	Cabbage	Sr-90	0.9	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
	Cabbage	Cs-137	0.9	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Hiroshima, Haba	Cabbage	Cs-137	0.9	--	Wet	--	1961, December		National Institute of Agricultural Sciences, 1964
Japan, Kyoto, Kyoto	Cabbage	Sr-90	0.8	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1964
Japan, Okayama, Okayama	Cabbage, Chinese	Sr-90	0.8	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1964
Japan, Kanagawa, Yokohama	Cabbage, Chinese	Cs-137	0.8	--	Wet	--	1963, November		National Institute of Radiological Sciences, 1964
Japan, Aichi, Sanga	Cabbage	Sr-90	0.8	--	Wet	--	1965, October		National Institute of Radiological Sciences, 1966
Japan, Aichi, Akabane	Cabbage	Sr-90	0.8	--	Wet	--	1965, November		National Institute of Radiological Sciences, 1966
Japan, Ibaragi, Tokai	Cabbage, Chinese	Cs-137	0.8	--	Wet	--	1964, November		National Institute of Radiological Sciences, 1965
Japan, Niigata, Shirosaki	Cabbage, Chinese	Sr-90	0.8	--	Wet	--	1964, October		National Institute of Radiological Sciences, 1965
Japan, Hokkaido, Sapporo	Cabbage, Chinese	Sr-90	0.8	--	Wet	--	1974, November		National Institute of Radiological Sciences, 1965
Japan, Hokkaido, Asahikawa	Cabbage	Sr-90	0.8	--	Wet	--	1963, January		National Institute of Agricultural Sciences, 1964
Japan, Kanagawa, Tomika	Cabbage	Cs-137	0.8	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Ibaragi, Tsuchiura	Cabbage, Chinese	Cs-137	0.7	--	Wet	--	1962, October		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka, Ono	Cabbage, Chinese	Cs-137	0.7	--	Wet	--	1962, December		National Institute of Agricultural Sciences, 1964

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Osaka, Ikeda	Cabbage, Chinese	Cs-137	0.7	--	Net	--	1964, November		National Institute of Radiological Sciences, 1965
Japan, Miyagi, Furukawa	Cabbage, Chinese	Cs-137	0.7	--	Net	--	1964, October		National Institute of Radiological Sciences, 1965
Japan, Hiroshima, Haba	Cabbage, Chinese	Cs-137	0.7	--	Net	--	1964, March		National Institute of Agricultural Sciences, 1964
Japan, Tokyo, Setagaya	Cabbage	Cs-137	0.7	--	Net	--	1964, June		National Institute of Agricultural Sciences, 1964
Japan, Osaka, Ikeda	Cabbage	Sr-90	0.7	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Shizuoka, Futatabi	Cabbage, Chinese	Cs-137	0.7	--	Net	--	1965, January		National Institute of Radiological Sciences, 1965
Japan, Fukuoka, Shino	Cabbage, Chinese	Sr-90	0.7	--	Net	--	1965, January		National Institute of Radiological Sciences, 1965
Japan, Saitama, Sagami	Cabbage	Cs-137	0.7	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Miyagi, Iwatsubo	Cabbage, Chinese	Cs-137	0.6	--	Net	--	1964, September		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka	Cabbage, Chinese	Sr-90	0.6	--	Net	--	1964, May - June		National Institute of Radiological Sciences, 1964
Japan, Hokkaido, Sapporo	Cabbage	Cs-137	0.6	--	Net	--	1965, September		National Institute of Radiological Sciences, 1966
Japan, Aichi, Akabane	Cabbage	Cs-137	0.6	--	Net	--	1965, November		National Institute of Radiological Sciences, 1966
Japan, Ibaraki, Nito	Cabbage, Chinese	Cs-137	0.6	--	Net	--	1964, November		National Institute of Radiological Sciences, 1965
Japan, Miyagi, Furukawa	Cabbage, Chinese	Cs-137	0.6	--	Net	--	1964, December		National Institute of Radiological Sciences, 1965
Japan, Miyagi, Shirosaki	Cabbage, Chinese	Cs-137	0.6	--	Net	--	1964, October		National Institute of Radiological Sciences, 1965
Japan, Hiroshima, Fukuyama	Cabbage	Sr-90	0.6	--	Net	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Osaka, Mihara	Cabbage	Sr-90	0.6	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Osaka, Kuroyama	Cabbage	Sr-90	0.6	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

Geographical origin	Food crop	Isotopes measured	Radioactivity (Bq kg ⁻¹)	Range of radioactivity (Bq kg ⁻¹)	Units analyzed	Date	Comments	Reference
Japan, Fukuoka, Shino	Cabbage, Chiense	Cs-137	0.6	--	Not	1965, January		National Institute of Radiological Sciences, 1965
Japan, Fukuoka, Ono	Cabbage, Chiense	Sr-90	0.5	--	Not	1962, December		National Institute of Agricultural Sciences, 1964
Japan, Aomori, Sawaoka	Cabbage	Sr-90	0.5	--	Not	1979, November		National Institute of Radiological Sciences, 1980
Japan, Kanagawa, Odawara	Cabbage	Sr-90	0.5	--	Not	1983, November		National Institute of Radiological Sciences, 1984
Japan, Fukuoka, Yano	Cabbage	Sr-90	0.5	--	Not	1984, January		National Institute of Radiological Sciences, 1984
Japan, Hokkaido, Oshima	Cabbage	Sr-90	0.5	--	Not	1985, October		National Institute of Radiological Sciences, 1986
Japan, Osaka, Osaka	Cabbage	Sr-90	0.5	--	Not	1985, May		National Institute of Agricultural Sciences, 1986
Japan, Hiroshima, Haba	Cabbage, Chiense	Sr-90	0.5	--	Not	1982, March		National Institute of Agricultural Sciences, 1984
Japan, Okayama, Wakayama	Cabbage	Sr-90	0.5	--	Not	1982, December		National Institute of Agricultural Sciences, 1984
Japan, Saitama, Sagito	Cabbage, Chiense	Sr-90	0.5	--	Not	1984, June		National Institute of Radiological Sciences, 1985
Japan, Hyogo, Ikumi	Cabbage	Sr-90	0.5	--	Not	1981, December		National Institute of Agricultural Sciences, 1984
Japan, Okayama, Okayama	Cabbage	Cs-137	0.4	--	Not	1985, June		National Institute of Agricultural Sciences, 1986
Japan, Miyagi, Iwatsuka	Cabbage	Sr-90	0.4	--	Not	1985, July		National Institute of Agricultural Sciences, 1986
Japan, Hokkaido, Sapporo	Cabbage	Sr-90	0.4	--	Not	1985, September		National Institute of Radiological Sciences, 1986
Japan, Shizuoka, Tachibana	Cabbage	Cs-137	0.4	--	Not	1985, November		National Institute of Radiological Sciences, 1986
Japan, Fukuoka, Shino	Cabbage	Sr-90	0.4	--	Not	1986, January		National Institute of Radiological Sciences, 1986
Japan, Miyagi, Shiroishi	Cabbage, Chiense	Cs-137	0.4	--	Not	1986, December		National Institute of Radiological Sciences, 1985
Japan, Kanagawa, Odawara	Cabbage, Chiense	Sr-90	0.4	--	Not	1985, January		National Institute of Radiological Sciences, 1985

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Japan, Aichi, Sasebo	Cabbage, Chinese	Cs-137	0.4	--	Net	--	1964, October		National Institute of Radiological Sciences, 1965
Japan, Osaka, Ikeda	Cabbage	Cs-137	0.4	--	Net	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Kanagawa, Odawara	Cabbage, Chinese	Cs-137	0.4	--	Net	--	1965, January		National Institute of Radiological Sciences, 1965
Japan, Hiroshima, Kabe	Cabbage	Sr-90	0.4	--	Net	--	1961, December		National Institute of Agricultural Sciences, 1964
Japan, Kagoshima, Kokubu	Cabbage	Sr-90	0.3	--	Net	--	1962, June		National Institute of Agricultural Sciences, 1964
Japan, Wakayama, Wakayama	Cabbage, Chinese	Sr-90	0.3	--	Net	--	1960, December		National Institute of Radiological Sciences, 1961
Japan, Fukuoka, Fukuoka	Cabbage	Sr-90	0.3	--	Net	--	1966, February		National Institute of Radiological Sciences, 1966
	Cabbage	Cs-137	0.3	--	Net	--	1965, February		National Institute of Radiological Sciences, 1966
Japan, Fukuoka, Shino	Cabbage	Cs-137	0.3	--	Net	--	1966, January		National Institute of Radiological Sciences, 1966
Japan, Ibaragi, Sito	Cabbage, Chinese	Sr-90	0.3	--	Net	--	1964, November		National Institute of Radiological Sciences, 1965
Japan, Aichi, Akabane	Cabbage, Chinese	Cs-137	0.3	--	Net	--	1964, November		National Institute of Radiological Sciences, 1965
Japan, Miyagi, Shirofusa	Cabbage, Chin.	Sr-90	0.3	--	Net	--	1964, December		National Institute of Radiological Sciences, 1965
Japan, Kanagawa, Totsuka	Cabbage, Chinese	Cs-137	0.3	--	Net	--	1965, January		National Institute of Radiological Sciences, 1965
Japan, Hokkaido, Oshima	Cabbage, Chinese	Sr-90	0.3	--	Net	--	1964, August		National Institute of Radiological Sciences, 1965
Japan, Saitama, Iwatsuki	Cabbage	Sr-90	0.3	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Saitama, Biizo	Cabbage, Chinese	Sr-90	0.3	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Osaka, Kuroyan	Cabbage	Cs-137	0.3	--	Net	--	1964, November		National Institute of Radiological Sciences, 1965
Japan, Fukuoka, Fukuoka	Cabbage, Chinese	Cs-137	0.3	--	Net	--	1965, January		National Institute of Radiological Sciences, 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Japan, Osaka, Osaka	Cabbage	Sr-90	0.2	--	wet	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Akita, Akita	Cabbage	Sr-90	0.2	--	wet	--	1980, October		National Institute of Radiological Sciences, 1980
Japan, Kanagawa, Yokohama	Cabbage, Chinese	Sr-90	0.2	--	wet	--	1963, December		National Institute of Radiological Sciences, 1964
Japan, Saitama, Tokorozawa	Cabbage, Chinese	Sr-90	0.2	--	wet	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Osaka, Osaka	Cabbage	Cs-137	<0.1	--	wet	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Akita, Akita	Cabbage	Cs-137	<0.1	--	wet	--	1980, October		National Institute of Radiological Sciences, 1980
Japan, Osaka, Senri-gun	Cabbage	Sr-90	0.1	--	wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Cabbage	Cs-137	<0.1	--	wet	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Wakayama, Wakayama	Cabbage, Chinese	Cs-137	<0.1	--	wet	--	1980, December		National Institute of Radiological Sciences, 1981
Japan, Aomori, Sannobe	Cabbage	Cs-137	<0.1	--	wet	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Hokkaido, Obihiro	Cabbage	Cs-137	<0.1	--	wet	--	1965, October		National Institute of Radiological Sciences, 1966
Japan, Shizuoka, Fuijieda	Cabbage	Cs-137	<0.1	--	wet	--	1965, November		National Institute of Radiological Sciences, 1966
Japan, Kanagawa, Toriba	Cabbage, Chinese	Sr-90	0.1	--	wet	--	1965, January		National Institute of Radiological Sciences, 1965
Japan, Fukuoka	Carrot	Cs-137	1.8	--	wet	--	1961, October		National Institute of Agricultural Sciences, 1964
	Carrot	Sr-90	0.2	--	wet	--	1961, October		National Institute of Agricultural Sciences, 1964
Japan, Saitama, Utsa	Caulliflower	Sr-90	2.5	--	wet	--	1961, December		National Institute of Agricultural Sciences, 1964
	Caulliflower	Cs-137	1.9	--	wet	--	1961, December		National Institute of Agricultural Sciences, 1964
Japan, Miyazaki City vicinity	Cucumber	Ra-226	78	--	ash	3	--	Author's sample basis revised	Kuraji, T., 1968

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Sancho-machi area	Cucumber	La-226	12	--	Ash	3	--		Kuroda, T., 1968
Japan, Tokyo	Cucumber	Cs-137	1.8	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1968
	Cucumber	Sr-90	1.7	--	Wet	--	1964, August		National Institute of Agricultural Sciences, 1968
	Cucumber	Sr-90	0.8	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1968
	Cucumber	Cs-137	0.3	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1968
Japan, Okayama City vicinity	Cucumber	Ba-226	<0.1	--	Wet	3	--	Author's sample basis revised	Kuroda, T., 1968
Japan, Sancho-machi area	Cucumber	Ba-226	<0.1	--	Wet	3	--		Kuroda, T., 1968
	Eggplant	Ba-226	88	--	Ash	2	--	Author's sample basis revised	Kuroda, T., 1968
Japan, Okayama City vicinity	Eggplant	Ba-226	19	--	Ash	2	--	Author's sample basis revised	Kuroda, T., 1968
Japan, Osaka, Ikeda	Eggplant	Cs-137	1.0	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1968
	Eggplant	Sr-90	0.8	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1968
Japan, Kyoto, Kyoto	Eggplant	Cs-137	0.8	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1968
	Eggplant	Sr-90	0.3	--	Wet	--	1962, August		National Institute of Agricultural Sciences, 1968
Japan, Sancho-machi area	Eggplant	Ba-226	<0.1	--	Wet	2	--	Author's sample basis revised	Kuroda, T., 1968
Japan, Okayama City vicinity	Eggplant	Ba-226	<0.1	--	Wet	2	--	Author's sample basis revised	Kuroda, T., 1968
Japan, Yamaguchi	Grape	Cs-137	2.5	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1968
	Grape	Sr-90	0.1	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1968
Japan, Saitama, Sugito	Greens, tsuke-na	Sr-90	5.9	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Fukuoka, Shino	Greens, tsuke-na	Sr-90	4.8	--	Wet	--	1965, February		National Institute of Radiological Sciences, 1965
Japan, Saitama, Miya	Greens, tsuke-na	Sr-90	2.5	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SOCLETS MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Fukuoka, Fukuoka	Greens, tate-na	Cs-137	2.3	--	Wet	--	1965, February		National Institute of Radiological Sciences, 1965
Japan, Fukuoka, Shino	Greens, tate-na	Cs-137	2.3	--	Wet	--	1965, February		National Institute of Radiological Sciences, 1965
Japan, Saitama, Niiza	Greens, tate-na	Cs-137	1.9	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Saitama, Sugito	Greens, tate-na	Cs-137	1.9	--	Wet	--	1964, June		National Institute of Radiological Sciences, 1965
Japan, Fukuoka, Fukuoka	Greens, tate-na	Sr-90	1.5	--	Wet	--	1965, February		National Institute of Radiological Sciences, 1965
Japan, Saitama, Sugito	Konatsu-na	Sr-90	4.5	--	Wet	--	1962, February		National Institute of Agricultural Sciences, 1964
Japan, Saitama, Niiza	Konatsu-na	Cs-137	1.9	--	Wet	--	1962, March		National Institute of Agricultural Sciences, 1964
Japan, Saitama, Sugito	Konatsu-na	Cs-137	1.9	--	Wet	--	1962, February		National Institute of Agricultural Sciences, 1964
Japan, Saitama, Niiza	Konatsu-na	Sr-90	0.3	--	Wet	--	1962, March		National Institute of Agricultural Sciences, 1964
Japan, Hiroshima, Kabe	Lettuce	Cs-137	2.3	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
	Lettuce	Sr-90	1.4	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Saitama	Onion, new	Sr-90	1.1	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1964
	Onion, new	Cs-137	0.9	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka, Shino	Mustard, potherb	Sr-90	4.4	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
	Mustard, potherb	Cs-137	4.3	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
Japan, Fukuoka, Yam	Mustard, potherb	Cs-137	2.6	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
	Mustard, potherb	Sr-90	2.5	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
Japan, Kanagawa, Yokohama	Onion, Welsh	Cs-137	1.3	--	Wet	--	1962, March		National Institute of Agricultural Sciences, 1964

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Number Analyzed	Date	Comment	Reference
Japan, Kanagawa, Yokohama	Onion, Welsh	Sr-90	1.1	--	Net	--	1962, March		National Institute of Agricultural Sciences, 1964
Japan, Osaka, Osaka	Onion	Sr-90	<0.1	--	Net	--	1972, July		National Institute of Radiological Sciences, 1980
	Onion	Cs-137	<0.1	--	Net	--	1974, July		National Institute of Radiological Sciences, 1980
Japan	Orange	R-40	34	--	Processed for eating	--	1973, July 10	Canned, syrup included	Simpson, R.E., et al., 1976
	Orange, sandarin	R-40	26	--	Processed for eating	--	1973, April 30	Canned, syrup included	Simpson, R.E., et al., 1976
	Orange, mandarin	R-40	22	--	Processed for eating	--	1973, June 20	Canned	Simpson, R.E., et al., 1976
Japan, Oita	Orange, sandarin	Cs-137	3.3	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan, Shizuoka	Orange, sandarin	Cs-137	2.3	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan, Kumamoto	Orange, sandarin	Cs-137	2.2	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan, Miyazaki	Orange, sandarin	Cs-137	1.5	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan, Shizuoka	Orange, summer	Cs-137	1.9	--	Net	--	1963, February		National Institute of Radiological Sciences, 1966
Japan, Saga	Orange, sandarin	Cs-137	1.3	--	Net	--	1963, February		National Institute of Radiological Sciences, 1966
Japan, Hiroshima	Orange, sandarin	Cs-137	1.2	--	Net	--	1963, February		National Institute of Radiological Sciences, 1966
Japan, Yamaguchi	Orange, sandarin	Cs-137	1.1	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan, Oita	Orange, sandarin	Sr-90	0.6	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan, Ehime	Orange, summer	Sr-90	0.6	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan, Saga	Orange, sandarin	Sr-90	0.5	--	Net	--	1963, February		National Institute of Radiological Sciences, 1966
Japan, Miyazaki	Orange, sandarin	Sr-90	0.5	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Yamaguchi	Orange, mandarin	Sr-90	0.4	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan	Orange	Sr-90	<0.4	--	Processed for eating	--	1973, July 10	Canned, syrup included	Simpson, R.E., et al., 1976
	Orange, mandarin	Sr-90	<0.4	--	Processed for eating	--	1973, June 20	Canned	Simpson, R.E., et al., 1976
	Orange, mandarin	Sr-90	<0.4	--	Processed for eating	--	1973, April 30	Canned, syrup included	Simpson, R.E., et al., 1976
	Orange, mandarin	Cs-137	<0.4	--	Processed for eating	--	1973, April 30	Canned, syrup included	Simpson, R.E., et al., 1976
	Orange, mandarin	I-131	<0.4	--	Processed for eating	--	1973, April 30	Canned, syrup included	Simpson, R.E., et al., 1976
	Orange, mandarin	Cs-137	<0.4	--	Processed for eating	--	1973, June 20	Canned	Simpson, R.E., et al., 1976
	Orange	Cs-137	<0.4	--	Processed for eating	--	1973, July 10	Canned, syrup included	Simpson, R.E., et al., 1976
	Orange	I-131	<0.4	--	Processed for eating	--	1973, July 10	Canned, syrup included	Simpson, R.E., et al., 1976
	Orange, mandarin	I-131	<0.4	--	Processed for eating	--	1973, June 20	Canned	Simpson, R.E., et al., 1976
	Orange, mandarin	Sr-90	0.3	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan, Shimane	Orange, mandarin	Sr-90	0.2	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan, Hiroshima	Orange, mandarin	Sr-90	0.2	--	Net	--	1963, February		National Institute of Agricultural Sciences, 1966
Japan	Orange	Sr-90	0.2	--	Processed for eating	--	1973, July 10	Canned, syrup included	Simpson, R.E., et al., 1976
	Orange, mandarin	Sr-90	<0.1	--	Processed for eating	--	1973, June 20	Canned	Simpson, R.E., et al., 1976
	Orange, mandarin	Sr-90	<0.1	--	Processed for eating	--	1973, April 30	Canned, syrup included	Simpson, R.E., et al., 1976
Japan, Yamaguchi	Peach	Cs-137	0.9	--	Net	--	1962, July		National Institute of Agricultural Sciences, 1966
	Peach	Sr-90	0.6	--	Net	--	1962, July		National Institute of Agricultural Sciences, 1966

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Yamaguchi	Persimmon	Cs-137	19	--	Dry	--	1963, February	Dried	National Institute of Agricultural Sciences, 1968
Japan, Fukushima	Persimmon	Cs-137	16	--	Dry	--	1963, February	Dried	National Institute of Radiological Sciences, 1968
Japan, Toyama	Persimmon	Cs-137	9.5	--	Dry	--	1963, February	Dried	National Institute of Agricultural Sciences, 1968
Japan, Nagano	Persimmon	Cs-137	8.9	--	Dry	--	1963, February	Dried	National Institute of Agricultural Sciences, 1968
Japan, Yamaguchi	Persimmon	Sr-90	0.7	--	Dry	--	1963, February	Dried	National Institute of Agricultural Sciences, 1968
Japan, Fukushima	Persimmon	Sr-90	0.4	--	Dry	--	1963, February	Dried	National Institute of Radiological Sciences, 1968
Japan, Nagano	Persimmon	Sr-90	0.4	--	Dry	--	1963, February	Dried	National Institute of Agricultural Sciences, 1968
Japan, Toyama	Persimmon	Sr-90	0.2	--	Dry	--	1963, February	Dried	National Institute of Radiological Sciences, 1968
Japan, Yamaguchi	Plum, daidai	Cs-137	1.5	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1968
	Plum, daidai	Sr-90	0.4	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1968
Japan, Sancho-nachi area	Potato, sweet	Ba-226	390	--	Ash	8	--		Kuroda, T., 1968
Japan, Okayama City vicinity	Potato, sweet	Ba-226	180	--	Ash	2	--	Author's sample basis revised	Kuroda, T., 1968
Japan, Kagoshima	Potato, sweet	Cs-137	3.3	--	Wet	--	1961, October		National Institute of Agricultural Sciences, 1968
Japan, Fukuoka	Potato, sweet	Cs-137	1.9	--	Wet	--	1961, October		National Institute of Agricultural Sciences, 1968
Japan, Hokkaido, Sapporo	Potato	Cs-137	1.8	--	Wet	--	1962, April		National Institute of Agricultural Sciences, 1968
Japan, Aichi	Potato, sweet	Cs-137	1.6	--	Wet	--	1961, October		National Institute of Agricultural Sciences, 1968
Japan	Potato, sweet	Cs-137	1.4	--	Wet	--	1962, September		National Institute of Agricultural Sciences, 1968
Japan, Ibaraki	Potato, sweet	Cs-137	1.2	--	Wet	--	1961, October		National Institute of Radiological Sciences, 1968

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SPECIES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Japan, Kanagawa, Kawasaki	Potato, sweet	Cs-137	1.2	--	Vet	--	1962, January		National Institute of Agricultural Sciences, 1964
Japan, Kagoshima	Potato, sweet	Sr-90	0.9	--	Vet	--	1961, October		National Institute of Agricultural Sciences, 1964
Japan, Saitama, Utsunomiya	Potato, sweet	Cs-137	0.8	--	Vet	--	1961, November		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka	Potato, sweet	Sr-90	0.7	--	Vet	--	1961, October		National Institute of Agricultural Sciences, 1964
Japan, Aichi	Potato, sweet	Sr-90	0.6	--	Vet	--	1961, October		National Institute of Agricultural Sciences, 1964
Japan, Kanagawa, Yokohama	Potato, sweet	Sr-90	0.4	--	Vet	--	1962, September		National Institute of Agricultural Sciences, 1964
Japan, Saitama, Utsunomiya	Potato, sweet	Sr-90	0.3	--	Vet	--	1961, November		National Institute of Agricultural Sciences, 1964
Japan, Ibaragi	Potato, sweet	Sr-90	0.2	--	Vet	--	1961, October		National Institute of Radiological Sciences, 1964
Japan, Hokkaido, Sapporo	Potato	Sr-90	0.1	--	Vet	--	1962, April		National Institute of Agricultural Sciences, 1964
Japan, Kanagawa, Kawasaki	Potato, sweet	Sr-90	0.1	--	Vet	--	1962, January		National Institute of Agricultural Sciences, 1964
Japan, Okayama City vicinity	Potato, sweet	Ba-226	<0.1	--	Vet	2	--	Author's sample basis revised	Kuroda, T., 1968
Japan, Sancho-machi area	Potato, sweet	Ba-226	<0.1	--	Vet	--	--		Kuroda, T., 1968
Japan, Kagoshima, Kokubu	Radish, Japanese	Sr-90	5.8	--	Vet	--	1965, October		National Institute of Radiological Sciences, 1966
Japan, Kagoshima, Sendai	Radish, Japanese	Sr-90	4.5	--	Vet	--	1965, October		National Institute of Radiological Sciences, 1966
Japan, Hokkaido, Ishikari-gun	Radish, Japanese	Sr-90	2.6	--	Vet	--	1979, September		National Institute of Radiological Sciences, 1980
Japan, Shimane, Ohta	Radish, Japanese	Sr-90	2.3	--	Vet	--	1974, July	Whole	National Institute of Radiological Sciences, 1976
Japan, Kagoshima, Ei	Radish, Japanese	Sr-90	2.0	--	Vet	--	1964, November	Root	National Institute of Radiological Sciences, 1965
Japan, Okayama, Okayama	Radish, Japanese	Sr-90	1.8	--	Vet	--	1980, November		National Institute of Radiological Sciences, 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Japan, Akita, Kawaabe	Radish, Japanese	Sr-90	1.6	--	Wet	--	1971, August	Whole	National Institute of Radiological Sciences, 1972
Japan, Niigata, Nagaoka	Radish, Japanese	Cs-137	1.0	--	Wet	--	1968, October	Root	National Institute of Radiological Sciences, 1968
Japan, Akita, Akita	Radish, Japanese	Sr-90	1.0	--	Wet	--	1964, July	Root	National Institute of Radiological Sciences, 1965
Japan, Hokkaido, Asahikawa	Radish, Japanese	Sr-90	1.0	--	Wet	--	1970, July	Whole	National Institute of Radiological Sciences, 1971
Japan, Akita, Tenno	Radish, Japanese	Sr-90	1.3	--	Wet	--	1964, July	Root	National Institute of Radiological Sciences, 1965
Japan, Kagoshima, Katsiki	Radish, Japanese	Sr-90	1.3	--	Wet	--	1970, December	Whole	National Institute of Radiological Sciences, 1971
Japan, Fuku, Nihama	Radish, Japanese	Sr-90	1.2	--	Wet	--	1970, December	Whole	National Institute of Radiological Sciences, 1971
Japan, Fuku, Ono	Radish	Sr-90	1.1	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1964
Japan, Niigata, Nagaoka	Radish, Japanese	Sr-90	1.1	--	Wet	--	1963, October	Root	National Institute of Radiological Sciences, 1964
Japan, Fuku, Tsuruga	Radish, Japanese	Sr-90	1.1	--	Wet	--	1974, November	Whole	National Institute of Radiological Sciences, 1976
Japan, Shizuoka, Ohta	Radish, Japanese	Sr-90	1.1	--	Wet	--	1974, November	Whole	National Institute of Radiological Sciences, 1976
Japan, Kagoshima, Ei	Radish, Japanese	Cs-137	1.1	--	Wet	--	1964, November	Root	National Institute of Radiological Sciences, 1965
Japan, Hokkaido, Atsuma	Radish, Japanese	Sr-90	1.0	--	Wet	--	1971, July		National Institute of Radiological Sciences, 1972
Japan, Fuku, Ono	Radish	Cs-137	1.0	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1964
Japan, Hokkaido, Obihiro	Radish, Japanese	Cs-137	1.0	--	Wet	--	1965, August		National Institute of Radiological Sciences, 1966
Japan, Fukushima, Okuma	Radish, Japanese	Sr-90	1.0	--	Wet	--	1971, April	Whole	National Institute of Radiological Sciences, 1972
Japan, Akita, Akita	Radish, Japanese	Cs-137	1.0	--	Wet	--	1964, July	Root	National Institute of Radiological Sciences, 1965
Japan, Fukushima, Futaba	Radish, Japanese	Sr-90	0.9	--	Wet	--	1971, October	Whole	National Institute of Radiological Sciences, 1972

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	MEAN OF RADIOACTIVITY (Bq kg ⁻¹)	SEEDS	WURSTEN ADULTS	DATE	COMMENT	REFERENCE
Japan, Shizuoka, Fuji	Radish, Japanese	Sr-90	0.9	--	Not	--	1971, November	Whole	National Institute of Radiological Sciences, 1972
Japan, Fukuoka, Mikata	Radish, Japanese	Sr-90	0.9	--	Not	--	1971, December		National Institute of Radiological Sciences, 1972
Japan, Shizuoka, Gotemba	Radish, Japanese	Sr-90	0.9	--	Not	--	1975, November		National Institute of Radiological Sciences, 1980
Japan, Saitama, Iwaki	Radish, Japanese	Sr-90	0.9	--	Not	--	1968, July	Whole	National Institute of Radiological Sciences, 1969
Japan, Hiroshima, Kabe	Radish, Japanese	Sr-90	0.9	--	Not	--	1964, June	Root	National Institute of Radiological Sciences, 1965
Japan, Shizuoka, Ohta	Radish, Japanese	Sr-90	0.8	--	Not	--	1978, August		National Institute of Radiological Sciences, 1979
Japan, Fukuoka, Sawara	Radish, Japanese	Sr-90	0.7	--	Not	--	1971, December	Whole	National Institute of Radiological Sciences, 1972
Japan, Kagoshima, Aira	Radish, Japanese	Sr-90	0.7	--	Not	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
	Radish, Japanese	Cs-137	0.7	--	Not	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
Japan, Aichi, Akabane	Radish, Japanese	Sr-90	0.7	--	Not	--	1971, April	Whole	National Institute of Radiological Sciences, 1972
Japan, Shizuoka, Ohta	Radish, Japanese	Cs-137	0.7	--	Not	--	1974, July	Whole	National Institute of Radiological Sciences, 1976
Japan, Shizuoka, Ota	Radish, Japanese	Sr-90	0.7	--	Not	--	1979, July		National Institute of Radiological Sciences, 1980
Japan, Saitama, Sugito	Radish, Japanese	Sr-90	0.6	--	Not	--	1966, December	Root	National Institute of Agricultural Sciences, 1967
Japan, Yamagata, Zao	Radish, Japanese	Cs-137	0.6	--	Not	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
Japan, Niigata, Akatsukadeni	Radish, Japanese	Cs-137	0.6	--	Not	--	1974, July	Whole	National Institute of Radiological Sciences, 1976
Japan, Shizuoka, Ohta	Radish, Japanese	Cs-137	0.6	--	Not	--	1978, August		National Institute of Radiological Sciences, 1979
Japan, Kochi, Kochi	Radish, Japanese	Sr-90	0.6	--	Not	--	1974, January		National Institute of Radiological Sciences, 1980
Japan, Saitama, Iwaki	Radish, Japanese	Cs-137	0.6	--	Not	--	1968, July	Whole	National Institute of Radiological Sciences, 1969

