

**RADIOACTIVITY  
SURVEY DATA**  
in Japan

NUMBER 8

AUG. 1965

National Institute of Radiological Sciences

Chiba, Japan

In April 1963, in compliance with directives set forth by the Japan Atomic Energy Commission, the Division of Radioactivity Survey, National Institute of Radiological Sciences was directed to:

1. Collect, record and maintain information on radiation from National and International sources.
2. Analyze the information collected.
3. Establish a radiation survey information exchange center.

As a part of the assignment, data from the Nationwide Radioactivity Survey Network were assembled and compiled in this publication, which is issued on a quarterly basis.

For further information on any subject reported in this issue, readers are referred to the contributors indicated in the table headings.

# Radioactivity Survey Data in Japan

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National Institute of Radiological Sciences

# Dietary Data

## Strontium-90 and Cesium-137 in Rice

(National Institute of Agricultural Sciences)

National Institute of Agricultural Sciences has determined strontium-90 content in rice since 1957, and cesium-137 content in rice since 1961.

All rice samples were collected at, and sent from national and prefectural agricultural experimental stations, covering all important agricultural areas throughout Japan. Sampling locations are shown in Figure 1.

The samples were chosen as representative of agricultural conditions, including soil type, crop variety, fertilizer application and harvest time. The analytical procedure applied is the same as that shown on page 14, Issue No. 3 of this publication.

Results of analyses are shown in Tables 1 and 2. Figure 2 shows the yearly average of strontium-90 and cesium-137 content during the period 1957 to 1964.

Figure 1. Rice Sampling Locations

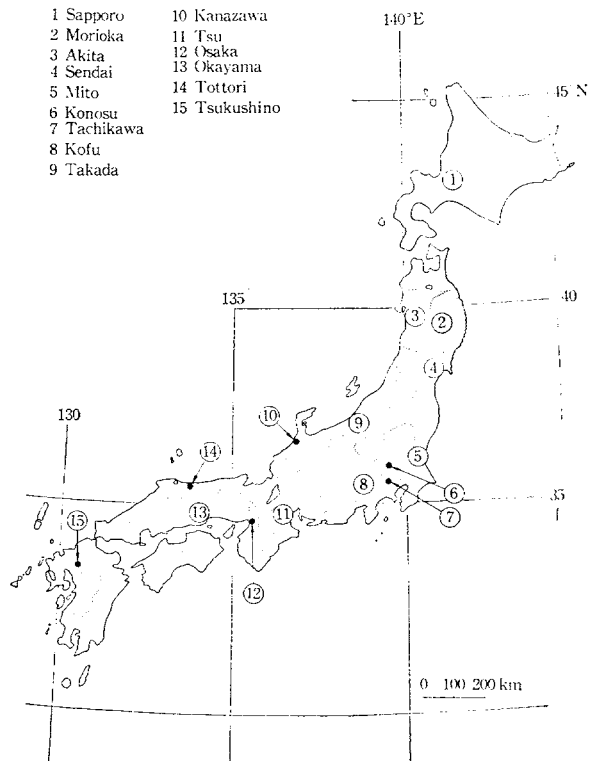


Table 1. <sup>90</sup>Sr in Rice —1963 to 1964—

By H. Kobayashi and M. Ishikawa

(National Institute of Agricultural Sciences)

(Continued from Table 7-1, Issue No. 3, of this Publication)

Location	<sup>90</sup> Sr (pCi/kg)			<sup>90</sup> Sr (pCi/kg)		
	Month Harvested	Brown Rice	Polished Rice	Month Harvested	Brown Rice	Polished Rice
	<b>1963</b>			<b>1964</b>		
Sapporo, HOKKAIDO	Oct	69	10.5	Oct	48	9.1
Akita, AKITA	Sept	112	11.6	〃	47	5.4
Morioka, IWATE	Oct	142	11.1	Sept	45	9.1
Sendai, MIYAGI	〃	70	11.4	Oct	113	2.3
Takada, NIIGATA	〃	195	15.1	〃	47	7.4
Mito, IBARAGI	Nov	222	8.7	〃	53	5.3
Konosu, SAITAMA	〃	165	9.2	Nov	64	5.4
Tachikawa, TOKYO	Oct	98	6.6	Oct	29	4.2
Kofu, YAMANASHI	〃	47	2.1	〃	21	1.6
Kanazawa, ISHIKAWA	Aug	36	4.5	Aug	37	6.7
Tsu, MIE	Sept	87	5.5	Oct	24	5.3
Osaka, OSAKA	Nov	29	3.4	Nov	21	20.8
Okayama, OKAYAMA	〃	34	3.2	〃	26	5.5
Tottori, TOTTORI	Oct	87	4.2	Oct	49	3.1
Tsukushino, FUKUOKA	〃	46	2.0	〃	27	5.3
Mean Values		96	7.3		43	6.3

Table 2. <sup>137</sup>Cs in Rice —1963 to 1964—

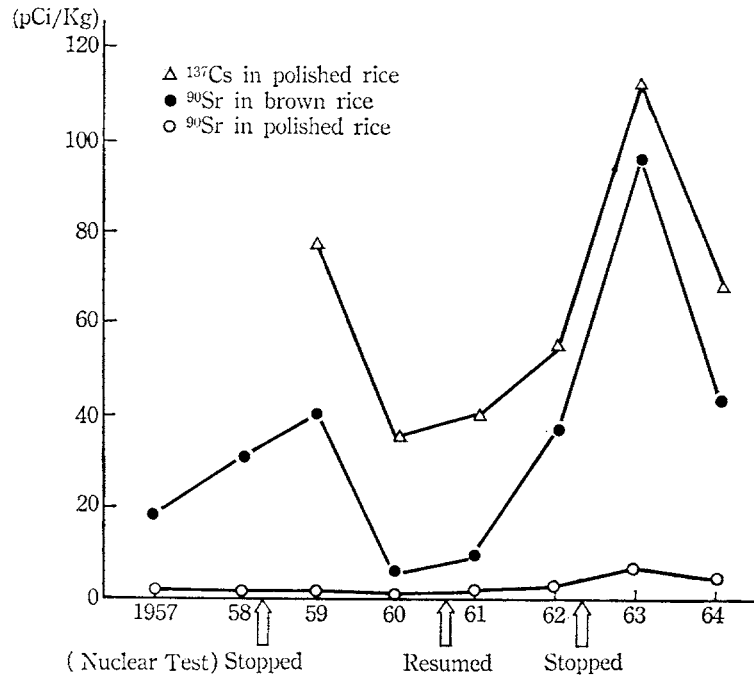
By H. Kobayashi and M. Ishikawa

(National Institute of Agricultural Sciences)

(Continued from Table 7-2, Issue No. 3, of this Publication)

Location	<sup>137</sup> Cs (pCi/kg)		<sup>137</sup> Cs (pCi/kg)	
	Month Harvested	Polished Rice	Month Harvested	Polished Rice
	<b>1963</b>		<b>1964</b>	
Sapporo, HOKKAIDO	Oct	220	Oct	130
Akita, AKITA	Sept	182	〃	88
Morioka, IWATE	Oct	195	Sept	112
Sendai, MIYAGI	〃	182	Oct	35
Takada, NIIGATA	〃	158	〃	74
Mito, IBARAGI	Nov	113	Oct	47
Konosu, SAITAMA	〃	76	Nov	53
Tachikawa, TOKYO	Oct	164	Oct	46
Kofu, YAMANASHI	〃	28	〃	30
Kanazawa, ISHIKAWA	Aug	57	Aug	55
Tsu, MIE	Sept	126	Oct	25
Osaka, OSAKA	Nov	30	Nov	185
Okayama, OKAYAMA	〃	38	〃	44
Tottori, TOTTORI	Oct	101	Oct	40
Tsukushino, FUKUOKA	〃	24	〃	35
Mean Values		113		67

Figure 2. Temporal Variation of  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Rice —1957 to 1964—  
—All Japan Mean Values—



## Strontium-90 in Wheat

(National Institute of Agricultural Sciences)

Since 1957, the strontium-90 content in wheat has been determined at the National Institute of Agricultural Sciences.