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Kochi, Takamatsu-gun	Radish, Japanese	Sr-90	0.6	--	Vet	--	1961, January		National Institute of Radiological Sciences, 1961
Japan, Yamaguchi, Otsu-gun	Radish, Japanese	Sr-90	0.6	--	Vet	--	1961, February		National Institute of Radiological Sciences, 1961
Japan, Akita, Toono	Radish, Japanese	Cs-137	0.6	--	Vet	--	1964, July	Root	National Institute of Radiological Sciences, 1965
Japan, Hokkaido, Sapporo	Radish, Japanese	Sr-90	0.6	--	Vet	--	1970	Whole	National Institute of Radiological Sciences, 1971
Japan, Hokkaido, Asahikawa	Radish, Japanese	Cs-137	0.6	--	Vet	--	1970, July	Whole	National Institute of Radiological Sciences, 1971
Japan, Akita, Akita	Radish, Japanese	Sr-90	0.6	--	Vet	--	1980, September		National Institute of Radiological Sciences, 1980
Japan, Niigata, Nakakubara	Radish, Japanese	Sr-90	0.5	--	Vet	--	1971, June	Whole	National Institute of Radiological Sciences, 1972
Japan, Shizuoka, Fuji	Radish, Japanese	Cs-137	0.5	--	Vet	--	1971, November	Whole	National Institute of Radiological Sciences, 1972
Japan, Hokkaido, Obihiro	Radish, Japanese	Sr-90	0.5	--	Vet	--	1965, August		National Institute of Radiological Sciences, 1966
Japan, Kagoshima, Kohabu	Radish, Japanese	Cs-137	0.5	--	Vet	--	1965, October		National Institute of Radiological Sciences, 1966
Japan, Shizuoka, Toshiwara	Radish, Japanese	Sr-90	0.5	--	Vet	--	1965, November		National Institute of Radiological Sciences, 1966
Japan, Kagoshima, Hayato	Radish, Japanese	Cs-137	0.5	--	Vet	--	1969, June	Whole	National Institute of Radiological Sciences, 1970
Japan, Kagoshima, Ibusuki	Radish, Japanese	Sr-90	0.5	--	Vet	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
Japan, Fukuoka, Kokushicho	Radish, Japanese	Sr-90	0.5	--	Vet	--	1971, May	Whole	National Institute of Radiological Sciences, 1972
Japan, Aomori, Aomori	Radish, Japanese	Sr-90	0.5	--	Vet	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
Japan, Yamagata, Taz	Radish, Japanese	Sr-90	0.5	--	Vet	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
Japan, Kagoshima, Katsuo	Radish, Japanese	Sr-90	0.5	--	Vet	--	1976, November		National Institute of Radiological Sciences, 1980
Japan, Fukuoka, Shino	Radish, Japanese	Sr-90	0.5	--	Vet	--	1970, June	Whole	National Institute of Radiological Sciences, 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COUNTRY	REFERENCE
Japan, Niigata, Nishikatsube	Radish, Japanese	Sr-90	0.5	--	Wet	--	1970, July	Whole	National Institute of Radiological Sciences, 1971
Japan, Kyoto, Kyoto	Radish, Japanese	Sr-90	0.5	--	Wet	--	1980, October		National Institute of Radiological Sciences, 1980
Japan, Aomori, Sannobe	Radish, Japanese	Sr-90	0.6	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Fuku, Kamisaka	Radish	Sr-90	0.4	--	Wet	--	1962, November		National Institute of Agricultural Sciences, 1964
Japan, Ishikawa, Kanazawa	Radish, Japanese	Sr-90	0.4	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Kagoshima, Hayato	Radish, Japanese	Sr-90	0.4	--	Wet	--	1969, June	Whole	National Institute of Radiological Sciences, 1970
Japan, Kagoshima, Ibusuki	Radish, Japanese	Cs-137	0.4	--	Wet	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
Japan, Aichi, Toyota	Radish, Japanese	Sr-90	0.4	--	Wet	--	1971, April	Whole	National Institute of Radiological Sciences, 1972
Japan, Tottori, Tottori	Radish, Japanese	Sr-90	0.4	--	Wet	--	1978, December		National Institute of Radiological Sciences, 1980
Japan, Niigata, Seiro	Radish, Japanese	Sr-90	0.4	--	Wet	--	1968, July	Whole	National Institute of Radiological Sciences, 1969
	Radish, Japanese	Cs-137	0.4	--	Wet	--	1968, July	Whole	National Institute of Radiological Sciences, 1969
Japan, Shizuoka, Fujieda	Radish, Japanese	Sr-90	0.4	--	Wet	--	1970, November	Whole	National Institute of Radiological Sciences, 1971
Japan, Fuku, Kamisaka	Radish	Cs-137	0.4	--	Wet	--	1962, November		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka, Saveru	Radish, Japanese	Cs-137	0.3	--	Wet	--	1971, December		National Institute of Radiological Sciences, 1972
Japan, Hyogo, Akashi	Radish, Japanese	Sr-90	0.3	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Fuku, Tsuruga	Radish, Japanese	Cs-137	0.3	--	Wet	--	1974, November	Whole	National Institute of Radiological Sciences, 1976
Japan, Saitama, Iwakuchi	Radish, Japanese	Sr-90	0.3	--	Wet	--	1969, April	Whole	National Institute of Radiological Sciences, 1970
	Radish, Japanese	Cs-137	0.3	--	Wet	--	1969, April	Whole	National Institute of Radiological Sciences, 1970

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYSED	DATE	COMMENT	REFERENCE
Japan, Niigata, Nitalanbara	Radish, Japanese	Sr-90	0.3	--	Net	--	1974, July	Whole	National Institute of Radiological Sciences, 1976
Japan, Aomori, Aomori	Radish, Japanese	Cs-137	0.3	--	Net	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
Japan, Fuku, Fuku	Radish, Japanese	Sr-90	0.3	--	Net	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Kanagawa, Kawasaki	Radish	Cs-137	0.3	--	Net	--	1982, January		National Institute of Agricultural Sciences, 1984
Japan, Yottori, Iwami-gan	Radish, Ja. none	Sr-90	0.3	--	Net	--	1980, December		National Institute of Radiological Sciences, 1981
Japan, Fukushima, Fukushima	Radish, Japanese	Cs-137	0.2	--	Net	--	1971, May	Whole	National Institute of Radiological Sciences, 1972
Japan, Niigata, Nitalanbara	Radish, Japanese	Cs-137	0.2	--	Net	--	1971, June	Whole	National Institute of Radiological Sciences, 1972
Japan, Iwata, Kawabe	Radish, Japanese	Cs-137	0.2	--	Net	--	1971, August	Whole	National Institute of Radiological Sciences, 1972
Japan, Fuku, Naita	Radish, Japanese	Cs-137	0.2	--	Net	--	1971, December		National Institute of Radiological Sciences, 1972
Japan, Saitama, Sejito	Radish, Japanese	Cs-137	0.2	--	Net	--	1981, December	Root	National Institute of Agricultural Sciences, 1987
Japan, Shizuoka, Jotenba	Radish, Japanese	Cs-137	0.2	--	Net	--	1974, November		National Institute of Radiological Sciences, 1980
Japan, Fukuoka, Fukuoka	Radish, Japanese	Sr-90	0.2	--	Net	--	1974, November		National Institute of Radiological Sciences, 1980
Japan, Kagoshima, Kagoshima	Radish, Japanese	Sr-90	0.2	--	Net	--	1974, November		National Institute of Radiological Sciences, 1980
	Radish, Japanese	Cs-137	0.2	--	Net	--	1974, November		National Institute of Radiological Sciences, 1980
Japan, Tanigata, Tanigata	Radish, Japanese	Sr-90	0.2	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Saga, Saji	Radish, Japanese	Sr-90	0.2	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Osaka, Osaka	Radish, Japanese	Sr-90	0.2	--	Net	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Hokkaido, Asahikawa	Radish, Japanese	Sr-90	0.2	--	Net	--	1964, July	Whole	National Institute of Radiological Sciences, 1970

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	NUMBER OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Hokkaido, Asahikawa	Radish, Japanese	Cs-137	0.2	--	Net	--	1969, July	Whole	National Institute of Radiological Sciences, 1970
Japan, Saitama, Sitta	Radish, Japanese	Sr-90	0.2	--	Net	--	1969, July	Whole	National Institute of Radiological Sciences, 1970
	Radish, Japanese	Cs-137	0.2	--	Net	--	1969, July		National Institute of Radiological Sciences, 1970
Japan, Yamagata, Higashimatsu	Radish, Japanese	Sr-90	0.2	--	Net	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
Japan, Kanagawa, Miura	Radish, Japanese	Cs-137	0.2	--	Net	--	1974, November		National Institute of Radiological Sciences, 1976
Japan, Fukushima, Fukushima	Radish, Japanese	Sr-90	0.2	--	Net	--	1980, November		National Institute of Radiological Sciences, 1981
	Radish, Japanese	Cs-137	0.2	--	Net	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Kagoshima, Katsuno	Radish, Japanese	Cs-137	0.2	--	Net	--	1976, November		National Institute of Radiological Sciences, 1980
Japan, Nagano, Saku	Radish, Japanese	Sr-90	0.2	--	Net	--	1974, November		National Institute of Radiological Sciences, 1980
Japan, Hiroshima, Haba	Radish, Japanese	Cs-137	0.2	--	Net	--	1964, June	Root	National Institute of Radiological Sciences, 1965
Japan, Niigata, Nishikanbara	Radish, Japanese	Cs-137	0.2	--	Net	--	1970, July	Whole	National Institute of Radiological Sciences, 1971
Japan, Miyagi, Sendai	Radish, Japanese	Sr-90	0.2	--	Net	--	1980, December		National Institute of Radiological Sciences, 1981
Japan, Okinawa, Nakagami-qua	Radish, Japanese	Sr-90	0.2	--	Net	--	1980, December		National Institute of Radiological Sciences, 1981
Japan, Nagasaki, Nagasaki	Radish, Japanese	Sr-90	0.2	--	Net	--	1981, January		National Institute of Radiological Sciences, 1981
Japan, Hokkaido, Abuta	Radish, Japanese	Cs-137	<0.1	--	Net	--	1971, July	Whole	National Institute of Radiological Sciences, 1972
Japan, Fukushima, Futaba	Radish, Japanese	Cs-137	<0.1	--	Net	--	1971, October	Whole	National Institute of Radiological Sciences, 1972
Japan, Nagano, Saku	Radish, Japanese	Cs-137	<0.1	--	Net	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Fukuoka, Fukuoka	Radish, Japanese	Cs-137	<0.1	--	Net	--	1979, November		National Institute of Radiological Sciences, 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Hyogo, Atsahi	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Yamagata, Yamagata	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Tokyo, Hachijyo-Island	Radish, Japanese	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Niigata, Niigata	Radish, Japanese	Sr-90	0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Radish, Japanese	Cs-137	0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Okayama, Okayama	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Saga, Saga	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Iwakiwa, Kanazawa	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Osaka, Osaka	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Aomori, Sannoh	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Kagoshima, Sendai	Radish, Japanese	Cs-137	0.1	--	Wet	--	1965, October		National Institute of Radiological Sciences, 1966
Japan, Shizuoka, Yoshivara	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1965, November		National Institute of Radiological Sciences, 1966
Japan, Yamagata, Higashiyama	Radish, Japanese	Cs-137	0.1	--	Wet	--	1974, October	Whole	National Institute of Radiological Sciences, 1976
Japan, Kanagawa, Miura	Radish, Japanese	Sr-90	<0.1	--	Wet	--	1974, November	Whole	National Institute of Radiological Sciences, 1976
Japan, Shizuoka, Oda	Radish, Japanese	Cs-137	0.1	--	Wet	--	1974, November	Whole	National Institute of Radiological Sciences, 1976
Japan, Aichi, Toyota	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1971, April	Whole	National Institute of Radiological Sciences, 1972
Japan, Aichi, Akabaru	Radish, Japanese	Cs-137	0.1	--	Wet	--	1971, April	Whole	National Institute of Radiological Sciences, 1972

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	AVERAGE RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYSED	DATE	COMMENT	REFERENCE
Japan, Niigata, Kitakanbara	Radish, Japanese	Cs-137	0.1	--	Wet	--	1974, July	Whole	National Institute of Radiological Sciences, 1976
Japan, Niigata, Akatsukadani	Radish, Japanese	Sr-90	0.1	--	Wet	--	1974, July	Whole	National Institute of Radiological Sciences, 1976
Japan, Fuku, Fuku	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Fukuoka, Kasuya-gun	Radish, Japanese	Sr-90	0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Nakayama, Nakayama	Radish, Japanese	Sr-90	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1981
	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1981
Japan, Kanagawa, Kawasaki	Radish	Sr-90	0.1	--	Wet	--	1964, January		National Institute of Agricultural Sciences, 1966
Japan, Tottori, Tottori	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1978, December		National Institute of Radiological Sciences, 1980
Japan, Kochi, Kochi	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1974, January		National Institute of Radiological Sciences, 1980
Japan, Chikuma, Satsumen	Radish, Japanese	Sr-90	<0.1	--	Wet	--	1979, February		National Institute of Radiological Sciences, 1980
	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1979, February		National Institute of Radiological Sciences, 1980
Japan, Shimane, Ota	Radish, Japanese	Cs-137	0.1	--	Wet	--	1979, July		National Institute of Radiological Sciences, 1980
Japan, Hokkaido, Ishikari-gun	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1976, September		National Institute of Radiological Sciences, 1980
Japan, Tokyo, Shinjuku	Radish, Japanese	Sr-90	0.1	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Tottori, Izumi-gun	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1981
Japan, Kochi, Takano-gun	Radish, Japanese	Cs-137	<0.1	--	Wet	--	1981, January		National Institute of Radiological Sciences, 1981

Table 2. Laterally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Enrichment Factor	Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Units Analyzed	Date	Comment	Reference
Japan, Hiroshima, Hiroshima	Radish, Japanese	Sr-90	<0.1	--	Net	1981, February		National Institute of Radiological Sciences, 1981
	Radish, Japanese	Cs-137	<0.1	--	Net	1981, February		National Institute of Radiological Sciences, 1981
Japan, Yamaguchi, Chu-gu	Radish, Japanese	Cs-137	<0.1	--	Net	1981, February		National Institute of Radiological Sciences, 1981
Japan, Fukuoka, Shino	Radish, Japanese	Cs-137	<0.1	--	Net	1970, June	Whole	National Institute of Radiological Sciences, 1971
Japan, Hokkaido, Sapporo	Radish, Japanese	Cs-137	<0.1	--	Net	1970, July	Whole	National Institute of Radiological Sciences, 1971
Japan, Shizuoka, Fujioka	Radish, Japanese	Cs-137	<0.1	--	Net	1970, November	Whole	National Institute of Radiological Sciences, 1971
Japan, Fukuoka, Minami	Radish, Japanese	Cs-137	<0.1	--	Net	1970, December	Whole	National Institute of Radiological Sciences, 1971
Japan, Fukuoka, Minami	Radish, Japanese	Cs-137	0.1	--	Net	1970, December	Whole	National Institute of Radiological Sciences, 1971
Japan, Fukuoka, Minami	Radish, Japanese	Cs-137	<0.1	--	Net	1980, September		National Institute of Radiological Sciences, 1980
Japan, Miyagi, Sendai	Radish, Japanese	Cs-137	<0.1	--	Net	1980, December		National Institute of Radiological Sciences, 1981
Japan, Chikama, Minami	Radish, Japanese	Cs-137	<0.1	--	Net	1980, December		National Institute of Radiological Sciences, 1981
Japan, Fukuoka, Minami	Radish, Japanese	Cs-137	<0.1	--	Net	1981, January		National Institute of Radiological Sciences, 1981
Japan, Kagoshima, Tokushima	Radish, Japanese	Sr-90	<0.1	--	Net	1981, February		National Institute of Radiological Sciences, 1981
	Radish, Japanese	Cs-137	<0.1	--	Net	1981, February		National Institute of Radiological Sciences, 1981
Japan, Aichi, Atsuta-gun	Radish, Japanese	Sr-90	<0.1	--	Net	1981, May		National Institute of Radiological Sciences, 1981
	Radish, Japanese	Cs-137	<0.1	--	Net	1981, May		National Institute of Radiological Sciences, 1981
Japan, Kyoto, Kyoto	Radish, Japanese	Cs-137	0.0	--	Net	1980, October		National Institute of Radiological Sciences, 1980
Japan, Sancho-nachi area	Rice	Na-226	83	--	Ash	--		Kuroda, T., 1969

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	STATUS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Japan, Okayama City vicinity	Rice	Pu-226	28	--	Ash	9	--	Author's sample basis revised	Kuroda, T., 1968
Japan	Rice	Cs-137	4.1	--	Wet	--	1963	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	3.3	--	Wet	--	1963	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Cs-137	2.7	--	Wet	--	1959	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Cs-137	2.5	--	Wet	--	1964	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Cs-137	1.9	--	Wet	--	1962	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	1.6	--	Wet	--	1964	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	1.4	--	Wet	--	1959	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	1.4	--	Wet	--	1962	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Cs-137	1.3	--	Wet	--	1961	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	1.2	--	Wet	--	1958	Brown rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
Japan, Akita, Akita	Rice	Cs-137	1.2	--	Wet	--	1965, October	Polished	National Institute of Radiological Sciences, 1971
Japan, Iwate, Morioka	Rice	Cs-137	1.2	--	Wet	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
Japan	Rice	Cs-137	1.1	--	Wet	--	1960	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
Japan, Hokkaido, Sapporo	Rice	Cs-137	0.7	--	Wet	--	1965, October	Polished	National Institute of Radiological Sciences, 1971
Japan	Rice	Cs-137	0.8	--	Wet	--	1965	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	0.8	--	Wet	--	1957	Brown rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
Japan, Miyagi, Sendai	Rice	Cs-137	0.8	--	Wet	--	1965, October	Polished	National Institute of Radiological Sciences, 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Niigata, Takada	Rice	Cs-137	0.7	--	Wet	--	1965, September	Polished	National Institute of Radiological Sciences, 1971
Japan	Rice	Cs-137	0.6	--	Wet	--	1968	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Cs-137	0.6	--	Wet	--	1969	Polished.	National Institute of Agricultural Sciences, 1971
Japan, Akita, Akita	Rice	Sr-90	0.6	--	Wet	--	1970, September	Brown	National Institute of Agricultural Sciences, 1971
Japan	Rice	Sr-90	0.6	--	Wet	--	1965	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
Japan, Tokyo, Tachikawa	Rice	Cs-137	0.6	--	Wet	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
Japan	Rice	Cs-137	0.5	--	Wet	--	1967	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
Japan, Iwate, Morioka	Rice	Sr-90	0.5	--	Wet	--	1970, September	Brown	National Institute of Agricultural Sciences, 1971
Japan, Niigata, Takada	Rice	Sr-90	0.5	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
Japan, Mie, Ise	Rice	Sr-90	0.5	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
Japan, Tottori, Tottori	Rice	Cs-137	0.5	--	Wet	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
Japan	Rice	Cs-137	0.4	--	Wet	--	1961	Polished rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
Japan, Hokkaido, Sapporo	Rice	Sr-90	0.4	--	Wet	--	1970, September	Brown	National Institute of Agricultural Sciences, 1971
Japan, Tokyo, Tachikawa	Rice	Sr-90	0.4	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
Japan	Rice	Sr-90	0.4	--	Wet	--	1970	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
Japan, Ishikawa, Kanazawa	Rice	Sr-90	0.4	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
Japan, Akita, Akita	Rice	Cs-137	0.4	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Ishikawa, Kanazawa	Rice	Cs-137	0.4	--	Wet	--	1969, September	Polished	National Institute of Radiological Sciences, 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SALT	SUBSTR ANALYZED	DATE	COMMENT	REFERENCE
Japan, Mie, Tsu	Rice	Cs-137	0.4	--	Wet	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
Japan, Miyagi, Sendai	Rice	Sr-90	0.3	--	Wet	--	1970, September	Brown	National Institute of Agricultural Sciences, 1971
Japan, Saitama, Koshu	Rice	Sr-90	0.3	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
Japan	Rice	Sr-90	0.3	--	Wet	--	1960	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	0.3	--	Wet	--	1961	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	0.3	--	Wet	--	1966	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	0.3	--	Wet	--	1967	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	0.3	--	Wet	--	1968	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	0.3	--	Wet	--	1969	Brown rice. Estimated from graph.	National Institute of Agricultural Sciences, 1971
Japan, Tottori, Tottori	Rice	Sr-90	0.3	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
Japan, Fukuoka, Takushino	Rice	Sr-90	0.3	--	Wet	--	1970, November	Brown	National Institute of Agricultural Sciences, 1971
Japan, Fukuoka, Dazaifu	Rice	Cs-137	0.3	--	Wet	--	1978, December		National Institute of Radiological Sciences, 1979
Japan	Rice	Sr-90	0.3	--	Wet	--	1963	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
Japan, Saitama, Koshu	Rice	Cs-137	0.3	--	Wet	--	1969, October	Polished	National Institute of Radiological Sciences, 1971
Japan, Fukuoka, Takushino	Rice	Cs-137	0.3	--	Wet	--	1969, November	Polished	National Institute of Radiological Sciences, 1971
Japan, Okayama, Okayama	Rice	Cs-137	0.2	--	Wet	--	1979, January		National Institute of Radiological Sciences, 1980
Japan, Ibaraki, Mito	Rice	Sr-90	0.2	--	Wet	--	1970, September	Brown	National Institute of Agricultural Sciences, 1971
Japan, Yamaguchi, Kofu	Rice	Sr-90	0.2	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

Geographical Origin	Food Crop	Isotope Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Units Analyzed	Date	Comments	Reference
Japan, Osaka, Osaka	Rice	Sr-90	0.2	--	Wet	--	1970, October	Brown	National Institute of Agricultural Sciences, 1971
Japan, Okayama, Okayama	Rice	Sr-90	0.2	--	Wet	--	1970, November	Brown	National Institute of Agricultural Sciences, 1971
Japan, Kagoshima, Kagoshima	Rice	Cs-137	0.2	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Hyogo, Kobe	Rice	Cs-137	0.2	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Niigata, Saito	Rice	Cs-137	0.2	--	Wet	--	1978, October		National Institute of Radiological Sciences, 1979
Japan, Aomori, Aomori	Rice	Cs-137	0.2	--	Wet	--	1979, January		National Institute of Radiological Sciences, 1979
Japan, Okayama, Seto	Rice	Cs-137	0.2	--	Wet	--	1979, January		National Institute of Radiological Sciences, 1979
Japan	Rice	Sr-90	0.2	--	Wet	--	1964	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
Japan, Yamaguchi, Hofu	Rice	Cs-137	0.2	--	Wet	--	1969, September	Polished	National Institute of Radiological Sciences, 1971
Japan, Osaka, Osaka	Rice	Cs-137	0.2	--	Wet	--	1969, November	Polished	National Institute of Radiological Sciences, 1971
Japan, Okayama, Okayama	Rice	Cs-137	0.2	--	Wet	--	1969, November	Polished	National Institute of Radiological Sciences, 1971
Japan, Fukuoka, Kasuga	Rice	Cs-137	0.2	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Hyogo, Aburahi	Rice	Cs-137	<0.1	--	Wet	--	1979, January		National Institute of Radiological Sciences, 1980
Japan, Okayama, Okayama	Rice	Sr-90	<0.1	--	Wet	--	1979, January		National Institute of Radiological Sciences, 1980
Japan, Saga, Saga	Rice	Sr-90	<0.1	--	Wet	--	1979, January		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1979, January		National Institute of Radiological Sciences, 1980
Japan, Fukuoka, Fukuoka	Rice	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	DATE	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Miyagi, Karibara-gun	Rice	Sr-90	<0.1	--	Not	--	1980, December		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Not	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Fukuoka, Tachibana	Rice	Sr-90	<0.1	--	Not	--	1980, December		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Not	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Fukuoka, Fukuoka	Rice	Sr-90	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Kyoto, Kyoto	Rice	Sr-90	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Hokkaido, Sapporo	Rice	Sr-90	<0.1	--	Not	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	<0.1	--	Not	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Iwate, Morioka	Rice	Sr-90	<0.1	--	Not	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	<0.1	--	Not	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Ibaraki, Maeda	Rice	Sr-90	<0.1	--	Not	--	1969, September	Polished	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	<0.1	--	Not	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Tokyo, Tachikawa	Rice	Sr-90	<0.1	--	Not	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	<0.1	--	Not	--	1970, September	Polished	National Institute of Agricultural Sciences, 1971
Japan, Iwate, Morioka	Rice	Sr-90	<0.1	--	Not	--	1970, September	Polished	National Institute of Agricultural Sciences, 1971
	Rice	Sr-90	<0.1	--	Not	--	1970, September	Polished	National Institute of Agricultural Sciences, 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Units	Number Analyzed	Date	Comment	Reference
Japan, Miyagi, Sendai	Rice	St-90	<0.1	--	Net	--	1970, September	Polished	National Institute of Agricultural Sciences, 1971
Japan, Ibaraki, Ito	Rice	St-90	<0.1	--	Net	--	1970, September	Polished	National Institute of Agricultural Sciences, 1971
Japan, Saitama, Kosei	Rice	St-90	<0.1	--	Net	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Tokyo, Tachikawa	Rice	St-90	<0.1	--	Net	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Yamaguchi, Kofu	Rice	St-90	<0.1	--	Net	--	1969, September	Polished	National Institute of Agricultural Sciences, 1971
Japan, Niigata, Takada	Rice	St-90	<0.1	--	Net	--	1969, September	Polished	National Institute of Agricultural Sciences, 1971
Japan, Fukuoka, Kanazawa	Rice	St-90	<0.1	--	Net	--	1964, September	Polished	National Institute of Agricultural Sciences, 1971
Japan, Mie, Tsu	Rice	St-90	<0.1	--	Net	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Osaka, Omka	Rice	St-90	<0.1	--	Net	--	1969, November	Polished	National Institute of Agricultural Sciences, 1971
Japan, Okayama, Okayama	Rice	St-90	<0.1	--	Net	--	1969, November	Polished	National Institute of Agricultural Sciences, 1971
Japan, Tottori, Tottori	Rice	St-90	<0.1	--	Net	--	1969, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Fukuoka, Takushino	Rice	St-90	<0.1	--	Net	--	--	Polished	National Institute of Agricultural Sciences, 1971
Japan, Yamaguchi, Kofu	Rice	St-90	<0.1	--	Net	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Niigata, Takada	Rice	St-90	0.1	--	Net	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Ishikawa, Kanazawa	Rice	St-90	<0.1	--	Net	--	1970, August	Polished	National Institute of Agricultural Sciences, 1971
Japan, Mie, Tsu	Rice	St-90	<0.1	--	Net	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Osaka, Omka	Rice	St-90	<0.1	--	Net	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Okayama, Okayama	Rice	St-90	<0.1	--	Net	--	1970, November	Polished	National Institute of Agricultural Sciences, 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Tottori, Tottori	Rice	Sr-90	<0.1	--	Wet	--	1970, October	Polished	National Institute of Agricultural Sciences, 1971
Japan, Fukuoka, Fukuoka	Rice	Sr-90	0.1	--	Wet	--	1970, November	Polished	National Institute of Agricultural Sciences, 1971
Japan, Osaka, Osaka	Rice	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Saga, Saga	Rice	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Kagoshima, Kagoshima	Rice	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Yamagata, Yamagata	Rice	Sr-90	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Kanagawa, Yokohama	Rice	Sr-90	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Aichi, Nagoya	Rice	Sr-90	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Hyogo, Kobe	Rice	Sr-90	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Tottori, Tottori	Rice	Sr-90	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Ishikawa, Kanazawa	Rice	Cs-137	<0.1	--	Wet	--	1980, September		National Institute of Radiological Sciences, 1980
Japan, Tokyo, Shinjuku	Rice	Sr-90	<0.1	--	Wet	--	1980, October		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, October		National Institute of Radiological Sciences, 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Niigata, Niigata	Rice	Sr-90	<0.1	--	Wet	--	1980, October		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, October		National Institute of Radiological Sciences, 1980
Japan, Ehime, Matsuyama	Rice	Sr-90	<0.1	--	Wet	--	1980, October		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, October		National Institute of Radiological Sciences, 1980
Japan, Hokkaido, Sapporo	Rice	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Akita, Akita	Rice	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Ibaragi, Nito	Rice	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Shizuoka, Shizuoka	Rice	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Yamaguchi, Yamaguchi	Rice	Sr-90	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Okinawa, Matsura	Rice	Sr-90	<0.1	--	Wet	--	1978, September		National Institute of Radiological Sciences, 1979
	Rice	Cs-137	0.1	--	Wet	--	1978, September		National Institute of Radiological Sciences, 1979
Japan, Niigata, Nahi	Rice	Sr-90	<0.1	--	Wet	--	1978, October		National Institute of Radiological Sciences, 1979
Japan, Fukuoka, Bamaifu	Rice	Sr-90	<0.1	--	Wet	--	1978, December		National Institute of Radiological Sciences, 1979
Japan, Aomori, Aomori	Rice	Sr-90	<0.1	--	Wet	--	1979, January		National Institute of Radiological Sciences, 1979
Japan, Okayama, Soto	Rice	Sr-90	<0.1	--	Wet	--	1979, January		National Institute of Radiological Sciences, 1979

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Section Number	Area Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Units Analyzed	Date	Country	Institute
Japan, Aichi, Nagoya	Rice	Sr-90	<0.1	--	Net	1979, December		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Net	1979, December		National Institute of Radiological Sciences, 1980
Japan, Hyogo, Ashahi	Rice	Sr-90	<0.1	--	Net	1979, January		National Institute of Radiological Sciences, 1980
Japan, Tottori, Tottori	Rice	Cs-137	<0.1	--	Net	1980, December		National Institute of Radiological Sciences, 1980
Japan, Kochi, Kochi	Rice	Sr-90	<0.1	--	Net	1980, December		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Net	1980, December		National Institute of Radiological Sciences, 1980
Japan, Miyazama, Miyazama	Rice	Sr-90	<0.1	--	Net	1981, January		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Net	1981, January		National Institute of Radiological Sciences, 1980
Japan, Ibaragi, Ito	Rice	Sr-90	<0.1	--	Net	1980, October		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	0.1	--	Net	1980, October		National Institute of Radiological Sciences, 1980
Japan, Niigata, Niigata	Rice	Sr-90	<0.1	--	Net	1980, October		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Net	1980, October		National Institute of Radiological Sciences, 1980
Japan, Nagano, Nagano	Rice	Sr-90	<0.1	--	Net	1980, October		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Net	1980, October		National Institute of Radiological Sciences, 1980
Japan, Hyogo, Ashahi	Rice	Sr-90	<0.1	--	Net	1980, October		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Net	1980, October		National Institute of Radiological Sciences, 1980
Japan, Hokkaido, Ishikari-gun	Rice	Sr-90	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Net	1980, November		National Institute of Radiological Sciences, 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	SCOPE OF RADIOACTIVITY (Bq kg ⁻¹)	TESTS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Japan	Rice	Sr-90	<0.1	--	Net	--	1958	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	<0.1	--	Net	--	1959	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	0.1	--	Net	--	1960	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	<0.1	--	Net	--	1961	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	0.1	--	Net	--	1962	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	<0.1	--	Net	--	1963	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	<0.1	--	Net	--	1964	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	<0.1	--	Net	--	1967	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	<0.1	--	Net	--	1968	Polished rice. Estimated from graph.	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	<0.1	--	Net	--	1969	Polished	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	<0.1	--	Net	--	1970	Polished	National Institute of Radiological Sciences, 1971
	Rice	Sr-90	<0.1	--	Net	--	1957	Polished rice. Estimated from graph	National Institute of Radiological Sciences, 1971
Japan, Okayama City vicinity	Rice	Ba-226	<0.1	--	Net	9	--	Author's sample basis revised	Kurada, T., 1968
Japan, Ishitawa, Kanazawa	Rice	Sr-90	<0.1	--	Net	--	1980, September		National Institute of Radiological Sciences, 1980
Japan, Shiozono, Matsuo	Rice	Sr-90	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Okayama, Akaiwa-gun	Rice	Sr-90	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
	Rice	Cs-137	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980
Japan, Fukuoka, Tsuruga	Rice	Sr-90	<0.1	--	Net	--	1980, December		National Institute of Radiological Sciences, 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	DATE	SAMPLES ANALYZED	DATE	COMMENTS	REFERENCE
Japan, Okinawa, Nakagami-gun	Rice	Cs-137	<0.1	--	Not	--	1980, December		National Institute of Radiological Sciences,
Japan, Aomori, Hironaka	Rice	Sr-90	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
	Rice	Cs-137	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
Japan, Hiroshima, Hiroshima	Rice	Sr-90	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
	Rice	Cs-137	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
Japan, Nagasaki, Nagasaki	Rice	Sr-90	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
	Rice	Cs-137	<0.1	--	Not	--	1981, January		National Institute of Radiological Sciences,
Japan, Sancho-machi area	Rice	Ra-226	<0.1	--	Not	16	--		Kuroda, T., 1968
Japan, Ibaragi, Nito	Rice	Sr-90	0.0	--	Not	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Okinawa, Nakagami-gun	Rice	Sr-90	0.0	--	Not	--	1980, December		National Institute of Radiological Sciences,
Japan, Tottori	Soybean	Cs-137	35	--	Not	--	1961, Autumn		National Institute of Radiological Sciences, 1968
Japan, Niigata	Soybean	Cs-137	29	--	Not	--	1961, Autumn		National Institute of Radiological Sciences, 1968
Japan, Chiba	Soybean	Cs-137	28	--	Not	--	1962, Autumn		National Institute of Radiological Sciences, 1968
Japan, Sapporo	Soybean	Cs-137	22	--	Not	--	1962, Autumn		National Institute of Radiological Sciences, 1968
Japan, Kacchan	Soybean	Cs-137	19	--	Not	--	1962, Autumn		National Institute of Radiological Sciences, 1968
Japan, Niigata	Soybean	Sr-90	18	--	Not	--	1961, Autumn		National Institute of Radiological Sciences, 1968
Japan, Kacchan	Soybean	Sr-90	14	--	Not	--	1962, Autumn		National Institute of Radiological Sciences, 1968
Japan, Tottori	Soybean	Sr-90	11	--	Not	--	1962, Autumn		National Institute of Radiological Sciences, 1968
Japan, Shikano	Soybean	Cs-137	9.1	--	Not	--	1961, Autumn		National Institute of Radiological Sciences, 1968
Japan, Echigo	Soybean	Cs-137	5.2	--	Not	--	1963, March	Bean paste (HSC)	National Institute of Radiological Sciences, 1968

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Facility Number	Mean Radioactivity (cpm kg ⁻¹)	Range of Radioactivity (cpm kg ⁻¹)	Units	Number Analyzed	Date	Comment	Reference
Japan, Nagoya	Soybean	Cs-137	5.1	--	Net	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1968
Japan, Sapporo	Soybean	Sr-90	4.9	--	Net	--	1961, Autumn		National Institute of Radiological Sciences, 1968
Japan, Shimizu	Soybean	Cs-137	6.9	--	Net	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1968
Japan, Sapporo	Soybean	Sr-90	6.8	--	Net	--	1962, Autumn		National Institute of Radiological Sciences, 1968
Japan, Aizu	Soybean	Sr-90	6.3	--	Net	--	1961, Autumn		National Institute of Radiological Sciences, 1968
Japan, Chiba	Soybean	Sr-90	4.0	--	Net	--	1962, Autumn		National Institute of Radiological Sciences, 1968
Japan, Sapporo	Soybean	Cs-137	3.7	--	Net	--	1961, Autumn		National Institute of Radiological Sciences, 1968
Japan, Chiba	Soybean	Cs-137	3.2	--	Net	--	1962, September	Bean juice (Touyau)	National Institute of Radiological Sciences, 1968
	Soybean	Cs-137	3.0	--	Net	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1968
	Soybean	Sr-90	3.0	--	Net	--	1962, Autumn		National Institute of Radiological Sciences, 1968
	Soybean	Cs-137	3.0	--	Net	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1968
	Soybean	Cs-137	2.9	--	Net	--	1960, Autumn		National Institute of Radiological Sciences, 1968
	Soybean	Cs-137	2.8	--	Net	--	1962, Autumn		National Institute of Radiological Sciences, 1968
	Soybean	Sr-90	2.8	--	Net	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1968
	Soybean	Cs-137	2.8	--	Net	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1968
	Soybean	Sr-90	2.7	--	Net	--	1961, Autumn		National Institute of Radiological Sciences, 1968
	Soybean	Cs-137	2.2	--	Net	--	1961, Autumn		National Institute of Radiological Sciences, 1968
	Soybean	Cs-137	2.0	--	Net	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1968

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SEEDS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Japan, Ishikawa	Soybean	Cs-137	2.0	--	Not	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1966
Japan, Saitama	Soybean	Sr-90	2.0	--	Not	--	1961, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1966
Japan, Chiba	Soybean	Sr-90	1.9	--	Not	--	1961, Autumn		National Institute of Radiological Sciences, 1966
	Soybean	Sr-90	1.8	--	Not	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1966
	Soybean	Cs-137	1.8	--	Not	--	1962, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1966
	Soybean	Sr-90	1.7	--	Not	--	1960, Autumn		National Institute of Radiological Sciences, 1966
Japan, Sendai	Soybean	Sr-90	1.7	--	Not	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1966
Japan, Chiba	Soybean	Sr-90	1.7	--	Not	--	1961, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1966
Japan, Gifu	Soybean	Cs-137	1.7	--	Not	--	1961, Autumn		National Institute of Radiological Sciences, 1966
Japan, Shinshu	Soybean	Cs-137	1.6	--	Not	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1966
Japan, Saitama	Soybean	Cs-137	1.6	--	Not	--	1962, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1966
Japan, Echigo	Soybean	Sr-90	1.4	--	Not	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1966
Japan, Shinshu	Soybean	Sr-90	1.4	--	Not	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1966
Japan, Nagoya	Soybean	Sr-90	1.4	--	Not	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1966
Japan, Sendai	Soybean	Cs-137	1.3	--	Not	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1966
Japan, Echigo	Soybean	Sr-90	1.3	--	Not	--	1961, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1966
Japan, Ishikawa	Soybean	Sr-90	1.2	--	Not	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1966
Japan, Sendai	Soybean	Sr-90	1.2	--	Not	--	1963, March	Bean paste (Miso)	National Institute of Radiological Sciences, 1966

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Fukuoka	Soybean	Cs-137	1.2	--	Wet	--	1963, April	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Shizuoka	Soybean	Sr-90	1.1	--	Wet	--	1962, February	Bean paste (Miso)	National Institute of Radiological Sciences, 1964
Japan, Tokyo	Soybean	Cs-137	1.1	--	Wet	--	1963, April	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Saitama	Soybean	Cs-137	1.0	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Fukuoka	Soybean	Cs-137	1.0	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Tokyo	Soybean	Cs-137	1.0	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Chiba	Soybean	Sr-90	1.0	--	Wet	--	1962, September	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Tokyo	Soybean	Sr-90	0.9	--	Wet	--	1962, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1964
	Soybean	Cs-137	0.9	--	Wet	--	1962, February	Fermented bean (Matto)	National Institute of Radiological Sciences, 1964
Japan, Chiba	Soybean	Cs-137	0.8	--	Wet	--	1963, May	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Saitama	Soybean	Sr-90	0.7	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Chiba	Soybean	Cs-137	0.6	--	Wet	--	1963, May	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Tokyo	Soybean	Sr-90	0.4	--	Wet	--	1962, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Saitama	Soybean	Cs-137	0.4	--	Wet	--	1963, April	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
	Soybean	Sr-90	0.3	--	Wet	--	1962, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Chiba	Soybean	Sr-90	0.3	--	Wet	--	1962, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Tokyo	Soybean	Sr-90	0.3	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Chiba	Soybean	Sr-90	0.3	--	Wet	--	1962, May	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBERS ANALYZED	DATE	COMMENT	REFERENCE
Japan, Chiba	Soybean	Cs-137	0.2	--	Wet	--	1962, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Tokyo	Soybean	Cs-137	0.2	--	Wet	--	1962, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Chiba	Soybean	Sr-90	0.2	--	Wet	--	1963, May	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Funabashi	Soybean	Sr-90	0.2	--	Wet	--	1963, April	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Soybean	Sr-90	0.2	--	Wet	--	1963, April	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Tokyo	Soybean	Sr-90	0.2	--	Wet	--	1963, April	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Saitama	Soybean	Cs-137	0.1	--	Wet	--	1962, February	Bean curd (Tofu)	National Institute of Radiological Sciences, 1964
	Soybean	Sr-90	0.1	--	Wet	--	1963, April	Bean juice (Tofu)	National Institute of Radiological Sciences, 1964
Japan, Hokkaido, Oshima	Spinach	Cs-137	8.0	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Shimoda, Yoshida	Spinach	Cs-137	5.6	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
Japan, Fukuoka, Oro	Spinach	Cs-137	4.3	--	Wet	--	1962, June		National Institute of Agricultural Sciences, 1964
Japan, Wakayama, Wakayama	Spinach	Cs-137	4.3	--	Wet	--	1963, January		National Institute of Agricultural Sciences, 1964
Japan, Ibaragi, Tsuchiura	Spinach	Cs-137	4.1	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Tokyo, Setagaya	Spinach	Cs-137	4.0	--	Wet	--	1961, December		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka, Ono	Spinach	Sr-90	3.9	--	Wet	--	1962, June		National Institute of Agricultural Sciences, 1964
Japan, Kanagawa, Atsugi	Spinach	Cs-137	3.8	--	Wet	--	1964, March		National Institute of Radiological Sciences, 1964
Japan, Hiroshima, Fukuoka	Spinach	Cs-137	3.7	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Kanagawa, Atsugi	Spinach	Cs-137	3.6	--	Wet	--	1964, January		National Institute of Radiological Sciences, 1964

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	Basis	NUMBER ANALYZED	DATE	CORRECTION	REFERENCE
Japan, Miyagi, Iwanuma	Spinach	Cs-137	3.3	--	Wet	--	1963, March		National Institute of Agricultural Sciences, 1964
Japan, Hiroshima, Kabe	Spinach	Cs-137	3.1	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Shizuoka, Yochiura	Spinach	Sr-90	3.0	--	Wet	--	1964, February		National Institute of Radiological Sciences, 1964
Japan, Kagoshima, Kokubu	Spinach	Cs-137	2.8	--	Wet	--	1961, December		National Institute of Agricultural Sciences, 1964
Japan, Kanagawa, Atsugi	Spinach	Sr-90	2.8	--	Wet	--	1964, January		National Institute of Radiological Sciences, 1964
Japan, Fukuoka, Ohara	Spinach	Sr-90	2.7	--	Wet	--	1971, April		National Institute of Radiological Sciences, 1972
Japan, Saitama, Omiya	Spinach	Cs-137	2.6	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Fuzui, Tomura	Spinach	Sr-90	2.5	--	Wet	--	1971, May		National Institute of Radiological Sciences, 1972
Japan, Kanagawa, Atsugi	Spinach	Sr-90	2.4	--	Wet	--	1964, March		National Institute of Radiological Sciences, 1964
Japan, Saitama, Omiya	Spinach	Sr-90	2.0	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
Japan, Ibaraki, Tsuchiura	Spinach	Sr-90	1.9	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Kagoshima, Kainon	Spinach	Sr-90	1.9	--	Wet	--	1978, November		National Institute of Radiological Sciences, 1979
Japan, Wakayama, Iwado	Spinach	Cs-137	1.8	--	Wet	--	1963, January		National Institute of Agricultural Sciences, 1964
Japan, Kanagawa, Torata	Spinach	Cs-137	1.7	--	Wet	--	1965, March		National Institute of Radiological Sciences, 1965
Japan, Kanagawa, Kawasaki	Spinach	Cs-137	1.7	--	Wet	--	1961, December		National Institute of Agricultural Sciences, 1964
Japan, Kagoshima, Kokubu	Spinach	Sr-90	1.6	--	Wet	--	1962, December		National Institute of Agricultural Sciences, 1964
Japan, Osaka, Ikeda	Spinach	Cs-137	1.6	--	Wet	--	1963, May		National Institute of Agricultural Sciences, 1964
Japan, Tokyo, Setagaya	Spinach	Sr-90	1.5	--	Wet	--	1961, December		National Institute of Agricultural Sciences, 1964

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
Japan, Fukui, Kamikake	Spinach	Cs-137	1.4	--	Net	--	1962, November		National Institute of Agricultural Sciences, 1964
Japan, Niigaki, Iwamun	Spinach	Sr-90	1.3	--	Net	--	1963, March		National Institute of Agricultural Sciences, 1964
Japan, Fukui, Kamikake	Spinach	Sr-90	1.3	--	Net	--	1962, November		National Institute of Agricultural Sciences, 1964
Japan, Hokkaido, Itsuma	Spinach	Sr-90	1.3	--	Net	--	1971, June		National Institute of Radiological Sciences, 1972
Japan, Kanagawa, Toruka	Spinach	Sr-90	1.3	--	Net	--	1965, March		National Institute of Radiological Sciences, 1965
Japan, Saitama, Sugito	Spinach	Sr-90	1.2	--	Net	--	1966, December		National Institute of Agricultural Sciences, 1967
Japan, Nagoshima, Kainon	Spinach	Cs-137	1.1	--	Net	--	1978, November		National Institute of Radiological Sciences, 1979
Japan, Saitama, Hirai	Spinach	Sr-90	1.1	--	Net	--	1969, March		National Institute of Radiological Sciences, 1969
Japan, Shizuoka, Ohira	Spinach	Sr-90	1.0	--	Net	--	1978, August		National Institute of Radiological Sciences, 1979
Japan, Saitama, Sugito	Spinach	Cs-137	0.9	--	Net	--	1966, December		National Institute of Agricultural Sciences, 1967
Japan, Nagoshima, Nagoshima	Spinach	Cs-137	0.9	--	Net	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Aichi, Aikano	Spinach	Sr-90	0.9	--	Net	--	1971, April		National Institute of Radiological Sciences, 1972
Japan, Aichi, Sanago	Spinach	Sr-90	0.9	--	Net	--	1967, April		National Institute of Radiological Sciences, 1968
Japan, Hokkaido, Asahikawa	Spinach	Sr-90	0.9	--	Net	--	1970, June		National Institute of Radiological Sciences, 1971
Japan, Shizuoka, Fujieda	Spinach	Sr-90	0.9	--	Net	--	1970, November		National Institute of Radiological Sciences, 1971
Japan, Wakayama, Iwado	Spinach	Sr-90	0.9	--	Net	--	1963, January		National Institute of Agricultural Sciences, 1964
Japan, Osaka, Kuroyan	Spinach	Cs-137	0.9	--	Net	--	1963, May		National Institute of Agricultural Sciences, 1964
Japan, Fukuoka, Fukuoka	Spinach	Sr-90	0.8	--	Net	--	1979, November		National Institute of Radiological Sciences, 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Yamaguchi, Otsu-gun	Spinach	Sr-90	0.8	--	Net	--	1981, February		National Institute of Radiological Sciences, 1981
Japan, Niigaki, Furukawa	Spinach	Sr-90	0.7	--	Net	--	1974, May		National Institute of Radiological Sciences, 1976
	Spinach	Cs-137	0.7	--	Net	--	1974, May		National Institute of Radiological Sciences, 1976
Japan, Hiroshima, Futatabi	Spinach	Sr-90	0.7	--	Net	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Kanagawa, Kawasaki	Spinach	Sr-90	0.7	--	Net	--	1961, December		National Institute of Agricultural Sciences, 1964
Japan, Kochi, Takahashi-gun	Spinach	Sr-90	0.6	--	Net	--	1980, January		National Institute of Radiological Sciences, 1980
Japan, Fukushima, Okuma	Spinach	Cs-137	0.6	--	Net	--	1971, April		National Institute of Radiological Sciences, 1972
Japan, Fukushima, Futaba	Spinach	Sr-90	0.6	--	Net	--	1971, November		National Institute of Radiological Sciences, 1972
Japan, Kanagawa, Odawara	Spinach	Cs-137	0.6	--	Net	--	1975, January		National Institute of Radiological Sciences, 1976
Japan, Shimizu, Gotohba	Spinach	Sr-90	0.6	--	Net	--	1978, November		National Institute of Radiological Sciences, 1979
Japan, Fukui, Nibana	Spinach	Cs-137	0.6	--	Net	--	1974, November		National Institute of Radiological Sciences, 1976
Japan, Saitama, Iwaki	Spinach	Sr-90	0.6	--	Net	--	1969, March		National Institute of Radiological Sciences, 1969
Japan, Hokkaido, Asahikawa	Spinach	Cs-137	0.6	--	Net	--	1970, June		National Institute of Radiological Sciences, 1971
Japan, Hokkaido, Obihiro	Spinach	Sr-90	0.6	--	Net	--	1964, May		National Institute of Agricultural Sciences, 1964
Japan, Tottori, Tottori	Spinach	Sr-90	0.5	--	Net	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Hokkaido, Ishikari-gun	Spinach	Sr-90	0.5	--	Net	--	1979, September		National Institute of Radiological Sciences, 1980
Japan, Yamagata, Yamagata	Spinach	Sr-90	0.5	--	Net	--	1980, November		National Institute of Radiological Sciences, 1980
Japan, Aichi, Toyota	Spinach	Sr-90	0.5	--	Net	--	1971, April		National Institute of Radiological Sciences, 1972

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Units Analyzed	Date	Country	Reference
Japan, Aichi, Ambae	Spinach	Cs-137	0.5	—	Net	1971, April		National Institute of Radiological Sciences, 1972
Japan, Shizuoka, Fuji	Spinach	Sr-90	0.5	—	Net	1971, November		National Institute of Radiological Sciences, 1972
Japan, Ibaraki, Mito	Spinach	Sr-90	0.5	—	Net	1974, December		National Institute of Radiological Sciences, 1976
Japan, Saitama, Itohi	Spinach	Cs-137	0.5	—	Net	1969, March		National Institute of Radiological Sciences, 1969
Japan, Fukuoka, Kasuga-ku	Spinach	Sr-90	0.5	—	Net	1980, November		National Institute of Radiological Sciences, 1981
Japan, Fukuoka, Shio	Spinach	Sr-90	0.5	—	Net	1970, June		National Institute of Radiological Sciences, 1971
Japan, Osaka, Ikeda	Spinach	Sr-90	0.5	—	Net	1963, May		National Institute of Agricultural Sciences, 1966
Japan, Osaka, Kuroyama	Spinach	Sr-90	0.5	—	Net	1963, May		National Institute of Agricultural Sciences, 1966
Japan, Shizuoka, Ota	Spinach	Sr-90	0.4	—	Net	1979, July		National Institute of Radiological Sciences, 1980
Japan, Miyagi, Sendai	Spinach	Sr-90	0.4	—	Net	1980, April		National Institute of Radiological Sciences, 1980
Japan, Kyoto, Kyoto	Spinach	Sr-90	0.4	—	Net	1980, November		National Institute of Radiological Sciences, 1981
Japan, Fuku, Furoga	Spinach	Cs-137	0.4	—	Net	1971, May		National Institute of Radiological Sciences, 1972
Japan, Mie, Atsuta	Spinach	Cs-137	0.4	—	Net	1971, June		National Institute of Radiological Sciences, 1972
Japan, Kanagawa, Maeda	Spinach	Sr-90	0.4	—	Net	1971, June		National Institute of Radiological Sciences, 1972
Japan, Ibaraki, Tokai	Spinach	Sr-90	0.4	—	Net	1971, November		National Institute of Radiological Sciences, 1972
Japan, Ibaraki, Mito	Spinach	Cs-137	0.4	—	Net	1974, December		National Institute of Radiological Sciences, 1976
Japan, Nagano, Saku	Spinach	Sr-90	0.4	—	Net	1974, December		National Institute of Radiological Sciences, 1976
						1976, November		National Institute of Radiological Sciences, 1976

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

Geographical Origin	Food Crop	Isotope Measured	Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Units Analyzed	Date	Comment	Reference
Japan, Miyagi, Shiroishi	Spinach	Sr-90	0.4	--	Net	1973, May		National Institute of Radiological Sciences, 1976
Japan, Fukuoka, Nishama	Spinach	Sr-90	0.8	--	Net	1974, November		National Institute of Radiological Sciences, 1976
Japan, Saitama, Miya	Spinach	Cs-137	0.8	--	Net	1965, March		National Institute of Radiological Sciences, 1969
Japan, Tottori, Sakaijoshi	Spinach	Sr-90	0.8	--	Net	1965, November		National Institute of Radiological Sciences, 1981
Japan, Hokkaido, Sapporo	Spinach	Sr-90	0.4	--	Net	1975, June		National Institute of Radiological Sciences, 1977
Japan, Shizuoka, Fujieda	Spinach	Cs-137	0.4	--	Net	1970, November		National Institute of Radiological Sciences, 1971
Japan, Hiroshima, Kabe	Spinach	Sr-90	0.8	--	Net	1965, May		National Institute of Radiological Sciences, 1966
Japan, Nagano, Nagano	Spinach	Sr-90	0.3	--	Net	1974, November		National Institute of Radiological Sciences, 1980
Japan, Shizuoka, Shizuoka	Spinach	Sr-90	0.3	--	Net	1979, November		National Institute of Radiological Sciences, 1980
Japan, Tokyo, Shibuya	Spinach	Sr-90	0.3	--	Net	1980, December		National Institute of Radiological Sciences, 1981
Japan, Ibaraki, Totai	Spinach	Sr-90	0.3	--	Net	1978, December		National Institute of Radiological Sciences, 1976
Japan, Aichi, Sango	Spinach	Cs-137	0.3	--	Net	1967, April		National Institute of Radiological Sciences, 1968
Japan, Fukuoka, Shino	Spinach	Cs-137	0.3	--	Net	1970, June		National Institute of Radiological Sciences, 1971
Japan, Okayama, Okayama	Spinach	Sr-90	0.3	--	Net	1963, January		National Institute of Radiological Sciences, 1968
Japan, Niigata, Biigata	Spinach	Sr-90	0.3	--	Net	1961, June		National Institute of Radiological Sciences, 1981
Japan, Aichi, Toyohashi	Spinach	Sr-90	0.2	--	Net	1978, June		National Institute of Radiological Sciences, 1979
Japan, Fukuoka, Fukuoka	Spinach	Cs-137	0.2	--	Net	1979, November		National Institute of Radiological Sciences, 1980
Japan, Osaka, Osaka	Spinach	Sr-90	0.2	--	Net	1981, November		National Institute of Radiological Sciences, 1981

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	STATUS	SAMPLES ANALYZED	DATE	COUNTRY	REFERENCE
Japan, Hiroshima, Hiroshima	Spinach	Sr-90	0.2	--	Not	--	1981, February		National Institute of Radiological Sciences, 1981
Japan, Hyogo, Atsugi	Spinach	Sr-90	0.2	--	Not	--	1980, January		National Institute of Radiological Sciences, 1980
Japan, Fukushima, Futaba	Spinach	Cs-137	0.2	--	Not	--	1971, November		National Institute of Radiological Sciences, 1972
Japan, Shizuoka, Fuji	Spinach	Cs-137	0.2	--	Not	--	1971, November		National Institute of Radiological Sciences, 1972
Japan, Shizuoka, Gotenba	Spinach	Cs-137	0.2	--	Not	--	1979, November		National Institute of Radiological Sciences, 1979
Japan, Tokyo, Shinjuku	Spinach	Cs-137	0.2	--	Not	--	1980, December		National Institute of Radiological Sciences, 1981
Japan, Nagasaki, Nagasaki	Spinach	Sr-90	0.2	--	Not	--	1981, January		National Institute of Radiological Sciences, 1981
Japan, Kanagawa, Yokohama	Spinach	Sr-90	0.2	--	Not	--	1981, February		National Institute of Radiological Sciences, 1981
Japan, Tottori, Kurayoshi	Spinach	Cs-137	0.2	--	Not	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Hokkaido, Sapporo	Spinach	Cs-137	0.2	--	Not	--	1970, June		National Institute of Radiological Sciences, 1971
Japan, Niigata, Niigata	Spinach	Cs-137	0.2	--	Not	--	1981, June		National Institute of Radiological Sciences, 1981
Japan, Aichi, Toyokami	Spinach	Cs-137	<0.1	--	Not	--	1978, June		National Institute of Radiological Sciences, 1979
Japan, Nagano, Nagano	Spinach	Cs-137	<0.1	--	Not	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Shizuoka, Shizuoka	Spinach	Cs-137	<0.1	--	Not	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Tottori, Tottori	Spinach	Cs-137	0.1	--	Not	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Nagasaki, Nagasaki	Spinach	Sr-90	0.1	--	Not	--	1979, November		National Institute of Radiological Sciences, 1980
Japan, Okinawa, Matsuno	Spinach	Cs-137	<0.1	--	Not	--	1979, February		National Institute of Radiological Sciences, 1980
Japan, Shikano, Ota	Spinach	Cs-137	0.1	--	Not	--	1979, July		National Institute of Radiological Sciences, 1980

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	DOSIS	NUMBER ANALYZED	DATE	REFERENCE
Japan, Hokkaido, Ishikari-gun	Spinach	Cs-137	<0.1	--	Net	--	1979, September	National Institute of Radiological Sciences, 1980
Japan, Miyagi, Sendai	Spinach	Cs-137	<0.1	--	Net	--	1980, April	National Institute of Radiological Sciences, 1980
Japan, Yamagata, Tanabe-gun	Spinach	Cs-137	<0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1980
Japan, Okayama, Okayama	Spinach	Sr-90	0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1980
	Spinach	Cs-137	<0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1980
Japan, Ehime, Matsuyama	Spinach	Sr-90	<0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1980
	Spinach	Cs-137	<0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1980
Japan, Saga, Saga	Spinach	Sr-90	<0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1980
	Spinach	Cs-137	<0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1980
Japan, Ishikawa, Kanazawa	Spinach	Sr-90	<0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1981
	Spinach	Cs-137	<0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1981
Japan, Kyoto, Kyoto	Spinach	Cs-137	<0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1981
Japan, Osaka, Osaka	Spinach	Cs-137	0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1981
Japan, Fukuoka, Kasuga-gun	Spinach	Cs-137	<0.1	--	Net	--	1980, November	National Institute of Radiological Sciences, 1981
Japan, Kochi, Kochi	Spinach	Sr-90	<0.1	--	Net	--	1981, January	National Institute of Radiological Sciences, 1981
	Spinach	Cs-137	<0.1	--	Net	--	1981, January	National Institute of Radiological Sciences, 1981
Japan, Hiroshima, Hiroshima	Spinach	Cs-137	0.1	--	Net	--	1981, February	National Institute of Radiological Sciences, 1981
Japan, Yamaguchi, Ono-gun	Spinach	Cs-137	<0.1	--	Net	--	1981, February	National Institute of Radiological Sciences, 1981