All wheat samples were collected at, and sent from national and prefectural agricultural experimental stations, covering all important agricultural areas throughout Japan. Sampling locations are shown in Figure 3.

The samples were chosen as representative

of agricultural conditions, including soil type, crop variety, fertilizer application and harvest time.

The analytical procedure applied is the same as that shown on page 15, Issue No. 6 of this publication.

Results obtained are shown in Table 3. Figure 4 shows the yearly average of strontium-90 content during the period 1957 to 1965.

Figure 3. Wheat Sampling Locations

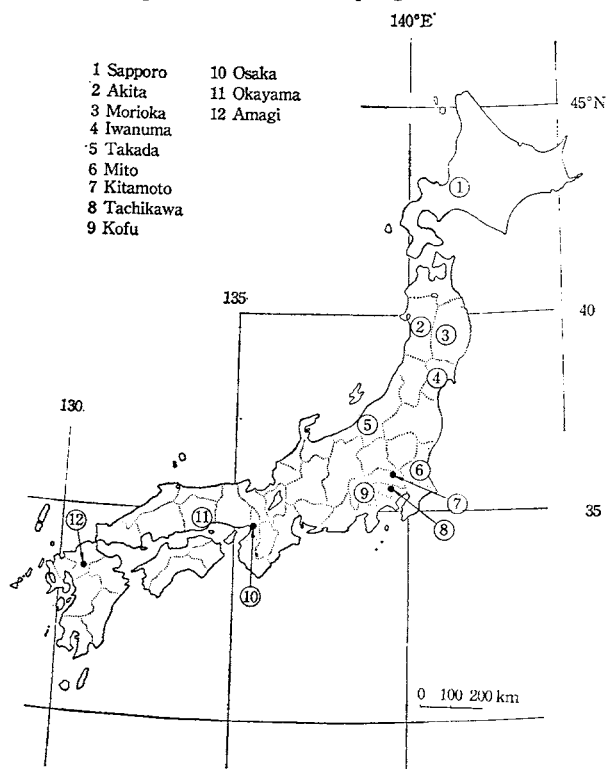


Table 3.  $^{90}\text{Sr}$  in Wheat —1965—

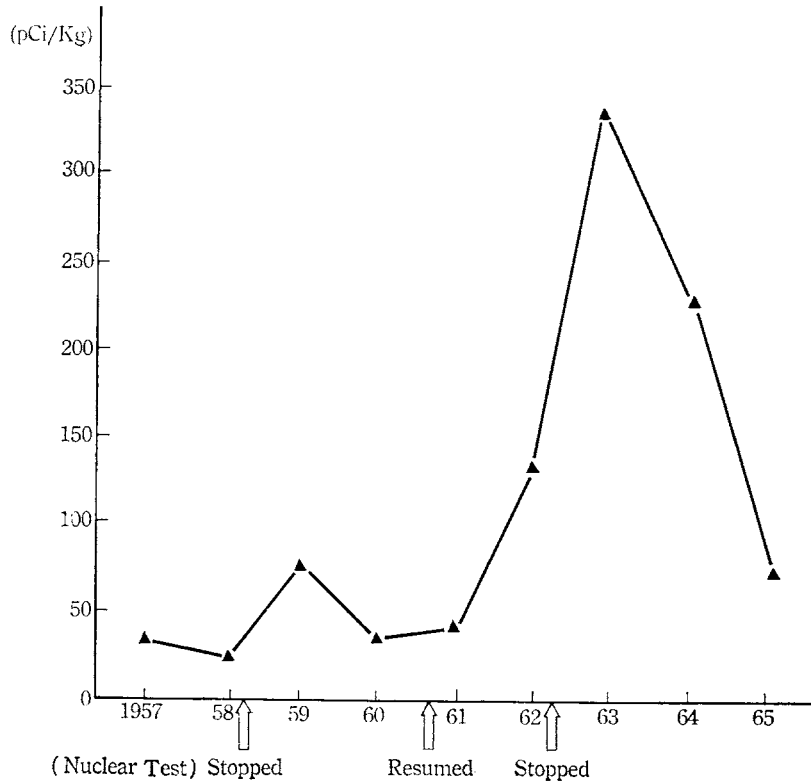
By H. Kobayashi and M. Ishikawa

(National Institute of Agricultural Sciences)

(Continued from Table 10, Issue No. 6, of this Publication)

Sampling Station	Month Harvested	Ca (g/kg)	$^{90}\text{Sr}$	
			(pCi/kg)	(pCi/gCa)
<b>1965</b>				
Sapporo, HOKKAIDO	Aug	0.214	45	210
Akita, AKITA	Jul	0.141	198	1404
Morioka, IWATE	//	0.168	60	357
Iwanuma, MIYAGI	Jun	0.152	87	586
Takada, NIIGATA	//	0.101	71	700
Mito, IBARAGI	//	0.147	91	619
Kitamoto, SAITAMA	//	0.071	91	1283
Tachikawa, TOKYO	//	0.097	50	510
Kofu, YAMANASHI	//	0.121	41	341
Osaka, OSAKA	//	0.238	49	204
Okayama, OKAYAMA	//	0.364	31	84
Amagi, FUKUOKA	//	0.267	70	239
Mean Values		0.173	74	

Figure 4. Temporal Variation of  $^{90}\text{Sr}$  in Wheat —1957 to 1965—  
 —All Japan Mean Value—



### Strontium-90 and Cesium-137 in Vegetables

(Japan Analytical Chemistry Research Institute)

The Japan Analytical Chemistry Research Institute, on commission by the Science and Technology Agency, has analyzed the strontium-90 and cesium-137 content in vegetables obtained from 14 prefectures. Sampling locations are shown in Figure 5. Samples were taken twice at the same location during the harvest period. At the prefectural public health laboratories, several Kgs of the fresh vegetable samples were washed with water, the inedible parts removed,

then only the edible parts ashed at 450°. These samples were then sent to the Japan Analytical Chemistry Research Institute and analyzed for strontium-90 and cesium-137 content, using the method recommended by the Science and Technology Agency.

Figure 6 shows the all Japan mean value of vegetables.