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotopes Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Number Analyzed	Date	Country	Reference
Japan, Hyogo, Aburahi	Spinach	Cs-137	<0.1	--	Wet	--	1980, January		National Institute of Radiological Sciences, 1980
Japan, Kochi, Takeda-gun	Spinach	Cs-137	<0.1	--	Wet	--	1980, January		National Institute of Radiological Sciences, 1980
Japan, Aichi, Toyota	Spinach	Cs-137	0.1	--	Wet	--	1971, April		National Institute of Radiological Sciences, 1972
Japan, Kanagawa, Niara	Spinach	Cs-137	0.1	--	Wet	--	1971, June		National Institute of Radiological Sciences, 1972
Japan, Ibaraki, Tokai-mura	Spinach	Cs-137	<0.1	--	Wet	--	1971, November		National Institute of Radiological Sciences, 1972
Japan, Kanagawa, Odawara	Spinach	Sr-90	0.1	--	Wet	--	1975, January		National Institute of Radiological Sciences, 1976
Japan, Shimane, Ohta	Spinach	Cs-137	0.1	--	Wet	--	1978, August		National Institute of Radiological Sciences, 1979
Japan, Nagano, Sake	Spinach	Cs-137	<0.1	--	Wet	--	1978, November		National Institute of Radiological Sciences, 1979
Japan, Miyagi, Shiroishi	Spinach	Cs-137	0.1	--	Wet	--	1974, May		National Institute of Radiological Sciences, 1976
Japan, Okinawa, Nakafusa-gun	Spinach	Sr-90	0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1981
	Spinach	Cs-137	<0.1	--	Wet	--	1980, December		National Institute of Radiological Sciences, 1981
Japan, Nagasaki, Nagasaki	Spinach	Cs-137	<0.1	--	Wet	--	1981, January		National Institute of Radiological Sciences, 1981
Japan, Fukushima, Fukushima	Spinach	Sr-90	<0.1	--	Wet	--	1984, November		National Institute of Radiological Sciences, 1981
	Spinach	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Spinach	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Fukuoka, Fukuoka	Spinach	Cs-137	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
	Spinach	Sr-90	<0.1	--	Wet	--	1980, November		National Institute of Radiological Sciences, 1981
Japan, Aichi, Anan-gun	Spinach	Sr-90	0.1	--	Wet	--	1981, May		National Institute of Radiological Sciences, 1981
	Spinach	Cs-137	0.1	--	Wet	--	1981, May		National Institute of Radiological Sciences, 1981

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYSED	DATE	COMMENT	REFERENCE
Japan, Okinawa, Katsuren	Spinach	Sr-90	0.0	--	Wet	--	1979, February		National Institute of Radiological Sciences, 1980
Japan, Kanagawa, Yokohama	Spinach	Cs-137	0.0	--	Wet	--	1981, February		National Institute of Radiological Sciences, 1981
Japan, Aomori, Aomori	Tai-na	Cs-137	3.8	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
	Tai-na	Sr-90	2.3	--	Wet	--	1962, May		National Institute of Agricultural Sciences, 1964
Japan, Chiba	Turnip	Cs-137	1.4	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1964
	Tomato	Sr-90	0.3	--	Wet	--	1962, July		National Institute of Agricultural Sciences, 1964
Japan, Akita, Tomo	Turnip	Cs-137	3.4	--	Wet	--	1962, May	Leaf	National Institute of Agricultural Sciences, 1964
Japan, Hiroshima, Fukuyama	Turnip	Cs-137	2.0	--	Wet	--	1962, November		National Institute of Agricultural Sciences, 1964
Japan, Akita, Tomo	Turnip	Sr-90	1.8	--	Wet	--	1962, May	Leaf	National Institute of Agricultural Sciences, 1964
Japan, Tokyo, Setagaya	Turnip	Cs-137	1.4	--	Wet	--	1962, October		National Institute of Agricultural Sciences, 1964
Japan, Hiroshima, Fukuyama	Turnip	Sr-90	1.3	--	Wet	--	1962, November		National Institute of Agricultural Sciences, 1964
Japan, Tokyo, Setagaya	Turnip	Sr-90	0.7	--	Wet	--	1962, October		National Institute of Agricultural Sciences, 1964
Japan, Mie, Tsu	Wheat	Sr-90	28	--	Wet	--	1963, June		National Institute of Agricultural Sciences, 1965
Japan, Tottori, Tottori	Wheat	Sr-90	16	--	Wet	--	1963, June		National Institute of Agricultural Sciences, 1965
Japan	Wheat	Sr-90	12	--	Wet	--	1963	Estimated from graph	National Institute of Radiological Sciences, 1971
	Wheat	Sr-90	8.3	--	Wet	--	1964	Estimated from graph	National Institute of Radiological Sciences, 1971
Japan, Saitama, Kousou	Wheat	Sr-90	7.9	--	Wet	--	1964, June		National Institute of Agricultural Sciences, 1965
Japan, Niigata, Takada	Wheat	Sr-90	5.5	--	Wet	--	1964, June		National Institute of Agricultural Sciences, 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SAMPLES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASE	SOURCE ANALYSES	DATE	COMMENT	REFERENCE
Japan	Wheat	3r-90	4.3	--	Net	--	1962	Estimated from graph	National Institute of Radiological Sciences, 1971
	Wheat	3r-90	2.6	--	Net	--	1959	Estimated from graph	National Institute of Radiological Sciences, 1971
	Wheat	3r-90	2.4	--	Net	--	1965	Estimated from graph	National Institute of Radiological Sciences, 1971
	Wheat	3r-90	2.2	--	Net	--	1966	Estimated from graph	National Institute of Radiological Sciences, 1971
Japan, Akita, Akita	Wheat	3r-90	1.9	--	Net	--	1969, July		National Institute of Radiological Sciences, 1971
Japan, Tokyo, Tachikawa	Wheat	3r-90	1.5	--	Net	--	1970, June		National Institute of Radiological Sciences, 1971
Japan, Niigata, Nagaoka	Wheat	3r-90	1.4	--	Net	--	1970, July		National Institute of Radiological Sciences, 1971
	Wheat	3r-90	1.3	--	Net	--	1969, June		National Institute of Radiological Sciences, 1971
Japan, Osaka, Osaka	Wheat	3r-90	1.2	--	Net	--	1970, June		National Institute of Radiological Sciences, 1971
Japan, Iwate, Morioka	Wheat	3r-90	1.2	--	Net	--	1969, July		National Institute of Radiological Sciences, 1971
Japan	Wheat	3r-90	1.1	--	Net	--	1957	Estimated from graph	National Institute of Radiological Sciences, 1971
Japan, Okayama, Okayama	Wheat	3r-90	1.1	--	Net	--	1970, June		National Institute of Radiological Sciences, 1971
Japan, Fukuoka, Anagi	Wheat	3r-90	1.1	--	Net	--	1970, June		National Institute of Radiological Sciences, 1971
Japan, Ibaraki, Nito	Wheat	3r-90	1.0	--	Net	--	1969, July		National Institute of Radiological Sciences, 1971
Japan	Wheat	3r-90	0.9	--	Net	--	1958	Estimated from graph	National Institute of Radiological Sciences, 1971
	Wheat	3r-90	0.9	--	Net	--	1960	Estimated from graph	National Institute of Radiological Sciences, 1971
	Wheat	3r-90	0.9	--	Net	--	1961	Estimated from graph	National Institute of Radiological Sciences, 1971
Japan, Hokkaido, Sapporo	Wheat	3r-90	0.9	--	Net	--	1970, July		National Institute of Radiological Sciences, 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Japan, Hokkaido, Sapporo	Wheat	Sr-90	0.9	--	Wet	--	1965, August		National Institute of Radiological Sciences, 1971
Japan, Osaka, Osaka	Wheat	Sr-90	0.9	--	Wet	--	1969, June		National Institute of Radiological Sciences, 1971
Japan	Wheat	Sr-90	0.9	--	Wet	--	1967	Estimated from graph	National Institute of Radiological Sciences, 1971
	Wheat	Sr-90	0.9	--	Wet	--	1968	Estimated from graph	National Institute of Radiological Sciences, 1971
	Wheat	Sr-90	0.9	--	Wet	--	1969	Estimated from graph	National Institute of Radiological Sciences, 1971
	Wheat	Sr-90	0.9	--	Wet	--	1970	Estimated from graph	National Institute of Radiological Sciences, 1971
Japan, Ibaraki, Rito	Wheat	Sr-90	0.8	--	Wet	--	1970, June		National Institute of Radiological Sciences, 1971
Japan, Fukuoka, Inagi	Wheat	Sr-90	0.8	--	Wet	--	1969, June		National Institute of Radiological Sciences, 1971
Japan, Iwate, Morioka	Wheat	Sr-90	0.7	--	Wet	--	1970, July		National Institute of Radiological Sciences, 1971
Japan, Saitama, Kinsoto	Wheat	Sr-90	0.6	--	Wet	--	1970, June		National Institute of Radiological Sciences, 1971
Japan, Miyagi, Iwanuma	Wheat	Sr-90	0.6	--	Wet	--	1969, June		National Institute of Radiological Sciences, 1971
Japan, Yamaguchi, Kofu	Wheat	Sr-90	0.5	--	Wet	--	1970, June		National Institute of Radiological Sciences, 1971
Japan, Saitama, Kitamoto	Wheat	Sr-90	0.5	--	Wet	--	1969, July		National Institute of Radiological Sciences, 1971
Japan, Tokyo, Tachikawa	Wheat	Sr-90	0.5	--	Wet	--	1969, June		National Institute of Radiological Sciences, 1971
Japan, Yamaguchi, Kofu	Wheat	Sr-90	0.5	--	Wet	--	1969, June		National Institute of Radiological Sciences, 1971
Japan, Okayama, Okayama	Wheat	Sr-90	0.5	--	Wet	--	1969, June		National Institute of Radiological Sciences, 1971
Japan, Miyagi, Iwanuma	Wheat	Sr-90	0.4	--	Wet	--	1970, July		National Institute of Radiological Sciences, 1971
Mariana Islands, Guam, Dededo	Breadfruit	K-40	670	--	Dry	--	1975, November		Nelson, V.L., 1979

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Mariana Islands, Guam, Morizo	Breadfruit	K-40	590	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Inarajan	Breadfruit	K-40	880	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Dededo	Breadfruit	Cs-137	13	--	Dry	--	1975, November		Nelson, V.A., 1979
	Breadfruit	Sr-90	<4.4	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Morizo	Breadfruit	Sr-90	<4.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Inarajan	Breadfruit	Sr-90	<2.6	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Dededo	Breadfruit	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Cocconut	K-40	180	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Mariana Islands, Guam, Agaña	Cocconut	K-40	110	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Mariana Islands, Guam, Dededo	Cocconut	K-40	30	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Cocconut	Cs-137	10	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Mariana Islands, Guam, Agaña	Cocconut	Cs-137	7.4	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
	Cocconut	Sr-90	<2.6	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Mariana Islands, Guam, Dededo	Cocconut	Sr-90	<2.2	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Mariana Islands, Guam, Agaña	Cocconut	Pu-239,240	<0.1	--	Dry	--	1975, November	Heat	Nelson, V.A., 1979
Mariana Islands, Guam, Agat	Pandanus	K-40	810	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Dededo	Pandanus	Cs-137	670	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Agaña	Pandanus	K-40	630	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Dededo	Pandanus	K-40	230	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Agaña	Pandanus	Cs-137	41	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Dededo	Pandanus	Sr-90	<3.7	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Agat	Pandanus	Sr-90	<20	--	Dry	--	1975, November		Nelson, V.A., 1979
Mariana Islands, Guam, Agaña	Pandanus	Sr-90	<8.5	--	Dry	--	1975, November		Nelson, V.A., 1979
	Pandanus	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

Geographical Origin	Food Crop	Isotope Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Number Analyzed	Date	Comment	Reference
Mariana Islands, Guam, Agaña	Pandanus	Pu-239, 240	<0.1	--	Dry	--	1976, November		Nelson, V.A., 1979
Mariana Islands, Guam, Delgado	Pandanus	Pu-239, 240	<0.1	--	Dry	--	1976, November		Nelson, V.A., 1979
Mariana Islands, Guam, Agaña	Papaya	K-40	1600	--	Dry	--	1976, November		Nelson, V.A., 1979
Mariana Islands, Guam, Inarajan	Papaya	K-40	1500	--	Dry	--	1976, November		Nelson, V.A., 1979
Mariana Islands, Guam, Agaña	Papaya	St-90	526	--	Dry	--	1976, November		Nelson, V.A., 1979
Mariana Islands, Guam, Inarajan	Papaya	Cs-137	15	--	Dry	--	1976, November		Nelson, V.A., 1979
Mariana Islands, Guam, Inarajan	Papaya	Yt-90	<1.6	--	Dry	--	1976, November		Nelson, V.A., 1979
Mariana Islands, Guam, Delgado	Papaya	Pu-239, 240	<0.1	--	Dry	--	1976, November		Nelson, V.A., 1979
Mariana Islands, Guam, Delgado	Taro	K-40	410	--	Dry	--	1976, November	Root	Nelson, V.A., 1979
Mariana Islands, Guam, Delgado	Taro	St-90	66.7	--	Dry	--	1976, November	Root	Nelson, V.A., 1979
Mariana Islands, Guam, Delgado	Taro	Cs-137	1.9	--	Dry	--	1976, November	Root	Nelson, V.A., 1979
Mariana Islands, Guam, Delgado	Taro	Pu-239, 240	<0.1	--	Dry	--	1976, November	Root	Nelson, V.A., 1979
Marshall Islands, Rongelap-Rongerap	Arrowroot	Cs-137	1500	--	Dry	--	1974, April 6	Sample V-1019	Greenhouse, E.A., et al., 1977
Marshall Islands, Rongelap-Rongerap	Arrowroot	Cs-137	760	--	Dry	--	1974, April 6	Sample V-1018	Greenhouse, E.A., et al., 1977
Marshall Islands, Bikini-Bikini	Banana	Cs-137	1100	--	Dry	--	1975, April 17	Sample V-53	Greenhouse, E.A., et al., 1977
Marshall Islands, Bikini-Bikini	Banana	K-40	630	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Bikini-Bikini	Banana	K-40	630	--	Dry	--	1975, April 17	Sample V-53	Greenhouse, E.A., et al., 1977
Marshall Islands, Bikini-Bikini	Banana	St-90	<1.9	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Bikini-Bikini	Banana	Cs-137	1.9	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Bikini-Bikini	Banana	Pu-239, 240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Bikini-Bikini	Breadfruit	Cs-137	7100	--	Dry	--	1976, April 6	Sample V-3	Greenhouse, E.A., et al., 1977
Marshall Islands, Bikini-Bikini	Breadfruit	Cs-137	5900	--	Dry	--	1976, April 6	Sample V-4, immature	Greenhouse, E.A., et al., 1977
Marshall Islands, Bikini-Bikini	Breadfruit	Cs-137	3200	--	Dry	--	1976, April 5	Sample V-5, immature	Greenhouse, E.A., et al., 1977
Marshall Islands, Rongelap-Rongerap	Breadfruit	Cs-137	1800	--	Dry	--	1976, April 6	Sample V-99, skin and core	Greenhouse, E.A., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Marshall Islands, Rongelap-Rongelap	Breadfruit	Cs-137	1500	--	Dry	--	1974, April 4	Sample V-100, meat	Greenhouse, H.A., et al., 1977
	Breadfruit	Cs-137	1300	--	Dry	--	1976, April 3	Sample V-27	Greenhouse, H.A., et al., 1977
	Breadfruit	Cs-137	870	--	Dry	--	1974, April 4	Sample V-97, skin and core	Greenhouse, H.A., et al., 1977
	Breadfruit	Cs-137	850	--	Dry	--	1974, April 5	Sample V-96, meat	Greenhouse, H.A., et al., 1977
	Breadfruit	K-40	760	--	Dry	--	1974, April 5	Sample V-96, meat	Greenhouse, H.A., et al., 1977
	Breadfruit	Cs-137	730	--	Dry	--	1974, April 4	Sample V-98, meat	Greenhouse, H.A., et al., 1977
	Breadfruit	Cs-137	710	--	Dry	--	1974, April 4	Sample V-95, skin and core	Greenhouse, H.A., et al., 1977
	Breadfruit	K-40	670	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Majuro Atoll, Laura Village	Breadfruit	K-40	650	--	Dry	--	1976, April 6	Sample V-4, innature	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Breadfruit	K-40	500	--	Dry	--	1976, April 6	Sample V-6, innature	Greenhouse, H.A., et al., 1977
	Breadfruit	K-40	480	--	Dry	--	1974, April 5	Sample V-93, edible portion	Greenhouse, H.A., et al., 1977
Marshall Islands, Ujae-Ujae	Breadfruit	K-40	400	--	Dry	--	1974, April 4	Sample V-99, skin and core	Greenhouse, H.A., et al., 1977
Marshall Islands, Rongelap-Rongelap	Breadfruit	K-40	390	--	Dry	--	1976, April 3	Sample V-27	Greenhouse, H.A., et al., 1977
	Breadfruit	K-40	380	--	Dry	--	1974, April 4	Sample V-97, skin and core	Greenhouse, H.A., et al., 1977
	Breadfruit	K-40	360	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Majuro Atoll, Eastern Gateway	Breadfruit	Cs-137	350	--	Dry	--	1974, April 5	Sample V-93, edible portion	Greenhouse, H.A., et al., 1977
Marshall Islands, Ujae-Ujae	Breadfruit	K-40	350	--	Dry	--	1975, April 19	Sample V-108, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Rongelap-Rongelap	Breadfruit	K-40	250	--	Dry	--	1974, April 4	Sample V-98, meat	Greenhouse, H.A., et al., 1977
	Breadfruit	K-40	240	--	Dry	--	1974, April 4	Sample V-100, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Majuro Atoll, Eastern Gateway	Breadfruit	Cs-137	56	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Ujae-Ujae	Breadfruit	Cs-137	39	--	Dry	--	1975, April 19	Sample V-108, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Majuro Atoll, Laura Village	Breadfruit	Cs-137	27	--	Dry	--	1975, November		Nelson, V.A., 1979
	Breadfruit	Sr-90	<7.0	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Majuro Atoll, Eastern Gateway	Breadfruit	Sr-90	2.6	--	Dry	--	1975, November		Nelson, V.A., 1979

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope Analyzed	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Number Analyzed	Date	Comment	Reference
Marshall Islands, Majuro Atoll, Lae Village	Breadfruit	Pu-239, 240	<0.1	--	Dry	--	1975, November		Nelson, F.A., 1979
Marshall Islands, Bikini Atoll	Cocconut	Cs-137	10000	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
Marshall Islands, Bikini-Bikini	Cocconut	Cs-137	8600	--	Dry	--	1975, April 16	Sample V-1208	Greenhouse, M.A., et al., 1977
Marshall Islands, Bikini Atoll	Cocconut	Cs-137	5400	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Cocconut	Cs-137	4100	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Cocconut	Cs-137	4100	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Cocconut	Cs-137	3700	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
	Cocconut	Cs-137	3700	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Cocconut	Cs-137	3400	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Cocconut	Cs-137	2900	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
Marshall Islands, Majuro Atoll, Site 17.3	Cocconut	K-40	2700	--	Dry	--	1975, November	Milk	Nelson, F.A., 1979
Marshall Islands, Majuro Atoll, Eastern Gateway	Cocconut	K-40	1800	--	Dry	--	1975, November	Milk	Nelson, F.A., 1979
Marshall Islands, Rongelap-Rongelap	Cocconut	K-40	1400	--	Dry	--	1975, April 12	Sample V-116, meat	Greenhouse, M.A., et al., 1977
	Cocconut	Cs-137	1800	--	Dry	--	1975, April 12	Sample V-116, meat	Greenhouse, M.A., et al., 1977
Marshall Islands, Majuro Atoll, Lae Village	Cocconut	K-40	1200	--	Dry	--	1975, November	Milk	Nelson, F.A., 1979
Marshall Islands, Bikini-Bikini	Cocconut	Cs-137	1400	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
Marshall Islands, Bikini-Bikini	Cocconut	K-40	970	--	Dry	--	1975, April 16	Sample V-1208, meat	Greenhouse, M.A., et al., 1977
Marshall Islands, Rongelap-Rongelap	Cocconut	Cs-137	590	--	Dry	--	1974, April 4	Sample V-70	Greenhouse, M.A., et al., 1977
Marshall Islands, Bikini Atoll	Cocconut	K-40	560	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
Marshall Islands, Rongelap-Rongelap	Cocconut	K-40	540	--	Dry	--	1975, April 12	Sample V-118, meat	Greenhouse, M.A., et al., 1977
Marshall Islands, Majuro Atoll, Site 17.3	Cocconut	K-40	480	--	Dry	--	1975, November	Milk	Nelson, F.A., 1979
Marshall Islands, Rongelap-Rongelap	Cocconut	K-40	470	--	Dry	--	1975, April 12	Sample V-122, meat	Greenhouse, M.A., et al., 1977
Marshall Islands, Bikini Atoll	Cocconut	Cs-137	480	--	Dry	--	1975, April 12	Sample V-122, meat	Greenhouse, M.A., et al., 1977
Marshall Islands, Bikini Atoll	Cocconut	K-40	410	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975

Table 2. Naturally Occurring radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	RAW RADIOACTIVITY (Bq kg ⁻¹)	SEASON OF RADIOACTIVITY (Bq kg ⁻¹)	STATUS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Marshall Islands, Bikini-Bikini	Cocconut	Cs-137	400	--	Dry	--	1975, April 16	Sample V-1204, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Rongerik-Rongerik	Cocconut	K-40	500	--	Dry	--	1975, April 12	Sample V-110, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Rongerik-Rongerik	Cocconut	Cs-137	320	--	Dry	--	1975, April 12	Sample V-116, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Majuro Atoll, Leare Village	Cocconut	K-40	270	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
Marshall Islands, Ujae-Ujae	Cocconut	K-40	250	--	Dry	--	1975, April 12	Sample V-118, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Majuro Atoll, Eastern Gateway	Cocconut	K-40	240	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
	Cocconut	Cs-137	220	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
Marshall Islands, Ujae-Ujae	Cocconut	Cs-137	190	--	Dry	--	1975, April 12	Sample V-118, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Rongerik-Rongerik	Cocconut	K-40	180	--	Dry	--	1974, April 4	Sample V-70, Copra	Greenhouse, H.A., et al., 1977
	Cocconut	K-40	180	--	Dry	--	1974, April 4	Sample V-70, Copra	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini Atoll	Cocconut	K-40	160	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
	Cocconut	K-40	160	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
Marshall Islands, Majuro Atoll, Mile 17.3	Cocconut	Cs-137	150	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
Marshall Islands, Not U-Boats	Cocconut	K-40	140	--	Dry	--	1975, April 19	Sample V-112, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini Atoll	Cocconut	K-40	140	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
Marshall Islands, Bikini-Bikini	Cocconut	K-40	120	--	Dry	--	1975, April 16	Sample V-1204, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Rongerik-Rongerik	Cocconut	K-40	120	--	Dry	--	1975, April 12	Sample V-116, milk	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini Atoll	Cocconut	K-40	110	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
Marshall Islands, Rongerik-Rongerik	Cocconut	K-40	95	--	Dry	--	1975, April 12	Sample V-109, milk	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini Atoll	Cocconut	K-40	93	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
Marshall Islands, Rongerik-Rongerik	Cocconut	K-40	81	--	Dry	--	1975, April 12	Sample V-115, milk	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini Atoll	Cocconut	K-40	78	--	Dry	--	1971, November	Milk	Lynch, O.D., Jr., et al., 1975
Marshall Islands, Rongerik-Rongerik	Cocconut	Cs-137	66	--	Dry	--	1975, April 12	Sample V-116, milk	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini Atoll	Cocconut	K-40	59	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Marshall Islands, Wotho-Wotho	Cocconut	Cs-137	81	--	Dry	--	1975, April 19	Sample V-112, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Jalairok-Bongelap	Cocconut	Cs-137	17	--	Dry	--	1975, April 12	Sample V-119, milk	Greenhouse, H.A., et al., 1977
Marshall Islands, Bongelap-Bongelap	Cocconut	Cs-137	17	--	Dry	--	1975, April 12	Sample V-115, milk	Greenhouse, H.A., et al., 1977
Marshall Islands, Majuro Atoll, Mile 17.3	Cocconut	Cs-137	36	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
Marshall Islands, Bikini Atoll	Cocconut	Sr-90	33	--	Dry	--	1971, November	Meat	Lynch, O.D., Jr., et al., 1975
Marshall Islands, Majuro Atoll, Eastern Gateway	Cocconut	Sr-90	<28	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
	Cocconut	Cs-137	27	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
Marshall Islands, Majuro Atoll, Mile 17.3	Cocconut	Sr-90	<23	--	Dry	--	1975, November	Milk	Nelson, V.A., 1979
Marshall Islands, Majuro Atoll, Laura Village	Cocconut	Cs-137	10	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
Marshall Islands, Bikini Atoll	Cocconut	Sr-90	<0.1	--	Dry	--	1971, November		Lynch, O.D., Jr., et al., 1975
Marshall Islands, Rigoj-Kwajalein	Cocconut	Cs-137	5.0	--	Dry	--	1975, April 12	Sample V-110, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Majuro Atoll, Laura Village	Cocconut	Pu-239, 240	8.8	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
Marshall Islands, Majuro Atoll, Eastern Gateway	Cocconut	Sr-90	<3.0	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
Marshall Islands, Majuro Atoll, Mile 17.3	Cocconut	Sr-90	<2.6	--	Dry	--	1975, November	Meat	Nelson, V.A., 1979
Marshall Islands, Rigoj-Kwajalein	Cocconut	Cs-137	<1.8	--	Dry	--	1975, April 12	Sample V-109, milk	Greenhouse, H.A., et al., 1977
Marshall Islands, Majuro Atoll, Laura Village	Cocconut	Sr-90	<0.7	--	Dry	--	1975, November	Copra	Nelson, V.A., 1979
Marshall Islands, Bikini Atoll	Lettuce	Cs-137	69000	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
	Lettuce	Sr-90	12000	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
	Lettuce	K-40	260	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
Marshall Islands, Bikini-Bikini	Homerschaedia	Cs-137	26000	--	Dry	--	1975, April 10	Sample V-23, leaves	Greenhouse, H.A., et al., 1977
	Homerschaedia	Cs-137	26000	--	Dry	--	1975, March 10	Sample V-76, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Nam-Bikini	Homerschaedia	Cs-137	22000	--	Dry	--	1976, April 7	Sample V-13	Greenhouse, H.A., et al., 1977
	Homerschaedia	Cs-137	21000	--	Dry	--	1976, April 7	Sample V-12	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Homerschaedia	Cs-137	20000	--	Dry	--	1975, April 10	Sample V-22, leaves	Greenhouse, H.A., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SOILS	LOWEST ANALYZED	DATE	COMMENT	REFERENCE
Marshall Islands, Bikini-Bikini	Nemeroschalidia	Cs-137	20000	--	Dry	--	1975, April 18	Sample V-10, leaves	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	K-40	20000	--	Dry	--	1976, April 12	Sample V-75, leaves	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	18000	--	Dry	--	1975, April 18	Sample V-21, leaves	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	17000	--	Dry	--	1975, April 18	Sample V-20, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nemeroschalidia	Cs-137	12000	--	Dry	--	1976, April 7	Sample V-11	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	9700	--	Dry	--	1976, April 7	Sample V-9	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Nemeroschalidia	Cs-137	8400	--	Dry	--	1975, April 18	Sample V-19, leaves	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	7600	--	Dry	--	1975, April 16	Sample V-24, leaves	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	4900	--	Dry	--	1976, April 12	Sample V-75, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nemeroschalidia	Cs-137	4100	--	Dry	--	1976, April 7	Sample V-16	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	3500	--	Dry	--	1976, April 7	Sample V-22	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	3500	--	Dry	--	1976, April 7	Sample V-21	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nemeroschalidia	Cs-137	3200	--	Dry	--	1975, April 14	Sample V-29, fruit	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	2900	--	Dry	--	1975, April 14	Sample V-26, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Nemeroschalidia	K-40	<2400	--	Dry	--	1975, April 18	Sample V-21, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nemeroschalidia	Cs-137	2100	--	Dry	--	1975, April 14	Sample V-27, leaves	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	2000	--	Dry	--	1975, April 14	Sample V-20, fruit	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	1800	--	Dry	--	1975, April 14	Sample V-25, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Nemeroschalidia	K-40	1300	--	Dry	--	1975, April 16	Sample V-24, leaves	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-137	1000	--	Dry	--	1975, April 18	Sample V-17, leaves	Greenhouse, H.A., et al., 1977
	Nemeroschalidia	Cs-60	960	--	Dry	--	1975, March 18	Sample V-76, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nemeroschalidia	Cs-137	910	--	Dry	--	1976, April 7	Sample V-16	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nemeroschalidia	K-40	910	--	Dry	--	1975, April 14	Sample V-29, fruit	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nemeroschalidia	Cs-137	840	--	Dry	--	1976, April 6	Sample V-78	Greenhouse, H.A., et al., 1977

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIC	SAMPLE ANALYZED	DATE	COMMENT	REFERENCE
Marshall Islands, Eniw-Bikini	Nesnerchaidia	K-40	670	--	Dry	--	1975, April 14	Sample V-27	Greenhouse, H.A., et al., 1977
	Nesnerchaidia	K-40	650	--	Dry	--	1975, April 14	Sample V-28, leaves	Greenhouse, H.A., et al., 1977
	Nesnerchaidia	K-40	630	--	Dry	--	1975, April 14	Sample V-28, fruit	Greenhouse, H.A., et al., 1977
Marshall Islands, Nan-Bikini	Nesnerchaidia	K-40	570	--	Dry	--	1976, April 7	Sample V-11	Greenhouse, H.A., et al., 1977
	Nesnerchaidia	K-40	560	--	Dry	--	1976, April 7	Sample V-22	Greenhouse, H.A., et al., 1977
	Nesnerchaidia	Co-60	470	--	Dry	--	1976, April 7	Sample V-12	Greenhouse, H.A., et al., 1977
	Nesnerchaidia	K-40	460	--	Dry	--	1976, April 7	Sample V-18	Greenhouse, H.A., et al., 1977
	Nesnerchaidia	K-40	410	--	Dry	--	1976, April 7	Sample V-16	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nesnerchaidia	K-40	370	--	Dry	--	1975, April 14	Sample V-25, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Nesnerchaidia	K-40	360	--	Dry	--	1975, April 18	Sample V-17, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Nan-Bikini	Nesnerchaidia	Co-60	330	--	Dry	--	1976, April 7	Sample V-9	Greenhouse, H.A., et al., 1977
	Nesnerchaidia	K-40	320	--	Dry	--	1976, April 7	Sample V-21	Greenhouse, H.A., et al., 1977
	Nesnerchaidia	K-40	310	--	Dry	--	1976, April 8	Sample V-25	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nesnerchaidia	K-40	280	--	Dry	--	1974, April 6	Sample V-78, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Nan-Bikini	Nesnerchaidia	Co-60	250	--	Dry	--	1976, April 7	Sample V-18	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nesnerchaidia	Co-60	250	--	Dry	--	1975, April 14	Sample V-25, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Nan-Bikini	Nesnerchaidia	Co-60	<76	--	Dry	--	1976, April 7	Sample V-16	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nesnerchaidia	Co-60	<17	--	Dry	--	1975, April 14	Sample V-29, fruit	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Nesnerchaidia	Co-60	<23	--	Dry	--	1975, April 18	Sample V-17, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Nesnerchaidia	Co-60	<17	--	Dry	--	1975, April 14	Sample V-16, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Pandanus	Cs-137	35000	--	Dry	--	1975, April 15	Sample V-30	Greenhouse, H.A., et al., 1977
	Pandanus	Cs-137	24000	--	Dry	--	1976, April 5	Sample V-31, immature fruit	Greenhouse, H.A., et al., 1977
	Pandanus	Cs-137	16000	--	Dry	--	1975, April 18	Sample V-35	Greenhouse, H.A., et al., 1977
	Pandanus	Cs-137	16000	--	Dry	--	1975, April 16	Sample V-36	Greenhouse, H.A., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SAMPLES MEASURED	MEAN RADIOACTIVITY (Dg kg ⁻¹)	SALES OF RADIOACTIVITY (Dg kg ⁻¹)	SALES	ANALYSIS	DATE	COMMENT	REFERENCE
Marshall Islands, Bikini-Bikini	Pandanus	Cs-137	14000	--	Dry	--	1974, April 13	Sample V-91A	Greenhouse, U.A., et al., 1977
	Pandanus	Cs-137	12000	--	Dry	--	1974, April 13	Sample V-89A, edible portion	Greenhouse, U.A., et al., 1977
Marshall Islands, Ujae-Ujae	Pandanus	Cs-137	7100	--	Dry	--	1974, April 6	Sample V-88A, edible fruit	Greenhouse, U.A., et al., 1977
Marshall Islands, Songolap-Songolap	Pandanus	Cs-137	4300	--	Dry	--	1974, April 3	Sample V-26C1	Greenhouse, U.A., et al., 1977
Marshall Islands, Bikini Atoll	Pandanus	Cs-137	3000	--	Dry	--	1971, November		Lynch, G.C., Jr., et al., 1978
Marshall Islands, Songolap-Songolap	Pandanus	Cs-137	2700	--	Dry	--	1974, April 4	Sample V-84, edible fruit	Greenhouse, U.A., et al., 1977
	Pandanus	Cs-137	2700	--	Dry	--	1974, April 3	Sample V-26B1, edible fruit	Greenhouse, U.A., et al., 1977
	Pandanus	Cs-137	2400	--	Dry	--	1974, April 3	Sample V-26B1	Greenhouse, U.A., et al., 1977
Marshall Islands, Bikini Atoll	Pandanus	Er-90	2100	--	Dry	--	1971, November		Lynch, G.C., Jr., et al., 1978
Marshall Islands, Songolap-Songolap	Pandanus	Cs-137	1400	--	Dry	--	1974, April 5	Sample V-85A, edible fruit	Greenhouse, U.A., et al., 1977
	Pandanus	Cs-137	870	--	Dry	--	1974, April 3	Sample V-86A	Greenhouse, U.A., et al., 1977
Marshall Islands, Bikini-Bikini	Pandanus	Cs-60	790	--	Dry	--	1974, April 12	Sample V-89A, edible portion	Greenhouse, U.A., et al., 1977
Marshall Islands, Ujae-Ujae	Pandanus	Cs-137	750	--	Dry	--	1974, April 1	Sample V-87, edible portion	Greenhouse, U.A., et al., 1977
Marshall Islands, Songolap-Songolap	Pandanus	K-40	740	--	Dry	--	1974, April 3	Sample V-26D1	Greenhouse, U.A., et al., 1977
	Pandanus	Cs-137	690	--	Dry	--	1974, April 3	Sample V-26A1	Greenhouse, U.A., et al., 1977
Marshall Islands, Bikini-Bikini	Pandanus	Cs-60	640	--	Dry	--	1974, April 5	Sample V-3A, immature fruit	Greenhouse, U.A., et al., 1977
Marshall Islands, Songolap-Songolap	Pandanus	K-40	560	--	Dry	--	1974, April 3	Sample V-26B1	Greenhouse, U.A., et al., 1977
Marshall Islands, Bikini-Bikini	Pandanus	K-40	520	--	Dry	--	1975, April 14	Sample V-30	Greenhouse, U.A., et al., 1977
Marshall Islands, Ujae-Ujae	Pandanus	Cs-60	510	--	Dry	--	1974, April 6	Sample V-84A, edible fruit	Greenhouse, U.A., et al., 1977
Marshall Islands, Bikini-Bikini	Pandanus	Cs-60	440	--	Dry	--	1974, April 13	Sample V-91A	Greenhouse, U.A., et al., 1977
Marshall Islands, Songolap-Songolap	Pandanus	K-40	400	--	Dry	--	1974, April 3	Sample V-26B1, edible fruit	Greenhouse, U.A., et al., 1977
	Pandanus	K-40	340	--	Dry	--	1974, April 3	Sample V-86A	Greenhouse, U.A., et al., 1977
	Pandanus	Cs-137	300	--	Dry	--	1974, April 3	Sample V-26B1	Greenhouse, U.A., et al., 1977
Marshall Islands, Ujae-Ujae	Pandanus	K-40	290	--	Dry	--	1974, April 1	Sample V-106A, edible portion	Greenhouse, U.A., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	HUNTER HALVED	DATE	COMMENT	REFERENCE
Marshall Islands, Bikini Atoll	Pandanus	K-40	240	--	Dry	--	1973, November		Lynch, O.D., Jr., et al., 1975
Marshall Islands, Songelap-Songelap	Pandanus	K-40	250	--	Dry	--	1974, April 5	Sample V-87A, edible fruit	Greenhouse, N.A., et al., 1977
	Pandanus	Cs-60	210	--	Dry	--	1976, April 3	Sample V-28C1	Greenhouse, N.A., et al., 1977
Marshall Islands, Najaro Atoll, Laura Village	Pandanus	Cs-137	170	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Najaro Atoll, Eastern Gateway	Pandanus	K-40	150	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Songelap-Songelap	Pandanus	K-40	<150	--	Dry	--	1974, April 4	Sample V-84, edible fruit	Greenhouse, N.A., et al., 1977
Marshall Islands, Uotho-Uotho	Pandanus	Cs-137	130	--	Dry	--	1974, April 1	Sample V-106A, edible portion	Greenhouse, N.A., et al., 1977
Marshall Islands, Songelap-Songelap	Pandanus	K-40	120	--	Dry	--	1976, April 3	Sample V-26A1	Greenhouse, N.A., et al., 1977
Marshall Islands, Najaro Atoll, Laura Village	Pandanus	K-40	85	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Najaro Atoll, Eastern Gateway	Pandanus	Cs-137	70	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Uirib-Uirib	Pandanus	K-40	59	--	Dry	--	1974, April 1	Sample V-87, edible portion	Greenhouse, N.A., et al., 1977
	Pandanus	Cs-60	<13	--	Dry	--	1974, April 1	Sample V-87	Greenhouse, N.A., et al., 1977
Marshall Islands, Songelap-Songelap	Pandanus	Cs-60	<12	--	Dry	--	1976, April 3	Sample V-86A	Greenhouse, N.A., et al., 1977
Marshall Islands, Najaro Atoll, Mile 17.3	Pandanus	Sr-90	24	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Najaro Atoll, Eastern Gateway	Pandanus	Sr-90	<0.7	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Najaro Atoll, Laura Village	Pandanus	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Najaro Atoll, Mile 17.3	Pandanus	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Bikini-Bikini	Papaya	Cs-137	28000	--	Dry	--	1975, April 14	Sample V-87, fruit	Greenhouse, N.A., et al., 1977
	Papaya	Cs-137	25000	--	Dry	--	1975, April 14	Sample V-89, meat	Greenhouse, N.A., et al., 1977
Marshall Islands, Bikini Atoll	Papaya	Cs-137	11000	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
	Papaya	Cs-137	>900	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
Marshall Islands, Bikini-Bikini	Papaya	Cs-137	5700	--	Dry	--	1974, April 4	Sample V-102, meat	Greenhouse, N.A., et al., 1977
	Papaya	Cs-137	3700	--	Dry	--	1976, April 5	Sample V-5A, fruit, immature	Greenhouse, N.A., et al., 1977
	Papaya	Cs-137	3200	--	Dry	--	1975, April 14	Sample V-5B, skin, immature	Greenhouse, N.A., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Marshall Islands, Bikini Atoll	Papaya	Sr-90	2700	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
	Papaya	Sr-90	2600	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
Marshall Islands, Bikini-Bikini	Papaya	K-40	1200	--	Dry	--	1976, April 5	Sample V-56, fruit, immature	Greenhouse, H.A., et al., 1977
	Papaya	K-40	<1200	--	Dry	--	1975, April 14	Sample V-47, meat	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini Atoll	Papaya	K-40	1100	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
Marshall Islands, Bikini-Bikini	Papaya	K-40	<1000	--	Dry	--	1975, April 16	Sample V-49, fruit	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini Atoll	Papaya	K-40	850	--	Dry	--	1972, March		Lynch, O.D., Jr., et al., 1975
Marshall Islands, Majuro Atoll, Laura Village	Papaya	K-40	700	--	Dry	--	1975, November		Nelson, V.A., 1979
	Papaya	Cs-137	67	--	Dry	--	1975, November		Nelson, V.A., 1979
	Papaya	Sr-90	29	--	Dry	--	1975, November		Nelson, V.A., 1979
	Papaya	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Marshall Islands, Bikini-Bikini	Pumpkin	Cs-137	12000	--	Dry	--	1976, April 5	Sample V-2A, flesh	Greenhouse, H.A., et al., 1977
	Pumpkin	K-40	950	--	Dry	--	1976, April 5	Sample V-2A, flesh	Greenhouse, H.A., et al., 1977
	Pumpkin	Co-60	430	--	Dry	--	1976, April 5	Sample V-2A, flesh	Greenhouse, H.A., et al., 1977
	Scaveola	Cs-137	54000	--	Dry	--	1975, April 18	Sample V-2, leaves	Greenhouse, H.A., et al., 1977
	Scaveola	Cs-137	41000	--	Dry	--	1975, April 18	Sample V-8, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Nam-Bikini	Scaveola	Cs-137	19000	--	Dry	--	1976, April 7	Sample V-14	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Scaveola	Cs-137	18000	--	Dry	--	1975, April 18	Sample V-3, leaves	Greenhouse, H.A., et al., 1977
	Scaveola	Cs-137	15000	--	Dry	--	1975, April 18	Sample V-7, leaves	Greenhouse, H.A., et al., 1977
	Scaveola	Cs-137	15000	--	Dry	--	1975, April 18	Sample V-4, leaves	Greenhouse, H.A., et al., 1977
	Scaveola	Cs-137	13000	--	Dry	--	1975, April 18	Sample V-5, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Nam-Bikini	Scaveola	Cs-137	14000	--	Dry	--	1976, April 7	Sample V-8	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Scaveola	Cs-137	9000	--	Dry	--	1975, April 18	Sample V-6, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Nam-Bikini	Scaveola	Cs-137	7900	--	Dry	--	1976, April 7	Sample V-10	Greenhouse, H.A., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Number Analyzed	Date	Comment	Reference
Marshall Islands, Bikini-Bikini	Scaveola	Cs-137	6600	--	Dry	--	1975, April 8	Sample V-9, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	6600	--	Dry	--	1975, April 16	Sample V-13, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	5200	--	Dry	--	1976, April 7	Sample V-17	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	5100	--	Dry	--	1975, April 18	Sample V-1, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	4100	--	Dry	--	1975, April 16	Sample V-12, leaves	Greenhouse, M.A., et al., 1977
Marshall Islands, Bikini-Bikini	Scaveola	Cs-137	4100	--	Dry	--	1974, April 12	Sample V-68, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	4100	--	Dry	--	1975, April 16	Sample V-71, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	3600	--	Dry	--	1975, April 18	Sample V-10, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	3400	--	Dry	--	1975, April 18	Sample V-11, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	3100	--	Dry	--	1976, April 7	Sample V-19	Greenhouse, M.A., et al., 1977
Marshall Islands, Bikini-Bikini	Scaveola	Cs-137	2200	--	Dry	--	1976, April 8	Sample V-25	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	2100	--	Dry	--	1976, April 7	Sample V-23	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	2000	--	Dry	--	1976, April 8	Sample V-26	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	2000	--	Dry	--	1976, April 7	Sample V-20	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	1500	--	Dry	--	1975, April 14	Sample V-18, leaves	Greenhouse, M.A., et al., 1977
Marshall Islands, Bikini-Bikini	Scaveola	Cs-137	1300	--	Dry	--	1976, April 7	Sample V-15	Greenhouse, M.A., et al., 1977
	Scaveola	K-40	1000	--	Dry	--	1975, April 18	Sample V-10, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	K-40	960	--	Dry	--	1975, April 18	Sample V-9, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	Co-60	850	--	Dry	--	1976, April 7	Sample V-18	Greenhouse, M.A., et al., 1977
	Scaveola	K-40	660	--	Dry	--	1974, April 6	Sample V-81	Greenhouse, M.A., et al., 1977
Marshall Islands, Bikini-Bikini	Scaveola	K-40	630	--	Dry	--	1975, April 14	Sample V-18, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	K-40	620	--	Dry	--	1975, April 18	Sample V-11, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	600	--	Dry	--	1975, April 14	Sample V-15, leaves	Greenhouse, M.A., et al., 1977
	Scaveola	Cs-137	580	--	Dry	--	1974, April 6	Sample V-81	Greenhouse, M.A., et al., 1977
	Scaveola								

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Marshall Islands, Bikini-Bikini	Scaveola	K-40	530	--	Dry	--	1975, April 16	Sample V-13, leaves	Greenhouse, H.A., et al., 1977
	Scaveola	K-40	520	--	Dry	--	1975, April 16	Sample V-13, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Scaveola	K-40	490	--	Dry	--	1975, April 14	Sample V-15	Greenhouse, H.A., et al., 1977
Marshall Islands, Bikini-Bikini	Scaveola	K-40	<470	--	Dry	--	1975, April 18	Sample V-1, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Nan-Bikini	Scaveola	K-40	440	--	Dry	--	1976, April 7	Sample V-19	Greenhouse, H.A., et al., 1977
	Scaveola	K-40	440	--	Dry	--	1976, April 7	Sample V-17	Greenhouse, H.A., et al., 1977
	Scaveola	K-40	410	--	Dry	--	1976, April 8	Sample V-24	Greenhouse, H.A., et al., 1977
	Scaveola	K-40	380	--	Dry	--	1976, April 7	Sample V-15	Greenhouse, H.A., et al., 1977
Marshall Islands, Rongelap-Rongelap	Scaveola	K-40	350	--	Dry	--	1976, April 8	Sample V-77	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Scaveola	Cs-137	340	--	Dry	--	1975, April 14	Sample V-16, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Scaveola	K-40	340	--	Dry	--	1974, April 6	Sample V-69	Greenhouse, H.A., et al., 1977
Marshall Islands, Rongelap-Rongelap	Scaveola	Cs-137	340	--	Dry	--	1974, April 8	Sample V-77	Greenhouse, H.A., et al., 1977
Marshall Islands, Nan-Bikini	Scaveola	K-40	290	--	Dry	--	1976, April 7	Sample V-23	Greenhouse, H.A., et al., 1977
	Scaveola	Co-60	270	--	Dry	--	1976, April 7	Sample V-8	Greenhouse, H.A., et al., 1977
	Scaveola	Co-60	230	--	Dry	--	1976, April 7	Sample V-17	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Scaveola	K-40	<210	--	Dry	--	1975, April 14	Sample V-16, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Nan-Bikini	Scaveola	Co-60	190	--	Dry	--	1976, April 7	Sample V-23	Greenhouse, H.A., et al., 1977
	Scaveola	Co-60	190	--	Dry	--	1976, April 7	Sample V-20	Greenhouse, H.A., et al., 1977
	Scaveola	Co-60	190	--	Dry	--	1976, April 7	Sample V-10	Greenhouse, H.A., et al., 1977
	Scaveola	Cs-137	180	--	Dry	--	1974, April 6	Sample V-69, leaves	Greenhouse, H.A., et al., 1977
Marshall Islands, Nan-Bikini	Scaveola	Co-60	<72	--	Dry	--	1976, April 8	Sample V-25	Greenhouse, H.A., et al., 1977
	Scaveola	Co-60	<39	--	Dry	--	1976, April 8	Sample V-24	Greenhouse, H.A., et al., 1977
Marshall Islands, Eniw-Bikini	Scaveola	Co-60	<20	--	Dry	--	1975, April 14	Sample V-15, leaves	Greenhouse, H.A., et al., 1977
	Scaveola	Co-60	<18	--	Dry	--	1975, April 14	Sample V-14, leaves	Greenhouse, H.A., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	SCOPE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Marshall Islands, Bikini-Bikini	Squash	Cs-137	8600	--	Dry	--	1975, April 14	Sample V-51	Greenhouse, M.A., et al., 1977
	Squash	K-40	1400	--	Dry	--	1975, April 14	Sample V-51	Greenhouse, M.A., et al., 1977
Mexico	Melon, honeydew	K-40	77	--	Wet	--	1973, April 9		Simpson, R.E., et al., 1974
	Melon, honeydew	Ru-106	<0.4	--	Wet	--	1973, April 9		Simpson, R.E., et al., 1974
	Melon, honeydew	Cs-137	<0.4	--	Wet	--	1973, April 9		Simpson, R.E., et al., 1974
	Melon, honeydew	I-131	<0.4	--	Wet	--	1973, April 9		Simpson, R.E., et al., 1974
	Melon, honeydew	Sr-90	<0.1	--	Wet	--	1973, April 9		Simpson, R.E., et al., 1974
	Pineapple	K-40	49	--	Processed for eating	--	1973, May 7	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	Ru-106	<0.4	--	Processed for eating	--	1973, May 7	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	I-131	<0.4	--	Processed for eating	--	1973, May 7	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	Cs-137	<0.4	--	Processed for eating	--	1973, May 7	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	Sr-90	0.2	--	Processed for eating	--	1973, May 7	Canned, syrup included	Simpson, R.E., et al., 1974
Palau Islands, Koror Island	Breadfruit	K-40	670	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Babelthaup Island	Breadfruit	K-40	520	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Koror Island	Breadfruit	Cs-137	4.8	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Babelthaup Island	Breadfruit	Sr-90	<2.6	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Koror Island	Breadfruit	Sr-90	<2.6	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Babelthaup Island	Breadfruit	Cs-137	2.2	--	Dry	--	1975, November		Nelson, V.A., 1979
	Breadfruit	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Koror Island	Breadfruit	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Babelthaup Island	Cassava	K-40	180	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Cassava	Sr-90	<4.4	--	Dry	--	1975, November	Root	Nelson, V.A., 1979

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GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYSED	DATE	COMMENT	REFERENCE
Palau Islands, Babelthaup Island	Coconut	K-40	670	--	Dry	--	1975, November	Heart	Nelson, V.A., 1979
	Coconut	K-40	480	--	Dry	--	1975, November	Heart	Nelson, V.A., 1979
Palau Islands, Koror Island	Coconut	K-40	270	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Babelthaup Island	Coconut	Cs-137	6.3	--	Dry	--	1975, November	Heart	Nelson, V.A., 1979
Palau Islands, Koror Island	Coconut	Sr-90	<2.6	--	Dry	--	1975, November	Heart	Nelson, V.A., 1979
Palau Islands, Babelthaup Island	Coconut	Sr-90	<2.6	--	Dry	--	1975, November	Heart	Nelson, V.A., 1979
Palau Islands, Koror Island	Coconut	Cs-137	1.9	--	Dry	--	1975, November	Heart	Nelson, V.A., 1979
	Coconut	Pu-239,240	<0.1	--	Dry	--	1975, November	Heart	Nelson, V.A., 1979
	Pandanus	K-40	480	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Babelthaup Island	Pandanus	K-40	310	--	Dry	--	1975, November		Nelson, V.A., 1979
	Pandanus	Cs-137	25	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Koror Island	Pandanus	Cs-137	20	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Babelthaup Island	Pandanus	Sr-90	<13	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Koror Island	Pandanus	Sr-90	13	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Babelthaup Island	Pandanus	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Koror Island	Pandanus	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
Palau Islands, Babelthaup Island	Papaya	K-40	520	--	Dry	--	1975, November		Nelson, V.A., 1979
	Papaya	Sr-90	<8.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Papaya	Cs-137	4.4	--	Dry	--	1975, November		Nelson, V.A., 1979
	Papaya	Pu-239,240	<0.1	--	Dry	--	1975, November		Nelson, V.A., 1979
	Taro	K-40	310	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Taro	Sr-90	<2.6	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
	Taro	Pu-239,240	<0.1	--	Dry	--	1975, November	Root	Nelson, V.A., 1979
Poland, Nowary Valley	Beet	Ba-226	<0.1	--	Net	--	--	Root,	Pietrak-Fila, T., 1972

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GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Poland, Warsaw	Beet	Ra-226	<0.1	--	Wet	--	--	Roots	Piotrzk-Plis, Z., 1972
Poland, Kowary Valley	Cabbage	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Warsaw	Cabbage	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Kowary Valley, Nyslakowice	Carrot	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Warsaw	Carrot	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Kowary Valley	Lettuce	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
	Parsley	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Warsaw	Parsley	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Kowary Valley	Potato	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Kowary Valley, Nyslakowice	Potato	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Warsaw	Potato	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Kowary Valley	Rye	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Warsaw	Rye	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Kowary Valley	Wheat	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
Poland, Warsaw	Wheat	Ra-226	<0.1	--	Wet	--	--		Piotrzk-Plis, Z., 1972
South Africa, Polladaba	Apricot	Total beta	2200	--	Dry	--	1966, November	Parm 11 kg WW of Polladaba	Van An, D., et al., 1967
	Bean	Total beta	2300	--	Dry	--	1966, October	Parm 16 kg WW of Polladaba	Van An, D., et al., 1967
	Beet	Total beta	2300	--	Dry	--	1966, October	Root	Van An, D., et al., 1967
	Cabbage	Total beta	4100	--	Dry	--	1966, October	Parm 16 kg WW of Polladaba	Van An, D., et al., 1967
	Cabbage	Total beta	3000	--	Dry	--	1966, September	Parm 11 kg WW of Polladaba	Van An, D., et al., 1967
	Cabbage	Total beta	3000	--	Dry	--	1966, April	Parm 16 kg WW of Polladaba	Van An, D., et al., 1967
	Cabbage	Total beta	2900	--	Dry	--	1966, June	Parm 16 kg WW of Polladaba	Van An, D., et al., 1967
	Cabbage	Total beta	2600	--	Dry	--	1966, May	Parm 11 kg WW of Polladaba	Van An, D., et al., 1967
	Cabbage	Total beta	2500	--	Dry	--	1966, May	Parm 4 kg E of Polladaba	Van An, D., et al., 1967
	Cabbage	Total beta	2500	--	Dry	--	1966, September	Parm 4 kg E of Polladaba	Van An, D., et al., 1967
	Cabbage	Total beta	1800	--	Dry	--	1966, July	Parm 4 kg E of Polladaba	Van An, D., et al., 1967
	Cabbage	Total beta	1500	--	Dry	--	1966, July	Parm 11 kg WW of Polladaba	Van An, D., et al., 1967
	Corn, Indian	Total beta	2800	--	Dry	--	1966, January	Parm 17 kg WW of Polladaba	Van An, D., et al., 1967

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GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
South Africa, Polindaba	Corn, Indian	Total beta	2100	--	Dry	--	1966, January	Para 10 km E of Polindaba	Van As, D., et al., 1967
	Corn, kaffir	Total beta	810	--	Dry	--	1966, February	Para 120 km S of Polindaba	Van As, D., et al., 1967
	Corn, Indian	Total beta	370	--	Dry	--	1966, March	Para 10 km E of Polindaba	Van As, D., et al., 1967
	Cucumber	Total beta	4100	--	Dry	--	1966, March	Para 4 km E of Polindaba	Van As, D., et al., 1967
	Cucumber	Total beta	3300	--	Dry	--	1966, November	Para 4 km E of Polindaba	Van As, D., et al., 1967
	Cucumber	Total beta	3180	--	Dry	--	1966, January	Para 4 km E of Polindaba	Van As, D., et al., 1967
	Pig	Total beta	1500	--	Dry	--	1966, January	Para 15 km SSE of Polindaba	Van As, D., et al., 1967
	Grape	Total beta	1300	--	Dry	--	1966, February		Van As, D., et al., 1967
	Grenadilla	Total beta	2400	--	Dry	--	1966, February	Para 16 km NW of Polindaba	Van As, D., et al., 1967
	Grenadilla	Total beta	1800	--	Dry	--	1966, October	Para 16 km NW of Polindaba	Van As, D., et al., 1967
	Grenadilla	Total beta	1400	--	Dry	--	1966, December	Para 16 km NW of Polindaba	Van As, D., et al., 1967
	Oat	Total beta	3500	--	Dry	--	1966, September	Para 10 km E of Polindaba	Van As, D., et al., 1967
	Oat	Total beta	3100	--	Dry	--	1966, June	Para 120 km S of Polindaba	Van As, D., et al., 1967
	Oat	Total beta	3000	--	Dry	--	1966, August	Para 13 km S of Polindaba	Van As, D., et al., 1967
	Oat	Total beta	2700	--	Dry	--	1966, August	Para 120 km S of Polindaba	Van As, D., et al., 1967
	Oat	Total beta	2600	--	Dry	--	1966, June	Para 13 km S of Polindaba	Van As, D., et al., 1967
	Oat	Total beta	2600	--	Dry	--	1966, June		Van As, D., et al., 1967
	Oat	Total beta	2300	--	Dry	--	1966, July	Para 4 km E of Polindaba	Van As, D., et al., 1967
	Oat	Total beta	1600	--	Dry	--	1966, September	Para 4 km E of Polindaba	Van As, D., et al., 1967
	Oat	Total beta	1300	--	Dry	--	1966, April		Van As, D., et al., 1967
	Oat	Total beta	1100	--	Dry	--	1966, April	Para 1 km E of Polindaba	Van As, D., et al., 1967
	Oat	Total beta	1100	--	Dry	--	1966, February		Van As, D., et al., 1967
	Oat	Total beta	1100	--	Dry	--	1966, August		Van As, D., et al., 1967
	Orange	Total beta	940	--	Dry	--	1966, April	Para 16 km NW of Polindaba	Van As, D., et al., 1967

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
South Africa, Polindaba	Orange, mandarin	Total beta	930	--	Dry	--	1961, October	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Orange, mandarin	Total beta	490	--	Dry	--	1961, August	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Orange	Total beta	490	--	Dry	--	1961, October	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Orange, mandarin	Total beta	850	--	Dry	--	1966, February	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Orange, mandarin	Total beta	850	--	Dry	--	1961, April	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Orange	Total beta	740	--	Dry	--	1966, August	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Orange, mandarin	Total beta	630	--	Dry	--	1966, June	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Orange	Total beta	520	--	Dry	--	1966, June	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Peach	Total beta	1000	--	Dry	--	1966, December	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Peach	Total beta	780	--	Dry	--	1966, February		Van As, D., et al., 1967
	Pear	Total beta	1300	--	Dry	--	1961, February		Van As, D., et al., 1967
	Pepper, chili	Total beta	2100	--	Dry	--	1966, February		Van As, D., et al., 1967
	Pepper, chili	Total beta	1900	--	Dry	--	1966, June		Van As, D., et al., 1967
	Potato	Total beta	2500	--	Dry	--	1966, January	Faras 3 km E of Polindaba	Van As, D., et al., 1967
	Potato	Total beta	1100	--	Dry	--	1964, November	Faras 13 km SE of Polindaba	Van As, D., et al., 1965
	Potato	Total alpha	0.0	--	Dry	--	1964, November	Faras 13 km SE of Polindaba	Van As, D., et al., 1965
	Pumpkin	Total beta	3700	--	Dry	--	1966, February		Van As, D., et al., 1967
	Quince	Total beta	1200	--	Dry	--	1966, February		Van As, D., et al., 1967
	Tomato	Total beta	4000	--	Dry	--	1966, December	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Tomato	Total beta	3200	--	Dry	--	1966, April	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Tomato	Total beta	3100	--	Dry	--	1966, June	Faras 16 km NW of Polindaba	Van As, D., et al., 1967
	Tomato	Total beta	2900	--	Dry	--	1964, November	Faras 11 km NW of Polindaba	Van As, D., et al., 1965
	Tomato	Total beta	2900	--	Dry	--	1964, November	Faras near Polindaba	Van As, D., et al., 1965
	Tomato	Total beta	2600	--	Dry	--	1966, February	Faras 16 km NW of Polindaba	Van As, D., et al., 1967