Results obtained during the period April 1964 to July 1965 are shown in Table 4.



Figure 5. Vegetable Sampling Location

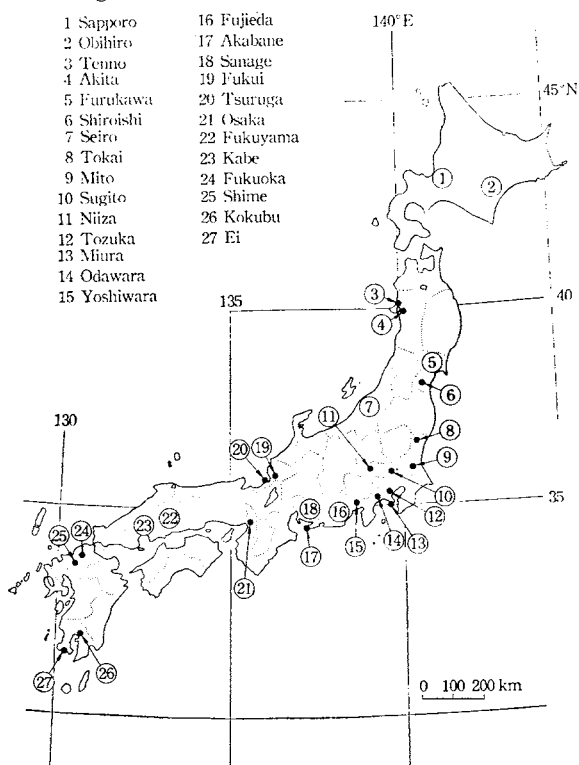


Figure 6.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Vegetables —Apr. 1964 to Jul. 1965—  
—All Japan Mean Values—

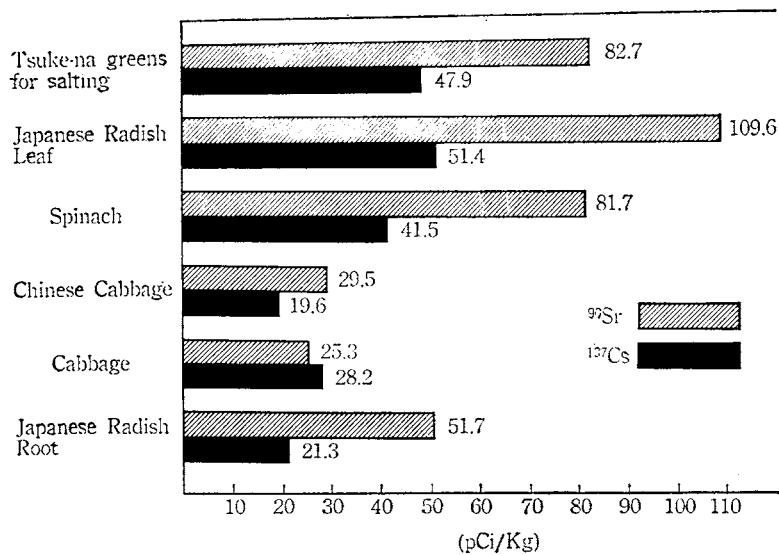


Table 4. <sup>90</sup>Sr and <sup>137</sup>Cs in Vegetables - Apr. 1964 to Jul. 1965--

By T. Asari, M. Chiba and M. Kuroda

(Japan Analytical Chemistry Research Institute)

(Continued from Table 13, Issue No. 4, of this Publication)

Location	Month Harvested	Component (% by Weight)			<sup>90</sup> Sr		<sup>137</sup> Cs	
		Ash (%)	Ca (%)	K (%)	pCi/kg	pCi/gCa	pCi/kg	pCi/gK
<b>LEAF VEGETABLES</b>								
<b>(Tsuke-na greens for salting)</b>								
Niiza, SAITAMA	Jun 64	0.88	0.11	0.26	68.5	62.0	51.2	19.7
Sugito, "	"	1.30	0.13	0.39	159.5	123.0	50.9	13.2
Niiza, "	Nov 64	1.39	0.23	0.36	72.3	31.0	25.6	7.0
Sugito, "	"	1.16	0.12	0.37	25.4	21.0	12.4	3.4
"	"	0.73	0.04	0.06	37.8	92.0	39.9	67.7
Fukuoka, FUKUOKA	Feb 65	0.89	0.06	0.31	40.4	69.0	60.8	19.9
Shime, "	"	1.34	0.12	0.40	130.8	107.0	61.1	15.3
Fukuoka, "	Mar 65	1.13	0.10	0.34	57.4	56.0	46.1	13.6
Shime, "	"	1.30	0.11	0.32	151.9	133.0	82.7	25.8
<b>(Japanese Radish Leaf)</b>								
Sanage, AICHI	Apr 64	1.21	0.14	0.35	17.9	13.0	68.9	19.9
Akabane, "	May 64	0.82	0.08	0.11	52.6	63.0	12.8	11.7
Niiza, SAITAMA	Jun 64	1.56	0.19	0.50	189.8	102.0	89.8	17.8
Sugito, "	"	1.48	0.11	0.30	93.3	87.0	54.8	18.3
Odawara, KANAGAWA	"	1.54	0.26	0.36	136.6	53.0	128.4	35.3
Miura, "	"	1.52	0.25	0.09	244.3	98.0	120.4	138.4
Sanage, AICHI	Oct 64	1.15	0.12	0.33	86.0	72.0	27.0	8.1
Kokubu, KAGOSHIMA	"	1.30	0.16	0.33	124.0	79.0	44.0	13.3
Niiza, SAITAMA	Nov 64	1.28	0.20	0.28	76.0	38.0	41.0	15.0
Miura, KANAGAWA	"	1.34	0.18	0.24	34.0	20.0	20.0	8.3
Akabane, AICHI	"	1.71	0.26	0.29	216.0	83.0	50.0	16.9
Ei, KAGOSHIMA	Feb 65	1.49	0.26	0.21	95.0	36.0	47.0	22.9
Kokubu, "	"	1.71	0.32	0.17	361.0	112.0	118.0	68.0
Akabane, AICHI	May 65	0.48	0.05	0.12	49.9	101.0	16.1	14.0
Tozuka, KANAGAWA	Jun 65	0.32	0.04	0.08	33.6	81.2	10.0	12.1
Miura, "	"	1.28	0.25	0.25	31.0	12.7	21.5	8.7
Sanage, AICHI	"	0.57	0.02	0.25	22.5	141.0	3.9	1.6
<b>(Spinach)</b>								
Sanage, AICHI	Apr 64	1.11	0.05	0.41	33.0	61.0	40.2	9.9
Akabane, "	May 64	1.69	0.12	0.27	93.0	79.0	23.4	8.6
Fukui, FUKUI	"	1.36	0.04	0.30	114.5	279.0	47.9	16.0
Tsuruga, "	"	1.09	0.04	0.34	156.1	392.0	29.1	8.5
Niiza, SAITAMA	Jun 64	1.68	0.08	0.62	59.3	78.0	55.7	9.0
Sanage, AICHI	Oct 64	1.26	0.05	0.44	31.5	61.0	14.3	3.2
Mito, IBARAGI	Nov 64	1.91	0.13	0.52	377.0	299.0	30.0	5.7
Tokai, "	"	1.60	0.07	0.66	22.5	35.0	83.9	12.7
Sugito, SAITAMA	"	1.30	0.05	0.50	22.5	42.0	17.7	3.5
Fukui, FUKUI	"	0.99	0.15	0.18	159.5	104.0	18.7	10.6
Tsuruga, "	"	1.29	0.16	0.47	206.5	133.0	27.7	5.8
Akabane, AICHI	"	1.65	0.08	0.61	52.5	69.0	44.5	7.4
Tokai, IBARAGI	Jan 65	1.54	0.02	0.38	23.7	108.0	153.8	40.3
Mito, "	"	1.55	0.10	0.50	44.7	47.0	89.6	18.0
Tozuka, KANAGAWA	"	2.03	0.09	0.80	22.3	24.0	53.1	6.6
Odawara, "	"	1.93	0.07	0.73	22.5	32.0	30.7	4.2
Tozuka, "	Mar 65	1.91	0.12	0.62	35.7	31.0	46.5	7.5
Odawara, "	"	1.96	0.08	0.74	61.2	81.0	47.3	6.4
Niiza, SAITAMA	Apr 65	1.32	0.09	0.37	27.2	39.9	17.7	5.0
Fukui, FUKUI	May 65	1.27	0.14	0.40	125.0	93.0	32.9	8.2
Tsuruga, "	"	1.34	0.13	0.31	128.0	71.6	34.0	11.1
Akabane, AICHI	"	1.46	0.10	0.28	72.0	75.8	25.0	9.1
Fukuoka, FUKUOKA	"	0.99	0.05	0.35	18.2	37.6	18.0	5.2
Shime, "	"	1.23	0.13	0.13	52.3	39.7	14.5	11.6

Table 4. <sup>90</sup>Sr and <sup>137</sup>Cs in Vegetables —Apr. 1964 to Jul. 1965— (continued)

Location	Month Harvested	Component (% by Weight)			<sup>90</sup> Sr		<sup>137</sup> Cs	
		Ash (%)	Ca (%)	K (%)	pCi/kg	pCi/gCa	pCi/kg	pCi/gK
<b>HEAD VEGETABLES</b>								
<b>(Chinese Cabbage)</b>								
Sanage, AICHI	Jun 64	0.62	0.04	0.20	16.9	39.0	14.5	7.2
Akabane, AICHI	"	0.64	0.06	0.20	139.1	224.0	31.6	16.2
"	"	0.62	0.04	0.20	16.9	39.0	14.5	7.2
Obihiro, HOKKIDO	Aug 64	0.47	0.03	0.16	6.8	22.0	57.5	35.7
Sapporo, "	Sept 64	0.52	0.03	0.16	30.1	91.0	41.2	26.4
Obihiro, "	Oct 64	0.51	0.03	0.10	9.0	36.0	8.9	8.8
Shiroishi, MIYAGI	"	0.63	0.05	0.23	22.6	50.0	14.9	6.5
Furukawa, "	"	0.57	0.04	0.20	25.8	70.0	19.9	10.1
Mito, IBARAGI	"	0.71	0.06	0.22	27.1	42.0	25.7	11.9
Tokai, "	"	0.68	0.07	0.22	15.9	22.0	6.4	2.9
Sanage, AICHI	"	0.80	0.06	0.26	57.3	90.0	10.2	4.0
Sapporo, HOKKAIDO	Nov 64	0.61	0.03	0.22	20.9	65.0	23.6	10.7
Mito, IBARAGI	"	0.55	0.03	0.17	7.3	24.0	16.2	9.4
Tokai, "	"	1.06	0.11	0.36	39.6	35.0	20.9	5.8
Odawara, KANAGAWA	"	0.83	0.10	0.26	20.4	20.0	12.8	4.9
Tozuka, "	"	0.48	0.04	0.18	34.7	89.0	18.0	10.1
Yoshiwara, SHIZUOKA	"	0.73	0.04	0.16	38.8	90.0	18.4	11.4
Fujieda, "	"	1.08	0.12	0.32	43.3	37.0	24.0	7.6
Akabane, AICHI	"	0.66	0.07	0.18	24.5	36.0	9.3	5.3
Ikeda, OSAKA	"	0.79	0.06	0.26	44.0	73.0	18.3	6.9
Shiroishi, MIYAGI	Dec 64	0.52	0.03	0.19	7.2	25.0	11.8	6.1
Furukawa, "	"	0.73	0.04	0.27	24.9	57.0	16.4	6.1
Fukuoka, FUKUOKA	"	0.61	0.03	0.23	31.3	95.0	11.2	5.0
Shime, "	"	0.60	0.03	0.16	21.1	78.0	21.8	13.8
Tozuka, KANAGAWA	Jan 65	0.51	0.04	0.18	4.0	10.0	8.9	5.0
Odawara, "	"	0.59	0.02	0.23	10.2	51.0	12.0	5.3
Yoshiwara, SHIZUOKA	"	0.92	0.07	0.31	63.4	88.0	53.0	17.1
Fujieda, "	"	0.49	0.04	0.15	36.9	95.0	19.1	12.5
Shime, FUKUOKA	"	0.53	0.03	0.16	17.8	52.0	17.2	10.7
Fukuoka, "	"	0.49	0.02	0.18	26.7	134.0	8.8	4.9
<b>(Cabbage)</b>								
Miura, KANAGAWA	May 64	0.46	0.06	0.12	15.3	24.0	28.1	23.4
Tozuka, "	"	0.57	0.04	0.22	16.9	41.0	20.7	9.4
Sugito, SAITAMA	Jun 64	0.48	0.04	0.15	12.9	29.0	18.5	12.8
Miura, KANAGAWA	"	0.58	0.07	0.16	23.1	35.0	25.6	22.5
Tozuka, "	"	0.44	0.03	0.14	28.4	105.0	21.0	15.4
Sanage, AICHI	"	0.56	0.03	0.21	10.5	33.0	11.2	5.2
Ikeda, OSAKA	"	0.55	0.05	0.21	20.0	44.0	10.1	4.7
Mihara, "	"	0.58	0.04	0.15	15.3	39.0	30.8	20.4
Fukuoka, FUKUOKA	"	0.55	0.04	0.18	29.2	71.0	22.7	12.5
Shime, "	"	0.47	0.03	0.16	30.4	92.0	34.2	21.0
Sanage, AICHI	"	0.56	0.03	0.21	10.5	33.0	11.2	5.2
Akabane, "	Jul 64	0.55	0.04	0.18	12.9	29.0	4.3	2.4
Obihiro, HOKKAIDO	Aug 64	0.46	0.03	0.15	5.1	17.0	8.0	5.2
"	"							
Sapporo, "	Sept 64	0.50	0.03	0.14	18.9	59.0	47.5	33.7
Obihiro, "	Oct 64	0.36	0.01	0.07	17.6	126.0	35.2	51.0
Sanage, AICHI	"	0.59	0.04	0.21	31.8	86.0	130.5	62.8
Sapporo, HOKKAIDO	Nov 64	0.63	0.03	0.26	19.4	67.0	22.1	8.5
Yoshiwara, SHIZUOKA	"	0.63	0.06	0.21	82.1	144.0	63.0	29.9
Fujieda, "	"	0.56	0.05	0.18	60.3	116.0	8.6	4.8
Akabane, AICHI	"	0.67	0.07	0.20	12.4	17.0	14.5	7.3
Kuroyama, OSAKA	"	0.66	0.04	0.22	16.6	45.0	7.6	3.4
Yoshiwara, SHIZUOKA	Jan 65	0.93	0.05	0.34	49.0	94.0	186.4	55.7
Fujieda, "	"	0.53	0.02	0.19	24.3	101.0	21.0	11.1
Shime, FUKUOKA	Feb 65	0.77	0.03	0.30	17.7	61.0	12.4	4.2