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotopes Measured	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Number Analyzed	Date	Comment	Reference
South Africa, Polladaba	Tomato	Total beta	1000	--	dry	--	1966, January	Farm 11 km SW of Polladaba	Van der D., et al., 1967
	Tomato	Total alpha	0.0	--	dry	--	1966, November	Farm 11 km SW of Polladaba	Van der D., et al., 1965
Spain, Palomares	Bean, broad (Vicia faba L.)	Total alpha	<0.1	--	wet	--	--	Seeds. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasilla, C., et al., 1970
	Bean, broad (Vicia faba L.)	Total alpha	<0.1	--	wet	--	--	Pods with seeds. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasilla, C., et al., 1970
	Cabbage (Brassica oleracea L.)	Total alpha	<0.1	--	wet	--	--	Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasilla, C., et al., 1970
	Corn (Zea mays L.)	Total alpha	1.2	--	wet	--	--	Single kernels. Area supplied in cultivated area in Alamosa river flood plain. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasilla, C., et al., 1970
	Corn (Zea mays L.)	Total alpha	<0.1	--	wet	--	--	Kernels. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasilla, C., et al., 1970
	Pig (Pisces carica L.)	Total alpha	<0.1	--	wet	--	--	Pealed. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasilla, C., et al., 1970
	Pig (Pisces carica L.)	Total alpha	<0.1	--	wet	--	--	Skine. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasilla, C., et al., 1970
	Lemon (Citrus limonum Risso)	Total alpha	<0.1	--	wet	--	--	Pealed. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasilla, C., et al., 1970
Pomegranate (Punica granatum L.)	Pomegranate (Punica granatum L.)	Total alpha	<0.1	--	wet	--	--	Pealed. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Rasilla, C., et al., 1970

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
Spain, Palomares	Pomegranate (<i>Punica granatus</i> L.)	Total alpha	<0.1	--	Wet	--	--	Skinn. Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Ranis, C., et al., 1970
	Tomato (<i>Solanum lycopersicum</i> L.)	Total alpha	<0.1	--	Wet	--	--	Area contaminated by accidental rupture of bombs containing Pu and U, January 17, 1966.	Alvarez-Ranis, C., et al., 1970
Taiwan	Banana	Cs-137	0.9	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
	Banana	Cs-137	0.7	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
	Banana	Sr-90	<0.1	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
	Banana	Sr-90	<0.1	--	Wet	--	1963, February		National Institute of Agricultural Sciences, 1964
	Orange	K-40	31	--	Processed for eating	--	1973, January 2	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	K-40	26	--	Processed for eating	--	1973, February 26	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	K-40	23	--	Processed for eating	--	1973, January 8	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	Ru-106	<0.4	--	Processed for eating	--	1973, February 26	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	Ru-106	<0.4	--	Processed for eating	--	1973, January 8	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	Ru-106	<0.4	--	Processed for eating	--	1973, January 2	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	Cs-137	<0.4	--	Processed for eating	--	1973, January 2	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	Cs-137	<0.4	--	Processed for eating	--	1973, January 8	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	Cs-137	<0.4	--	Processed for eating	--	1973, February 26	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	I-131	<0.4	--	Processed for eating	--	1973, February 26	Canned, syrup included	Simpson, R.E., et al., 1974

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASUREMENT	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYSED	DATE	COMMENT	REFERENCE
Taiwan	Orange	I-131	<0.4	--	Processed for eating	--	1973, January 8	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	I-131	<0.4	--	Processed for eating	--	1973, January 2	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	Sr-90	0.4	--	Processed for eating	--	1973, February 26	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	Sr-90	0.4	--	Processed for eating	--	1973, January 2	Canned, syrup included	Simpson, R.E., et al., 1974
	Orange	Sr-90	0.3	--	Processed for eating	--	1973, January 8	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	K-40	37	--	Processed for eating	--	1973, March 12	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	K-40	28	--	Processed for eating	--	1973, March 5	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	Ba-106	<0.4	--	Processed for eating	--	1973, March 12	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	Ba-106	<0.4	--	Processed for eating	--	1973, March 5	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	Cs-137	<0.4	--	Processed for eating	--	1973, March 5	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	Cs-137	<0.4	--	Processed for eating	--	1973, March 12	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	I-131	<0.4	--	Processed for eating	--	1973, March 12	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	I-131	<0.4	--	Processed for eating	--	1973, March 5	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	Sr-90	<0.1	--	Processed for eating	--	1973, March 12	Canned, syrup included	Simpson, R.E., et al., 1974
	Pineapple	Sr-90	<0.1	--	Processed for eating	--	1973, March 5	Canned, syrup included	Simpson, R.E., et al., 1974
USA, Tennessee, Oak Ridge	Apple	K-40	210	--	Net	--	--	Golden delicious variety. Market samples, edible portion.	Oaken, T.G., et al., 1977
USA, Washington, Hanford Site	Apple	K-40	41	--	Net	1	1974	Sagehen vicinity	Houston, J.A., et al., 1980
USA, Tennessee, Oak Ridge	Apple	K-40	37	--	Net	1	--	Red delicious variety. Market samples.	Oaken, T.G., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographic Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, Tennessee, Oak Ridge	Apple	K-43	29	--	Wet	1	--	Winona variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
USA, Washington, Hanford Site	Apple	K-40	29	--	Wet	1	1979	Sunnyside location	Houston, J.R., et al., 1980
USA, Tennessee, Oak Ridge	Apple	Pu-106	<1.3	--	Wet	1	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
USA, Washington, Hanford Site	Apple	Cs-137	<1.1	--	Wet	1	1979	Sagehen vicinity	Houston, J.R., et al., 1980
	Apple	Cs-137	<1.1	--	Wet	1	1979	Sunnyside location	Houston, J.R., et al., 1980
USA, Tennessee, Oak Ridge	Apple	Pu-106	<0.7	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Pu-106	<0.5	--	Wet	1	--	Winona variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Sb-125	<0.8	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Ra-226	<0.8	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Cs-60	<0.3	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Cs-137	<0.3	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Th-232	<0.3	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Ra-226	<0.3	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Cs-60	<0.2	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Sb-125	<0.2	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Cs-137	<0.2	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977
	Apple	Th-232	<0.2	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T.W., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SPECIFIC ISOTOPES	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASES	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
USA, Tennessee, Oak Ridge	Apple	Sb-125	<0.2	--	Wet	1	--	Winesap variety. Market samples, edible portion.	Oakes, T. V., et al., 1977
	Apple	Cs-137	<0.2	--	Wet	1	--	Winesap variety. Market samples, edible portion.	Oakes, T. V., et al., 1977
USA, Nevada, Nye Co.	Apple	Po-210	<0.1	--	Wet	--	1970, August 3		Andrews, V. E., et al., 1978
USA, Tennessee, Oak Ridge	Apple	Sr-90, Pb-210, Total beta	<0.1	--	Wet	--	--	Golden delicious variety. Market samples, edible portion.	Oakes, T. V., et al., 1977
	Apple	Sr-90, Pb-210, Total beta	<0.1	--	Wet	1	--	Red delicious variety. Market samples, edible portion.	Oakes, T. V., et al., 1977
	Apple	Cs-137	<0.1	--	Wet	1	--	Winesap variety. Market samples, edible portion.	Oakes, T. V., et al., 1977
	Apple	Sr-90, Pb-210, Total beta	<0.1	--	Wet	1	--	Winesap variety. Market samples, edible portion.	Oakes, T. V., et al., 1977
	Apple	Ra-226	<0.1	--	Wet	1	--	Winesap variety. Market samples, edible portion.	Oakes, T. V., et al., 1977
	Apple	Th-232	<0.1	--	Wet	1	--	Winesap variety. Market samples, edible portion.	Oakes, T. V., et al., 1977
	Apple								
USA, Nevada, Pahrump	Apricot	H-3	20	--	Wet	--	1970, July 3		Andrews, V. E., et al., 1978
USA, California, Banning	Apricot	H-3	20	--	Wet	--	1970, July 9		Andrews, V. E., et al., 1978
USA, Nevada, Nye Co.	Apricot	H-3	<11	--	Wet	--	1970, July 11		Andrews, V. E., et al., 1978
USA, California, Banning	Apricot	Sr-90	<0.2	--	Wet	--	1970, July 8		Andrews, V. E., et al., 1978
	Apricot	Sr-90	<0.2	--	Wet	--	1970, July 8		Andrews, V. E., et al., 1978
USA, Tennessee, Oak Ridge	Asparagus	K-40	82	--	Wet	1	--	Market samples, edible portion	Oakes, T. V., et al., 1977
	Asparagus	Cs-137	<3.6	--	Wet	1	--	Market samples, edible portion	Oakes, T. V., et al., 1977
	Asparagus	Ra-226	<1.1	--	Wet	1	--	Market samples, edible portion	Oakes, T. V., et al., 1977
	Asparagus	Ra-226	<0.8	--	Wet	1	--	Market samples, edible portion	Oakes, T. V., et al., 1977
	Asparagus	Cs-137	<0.3	--	Wet	1	--	Market samples, edible portion	Oakes, T. V., et al., 1977
	Asparagus	Sb-125	<0.3	--	Wet	1	--	Market samples, edible portion	Oakes, T. V., et al., 1977
	Asparagus	Cs-137	<0.3	--	Wet	1	--	Market samples, edible portion	Oakes, T. V., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	MUNDESA ANALYZED	DATE	COMMENT	REFERENCE
USA, Tennessee, Oak Ridge	Asparagus	Zr-95, Sb-95, Total beta	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Banana	P-43	05	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Banana	Pu-106	<1.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Banana	Ba-126	<0.5	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Banana	Cs-137	<0.4	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Banana	Co-60	<0.4	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Banana	Se-125	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Banana	Th-232	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Banana	Zr-95, Sb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Banana								
USA, New Mexico, Los Alamos, Fortanada Canyon	Bean, bush	Cs-137	220	--	Dry	13	1977	Grown in unfertilized soil	White, G.C., et al., 1981
	Bean, bush	Cs-137	100	--	Dry	13	1977	Soil fertilized with cow manure	White, G.C., et al., 1981
USA, Tennessee, Oak Ridge	Bean, green	K-40	63	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, New Mexico, Los Alamos, Fortanada Canyon	Bean, bush	Pu-238	12	--	Dry	13	1977	Soil fertilized with cow manure	White, G.C., et al., 1981
	Bean, bush	Pu-238	9.6	--	Dry	13	1977	Grown in unfertilized soil	White, G.C., et al., 1981
USA, Tennessee, Oak Ridge	Bean, green	Sb-125	<2.0	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, New York, New York City	Bean, dried	Sr-90	1.9	--	Processed for eating	--	1970, February		Atomic Energy Commission, 1971
USA, New Mexico, Los Alamos, Fortanada Canyon	Bean, bush	Pu-239	1.9	--	Dry	13	1977	Soil fertilized with cow manure	White, G.C., et al., 1981
USA, California, San Francisco	Bean, dried	Sr-90	1.7	--	Processed for eating	--	1970, September		Atomic Energy Commission, 1971
USA, New Mexico, Los Alamos, Fortanada Canyon	Bean, bush	Pu-239	1.5	--	Dry	13	1977	Grown in unfertilized soil	White, G.C., et al., 1981
USA, New York, New York City	Bean	Sr-90	1.4	--	Wet	--	1970, February	Dry	Hardy, E.P., Jr., 1976
USA, California, San Francisco	Bean, dried	Sr-90	0.8	--	Processed for eating	--	1970, March		Atomic Energy Commission, 1971
USA, New York, New York City	Bean, dried	Sr-90	0.7	--	Processed for eating	--	1970, November		Atomic Energy Commission, 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, Tennessee, Oak Ridge	Bean, green	Ba-106	<0.7	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, California, San Francisco	Bean, dried	Sr-90	0.6	--	Processed for eating	--	1970, June		Atomic Energy Commission, 1971
USA, New York, New York City	Bean, dried	Sr-90	0.6	--	Processed for eating	--	1970, August		Atomic Energy Commission, 1971
USA, California, San Francisco	Bean, dry	Sr-90	0.4	--	Net	--	1971, March		Hardy, E.P., Jr., 1976
USA, Tennessee, Oak Ridge	Bean, bush	Plutonium	0.4	--	Dry	5	1975-1976	Total Pu, shelled bean grown White Oak Creek flood plain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
	Bean, green	Ba-226	<0.4	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, California, San Francisco	Bean, dried	Sr-90	0.3	--	Processed for eating	--	1971, December		Atomic Energy Commission, 1971
USA, Tennessee, Oak Ridge	Bean, bush	Plutonium	0.3	--	Dry	7	1975-1976	Total Pu, whole bean grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
	Bean, green	Cs-137	<0.3	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Bean, green	Co-60	<0.3	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, Oklahoma, Afton	Bean, green	Ba-226	0.2	--	Net	--	1975	High Ba-226 in local water supply	Keefer, D.H., et al., 1980
USA, Tennessee, Oak Ridge	Bean, green	Th-232	<0.2	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, New York, New York City	Bean, dry	Pb-210	<0.1	--	Net	--	--		Horne, R.S., et al., 1971
	Bean, dry	Pb-210	<0.1	--	Net	--	--		Horne, R.S., et al., 1971
USA, New York	Bean	Pu-239, 240	<0.1	--	Net	--	1972	Dry	Bennett, B.G., 1975
USA, New York, New York City	Bean, dried	Sr-90	0.1	--	Processed for eating	--	1970, May		Atomic Energy Commission, 1971
USA, Tennessee, Oak Ridge	Bean, green	Sr-90, Pb-90, Total beta	<0.1	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Beet	Plutonium	48	--	Dry	2	1975-1976	Total Pu, skin, grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
USA, Nevada, Overton	Beet	H-3	<11	--	Net	--	1974, July 15	Root	Andrews, V.E., et al., 1978
USA, Nevada, Carcant	Beet	H-3	7.4	--	Net	--	1976, August 3	Greens	Andrews, V.E., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Dq kg ⁻¹)	RANGE OF RADIOACTIVITY (Dq kg ⁻¹)	BASES	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, Nevada, Springdale	Beet	Pu-55	<0.6	--	Wet	--	1976, July 15	Greens	Andrews, V.E., et al., 1978
USA, Nevada, Tonopah	Beet	Pu-55	<0.6	--	Wet	--	1976, August 3	Greens	Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Beet	Plutonium	3.2	--	Dry	3	1971-1976	Total Pu, peeled beet grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
USA, Nevada, Nink	Beet	Pu-238	<0.1	--	Wet	--	1976, August 4	Root	Andrews, V.E., et al., 1978
	Beet	Pu-239	<0.1	--	Wet	--	1976, August 4	Root	Andrews, V.E., et al., 1978
USA, Nevada, Adaven	Beet	Pu-238	<0.1	--	Wet	--	1976, August 4		Andrews, V.E., et al., 1978
	Beet	Pu-239	<0.1	--	Wet	--	1976, August 4		Andrews, V.E., et al., 1978
USA, Nevada, Currant	Beet	Pu-238	<0.1	--	Wet	--	1976, August 3	Root	Andrews, V.E., et al., 1978
	Beet	Pu-239	<0.1	--	Wet	--	1976, August 3	Root	Andrews, V.E., et al., 1978
USA, Nevada, Solifield	Beet	Pu-238	<0.1	--	Wet	--	1976, August 2	Root	Andrews, V.E., et al., 1978
	Beet	Pu-239	<0.1	--	Wet	--	1976, August 2	Root	Andrews, V.E., et al., 1978
USA, Nevada, Springdale	Beet	Pu-238	<0.1	--	Wet	--	1976, July 15	Greens. Statistically insignificant	Andrews, V.E., et al., 1978
	Beet	Pu-239	<0.1	--	Wet	--	1976, July 15	Greens. Statistically insignificant	Andrews, V.E., et al., 1978
USA, Nevada, Tonopah	Beet	Pu-238	<0.1	--	Wet	--	1976, August 3	Root	Andrews, V.E., et al., 1978
	Beet	Pu-239	<0.1	--	Wet	--	1976, August 3	Root	Andrews, V.E., et al., 1978
	Beet	Pu-238	<0.1	--	Wet	--	1976, August 3	Greens	Andrews, V.E., et al., 1978
	Beet	Pu-239	<0.1	--	Wet	--	1976, August 3	Greens	Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Broccoli	K-40	100	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Broccoli	Pu-106	<5.6	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
USA, South Carolina, Savannah River Ecology Laboratory environs	Broccoli (Brassica oleracea var. botrytis L.)	Pu-239, 240	1.5	--	Dry	--	1979-1980	Washed. Grown in H-area.	Smith, H.H., et al., 1981
USA, California, Livermore Valley	Broccoli	Ka-226	1.0	--	Dry	--	--	Garden 1, soil Ca 3,100 ppm, 10 applications of phosphogypsum fertilizer.	Lindeken, C.L., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	STATUS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, Tennessee, Oak Ridge	Broccoli	Ba-226	<0.6	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, South Carolina, Savannah River Ecology Laboratory environs	Broccoli (Brassica oleracea var. botrytis L.)	Pu-238	0.4	--	Dry	--	1979-1980	Washed. Grown in H-area.	Smith, M.H., et al., 1981
USA, California, Livermore Valley	Broccoli	Ba-226	0.4	--	Dry	--	--	Garden 2, soil Ca 5,200 ppm, 10 applications of phosphogypsum fertilizer.	Lindeken, C.L., et al., 1978
USA, Tennessee, Oak Ridge	Broccoli	Zr-95, Sb-95, Total beta	<0.4	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Broccoli	Sb-125	<0.3	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, South Carolina, Savannah River Ecology Laboratory environs	Broccoli (Brassica oleracea var. botrytis L.)	Pu-238	0.2	--	Dry	--	1975-1980	Unwashed. Grown in H-area.	Smith, M.H., et al., 1981
USA, Tennessee, Oak Ridge	Broccoli	Cs-60	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, South Carolina, Savannah River Ecology Laboratory environs	Broccoli (Brassica oleracea var. botrytis L.)	Pu-239,240	<0.1	--	Dry	--	1979-1980	Unwashed. Grown in H-area.	Smith, M.H., et al., 1981
USA, Tennessee, Oak Ridge	Broccoli	Cs-137	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Broccoli	Pb-212	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cabbage	R-40	89	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, California, Santa Maria	Cabbage	H-3	17	--	Wet	--	1974, July 3		Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Cabbage	Ba-106	<0.7	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cabbage	Ba-226	<0.4	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, Nevada, Lithrop Wells	Cabbage	Pu-55	<0.2	--	Wet	--	1974, July 17		Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Cabbage	Cs-60	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cabbage	Sb-125	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cabbage	Cs-137	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, California, Santa Maria	Cabbage	Sr-90	<0.2	--	Wet	--	1974, July 3		Andrews, V.E., et al., 1978
USA, South Carolina, Savannah River Ecology Laboratory environs	Cabbage (Brassica oleracea var. capitata L.)	Pu-238	<0.1	--	Dry	--	1979-1980	Washed. Grown in H-area.	Smith, M.H., et al., 1981

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SPECIES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
USA, South Carolina, Savannah River Ecology Laboratory environs	Cabbage (Brassica oleracea var. capitata L.)	Pu-239,240	<0.1	--	Dry	--	1979-1980	Washed. Grown in H-area.	Salth, M.H., et al., 1981
USA, Utah, Orem	Cabbage	Ba-7	<0.1	--	Wet	--	1974, October 16		Andrews, V.E., et al., 1978
	Cabbage	Pu-238	<0.1	--	Wet	--	1974, October 16		Andrews, V.E., et al., 1978
	Cabbage	Pu-239	<0.1	--	Wet	--	1974, October 16		Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Cabbage	Er-95, Pb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cabbage	Th-232	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, California, Santa Maria	Cabbage	Pu-55	<0.1	--	Wet	--	1974, July 3		Andrews, V.E., et al., 1978
	Cabbage	Sc-90	<0.1	--	Wet	--	1974, July 3		Andrews, V.E., et al., 1978
USA, Washington, Hanford Site	Cantaloupe	K-43	41	--	Wet	1	1979	Sunnyside location	Houston, J.R., et al., 1980
	Cantaloupe	Cs-137	<1.1	--	Wet	1	1979	Sunnyside location	Houston, J.R., et al., 1980
USA, Tennessee, Oak Ridge	Carrot	K-43	96	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, California, Santa Maria	Carrot	H-3	30	--	Wet	--	1974, July 3		Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Carrot	Plutonium	12	--	Dry	1	1975-1979	Total Pu, grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1979
USA, Nevada, Clark Station	Carrot	H-3	<11	--	Wet	--	1974, August 12		Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Carrot	Ba-106	<1.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Carrot	Ba-226	<0.7	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, Nevada, Clark Station	Carrot	Sc-89	<0.3	--	Wet	--	1974, August 12		Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Carrot	Ba-125	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Carrot	Co-60	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Carrot	Cs-137	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Carrot	Th-232	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, California, Santa Maria	Carrot	Zr-90	<0.2	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
USA, Nevada, Clark Station	Carrot	Zr-90	<0.1	--	Wet	--	1974, August 12		Andrews, V.E., et al., 1978
USA, California, Indio	Carrot	Pu-239	<0.1	--	Wet	--	1975, May 21		Andrews, V.E., et al., 1978
	Carrot	Pu-239	<0.1	--	Wet	--	1975, May 21		Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Carrot	Zr-95, Nb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, California, Santa Maria	Carrot	Pu-55	<0.1	--	Wet	--	1974, July 9		Andrews, V.E., et al., 1978
	Carrot	Zr-90	<0.1	--	Wet	--	1974, July 8		Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Celery	K-40	82	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Celery	Ra-106	<1.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Celery	Ra-226	<0.5	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Celery	Co-60	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Celery	Sb-125	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Celery	Cs-137	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Celery	Th-232	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Celery	Zr-95, Nb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Celery								
USA, Nevada, Ninko	Chard	Ba-1	12	--	Wet	--	1976, August 4		Andrews, V.E., et al., 1978
	Chard	H-3	<11	--	Wet	--	1974, August 5		Andrews, V.E., et al., 1978
	Chard	Ba-7	3.7	--	Wet	--	1974, August 5		Andrews, V.E., et al., 1978
	Chard	Zr-90	1.2	--	Wet	--	1974, August 5		Andrews, V.E., et al., 1978
	Chard	Zr-90	<1.1	--	Wet	--	1974, August 5		Andrews, V.E., et al., 1978
	Chard	Zr-95	0.9	--	Wet	--	1974, August 5		Andrews, V.E., et al., 1978
	Chard	Pu-55	<0.5	--	Wet	--	1974, August 5		Andrews, V.E., et al., 1978
USA, Nevada, Springdale	Chard	Pu-55	<0.1	--	Wet	--	1974, June 28		Andrews, V.E., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, Washington, Hanford Site	Cherry	K-43	56	--	Wet	1	1979	Sagehen vicinity	Houston, J.R., et al., 1980
	Cherry	Cs-137	<1.1	--	Wet	1	1979	Sagehen vicinity	Houston, J.R., et al., 1980
USA, California, Coachella	Corn	H-3	24	--	Wet	--	1974, July 9		Andrews, V.E., et al., 1978
USA, Nevada, Springdale	Corn	H-3	19	--	Wet	--	1974, September 11		Andrews, V.E., et al., 1978
USA, Nevada, Pahrump	Corn	H-3	18	--	Wet	--	1974, July 15		Andrews, V.E., et al., 1978
USA, Nevada, Indian Springs	Corn	H-3	13	--	Wet	--	1974, July 9		Andrews, V.E., et al., 1978
USA, Nevada, Nink	Corn	" 3	<11	--	Wet	--	1974, August 5		Andrews, V.E., et al., 1978
USA, Nevada, Nye	Corn	Sr-90	<0.4	--	Wet	--	1974, August 21		Andrews, V.E., et al., 1978
USA, Nevada, Pahrump	Corn	Sr-90	<0.4	--	Wet	--	1974, July 15		Andrews, V.E., et al., 1978
USA, Massachusetts, Cape Cod, North Eastham	Corn	Cs-137	0.4	--	Wet	--	1975	Corn plus cob	Hardy, E.P., Jr., 1977
USA, Nevada, Sunnyside	Corn	Sr-90	<0.4	--	Wet	--	1974, August 28		Andrews, V.E., et al., 1978
USA, Nevada, Adavon	Corn	Sr-90	<0.3	--	Wet	--	1974, August 28		Andrews, V.E., et al., 1978
USA, Nevada, Nye	Corn	Sr-90	<0.3	--	Wet	--	1974, August 21		Andrews, V.E., et al., 1978
USA, Nevada, Pahrump	Corn	Sr-90	0.3	--	Wet	--	1974, July 15		Andrews, V.E., et al., 1978
USA, Nevada, Carrant	Corn	Sr-90	<0.3	--	Wet	--	1974, August 27		Andrews, V.E., et al., 1978
USA, Nevada, Sunnyside	Corn	Sr-90	<0.3	--	Wet	--	1974, August 28		Andrews, V.E., et al., 1978
USA, California, Coachella	Corn	Sr-90	<0.3	--	Wet	--	1974, July 9		Andrews, V.E., et al., 1978
USA, Nevada, Adavon	Corn	Sr-90	<0.2	--	Wet	--	1974, August 28		Andrews, V.E., et al., 1978
USA, Massachusetts, Cape Cod, North Eastham	Corn	Sr-90	0.2	--	Wet	--	1975	Corn plus cob	Hardy, E.P., Jr., 1977
USA, Nevada, Carrant	Corn	Sr-90	<0.2	--	Wet	--	1974, August 27		Andrews, V.E., et al., 1978
USA, Nevada, Tonopah	Corn	Sr-90	<0.2	--	Wet	--	1974, August 18		Andrews, V.E., et al., 1978
USA, California, Coachella	Corn	Pb-210	<0.2	--	Wet	--	1974, July 9		Andrews, V.E., et al., 1978
	Corn	Sr-90	<0.2	--	Wet	--	1974, July 9		Andrews, V.E., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, Illinois, Argonne environs	Corn	Uranium	0.2	--	Wet	--	1976	Kernels	Golchert, H.W., et al., 1979
USA, South Carolina, Aiken	Corn	Plutonium	<0.1	--	Dry	5	1976, October	Total Pu, field combined, unsifted, South Field at Savannah River Plant	Adriano, D.C., et al., 1980
USA, Oklahoma, Afton	Corn	Ba-226	<0.1	--	Wet	--	1975	High Ba-226 in local water supply	Hosner, D.H., et al., 1980
USA, Massachusetts, Cape Cod, North Eastham	Corn	Au-201	<0.1	--	Wet	--	1975	Corn plus cob	Nardy, E.P., Jr., 1977
	Corn	Pu-239, 240	<0.1	--	Wet	--	1975	Corn plus cob	Nardy, E.P., Jr., 1977
	Corn	Au-201	<0.1	--	Wet	--	1975	Corn plus cob	Nardy, E.P., Jr., 1977
	Corn	Pu-239, 240	<0.1	--	Wet	--	1975	Corn plus cob	Nardy, E.P., Jr., 1977
	Corn	Sr-90	<0.1	--	Wet	--	1975	Corn plus cob	Nardy, E.P., Jr., 1977
	Corn	Cs-137	<0.1	--	Wet	--	1975	Corn plus cob	Nardy, E.P., Jr., 1977
USA, Nevada, Tonopah	Corn	Sr-90	<0.1	--	Wet	--	1974, August 16		Andrews, V.H., et al., 1978
USA, South Carolina, Aiken	Corn	Plutonium	<0.1	--	Dry	5	1976, October	Total Pu, field combined, sifted, South Field at Savannah River Plant	Adriano, D.C., et al., 1980
USA, Illinois, Argonne environs	Corn	Pu-239	<0.1	--	Wet	--	1976	Kernels	Golchert, H.W., et al., 1979
	Corn	Th-232	<0.1	--	Wet	--	1976	Kernels	Golchert, H.W., et al., 1979
	Corn	Th-230	<0.1	--	Wet	--	1976	Kernels	Golchert, H.W., et al., 1979
	Corn	Th-226	<0.1	--	Wet	--	1976	Kernels	Golchert, H.W., et al., 1979
USA, Tennessee, Oak Ridge	Cucumber	K-40	56	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cucumber	Ba-106	<0.4	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cucumber	Co-60	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cucumber	Ba-226	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cucumber	Sr-95, Pb-95, Total beta	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cucumber	Sb-125	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cucumber	Cs-137	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Cucumber	Th-232	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Squash	K-40	67	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977

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GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCES
USA, Tennessee, Oak Ridge	Eggplant	Ra-226	<0.6	--	Net	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Eggplant	Ra-226	<0.4	--	Net	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Eggplant	Co-60	<0.2	--	Net	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Eggplant	Cs-137	<0.2	--	Net	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Eggplant	Kr-95, Rb-95, Total beta	<0.1	--	Net	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Eggplant	Sb-125	<0.1	--	Net	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Eggplant	Th-232	<0.1	--	Net	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Grape	K-40	230	--	Net	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
USA, Washington, Hanford Site	Grape	K-40	70	--	Net	1	1970	Sagehen vicinity	Houston, J.B., et al., 1980
USA, Tennessee, Oak Ridge	Grape	Ra-226	<2.0	--	Net	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
USA, Washington, Hanford Site	Grape	Cs-137	<1.1	--	Net	1	1976	Sagehen vicinity	Houston, J.B., et al., 1980
USA, Tennessee, Oak Ridge	Grape	Ra-226	<0.7	--	Net	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	Grape	Co-60	<0.5	--	Net	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	Grape	Kr-95, Rb-95, Total beta	<0.5	--	Net	--	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	Grape	Sb-125	<0.5	--	Net	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	Grape	Cs-137	<0.4	--	Net	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	Grape	Th-232	<0.4	--	Net	1	--	Balsin. Market sample	Oakes, T.V., et al., 1977
	Grapefruit	K-40	30	--	Net	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	Grapefruit	Ra-226	<1.3	--	Net	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	Grapefruit	Ra-226	<0.6	--	Net	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	Grapefruit	Sb-125	<0.4	--	Net	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	Grapefruit	Cs-137	<0.4	--	Net	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	Grapefruit	Th-232	<0.4	--	Net	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	Grapefruit	Co-60	<0.2	--	Net	--	--	Market samples, edible portion.	Oakes, T.V., et al., 1977
	Grapefruit								
	Grapefruit								