Table 4. <sup>90</sup>Sr and <sup>137</sup>Cs in Vegetables —Apr. 1964 to Jul. 1965— (continued)

Location	Month Harvested	Component (% by Weight)			<sup>90</sup> Sr		<sup>137</sup> Cs	
		Ash (%)	Ca (%)	K (%)	pCi/kg	pCi/gCa	pCi/kg	pCi/gK
Fukuoka, //	//	0.79	0.03	0.31	48.4	151.0	66.5	21.8
Tozuka, KANAGAWA	May 65	0.64	0.03	0.26	12.4	38.8	3.7	1.4
Miura, //	//	0.50	0.02	0.25	15.4	64.8	3.9	1.5
Akabane, AICHI	//	0.43	0.02	0.20	10.3	20.6	5.8	2.9
Fukuoka, FUKUOKA	//	0.56	0.02	0.19	26.8	123.0	13.3	7.0
Shime, //	//	0.68	0.02	0.24	25.1	149.0	11.5	5.0
Miura, KANAGAWA	Jun 65	0.51	0.02	0.18	76.0	317.0	7.8	4.4
Tozuka, //	//	0.51	0.03	0.20	15.5	53.2	14.6	7.1
Sanage, AICHI	//	0.67	0.03	0.29	23.2	83.8	9.5	3.1
<b>ROOT VEGETABLES</b>								
<b>(Japanese Radish Root)</b>								
Sanage, AICHI	Apr 64	0.84	0.07	0.34	12.5	18.0	12.3	3.6
Akabane, //	May 64	0.74	0.02	0.29	34.8	158.0	18.6	6.5
Niiza, SAITAMA	Jun 64	0.66	0.03	0.25	22.1	69.0	16.9	6.9
Sugito, //	//	0.72	0.02	0.28	31.3	142.0	8.4	3.0
Odawara, KANAGAWA	//	0.60	0.03	0.24	8.4	30.0	13.6	5.7
Miura, //	//	0.54	0.03	0.10	27.8	111.0	28.0	27.2
Niigata, NIIGATA	//	0.81	0.02	0.26	190.7	795.0	34.4	13.4
Kaba, HIROSHIMA	//	0.54	0.03	0.16	24.3	74.0	6.2	3.8
Fukuyama, //	//	0.85	0.03	0.22	20.7	74.0	38.9	18.1
Tenno, AKITA	Jul 64	0.64	0.03	0.25	35.3	118.0	17.4	7.0
Akita, //	//	0.69	0.03	0.26	38.5	148.0	27.5	10.7
Obihiro, HOKKAIDO	Aug 64	0.79	0.02	0.28	60.0	250.0	15.7	5.6
Sapporo, //	Sept 64	0.43	0.02	0.12	128.6	559.0	24.6	21.2
Obihiro, //	Oct 64	0.59	0.03	0.24	26.4	94.0	37.4	15.7
Seiro, NIIGATA	//	0.47	0.03	0.18	125.1	404.0	13.5	7.7
Seiro, NIIGATA	//	0.47	0.03	0.18	125.1	404.0	13.5	7.7
Niigata, //	//	0.53	0.02	0.21	57.3	260.0	28.9	13.8
Fukui, FUKUI	//	0.46	0.04	0.11	43.3	117.0	5.0	4.4
Sanage, AICHI	//	0.65	0.02	0.26	23.0	115.0	8.4	3.3
Kokubu, KAGOSHIMA	//	0.57	0.02	0.23	30.4	145.0	47.5	21.4
Sapporo, HOKKAIDO	Nov 64	0.59	0.03	0.22	21.9	81.0	11.3	5.1
Tenno, AKITA	//	0.50	0.03	0.19	23.2	86.0	32.8	17.7
Akita, //	//	0.48	0.02	0.13	28.0	117.0	16.1	12.1
Niiza, SAITAMA	//	0.60	0.04	0.22	16.7	45.0	45.9	21.3
Sugito, //	//	0.58	0.03	0.20	10.6	34.0	4.1	2.0
Odawara, KANAGAWA	//	0.58	0.03	0.18	52.5	194.0	6.0	3.4
Miura, //	//	0.60	0.03	0.22	33.5	105.0	17.6	8.0
Tsuruga, FUKUI	//	0.53	0.02	0.20	67.8	295.0	3.0	1.5
Fukui, //	//	0.60	0.04	0.22	168.1	400.0	20.8	9.6
Yoshiwara, SHIZUOKA	//	0.97	0.05	0.32	43.9	84.0	20.5	6.4
Fujieda, //	//	0.69	0.04	0.25	190.6	443.0	127.8	50.9
Akabane, AICHI	//	0.71	0.03	0.26	32.8	103.0	19.4	7.4
Fukuyama, HIROSHIMA	//	0.69	0.03	0.19	42.2	124.0	7.6	3.9
Kabe, HIROSHIMA	//	0.71	0.03	0.30	24.5	82.0	5.7	1.9
Ei, KAGOSHIMA	//	0.67	0.04	0.22	54.9	144.0	30.8	13.9
Tsuruga, FUKUI	Dec 64	0.44	0.03	0.11	54.4	160.0	66.9	59.2
Yoshiwara, SHIZUOKA	Jan 65	0.74	0.05	0.27	76.7	150.0	8.8	3.2
Fujieda, //	//	0.40	0.09	0.11	47.7	52.0	7.9	7.1
Kokubu, KAGOSHIMA	Feb 65	0.52	0.04	0.16	93.4	222.0	29.4	18.8
Ei, //	//	0.58	0.04	0.18	46.0	107.0	23.7	12.9
Akabane, AICHI	May 65	0.79	0.04	0.27	62.5	176.0	6.8	2.5
Sugito, SAITAMA	Jun 65	1.03	0.03	0.56	20.0	66.8	11.5	2.0
Tozuka, KANAGAWA	//	0.67	0.02	0.33	17.3	86.0	9.9	3.0
Miura, //	//	0.61	0.02	0.30	10.3	51.3	4.6	1.5
Niiza, SAITAMA	Jul 65	0.28	0.01	0.12	21.2	182.0	2.9	2.4

## Strontium-90 and Cesium-137 in Total Diet

(National Institute of Radiological Sciences)

Since June 1963, National Institute of Radiological Sciences has conducted analyses of total diet samples collected from 5 prefectures. Sampling locations are shown in Figure 7.

One city and one village in each prefecture were chosen as representative of urban and rural districts of these prefectures respectively. In 1965 seven families were chosen at random from each location, and each family presented a normal portion of the regular diet consumed in one day by an adult. Diets at special occasions were avoided. Composite samples from the families were ashed together and analyzed. Results obtained during October and November, 1965 are shown in Table 5.

Figure 7. Total Diet Sampling Locations

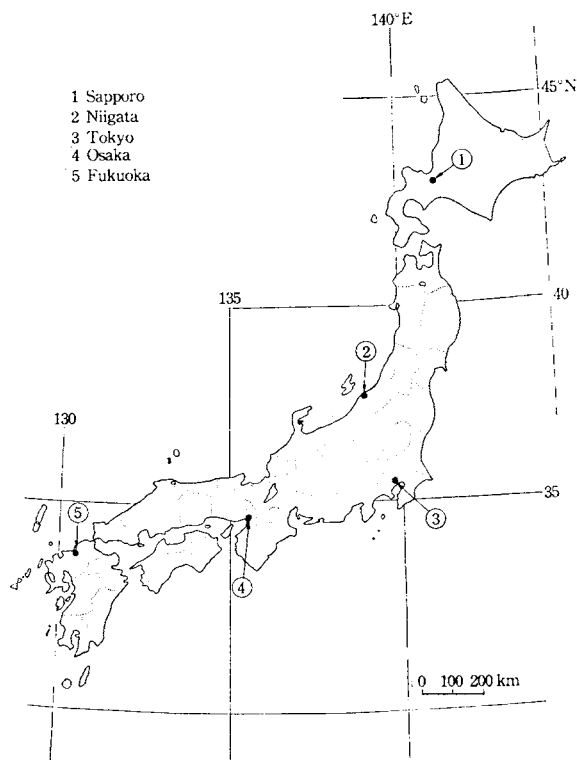


Table 5.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Total Diet —Oct. and Nov., 1965—

By M. Saiki, T. Ueda, Y. Suzuki, Z. Murakoshi and E. Kase  
(National Institute of Radiological Sciences)

(Continued from Table 10, Issue No. 7, of this Publication)

Location	Daily Intake				$^{90}\text{Sr}$ (pCi/gCa)	$^{137}\text{Cs}$ (pCi/gK)
	Ca (mg)	K (mg)	$^{90}\text{Sr}$ (pCi)	$^{137}\text{Cs}$ (pCi)		
URBAN ADULT DIET						
Sapporo, HOKKAIDO	528.1	2053.2	12.2	66.1	23.1	32.2
Niigata, NIIGATA	513.6	2380.8	33.5	94.9	65.2	39.8
Tokyo, TOKYO	402.3	2134.0	13.6	42.7	33.8	20.0
Osaka, OSAKA	541.5	2632.2	19.3	49.2	35.6	18.7
Group Supply	467.3	2204.1	16.6	56.9	35.5	25.8
Fukuoka, FUKUOKA	523.7	2024.7	13.4	30.8	25.6	15.2
RURAL ADULT DIET						
Sapporo, HOKKAIDO	696.4	3008.1	27.1	103.0	38.9	34.2
Niigata, NIIGATA	576.3	2827.0	30.8	48.8	53.4	17.3
Tokyo, TOKYO	—	—	—	—	31.3	20.9
Fukuoka, FUKUOKA	479.8	2156.8	12.6	35.1	26.3	16.3

## Strontium-90 and Cesium-137 in Powdered Milk

(Japan Analytical Chemistry Research Institute)

Since 1960, the Japan Analytical Chemistry Research Institute, on commission by the Science and Technology Agency, has analyzed strontium-90 and cesium-137 content in powdered whole milk and powdered skim milk.

The samples were purchased on the open market of various places, or collected from powdered milk producers. Sampling locations are shown in Figure 8.

The analysis of strontium-90 and cesium-137 content was carried out using the method recommended by the Science and Technology Agency.

Results obtained during the period April 1964 to July 1965 are shown in Table 6.

Figure 9 shows the all Japan mean values of powdered milk.

Figure 8. Powdered Milk Sampling Locations

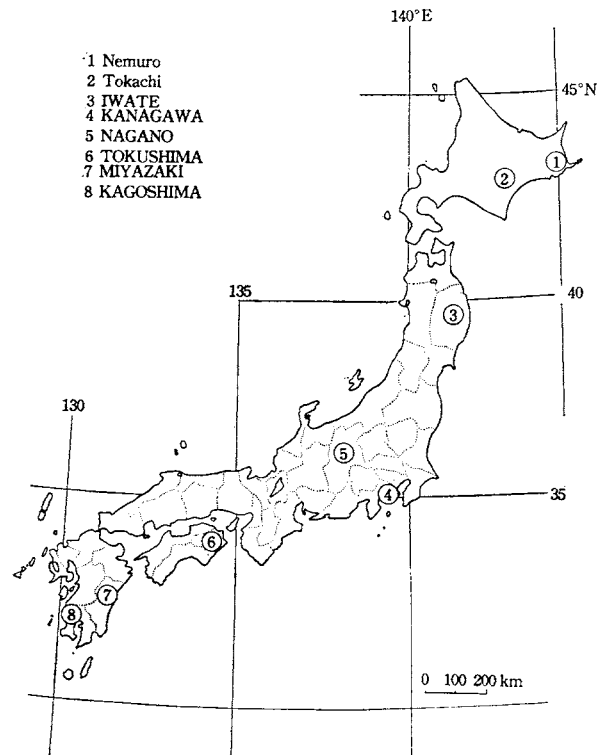


Figure 9.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Powdered Milk —Apr. 1964 to Jul. 1965—  
—All Japan Mean Values—

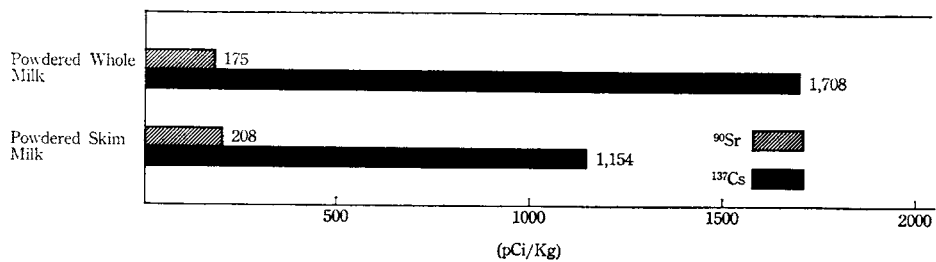


Table 6. <sup>90</sup>Sr and <sup>137</sup>Cs in Powdered Milk —Apr. 1964 to Jul. 1965—

By T. Asari, M. Chiba and Kuroda

*(Japan Analytical Chemistry Research Institute)*

(Continued from Table 16, Issue No. 4, of this Publication)