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SU-1108 VALUES	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, Tennessee, Oak Ridge	Lettuce	Sb-125	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
USA, South Carolina, Savannah River Ecology Laboratory environs	Lettuce (Lactuca sativa L.)	Pu-238	<0.1	--	Dry	--	1979-1980	Control, market samples	Smith, R.W., et al., 1981
USA, Nevada, Goldfield	Lettuce	Pu-239	<0.1	--	Wet	--	1976, August 2		Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Lettuce	Co-60	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Lettuce	Zr-95, Nb-95, Total beta	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Lettuce	Cs-137	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Lettuce	Th-232	<0.1	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
USA, Nevada, Goldfield	Lettuce	Pu-238	<0.1	--	Wet	--	1976, August 2		Andrews, V.E., et al., 1978
USA, California, Salinas	Lettuce	Pu-238	<0.1	--	Wet	--	1978, July 8		Andrews, V.E., et al., 1978
	Lettuce	Sr-89	<0.1	--	Wet	--	1978, July 8		Andrews, V.E., et al., 1978
	Lettuce	Sr-90	<0.1	--	Wet	--	1978, July 8		Andrews, V.E., et al., 1978
USA, California, Blythe	Lettuce	Pu-238	<0.1	--	Wet	--	1978, October 16		Andrews, V.E., et al., 1978
USA, Illinois, Argonne environs	Beet	Uranium	0.6	--	Wet	--	1978		Gelchert, H.W., et al., 1979
	Beet	Pu-239	<0.1	--	Wet	--	1978		Gelchert, H.W., et al., 1979
	Beet	Th-232	<0.1	--	Wet	--	1978		Gelchert, H.W., et al., 1979
	Beet	Th-230	<0.1	--	Wet	--	1978		Gelchert, H.W., et al., 1979
	Beet	Th-228	<0.1	--	Wet	--	1978		Gelchert, H.W., et al., 1979
USA, New York, Albany	Wet. Brazil	Ba-226	30	<0.1-61	Wet	--	--	Kernels. Wide variability between and within batches.	Tabay, J.J., et al., 1969
USA, Nevada, Indian Springs	Onion	H-3	<11	--	Wet	--	1978, July 8		Andrews, V.E., et al., 1978
USA, Nevada, Lake	Onion	H-3	<11	--	Wet	--	1978, August 5		Andrews, V.E., et al., 1978
	Onion	Sr-90	0.3	--	Wet	--	1978, August 5		Andrews, V.E., et al., 1978
	Onion	Sr-89	<0.3	--	Wet	--	1978, August 5		Andrews, V.E., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, California, Redding	Peach	Po-210	<0.1	--	Net	--	1978, July 8		Andrews, V.E., et al., 1978
USA, Washington, Hanford Site	Pear	K-40	32	--	Net	1	1979	Sunnyside location	Houston, J.E., et al., 1980
USA, Tennessee, Oak Ridge	Pear	K-40	31	--	Net	--	--	Market sample, edible portion	Oakes, T.W., et al., 1977
USA, Washington, Hanford Site	Pear	K-40	27	--	Net	1	1979	Sagehen vicinity	Houston, J.E., et al., 1980
USA, Nevada, Springdale	Pear	H-3	<11	--	Net	--	1978, 1979		Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Pear	Po-210	<1.2	--	Net	--	--	Market sample, edible portion	Oakes, T.W., et al., 1977
USA, Washington, Hanford Site	Pear	Cs-137	<1.1	--	Net	1	1979	Sagehen vicinity	Houston, J.E., et al., 1980
	Pear	Cs-137	<1.1	--	Net	1	1979	Sunnyside location	Houston, J.E., et al., 1980
USA, Tennessee, Oak Ridge	Pear	Sb-125	<0.5	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pear	Ra-226	<0.4	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pear	Cs-137	<0.3	--	Net	--	--	Market samples	Oakes, T.W., et al., 1977
	Pear	Th-232	<0.3	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pear	Co-60	<0.2	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pear	Sr-90, Pb-210, Total beta	<0.1	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pepper, bell	K-40	63	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pepper, bell	Ra-226	<9.3	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pepper, bell	Ra-226	<0.8	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pepper, bell	Co-60	<0.3	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pepper, bell	Sb-125	<0.3	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pepper, bell	Cs-137	<0.3	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pepper, bell	Th-232	<0.2	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Pepper, bell	Sr-90, Pb-210, Total beta	<0.1	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, Washington, Hanford Site	Plum	K-40	67	--	Net	1	1979	Sagehen vicinity	Houston, J.E., et al., 1980

Table 2. Internally Generated Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Section Number	Mean Radioactivity (Bq kg ⁻¹)	Value of Radioactivity (Bq kg ⁻¹)	Units	Number Analyzed	Date	Comments	Reference
USA, Washington, Hanford Site	Pine	K-40	46	--	Net	1	1979	Summerville location	Houston, J.R., et al., 1980
	Pine	K-3	21	--	Net	--	1974, July 8		Andrews, V.R., et al., 1978
	Pine	K-5	<11	--	Net	--	1974, July 15		Andrews, V.R., et al., 1978
	Pine	K-3	<11	--	Net	--	1974, June 26		Andrews, V.R., et al., 1978
	Pine	Cu-137	<1.1	--	Net	1	1979	Sagehen vicinity	Houston, J.R., et al., 1980
	Pine	Cu-137	<1.1	--	Net	1	1979	Summerville location	Houston, J.R., et al., 1980
	Pine	Se-7	<0.3	--	Net	--	1974, July 8		Andrews, V.R., et al., 1978
	Pine	Se-33	<0.1	--	Net	--	1974, July 8		Andrews, V.R., et al., 1978
	Pine	Se-89	<0.1	--	Net	--	1974, July 8		Andrews, V.R., et al., 1978
	Pine	Se-90	<0.1	--	Net	--	1974, July 8		Andrews, V.R., et al., 1978
USA, Tennessee, Oak Ridge	Pine	Pa-238	<0.1	--	Net	--	1974, October 16		Andrews, V.R., et al., 1978
	Pine	Pa-239	<0.1	--	Net	--	1974, October 16		Andrews, V.R., et al., 1978
	Potato, Irish	K-43	120	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Potato, sweet	K-43	110	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Potato, Irish	Plutonium	20	--	Dry	9	1975-1976	Total Pu, potato skin from white Oak Creek ridge National Laboratory	Adriano, D.C., et al., 1980
	Potato, sweet	Se-106	<5.2	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Potato, Irish	Plutonium	3.0	--	Dry	3	1975-1976	Total Pu, whole potato grown white Oak Creek ridge National Laboratory	Adriano, D.C., et al., 1980
	Potato, Irish	Se-106	<1.0	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Potato (var. Chippewa)	Cu-137	0.8	--	Net	--	1975	Peel	Hardy, E.P., Jr., 1977
	Potato, sweet	Se-135	<0.7	--	Net	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, Tennessee, Oak Ridge	Potato, sweet	Se-226	<0.5	--	Net	1	--	Market samples, edible portion	Oakes, T.W., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, Tennessee, Oak Ridge	Potato, Irish	Cs-60	<0.4	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, New York, New York City	Potato	Sr-90	0.4	--	Processed for eating	--	1970, February		Atomic Energy Commission, 1971
USA, Louisiana, Lafayette	Potato	I-131	<0.4	--	Processed for eating	--	1973, March 12		Simpson, R.E., et al., 1974
	Potato	Sr-90	<0.4	--	Processed for eating	--	1973, March 12		Simpson, R.E., et al., 1974
	Potato	Cs-137	<0.4	--	Processed for eating	--	1973, March 12		Simpson, R.E., et al., 1974
	Potato	Sr-90	0.4	--	Processed for eating	--	1973, March 12		Simpson, R.E., et al., 1974
USA, New York, New York City	Potato	Sr-90	0.3	--	Wet	--	1976, February		Hardy, R.P., Jr., 1976
USA, Tennessee, Oak Ridge	Potato, sweet	Cs-60	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Potato, sweet	Cs-137	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Potato, sweet	Th-232	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Potato, Irish	Sb-125	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, New York, New York City	Potato	Sr-90	0.3	--	Processed for eating	--	1970, May		Atomic Energy Commission, 1971
	Potato	Sr-90	0.3	--	Processed for eating	--	1970, November		Atomic Energy Commission, 1971
USA, Massachusetts, Cape Cod, North Sandwich	Potato (var. Chippewa)	Sr-90	0.2	--	Wet	--	1975	Pooled	Hardy, R.P., Jr., 1977
USA, Tennessee, Oak Ridge	Potato, Irish	Cs-137	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, New York, New York City	Potato	Sr-90	0.2	--	Processed for eating	--	1970, August		Atomic Energy Commission, 1971
USA, Louisiana, Lafayette	Potato	K-40	0.2	--	Processed for eating	--	1973, March 12		Simpson, R.E., et al., 1974
USA, Tennessee, Oak Ridge	Potato, Irish	Plutonium	0.2	--	Dry	2	1975-1976	Total Pu, pooled potato grown White Oak Creek floodplain at Oak Ridge National Laboratory	Lariano, D.C., et al., 1980
USA, Louisiana, Lafayette	Potato	K-40	0.2	--	Wet	--	1973, March 12		Simpson, R.E., et al., 1974
USA, New York, New York City	Potato	Ra-226	0.1	--	Wet	--	--		Horne, R.S., et al., 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	STATUS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, New York, New York City	Potato	Po-210	<0.1	--	Not	--	--		Horso, R.S., et al., 1971
USA, Ohio, Bullbrook	Potato	Po-238	<0.1	--	Not	4	1980		Farnor, S.H., et al., 1981
USA, Ohio, Cantonville	Potato	Po-238	<0.1	--	Not	4	1980		Farnor, S.H., et al., 1981
USA, Ohio, Mansburg	Potato	Po-238	<0.1	--	Not	4	1980		Farnor, S.H., et al., 1981
USA, California, San Francisco	Potato	Sr-90	<0.1	--	Not	--	1976, March		Hardy, E.P., Jr., 1976
USA, Oklahoma, Afton	Potato	Ra-226	<0.1	--	Not	--	1975	High Ra-226 in local water supply	Keefer, S.H., et al., 1980
USA, New York	Potato	Po-238, 240	<0.1	--	Not	--	1972	Pooled	Sennett, S.G., 1975
USA, Massachusetts, Cape Cod, North Eastham	Potato (var. Chippewa)	Ra-241	<0.1	--	Not	--	--	Pooled	Hardy, E.P., Jr., 1977
	Potato (var. Chippewa)	Po-238, 240	<0.1	--	Not	--	1975	Pooled	Hardy, E.P., Jr., 1977
	Potato (var. Chippewa)	Ra-241	<0.1	--	Not	--	1975	Pooled	Hardy, E.P., Jr., 1977
	Potato (var. Chippewa)	Po-238, 240	<0.1	--	Not	--	1975	Pooled	Hardy, E.P., Jr., 1977
	Potato (var. Chippewa)	Sr-90	<0.1	--	Not	--	1975	Pooled	Hardy, E.P., Jr., 1977
	Potato (var. Chippewa)	Cs-137	0.1	--	Not	--	1975	Pooled	Hardy, E.P., Jr., 1977
	Potato (var. Chippewa)	Sr-90	<0.1	--	Not	--	1975	Pooled	Hardy, E.P., Jr., 1977
USA, Tennessee, Oak Ridge	Potato, sweet	Sr-95, Pb-95, Total beta	<0.1	--	Not	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Potato, Irish	Sr-95, Pb-95, Total beta	<0.1	--	Not	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Potato, Irish	Ra-226	<0.1	--	Not	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Potato, Irish	Th-232	<0.1	--	Not	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, California, San Francisco	Potato	Sr-90	<0.1	--	Processed for eating	--	1970, March		Atomic Energy Commission, 1971
	Potato	Sr-90	<0.1	--	Processed for eating	--	1970, June		Atomic Energy Commission, 1977
	Potato	Sr-90	0.1	--	Processed for eating	--	1970, September		Atomic Energy Commission, 1971
	Potato	Sr-90	<0.1	--	Processed for eating	--	1970, December		Atomic Energy Commission, 1971
USA, New Mexico, Los Alamos	Radish	Cs-137	250	--	Dry	8	1976	24-day growth. Samples from Hortoland Canyon garden plot.	Hakansson, T.P., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SIZE	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, New Mexico, Los Alamos	Radish	Cs-137	190	--	Dry	6	1976	37-day growth. Samples from Hortadad Canyon garden plot.	Hakanson, T.E., et al., 1978
USA, Tennessee, Oak Ridge	Radish	Plutonium	15	--	Dry	5	1975-1976	Total Pu, grown White Oak Creek floodplain at Oak Ridge National Laboratory	Adriano, D.C., et al., 1980
USA, Nevada, Pahrump	Radish	H-3	<11	--	Wet	--	1976, June 26		Andrews, V.E., et al., 1978
USA, New Mexico, Los Alamos	Radish	Pu-238	10	--	Dry	6	1976	37-day growth. Samples from Hortadad Canyon garden plot.	Hakanson, T.E., et al., 1978
	Radish	Pu-238	10	--	Dry	8	1976	24-day growth. Samples from Hortadad Canyon garden plot.	Hakanson, T.E., et al., 1978
	Radish	Pu-239	1.5	--	Dry	6	1976	37-day growth. Samples from Hortadad Canyon garden plot.	Hakanson, T.E., et al., 1978
	Radish	Pu-239	1.1	--	Dry	8	1976	24-day growth. Samples from Hortadad Canyon garden plot.	Hakanson, T.E., et al., 1978
USA, Nevada, Adron	Radish	Pu-238	<0.1	--	Wet	--	1976, August 3	Statistically insignificant	Andrews, V.E., et al., 1978
	Radish	Pu-239	<0.1	--	Wet	--	1976, August 3	Statistically insignificant	Andrews, V.E., et al., 1978
USA, Nevada, Nye's	Radish	Pu-238	<0.1	--	Wet	--	1976, August 3		Andrews, V.E., et al., 1978
	Radish	Pu-239	<0.1	--	Wet	--	1976, August 3		Andrews, V.E., et al., 1978
USA, New York, New York City	Rice	Na-226	<0.1	--	Wet	--	--		Horne, R.S., et al., 1971
	Rice	Pb-210	<0.1	--	Wet	--	--		Horne, R.S., et al., 1971
	Rice	Sr-90	<0.1	--	Wet	--	1976, February		Hardy, R.P., Jr., 1976
USA, California, San Francisco	Rice	Sr-90	<0.1	--	Wet	--	1976, March		Hardy, R.P., Jr., 1976
USA, New York	Rice	Pu-239, 240	<0.1	--	Wet	--	1972		Bennett, B.G., 1975
USA, New York, New York City	Rice	Sr-90	<0.1	--	Processed for eating	--	1970, February		Atomic Energy Commission, 1971
USA, California, San Francisco	Rice	Sr-90	<0.1	--	Processed for eating	--	1970, March		Atomic Energy Commission, 1971
USA, New York, New York City	Rice	Sr-90	<0.1	--	Processed for eating	--	1970, May		Atomic Energy Commission, 1971
USA, California, San Francisco	Rice	Sr-90	<0.1	--	Processed for eating	--	1970, June		Atomic Energy Commission, 1971

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SAMPLES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
USA, South Carolina, Savannah River Ecology Laboratory environs	Soybean	Pu-238	<0.1	--	Dry	2	1979-1980	Beans, grown on floodplain soil, lime and chelate added.	Smith, M.H., et al., 1981
	Soybean	Pu-238	0.1	--	Dry	2	1979-1980	Beans, control, grown on floodplain soil.	Smith, M.H., et al., 1981
	Soybean	Pu-238	<0.1	--	Dry	--	1975-1980	Beans. Field 1 soil, control	Smith, M.H., et al., 1981
	Soybean	Pu-238	<0.1	--	Dry	1	1979-1980	Beans. Field 1 soil, lime added	Smith, M.H., et al., 1981
	Soybean	Pu-238	<0.1	--	Dry	1	1979-1980	Beans. Field 1 soil, lime and chelate added.	Smith, M.H., et al., 1981
	Soybean	Pu-238	<0.1	--	Dry	--	1979-1980	Beans. Field 2 soil, lime added.	Smith, M.H., et al., 1981
	Soybean	Pu-238	<0.1	--	Dry	2	1979-1980	Beans. Field 2 soil, lime and chelate added.	Smith, M.H., et al., 1981
	Soybean	Pu-238	<0.1	--	Dry	--	1979-1980	Beans. Field 2 soil, lime and chelate added.	Smith, M.H., et al., 1981
USA, New Mexico, Los Alamos, Montanada Canyon	Squash	Cs-137	350	--	Dry	24	1977	Peel of washed fruits grown in unfertilized soil	White, G.C., et al., 1981
	Squash	Cs-137	230	--	Dry	24	1977	Meat of peeled fruit grown in unfertilized soil	White, G.C., et al., 1981
	Squash	Cs-137	170	--	Dry	24	1977	Peel of washed fruit grown in fertilized soil	White, G.C., et al., 1981
	Squash	Cs-137	150	--	Dry	24	1977	Meat of peeled fruit grown in fertilized soil	White, G.C., et al., 1981
USA, Tennessee, Oak Ridge	Squash, yellow	K-40	78	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, Massachusetts, Cape Cod, North Eastham	Squash, butternut	Cs-137	5.7	--	Wet	--	1975	Peeled	Hardy, R.P., Jr., 1977
USA, Illinois, Argonne environs	Squash	Uranium	1.5	--	Wet	--	1978		Belchert, E.W., et al., 1979
USA, Tennessee, Oak Ridge	Squash, yellow	Ra-106	<0.9	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Squash, yellow	Sb-125	<0.9	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, New Mexico, Los Alamos, Montanada Canyon	Squash	Pu-238	0.7	--	Dry	24	1977	Peel of washed fruit grown in unfertilized soil	White, G.C., et al., 1981
USA, Massachusetts, Cape Cod, North Eastham	Squash, butternut	Cs-137	0.6	--	Wet	--	1975	Peeled	Hardy, R.P., Jr., 1977
USA, New Mexico, Los Alamos, Montanada Canyon	Squash	Pu-238	0.6	--	Dry	24	1977	Peel of washed fruit grown in fertilized soil	White, G.C., et al., 1981
USA, Tennessee, Oak Ridge	Squash, yellow	Ra-226	<0.5	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, Massachusetts, Cape Cod, North Eastham	Squash, butternut	Sr-90	0.4	--	Wet	--	1975	Peeled	Hardy, R.P., Jr., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
USA, Tennessee, Oak Ridge	Squash, yellow	Cs-60	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, New Mexico, Los Alamos, Montezuma Canyon	Squash	Pu-239	0.2	--	Dry	24	1977	Pool of washed fruit grown in unfertilized soil	White, G.C., et al., 1981
	Squash	Pu-238	0.2	--	Dry	24	1977	Heat of pooled fruit grown in unfertilized soil	White, G.C., et al., 1981
	Squash	Pu-239	0.2	--	Dry	24	1977	Heat of pooled fruit grown in unfertilized soil	White, G.C., et al., 1981
	Squash	Pu-239	0.2	--	Dry	23	1977	Pool of washed fruit grown in fertilized soil	White, G.C., et al., 1981
	Squash	Pu-238	<0.1	--	Dry	24	1977	Heat of pooled fruit grown in fertilized soil	White, G.C., et al., 1981
	Squash	Pu-239	<0.1	--	Dry	24	1977	Heat of pooled fruit grown in fertilized soil	White, G.C., et al., 1981
USA, Tennessee, Oak Ridge	Squash, yellow	Sr-90, Pb-210, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Squash, yellow	Cs-137	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Squash, yellow	Th-232	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, Massachusetts, Cape Cod, North Eastham	Squash, butternut	As-241	<0.1	--	Wet	--	--	Peeled	Hardy, E.P., Jr., 1977
	Squash, butternut	Pu-239, 240	<0.1	--	Wet	--	1975	Peeled	Hardy, E.P., Jr., 1977
USA, Illinois, Argonne environs	Squash	Th-230	<0.1	--	Wet	--	1978		Golchert, H.W., et al., 1979
	Squash	Th-232	<0.1	--	Wet	--	1978		Golchert, H.W., et al., 1979
USA, Massachusetts, Cape Cod, North Eastham	Squash, butternut	Pu-239, 240	<0.1	--	Wet	--	1975	Peeled	Hardy, E.P., Jr., 1977
	Squash, butternut	As-241	<0.1	--	Wet	--	1975	Peeled	Hardy, E.P., Jr., 1977
	Squash, butternut	Sr-90	<0.1	--	Wet	--	1975	Peeled	Hardy, E.P., Jr., 1977
USA, Illinois, Argonne environs	Squash	Pu-239	<0.1	--	Wet	--	1978		Golchert, H.W., et al., 1979
	Squash	Th-232	<0.1	--	Wet	--	1978		Golchert, H.W., et al., 1979
USA, Tennessee, Oak Ridge	Tangelo	K-40	44	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Tangelo	Be-108	<0.5	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Tangelo	Cs-137	<0.3	--	Wet	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SUCLIDE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USA, Tennessee, Oak Ridge	Tangelo	Ra-226	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangelo	Co-60	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangelo	Zr-95, Ra-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangelo	Sb-125	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangelo	Th-232	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangerine	K-40	26	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangerine	Pu-239	<0.9	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangerine	Ra-226	<0.5	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangerine	Co-60	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangerine	Sb-125	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangerine	Cs-137	<0.2	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangerine	Th-232	<0.2	--	Wet	1	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangerine	Zr-95, Sb-95, Total beta	<0.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tangerine								
USA, New Mexico, Las Alamos	Tomato	Cs-137	290	--	Dry	6	1976	95-day growth. Green samples from Horandad Canyon garden plot.	Nakomson, T.E., et al., 1976
	Tomato	Cs-137	290	--	Dry	6	1976	95-day growth. Ripe samples from Horandad Canyon garden plot.	Nakomson, T.E., et al., 1976
USA, Tennessee, Oak Ridge	Tomato	K-40	67	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
USA, Ohio, Mansburg	Tomato	R-3	66	43-85	Wet	4	1980		Farner, S.H., et al., 1981
USA, Ohio, Centerville	Tomato	R-3	17	14-19	Wet	4	1980		Farner, S.H., et al., 1981
USA, Ohio, Bellbrook	Tomato	R-3	12	12-14	Wet	4	1980		Farner, S.H., et al., 1981
USA, Illinois, Argonne environs	Tomato	Uranium	1.3	--	Wet	--	1976		Goldbert, W.V., et al., 1979
USA, Tennessee, Oak Ridge	Tomato	Ra-226	<1.1	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977
	Tomato	Ra-226	<0.5	--	Wet	--	--	Market samples, edible portion	Oakes, T.V., et al., 1977

Table 2. Naturally occurring reference materials. By Josephine M. O'Brien

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOLIDE TREATMENT	RADIOACTIVITY (Bq kg ⁻¹)	GRADE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	MOUSE ANALYSED	DATE	COMMENT	REFERENCE
USA, Nevada, Pahrump	Turkey	B-3	12	--	Net	--	1975, July 12	Root	Andrews, V.E., et al., 1978
USA, Nevada, Springdale	Turkey	B-3	<1	--	Net	--	1974, August 15	Root	Andrews, V.E., et al., 1978
USA, Nevada, Beatty	Turkey	B-3	<1	--	Net	--	1974, July 11	Root	Andrews, V.E., et al., 1978
USA, South Carolina, Savannah River Ecology Laboratory environs	Turkey (Breastica cape L.)	Pu-238	2.4	--	Dry	--	1976-1980	Greens, washed, grown in H-atom.	Smith, R.H., et al., 1981
USA, Nevada, Adven	Turkey (Breastica cape L.)	Pu-239, 240	2.3	--	Dry	--	1976-1980	Greens, washed, grown in H-atom.	Smith, R.H., et al., 1981
USA, Nevada, Adven	Turkey	B-35	1.6	--	Net	--	1974, July 4	Greens	Andrews, V.E., et al., 1978
USA, California, Livermore Valley	Turkey	Bu-226	0.9	--	Net	--	--	Garden 1, soil Ca 3.15% ppm, 10 applications of phosphorus fertilizer.	Lindgren, C.L., et al., 1978
USA, Tennessee, Oak Ridge	Turkey	Bu-106	<0.8	--	Net	--	--	Market samples, edible portion	Oates, T.W., et al., 1977
USA, Nevada, Beatty	Turkey	Pu-238	<0.7	--	Net	--	1974, July 11	Greens	Andrews, V.E., et al., 1978
USA, Nevada, Carcass	Turkey	Sc-89	<0.7	--	Net	--	1974, July 18	Greens	Andrews, V.E., et al., 1978
USA, California, Salinas	Turkey	Sc-89	<0.6	--	Net	--	1974, July 11	Greens	Andrews, V.E., et al., 1978
USA, Nevada, Adven	Turkey	Pu-238	<0.5	--	Net	--	1974, July 23	Greens	Andrews, V.E., et al., 1978
USA, Nevada, Carcass	Turkey	Sc-89	<0.5	--	Net	--	1974, July 18	Greens	Andrews, V.E., et al., 1978
USA, California, Livermore Valley	Turkey	Bu-226	0.5	--	Dry	--	--	Garden 2, soil Ca 5.20% ppm, 10 applications of phosphorus fertilizer.	Lindgren, C.L., et al., 1978
USA, California, Salinas	Turkey	Sc-89	<0.8	--	Net	--	1974, July 11	Root	Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Turkey	Bu-226	<0.9	--	Net	--	--	Market samples, edible portion	Oates, T.W., et al., 1977
USA, South Carolina, Savannah River Ecology Laboratory environs	Turkey (Breastica cape L.)	Pu-238	0.3	--	Dry	--	1979-1983	Greens, control, market samples.	Smith, R.H., et al., 1981
USA, Nevada, Carcass	Turkey (Breastica cape L.)	Pu-239, 240	0.3	--	Dry	--	1979-1980	Greens, control, market samples.	Smith, R.H., et al., 1981
USA, Nevada, Carcass	Turkey	Pu-238	<0.3	--	Net	--	1974, July 18	Greens	Andrews, V.E., et al., 1978
USA, California, Salinas	Turkey	Sc-89	<0.3	--	Net	--	1974, July 11	Root	Andrews, V.E., et al., 1978
USA, California, Salinas	Turkey	Pu-238	<0.3	--	Net	--	1974, July 11	Greens	Andrews, V.E., et al., 1978

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	SECTION NUMBER	RAW RADIOACTIVITY (Bq kg ⁻¹)	RISE OF RADIOACTIVITY (Bq kg ⁻¹)	DATE	NUMBER ANALYSES	DATE	COMMENT	REFERENCE
USA, California, Salinas	Turnip	3r-98	<0.3	--	Not	--	1974, July 11	Greens	Andrews, V.E., et al., 1978
	Turnip	7e-55	<0.2	--	Not	--	1974, July 11	Root	Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Turnip	3r-95, 8b-95, Total beta	<0.2	--	Not	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Turnip	3b-125	<0.2	--	Not	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Turnip	Co-137	<0.2	--	Not	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, California, Salinas	Turnip	3r-89	<0.4	--	Not	--	1974, July 8	Root	Andrews, V.E., et al., 1978
USA, Nevada, Springdale	Turnip	Pa-238	<0.1	--	Not	--	1974, August 15	Root	Andrews, V.E., et al., 1978
	Turnip	Pa-239	<0.1	--	Not	--	1974, August 15	Root	Andrews, V.E., et al., 1978
USA, Nevada, Beatty	Turnip	Pa-238	<0.1	--	Not	--	1974, July 11	Root	Andrews, V.E., et al., 1978
	Turnip	Pa-239	<0.1	--	Not	--	1974, July 11	Root	Andrews, V.E., et al., 1978
USA, Nevada, Carport	Turnip	Pa-238	<0.1	--	Not	--	1974, July 18	Root	Andrews, V.E., et al., 1978
	Turnip	Pa-239	<0.1	--	Not	--	1974, July 18	Root	Andrews, V.E., et al., 1978
USA, California, Bloomington	Turnip	Pa-238	<0.1	--	Not	--	1975, May 21	Root	Andrews, V.E., et al., 1978
	Turnip	Pa-239	<0.1	--	Not	--	1975, May 21	Root	Andrews, V.E., et al., 1978
	Turnip	Pa-238	<0.1	--	Not	--	1975, May 21	Greens	Andrews, V.E., et al., 1978
	Turnip	Pa-239	<0.1	--	Not	--	1975, May 21	Greens	Andrews, V.E., et al., 1978
USA, Tennessee, Oak Ridge	Turnip	Co-60	<0.1	--	Not	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
	Turnip	Th-232	<0.1	--	Not	--	--	Market samples, edible portion	Oakes, T.W., et al., 1977
USA, California, Salinas	Turnip	7e-55	<0.1	--	Not	--	1974, July 11	Root	Andrews, V.E., et al., 1978
	Turnip	3r-90	<0.1	--	Not	--	1974, July 8	Root	Andrews, V.E., et al., 1978
USA, Nevada, Napa	Wheat	3r-99	<1	--	Not	--	1976, August 2		Andrews, V.E., et al., 1978
USA, 5 major wheat producing States	Wheat	3r-90	2.2	0.8-3.0	Not	--	1958		National Academy of Sciences, 1962
	Wheat	3r-90	1.7	0.7-2.3	Not	--	1959		National Academy of Sciences, 1962