Location	Date	Component (% by Weight)			<sup>90</sup> Sr		<sup>137</sup> Cs	
		Ash (%)	Ca (%)	K (%)	(pCi/kg)	(pCi/gCa)	(pCi/kg)	(pCi/gK)
<b>(Powdered Whole Milk)</b>								
Tokachi, HOKKAIDO	Apr 1964	4.10	0.55	1.02	131	23.7	1102	108.2
Nemuro, "	May 64	3.91	0.46	0.91	249	54.3	2623	288.2
Tokachi, "	Jun 64	3.89	0.46	0.96	111	24.0	590	61.7
Nemuro, "	Jul 64	3.64	0.45	0.88	246	54.5	627	71.0
Tokachi, "	Aug 64	4.05	0.45	0.94	88	19.5	4583	489.6
Tokachi, TOKUSHIMA	"	8.60	1.31	1.81	135	10.3	581	42.2
Tokachi, HOKKAIDO	Sept 64	4.15	0.55	0.93	144	26.2	1767	191.0
"	"	6.05	0.93	1.29	486	52.1	8704	674.7
"	Oct 64	3.90	0.41	0.80	140	34.1	1602	200.3
"	"	6.27	0.91	1.43	78	8.6	558	39.0
Nemuro, TOKUSHIMA	"	8.50	1.23	1.79	114	9.3	533	29.8
Nemuro, HOKKAIDO	Nov 64	3.80	0.48	0.80	195	40.6	3167	398.0
"	"	6.33	0.92	1.53	213	23.2	890	58.2
"	"	6.15	0.70	1.21	95	13.6	763	63.1
Tokachi, KANAGAWA	Dec 64	3.96	0.47	0.83	112	24.0	854	102.9
"	"	6.15	0.72	1.28	84	11.7	639	49.7
"	"	6.20	0.87	1.43	117	13.4	327	22.9
Nemuro, HOKKAIDO	Jan 1965	4.10	0.63	1.00	224	35.6	3683	368.3
"	"	5.98	0.89	1.43	457	51.3	4308	301.3
"	"	6.41	0.95	1.53	209	22.0	879	57.5
"	"	6.06	0.93	1.24	80	8.6	509	41.0
"	"	6.18	0.95	1.40	342	36.1	1425	101.8
Nemuro, HOKKAIDO	Feb 65	4.14	0.48	0.90	185	38.9	1550	172.2
"	"	6.09	0.95	1.28	81	8.5	583	45.4
"	"	6.14	0.93	1.28	67	7.2	308	24.1
Nemuro, HOKKAIDO	Mar 65	4.22	0.50	0.99	68	13.6	2462	248.7
"	"	7.07	1.02	1.66	76	7.5	349	21.0
"	"	7.56	0.93	1.40	379	40.8	4979	355.6
Kitami, HOKKAIDO	Apr 65	6.38	0.93	1.22	225	24.5	1120	91.7
"	"	6.30	0.91	1.10	105	11.5	665	60.5
"	"	6.22	0.91	1.11	116	12.7	509	45.8
"	May 65	8.60	1.21	1.53	113	9.4	647	42.3
"	Jun 65	6.22	0.99	1.00	79	8.0	642	64.2
Nemuro, HOKKAIDO	Jul 65	6.05	0.90	0.99	391	43.4	6320	638
Kitami, HOKKAIDO	"	6.45	0.93	1.07	248	26.7	950	88.8
"	"	6.80	0.97	1.28	187	19.3	1050	82.0
"	"	6.15	0.87	1.14	99	11.4	352	30.8
<b>(Powdered Skim Milk)</b>								
TOKUSHIMA	Aug 1964	8.25	1.17	2.00	114	97.1	694	34.6
IWATE	Sept 64	8.46	1.21	2.02	349	28.8	1542	76.3
MIYAZAKI	"	8.23	1.27	1.88	187	14.7	633	33.7
KAGOSHIMA	"	6.03	0.88	1.38	133	15.1	580	32.1
HOKKAIDO	Nov 64	6.05	0.96	1.52	430	44.8	4893	321.9
MIYAZAKI	"	8.31	1.27	1.85	254	20.0	726	39.3
"	Jan 1965	8.23	1.29	1.88	157	12.2	645	34.3
"	Mar 65	8.28	1.28	1.93	120	9.4	534	27.7
KAGOSHIMA	"	7.97	1.26	1.87	142	11.3	525	28.1
MIYAZAKI	Jul 65	7.24	0.98	1.06	190	19.4	768	72.5

# Water Data

## Strontium-90 and Cesium-137 in Potable Rain Water used by Lighthouses

(Japan Analytical Chemistry Research Institute)

Since April 1964, potable rain water used by residents of beacon lighthouses has been analyzed for strontium-90 and cesium-137 content by the Japan Analytical Chemistry Research Institute.

Samples were collected in polyethylene bottles at 7 lighthouses once every other month. Ten liter samples each of potable rain water, with and without filtration through sand and charcoal, were sent from each lighthouse. Sampling locations

are shown by open circles in Figure 11.

The analytical procedure applied was the method recommended by the Science and Technology Agency.

Results obtained during the period October 1964 to May 1965, are shown in Table 7.

Figure 10 shows the all Japan mean value of potable rain water used by residents of lighthouses.

Table 7.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Potable Rain Water used by lighthouses. —Oct. 1964 to May 1965—

By T. Asari, M. Chiba and M. Kuroda

(Japan Analytical Chemistry Research Institute)

(Continued from Table 8, Issue No. 6, of this Publication)

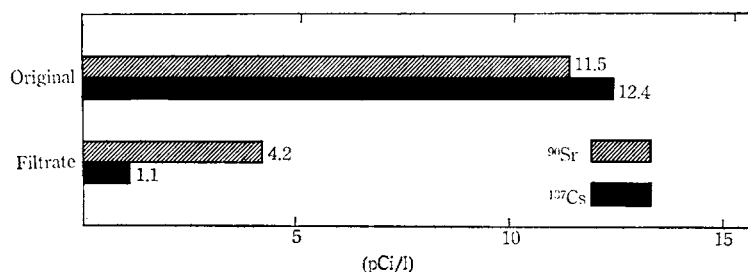
Lighthouse Location	$^{90}\text{Sr}$ (pCi/l)		$^{137}\text{Cs}$ (pCi/l)	
	Original	Filtrate	Original	Filtrate
<b>Oct 1964</b>				
Soyamisaki, HOKKAIDO	4.2	0.51	3.3	0.20
Miyakejima, TOKYO	4.8	3.8	3.8	0.60
Murotozaki, KOCHI	16.9	6.0	44.9	0.05
<b>Nov 1964</b>				
Soyamisaki, HOKKAIDO	51.0	0.09	11.6	0.28
Shakotanmisaki, //	29.8	2.1	19.9	0.33
Hajikizaki, KAGOSHIMA	7.8	9.5	2.7	5.20
Nagaohanamisaki, TOTTORI	2.31	2.6	2.6	0.66
Kusagakijima, KAGOSHIMA	10.9	2.8	9.9	0.21
<b>Jan 1965</b>				
Soyamisaki, HOKKAIDO	2.7	0.04	3.7	0.22
Shakotanmisaki, //	10.0	0.5	8.0	0.50
Hajikizaki, NIIGATA	12.5	13.7	4.3	0.40
Miyakejima, TOKYO	7.6	3.8	6.9	1.80
Nagaohanamisaki, TOTTORI	32.9	8.3	27.7	0.60
Murotozaki, KOCHI	14.2	5.1	24.2	1.90
Kusagakijima, KAGOSHIMA	4.7	10.7	3.4	0.30
<b>Mar 1965</b>				
Soyamisaki, HOKKAIDO	11.2	0.02	14.5	0.02
Shakotanmisaki, //	2.9	0.13	5.4	0.08
Hajikizaki, NIIGATA	15.8	12.6	4.9	0.68
Miyakejima, TOKYO	8.6	2.8	4.0	1.80
Nagaohanamisaki, TOTTORI	23.2	7.9	18.5	11.50
Murotozaki, KOCHI	20.8	5.0	47.7	0.13
Kusagakijima, KAGOSHIMA	5.2	5.5	2.2	0.16