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

Geographical origin	Food crop	Section described	Radioactivity (pCi kg ⁻¹)	Range of radioactivity (pCi kg ⁻¹)	Units analyzed	Date	Comments	Reference
USA, Nevada, Neade Natl. South Carolina, Savannah River Ecology Laboratory	Wheat	St-10	<1.2	--	Net	1975, August 6		Andrews, V. et al., 1978
	Wheat	Pu-238	<0.1	--	Dry	1975-1980	Grains, field 2 soil, lime added.	Smith, M.H., et al., 1981
	Wheat	Pu-238	<0.1	--	Dry	1975-1980	Grains, field 2 soil, lime and cholate added.	Smith, M.H., et al., 1981
	Wheat	Pu-238, 240	<0.1	--	Dry	1975-1980	Grains, grown on floodplain soil, control.	Smith, M.H., et al., 1981
	Wheat	Pu-238, 240	<0.1	--	Dry	1975-1980	Grains, grown on floodplain soil, lime added.	Smith, M.H., et al., 1981
	Wheat	Pu-238, 240	<0.1	--	Dry	1975-1980	Grains, grown on floodplain soil, lime and cholate added.	Smith, M.H., et al., 1981
	Wheat	Pu-238, 240	<0.1	--	Dry	1975-1980	Grains, field 1 soil, control.	Smith, M.H., et al., 1981
	Wheat	Pu-238, 240	<0.1	--	Dry	1975-1980	Grains, field 2 soil, lime added.	Smith, M.H., et al., 1981
	Wheat	Pu-238, 240	<0.1	--	Dry	1975-1980	Grains, field 1 soil, lime and cholate added.	Smith, M.H., et al., 1981
	Wheat	Pu-238, 240	<0.1	--	Dry	1975-1980	Grains, field 2 soil, control.	Smith, M.H., et al., 1981
	Wheat	Pu-238, 240	<0.1	--	Dry	1975-1980	Grains, field 2 soil, lime added.	Smith, M.H., et al., 1981
	Wheat	Pu-238, 240	<0.1	--	Dry	1975-1980	Grains, field 2 soil, lime and cholate added.	Smith, M.H., et al., 1981
	Wheat	Plutonium	<0.1	--	Dry	1975, June	Total Pu, field combined, from North field at Savannah River Plant	Adriano, D.C., et al., 1980
	Wheat	Plutonium	<0.1	--	Dry	1975, June	Total Pu, field combined, from South field at Savannah River Plant	Adriano, D.C., et al., 1980
USA, South Carolina, Alcoa	Wheat	Pu-238, 240	<0.1	--	Dry	1975, June	Total Pu, laboratory thumped, from North field at Savannah River Plant.	Adriano, D.C., et al., 1980
	Wheat	Plutonium	<0.1	--	Dry	1975, June	Total Pu, laboratory thumped, from South field at Savannah River Plant.	Adriano, D.C., et al., 1980
	Wheat	Plutonium	0.1	--	Dry	1975, June	Total Pu, field combined, unthumped, South field at Savannah River Plant	Adriano, D.C., et al., 1980
	Wheat	Plutonium	0.1	--	Dry	1975, June	Total Pu, field combined, unthumped, South field at Savannah River Plant	Adriano, D.C., et al., 1980

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Dg Bq-1)	RANGE OF RADIOACTIVITY (Dg Bq-1)	SOILS	SAMPLE ANALYSIS	DATE	COMMENTS	REFERENCE
USA, South Carolina, Aiken	Wheat	Plutonium	<0.1	--	Dry	6	1975, June	Total Pu, field combined, sifted, South Field at Savannah River Plant	Adriano, D.C., et al., 1980
USA, South Carolina, Savannah River Ecology Laboratory environs	Wheat	Pu-238	<0.1	--	Dry	1	1979-1980	Grains. Grown on floodplain soil, control (no lime or chelate added)	Smith, H.N., et al., 1981
	Wheat	Pu-238	<0.1	--	Dry	1	1979-1980	Grains. Grown on floodplain soil, lime added.	Smith, H.N., et al., 1981
	Wheat	Pu-238	<0.1	--	Dry	2	1979-1980	Grains. Grown on floodplain soil, lime and chelate added.	Smith, H.N., et al., 1981
	Wheat	Pu-238	<0.1	--	Dry	1	1979-1980	Grains. Field 1 soil, control.	Smith, H.N., et al., 1981
	Wheat	Pu-238	<0.1	--	Dry	--	1979-1980	Grains. Field 1 soil, lime added.	Smith, H.N., et al., 1981
	Wheat	Pu-238	<0.1	--	Dry	--	1979-1980	Grains. Field 1 soil, lime and chelate added.	Smith, H.N., et al., 1981
	Wheat	Pu-238	<0.1	--	Dry	2	1979-1980	Grains. Field 2 soil, control.	Smith, H.N., et al., 1981
	Wheat	Plutonium	<0.1	--	Wet	--	1975, Fall	Total Pu. Field adjacent to nuclear fuel reprocessing plant, sampling location 2. Samples at 3-week intervals during growth cycle.	Adriano, D.C., et al., 1975
USA, South Carolina, Aiken	Wheat	Plutonium	<0.1	--	Wet	--	1975, Fall	Total Pu. Field adjacent to nuclear fuel reprocessing plant, sampling location 1. Sampled at 3-week intervals during growth cycle.	Adriano, D.C., et al., 1975
	Apple	Pu-238	19	--	Wet	5	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.N., et al., 1966
USSR, Moscow	Apple	Pu-238	<0.1	--	Wet	5	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.N., et al., 1966
	Barley	Ce-90	7.4	--	Wet	25	1964		Knishnikov, V.A., et al., 1966
USSR	Barley	Ce-137	7.0	--	Wet	--	1964	Fine ground	Knishnikov, V.A., et al., 1966
	Barley	Pu-238	4.4	--	Dry	5	--	Area 4	Mukhin, I.N., et al., 1965
USSR, central region	Barley, pearl	Ce-137	4.4	--	Wet	--	1964		Knishnikov, V.A., et al., 1966
USSR	Barley, fine ground	Ce-137	3.9	--	Wet	15	1966	Grains	Petukhova, N.V., et al., 1969

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	NUCLIDE	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USSR, central region	Barley	Ra-226	3.1	--	Dry	3	--	Area 3	Mukhin, I.E., et al., 1965
USSR	Barley	Cs-137	2.7	--	Wet	13	1966	Grains	Potukhova, E.V., et al., 1969
USSR, Leningrad region	Barley	Uranium	2.5	--	Ash	--	--	Grains. Computed values.	Alekseev, V.V., 1969
USSR	Barley, pearl	Cs-137	2.3	--	Wet	45	1966	Grains	Potukhova, E.V., et al., 1969
USSR, central region	Barley	Ra-226	2.0	--	Dry	4	--	Area 1	Mukhin, I.E., et al., 1965
	Barley	Ra-226	1.6	0.4-4.5	Dry	15	--		Mukhin, I.E., et al., 1965
USSR, Volga River region	Barley	Radium	1.6	--	Wet	23	1964-1965	Experimental region	Belova, R.S., et al., 1967
USSR	Barley	Sr-90	1.5	--	Wet	25	1966	Grains	Potukhova, E.V., et al., 1969
USSR, Volga River region	Barley	Radium	1.4	--	Wet	12	1964-1965	Control region	Belova, R.S., et al., 1967
USSR, central region	Barley	Ra-226	1.1	--	Dry	9	--	Area 2	Mukhin, I.E., et al., 1965
USSR	Barley	Sr-90	0.9	--	Wet	13	1966	Fine ground	Knisknikov, V.A., et al., 1966
	Barley, pearl	Sr-90	0.9	--	Wet	19	1966		Knisknikov, V.A., et al., 1966
	Barley, fine ground	Sr-90	0.7	--	Wet	15	1966	Grains	Potukhova, E.V., et al., 1969
	Barley, pearl	Sr-90	0.6	--	Wet	45	1966	Grains	Potukhova, E.V., et al., 1969
USSR, Krasnodar-on-the-Don	Barley	Pb-210	0.2	--	Wet	9	--		Ladinskaya, L.A., et al., 1973
	Barley	Pb-210	0.2	--	Wet	9	--		Ladinskaya, L.A., et al., 1973
USSR, Leningrad region	Barley	Uranium	<0.1	--	Dry	--	--	Grains. Computed values.	Alekseev, V.V., 1969
USSR, Volga River region	Barley	Uranium	<0.1	--	Wet	12	1964-1965	Control region. Computed value.	Belova, R.S., et al., 1967
	Barley	Uranium	0.1	--	Wet	23	1964-1965	Experimental region. Computed value.	Belova, R.S., et al., 1967
USSR	Barley	Pb-210	0.1	--	Wet	1	--		Ternolayeva-Makovskaya, A.P., et al., 1969
	Barley	Pb-210	<0.1	--	Wet	15	--		Ternolayeva-Makovskaya, A.P., et al., 1969
	Bean, kidney	Sr-90	2.2	--	Wet	12	1966		Knisknikov, V.A., et al., 1966
USSR, Leningrad region	Beet, sugar	Uranium	3.5	--	Ash	--	--	Tubers. Computed values.	Alekseev, V.V., 1969
USSR	Beet	Cs-137	2.2	--	Wet	--	1966		Knisknikov, V.A., et al., 1966

Table 2. Naturally ionizing radioactivity in food crops, by geographical origin

Geographical origin	Food crop	Isotope measured	Mean radioactivity (Bq kg ⁻¹)	Range of radioactivity (Bq kg ⁻¹)	Units	Number analyzed	Date	Comment	Reference
USSR	Cabbage	Cs-137	1.2	--	Net	130	1966		Potashov, E.V., et al., 1969
USSR, Central region	Cabbage	Ra-226	1.2	--	Net	6	--	Area 4	Mukhin, I.B., et al., 1965
USSR	Cabbage	Sr-90	0.6	--	Net	37	1963, October - December		Kalashnikov, V.A., et al., 1966
	Cabbage	Sr-90	0.6	--	Net	178	1964		Kalashnikov, V.A., et al., 1966
	Cabbage	Sr-90	0.5	--	Net	65	1966		Potashov, E.V., et al., 1969
	Cabbage	Sr-90	0.5	--	Net	--	1965		Potashov, E.V., et al., 1969
	Cabbage	Sr-90	0.4	--	Net	22	1963, April - June		Kalashnikov, V.A., et al., 1966
	Cabbage	Sr-90	0.4	--	Net	59	1967		Kalashnikov, V.A., et al., 1966
USSR, Central region	Cabbage	Ra-226	0.4	0.2-2.6	Gr	16	--		Mukhin, I.B., et al., 1965
	Cabbage	Ra-226	0.4	--	Net	6	--	Area 3	Mukhin, I.B., et al., 1965
	Cabbage	Ra-226	0.3	--	Net	6	--	Area 2	Mukhin, I.B., et al., 1965
	Cabbage	Ra-226	0.2	--	Net	5	--	Area 1	Mukhin, I.B., et al., 1965
USSR, Moscow	Cabbage	Ra-226	0.1	--	Net	11	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.H., et al., 1966
USSR	Carrot	Cesium	19	--	Lab	--	1963-1965	Root	Potashov, E.V., et al., 1969
USSR, Moscow	Carrot	Ra-226	13	--	Lab	1	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.H., et al., 1966
USSR	Carrot	Cs-137	4.1	--	Net	--	1964		Kalashnikov, V.A., et al., 1966
USSR, Central region	Carrot	Ra-226	3.0	--	Net	6	--	Area 4	Mukhin, I.B., et al., 1965
USSR	Carrot	Cs-137	1.9	--	Net	--	1965		Potashov, E.V., et al., 1969
USSR, Central region	Carrot	Ra-226	1.2	0.1-1.2	Gr	21	--		Mukhin, I.B., et al., 1965
USSR	Carrot	Cs-137	1.1	--	Net	79	1966		Potashov, E.V., et al., 1969
	Carrot	Sr-90	1.0	--	Net	99	1964		Kalashnikov, V.A., et al., 1966
	Carrot	Sr-90	1.0	--	Net	25	1967		Kalashnikov, V.A., et al., 1966

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPES MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	SIZE	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
USSR	Carrot	Strontium	0.0	--	Wet	--	1963-1965	Strat	Pedurov, V.A., et al., 1969
	Carrot	Sr-90	0.6	--	Wet	70	1966		Petukhova, E.V., et al., 1969
	Carrot	Sr-90	0.6	--	Wet	--	--		Petukhova, E.V., et al., 1969
USSR, central region	Carrot	Ba-226	0.5	--	Wet	4	--	Area 1	Mukhin, I.E., et al., 1965
	Carrot	Ba-226	0.0	--	Wet	6	--	Area 3	Mukhin, I.E., et al., 1965
	Carrot	Ba-226	0.3	--	Wet	0	--	Area 2	Mukhin, I.E., et al., 1965
USSR, Koster-on-the-Sea	Carrot	Pb-210	0.2	--	Wet	6	--		Ladinskaya, L.A., et al., 1973
	Carrot	Pb-210	<0.1	--	Wet	6	--		Ladinskaya, L.A., et al., 1973
USSR, Moscow	Carrot	Ba-226	0.1	--	Wet	1	1961-1965	Random samples from all wholesale markets supplying the city	Karel, A.W., et al., 1966
USSR	Corn	Sr-90	0.0	--	Wet	15	1964		Kalashnikov, V.A., et al., 1966
USSR, central region	Corn	Ba-226	0.0	--	Dry	4	--	Area 4	Mukhin, I.E., et al., 1965
	Corn	Ba-226	0.0	--	Dry	5	--	Area 1	Mukhin, I.E., et al., 1965
	Corn	Ba-226	0.0	--	Dry	5	--	Area 3	Mukhin, I.E., et al., 1965
	Corn	Ba-226	0.5	0.1-1.1	Dry	10	--		Mukhin, I.E., et al., 1965
	Corn	Ba-226	0.0	--	Dry	4	--	Area 2	Mukhin, I.E., et al., 1965
USSR, Moscow	Cucumber	Ba-226	22	--	Wet	14	1961-1965	Random samples from all wholesale markets supplying the city	Karel, A.W., et al., 1966
USSR	Cucumber	Cs-137	1.0	--	Wet	--	1964		Kalashnikov, V.A., et al., 1966
	Cucumber	Cs-137	0.9	--	Wet	60	1966		Petukhova, E.V., et al., 1969
	Cucumber	Sr-90	0.0	--	Wet	54	1964		Kalashnikov, V.A., et al., 1966
	Cucumber	Sr-90	0.0	--	Wet	23	1963		Kalashnikov, V.A., et al., 1966
	Cucumber	Sr-90	0.3	--	Wet	60	1966		Petukhova, E.V., et al., 1969
	Cucumber	Sr-90	0.3	--	Wet	--	1965		Petukhova, E.V., et al., 1969
USSR, central region	Cucumber	Ba-226	<0.1	<0.1-1.0	Dry	14	--		Mukhin, I.E., et al., 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical origin	Food crop	Isotope	Radioactivity (Bq kg ⁻¹)	Range of radioactivity (Bq kg ⁻¹)	Units	Number analyzed	Date	Comment	Source
USSR, Moscow	Chamber	Ba-226	0.1	—	net	—	1961-1966	Random samples from all wholesale markets supplying the city	Karel, A.B., et al., 1966
	Apple	Ba-226	19	—	sub	1	1961-1966	Random samples from all wholesale markets supplying the city	Karel, A.B., et al., 1966
	Apple	Ba-226	<0.1	—	net	1	1961-1961	Random samples from all whole .10 markets supplying the city	Karel, A.B., et al., 1966
	Caulic	Sr-90	2.0	—	net	2	1963	Random samples from all whole .10 markets supplying the city	Kalashnikov, V.A., et al., 1966
USSR, Moscow	Grape	Ba-226	16	—	sub	2	1961-1966	Random samples from all wholesale markets supplying the city	Karel, A.B., et al., 1966
	Grape	Ba-226	<0.1	—	net	2	—	Random samples from all wholesale markets supplying the city	Karel, A.B., et al., 1966
	melon	Sr-90	<0.1	—	net	3	1963	—	Kalashnikov, V.A., et al., 1966
	Millet	Uranium	12	—	sub	—	1963-1965	grains	Pederos, V.A., et al., 1965
USSR, central region	Millet	Sr-90	0.5	—	net	12	1966	—	Kalashnikov, V.A., et al., 1966
	Millet	Sr-90	3.9	—	net	47	1966	grains	Petukhov, B.V., et al., 1965
	Millet	Cs-137	5	—	net	47	1966	grains	Petukhov, B.V., et al., 1965
	Millet	Ba-226	1.3	0.3-2.1	net	8	—	—	Mukhin, I.B., et al., 1965
USSR	Millet	Uranium	0.5	—	net	—	1963-1965	grains	Pederos, V.A., et al., 1965
	Oat	Uranium	64	—	sub	—	1963-1965	grains	Pederos, V.A., et al., 1965
	Oat	Sr-90	0.5	—	net	14	1966	—	Kalashnikov, V.A., et al., 1966
	Oat	Ba-226	3.0	0.6-7.3	net	16	—	—	Mukhin, I.B., et al., 1965
USSR, central region	Oat	Ba-226	3.8	—	net	6	—	Area 1	Mukhin, I.B., et al., 1965
	Oat	Ba-226	3.3	—	net	5	—	Area 3	Mukhin, I.B., et al., 1965
	Oat	Ba-226	2.4	—	net	3	—	Area 2	Mukhin, I.B., et al., 1965
	Oat	Uranium	1.0	—	net	—	1963-1965	grains	Pederos, V.A., et al., 1965
USSR, central region	Oat	Ba-226	1.3	—	net	4	—	Area 1	Mukhin, I.B., et al., 1965
	Oat	Ba-226	22	—	sub	26	1961-1966	Random samples from all wholesale markets supplying the city	Karel, A.B., et al., 1966

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope No.	Mean Radioactivity (Bq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	State	Number Analyses	Year	Comment	Reference
USSR	Onion, spring	Cs-137	3.3	--	Vol	--	1964		Knishnikov, V.A., et al., 1966
	Onion	Cs-137	2.6	--	Vol	--	1964		Knishnikov, V.A., et al., 1966
	Onion, spring	Sr-90	1.9	--	Vol	35	1964		Knishnikov, V.A., et al., 1966
USSR, central region	Onion	Ra-226	1.4	--	Vol	5	--	Area 4	Mukhin, I.B., et al., 1965
USSR	Onion	Sr-90	1.0	--	Vol	54	1964		Knishnikov, V.A., et al., 1966
	Onion, spring	Sr-90	0.0	--	Vol	2	1963		Knishnikov, V.A., et al., 1966
	Onion	Sr-90	0.0	--	Vol	6	1963		Knishnikov, V.A., et al., 1966
	Onion	Sr-90	0.4	--	Vol	65	1966		Potukhova, E.V., et al., 1969
USSR, central region	Onion	Ra-226	0.4	--	Vol	5	--	Area 3	Mukhin, I.B., et al., 1965
	Onion	Ra-226	0.3	<0.1-1.1	Dry	22	--		Mukhin, I.B., et al., 1965
	Onion	Ra-226	0.3	--	Vol	3	--	Area 2	Mukhin, I.B., et al., 1965
USSR, Central region	Onion	Ra-226	0.2	--	Vol	4	--	Area 1	Mukhin, I.B., et al., 1965
USSR, Rostov-on-the-Don	Onion	Pb-210	0.1	--	Vol	9	--		Ladinskaya, L.A., et al., 1973
	Onion	Pb-210	<0.1	--	Vol	--	--		Ladinskaya, L.A., et al., 1973
USSR, Moscow	Onion	Ra-226	0.1	--	Vol	26	1961-1964	Random samples from all wholesale markets supplying the city	Haral, A.W., et al., 1966
USSR	Pea	Uranium	49	--	Vol	--	1963-1965	Without pods	Fedorov, V.A., et al., 1969
USSR, Moscow	Pea, green	Ra-226	28	--	Vol	4	1961-1964	Random samples from all wholesale markets supplying the city	Haral, A.W., et al., 1966
USSR	Pea	Cs-137	19	--	Vol	--	1964		Knishnikov, V.A., et al., 1966
	Pea	Cs-137	0.2	--	Vol	32	1964	Greens	Potukhova, E.V., et al., 1969
	Pea	Sr-90	2.6	--	Vol	66	1964		Knishnikov, V.A., et al., 1966
USSR, central region	Pea	Ra-226	2.1	--	Dry	3	--	Area 3	Mukhin, I.B., et al., 1965
	Pea	Ra-226	1.4	0.3-2.9	Dry	10	--		Mukhin, I.B., et al., 1965
USSR	Pea	Uranium	1.3	--	Vol	--	1967-1968	Without pods	Fedorov, V.A., et al., 1969

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	BASIS	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USSR, Central region	Pea	Ra-226	1.2	--	Dry	5	--	Area 1	Mukhin, I.E., et al., 1965
USSR, Moscow	Pea, green	Ra-226	1.1	--	Wet	6	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.N., et al., 1966
USSR, Volga River region	Pea	Radium	1.0	--	Wet	12	1964-1965	Experimental region	Belova, R.S., et al., 1967
USSR, Central region	Pea	Ra-226	0.8	--	Dry	5	--	Area 4	Mukhin, I.E., et al., 1965
USSR	Pea	Sr-90	0.8	--	Wet	32	1966	Groats	Petukhova, E.V., et al., 1966
USSR, Volga River region	Pea	Radium	0.7	--	Wet	10	1964-1965	Control region	Belova, R.S., et al., 1967
	Pea	Uranium	<0.1	--	Wet	10	1964-1965	Control region. Computed value.	Belova, R.S., et al., 1967
	Pea	Uranium	<0.1	--	Wet	12	1964-1965	Experimental region. Computed value.	Belova, R.S., et al., 1967
USSR, Moscow	Pepper, Bulgarian	Ra-226	22	--	Ash	2	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.N., et al., 1966
USSR	Pepper, green	Sr-90	0.4	--	Wet	12	1966		Knizhnikov, V.A., et al., 1966
USSR, Moscow	Pepper, Bulgarian	Ra-226	0.1	--	Wet	2	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.N., et al., 1966
USSR	Potato	Uranium	37	--	Ash	--	1963-1965	Tubers	Fedorov, V.A., et al., 1969
USSR, Moscow	Potato	Ra-226	36	--	Ash	14	1961-1964	Random samples from all wholesale markets supplying the city	Karel, A.N., et al., 1966
USSR	Potato	Cs-137	4.1	--	Wet	--	1964		Knizhnikov, V.A., et al., 1966
	Potato	Cs-137	2.5	--	Wet	--	1965		Petukhova, E.V., et al., 1969
	Potato	Cs-137	2.3	--	Wet	--	1963		Knizhnikov, V.A., et al., 1966
	Potato	Cs-137	1.2	--	Wet	146	1966		Petukhova, E.V., et al., 1969
USSR, Volga River region	Potato	Radium	1.1	--	Wet	14	1964-1965	Experimental region	Belova, R.S., et al., 1967
USSR	Potato	Uranium	1.0	--	Wet	--	1963-1965	Tubers	Fedorov, V.A., et al., 1969
USSR, Central region	Potato	Ra-226	0.7	--	Wet	4	--	Area 1	Mukhin, I.E., et al., 1965
	Potato	Ra-226	0.7	--	Wet	5	--	Area 2	Mukhin, I.E., et al., 1965
	Potato	Ra-226	0.5	0.1-1.7	Dry	26	--		Mukhin, I.E., et al., 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	AVERAGE RADIOACTIVITY (Bq kg ⁻¹)	RANGE OF RADIOACTIVITY (Bq kg ⁻¹)	PLANT PART	SAMPLES ANALYZED	DATE	COMMENT	REFERENCE
USSR, central region	Potato	Ra-226	0.5	--	Vet	3	--	Area 2	Mukhin, I.N., et al., 1965
USSR	Potato	Sr-90	0.4	--	Vet	176	1964		Knishnikov, V.A., et al., 1966
	Potato	Sr-90	0.3	--	Vet	40	1963, October - December		Knishnikov, V.A., et al., 1966
	Potato	Sr-90	0.3	--	Vet	146	1966		Petukhova, E.V., et al., 1969
USSR, Volga River region	Potato	Radium	0.3	--	Vet	14	1964-1965	Control region	Belova, R.S., et al., 1967
USSR	Potato	Sr-90	0.3	--	Vet	--	1965		Petukhova, E.V., et al., 1969
USSR, Rostov-on-the-Don	Potato	Pb-210	0.2	--	Vet	16	--		Ladinskaya, L.A., et al., 1973
USSR	Potato	Sr-90	0.2	--	Vet	18	1963, July - September		Knishnikov, V.A., et al., 1966
	Potato	Sr-90	0.2	--	Vet	71	1963		Knishnikov, V.A., et al., 1966
USSR, Moscow	Potato	Ra-226	0.2	--	Vet	14	1961-1964	Random samples from all wholesale markets supplying the city	Harol, A.N., et al., 1966
USSR, Rostov-on-the-Don	Potato	Pb-210	0.1	--	Vet	16	--		Ladinskaya, L.A., et al., 1973
USSR	Potato	Sr-90	0.1	--	Vet	13	1963, January - March		Knishnikov, V.A., et al., 1966
USSR, Volga River region	Potato	Uranium	<0.1	--	Vet	14	1964-1965	Control region. Computed value.	Belova, R.S., et al., 1967
	Potato	Uranium	<0.1	--	Vet	14	1964-1965	Experimental region. Computed value.	Belova, R.S., et al., 1967
USSR, central region	Potato	Ra-226	0.1	--	Vet	9	--	Area 4	Mukhin, I.N., et al., 1965
USSR	Potato	Pb-210	<0.1	--	Vet	--	--		Yermolayeva-Makovskaya, A.P., et al., 1969
	Radish	Uranium	2.3	--	Ash	--	1963-1965	Root	Fedorov, V.A., et al., 1969
	Radish	Cs-137	1.5	--	Vet	--	1964		Knishnikov, V.A., et al., 1966
	Radish	Sr-90	0.9	--	Vet	16	1964		Knishnikov, V.A., et al., 1966
	Radish	Uranium	0.3	--	Vet	--	1963-1965	Root	Fedorov, V.A., et al., 1969
USSR, Moscow	Rice	Ra-226	51	--	Ash	1	1961-1964	Random samples from all wholesale markets supplying the city	Harol, A.N., et al., 1966
USSR	Rice	Cs-137	4.1	--	Vet	--	1964		Knishnikov, V.A., et al., 1966

Figure 2. Naturally occurring heterogeneity in food crops, by George A. Artelson

[illegible]

Table 2. Naturally occurring radioactivity in food crops, by geographical origin

GEOGRAPHICAL ORIGIN	FOOD CROP	ISOTOPE MEASURED	MEAN RADIOACTIVITY (Bq kg ⁻¹)	SCOPE OF RADIOACTIVITY (Bq kg ⁻¹)	SYSTEM	NUMBER ANALYZED	DATE	COMMENT	REFERENCE
USSR	Tomato	Cs-137	1.5	--	Net	--	1964		Knizhnikov, V.A., et al., 1966
USSR, central region	Tomato	Ra-226	1.0	--	Net	5	--	Area 4	Mukhin, I.R., et al., 1965
USSR	Tomato	Cs-137	0.8	--	Net	77	1966		Potukhova, E.V., et al., 1969
USSR, central region	Tomato	Ra-226	0.8	--	Net	7	--	Area 3	Mukhin, I.R., et al., 1965
USSR	Tomato	Sr-90	0.7	--	Net	23	1963		Knizhnikov, V.A., et al., 1966
USSR, central region	Tomato	Ra-226	0.5	--	Net	6	--	Area 1	Mukhin, I.R., et al., 1965
USSR	Tomato	Sr-90	0.4	--	Net	64	1964		Knizhnikov, V.A., et al., 1966
USSR, central region	Tomato	Ra-226	0.4	0.1-1.8	Net	21	--		Mukhin, I.R., et al., 1965
	Tomato	Ra-226	0.3	--	Net	5	--	Area 2	Mukhin, I.R., et al., 1965
USSR	Tomato	Sr-90	0.2	--	Net	77	1966		Potukhova, E.V., et al., 1969
USSR, Rostov-on-the-Don	Tomato	Pb-210	<0.1	--	Net	8	--		Ladianskaya, L.A., et al., 1973
	Tomato	Po-210	<0.1	--	Net	8	--		Ladianskaya, L.A., et al., 1973
USSR, Moscow	Tomato	Ra-226	0.1	--	Net	16	1961-1964	Random samples from all wholesale markets supplying the city	Karev, A.M., et al., 1966
USSR	Watermelon	Sr-90	1.5	--	Net	6	1963		Knizhnikov, V.A., et al., 1966
	Watermelon	Cs-137	1.1	--	Net	9	1964		Potukhova, E.V., et al., 1969
	Watermelon	Sr-90	0.3	--	Net	10	1964		Knizhnikov, V.A., et al., 1966
	Watermelon	Sr-90	0.2	--	Net	9	1964		Potukhova, E.V., et al., 1969
	Wheat	Cs-137	12	--	Net	--	1964		Knizhnikov, V.A., et al., 1966
	Wheat	Sr-90	7.0	--	Net	91	1964		Knizhnikov, V.A., et al., 1966
	Wheat	Cs-137	5.2	--	Net	47	1964	Grains	Potukhova, E.V., et al., 1969
	Wheat	Cs-137	4.7	--	Net	93	1964	Flour	Potukhova, E.V., et al., 1969
	Wheat	Cs-137	3.1	--	Net	45	1964	Semolina, groats	Potukhova, E.V., et al., 1969
USSR, central region	Wheat	Ra-226	2.8	--	Net	7	--	Area 3	Mukhin, I.R., et al., 1965

Table 2. Naturally Occurring Radioactivity in Food Crops, by Geographical Origin

Geographical Origin	Food Crop	Isotope	Radioactivity (Cq kg ⁻¹)	Range of Radioactivity (Bq kg ⁻¹)	Basis	Number Analyzed	Date	Comment	Reference
USSR, central region	Wheat	Ra-226	2.6	--	Wet	5	--	Area 2	Mukhin, I.B., et al., 1965
USSR	Wheat	Sr-90	2.2	--	Wet	87	1966	Grains	Petukhova, E.V., et al., 1969
USSR, Volga river region	Wheat	Radium	1.5	--	Wet	29	1966-1965	Experimental region	Belova, R.B., et al., 1967
USSR	Wheat	Sr-90	1.3	--	Wet	93	1966	Flour	Petukhova, E.V., et al., 1969
USSR, central region	Wheat	Ra-226	1.2	--	Wet	5	--	Area 3	Mukhin, I.B., et al., 1965
USSR, Volga river region	Wheat	Radium	0.8	--	Wet	22	1966-1965	Control region	Belova, R.B., et al., 1967
USSR	Wheat	Sr-90	0.6	--	Wet	85	1966	Seeds, grains	Petukhova, E.V., et al., 1969
USSR, Rostov-on-the-Don	Wheat	Pb-210	0.2	--	Wet	11	--		Ladinskaya, L.A., et al., 1973
USSR, central region	Wheat	Ra-226	0.2	--	Wet	6	--	Area 1	Mukhin, I.B., et al., 1965
USSR, Rostov-on-the-Don	Wheat	Pb-210	0.1	--	Wet	11	--		Ladinskaya, L.A., et al., 1973
USSR, central region	Wheat	Ra-226	0.1	0.7-3.2	Dry	20	--		Mukhin, I.B., et al., 1965
USSR, Volga river region	Wheat	Grain	<0.1	--	Wet	22	1966-1965	Control region, computed value.	Belova, R.B., et al., 1967
	Wheat	Grain	0.1	--	Wet	29	1966-1965	Experimental region, computed value.	Belova, R.B., et al., 1967

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