Table 7.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Potable Rain Water used by lighthouses, —Oct. 1964 to May 1965—  
(continued)

Lighthouse Location	$^{90}\text{Sr}$ (pCi/l)		$^{137}\text{Cs}$ (pCi/l)	
	Original	Filtrate	Original	Filtrate
<b>May 1965</b>				
Soyamisaki, HOKKAIDO	6.92	0.63	24.9	0.09
Shakotanmisaki, //	14.9	0.21	10.1	0.06
Hajikizaki, NIIGATA	1.67	3.37	5.55	0.26
Miyakejima, TOKYO	2.92	3.62	3.70	1.81
Nagaohana, TOTTORI	1.64	3.88	0.50	0.40
Murotozaki, KOCHI	3.39	4.51	39.3	0.02
Kusagakijima, KAGOSHIMA	0.57	1.94	0.83	0.20

Figure 10.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Potable Rain Water used by Lighthouses —All Japan Mean Values— —Oct. 1964 to May 1965—



## Strontium-90 and Cesium-137 in Potable Rain Water

(Japan Analytical Chemistry Research Institute)

The strontium-90 and cesium-137 content in potable rain water collected from 10 prefectural public health laboratories was determined at Japan Analytical Chemistry Research Institute.

Ten liter samples taken from potable rain water tanks were collected by the prefectural public health laboratories, and sent to Japan Analytical Chemistry Research Institute for strontium-90 and cesium-137 content analyses.

Sampling locations are shown by solid circles

in Figure 11. After pre-treatment for concentration, the samples were analyzed by the fuming nitric acid method. The analytical procedure applied was the method recommended by the Science and Technology Agency.

Results obtained during the period June 1964 to March 1965 are shown in Table 8.

Figure 12 shows the all Japan mean value of potable rain water.

Figure 11. Potable Rain Water Sampling Locations

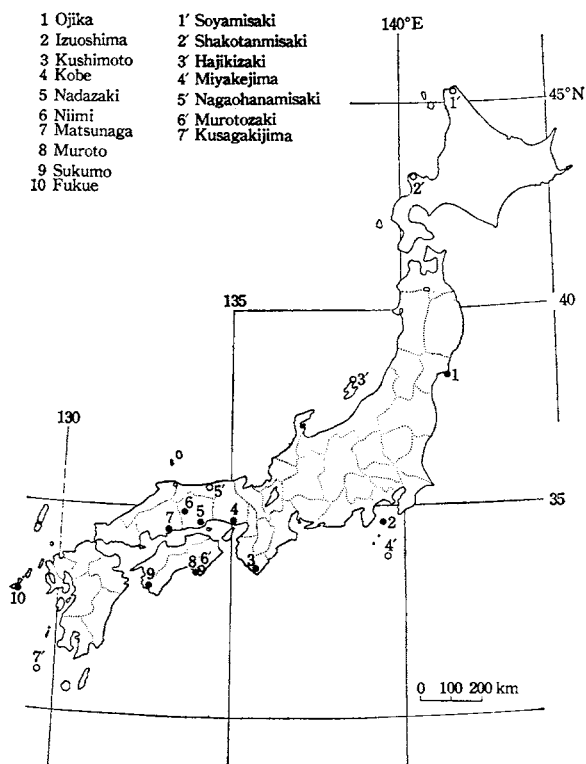


Figure 12.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Potable Rain Water  
—Jun. 1964 to Mar. 1965—  
—All Japan Mean Values—

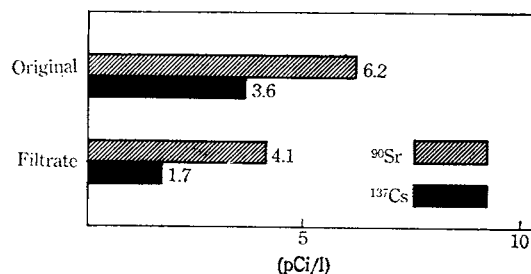


Table 8.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Potable Rain Water —Jun. 1964 to Mar. 1965—

By T. Asari, M. Chiba and M. Kuroda

(Japan Analytical Chemistry Research Institute)

Location	$^{90}\text{Sr}$ (pCi/l)		$^{137}\text{Cs}$ (pCi/l)	
	Original	Filtrate	Original	Filtrate
<b>Jun 1964</b>				
Izuoshima, TOKYO	8.79	0.86	10.52	1.27
Kushimoto, WAKAYAMA	1.90	4.02	2.47	2.01
Niimi, OKAYAMA	6.60	0.88	0.33	0.18
Matsunaga, HIROSHIMA	1.26	0.90	0.75	0.08
Nadazaki, OKAYAMA	4.76	0.47	0.90	0.07
Muroto, KOCHI	10.35	6.85	3.84	0.38
Sukumo, KOCHI	7.08	1.59	3.00	0.77
Fukue, NAGASAKI	5.45	5.70	1.27	0.35
<b>Aug 1964</b>				
Ojika, MIYAGI	3.63	0.49	0.81	0.16
Kobe, HYOGO	8.96	6.07	5.16	9.11
<b>Sept 1964</b>				
Ojika, MIYAGI	1.79	0.23	10.22	0.29
<b>Oct 1964</b>				
Ojika, MIYAGI	2.78	3.14	22.84	4.77
Izuoshima, TOKYO	7.02	0.72	1.57	0.27
Kushimoto, WAKAYAMA	3.93	3.94	1.66	0.64
Kobe, HYOGO	4.48	3.12	1.93	7.62
Niimi, OKAYAMA	3.64	0.43	0.17	0.11

Table 8.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Potable Rain Water —Jun. 1964 to Mar. 1965— (continued)

Location	$^{90}\text{Sr}$ (pCi/l)		$^{137}\text{Cs}$ (pCi/l)	
	Original	Filtrate	Original	Filtrate
<b>Oct 1964</b>				
Nadazaki, OKAYAMA	1.32	0.46	1.10	0.12
Matsunaga, HIROSHIMA	2.64	0.24	0.93	0.06
Muroto, KOCHI	5.68	1.45	3.07	0.21
Sukumoto, KOCHI	7.74	12.28	4.42	2.60
Fukue, NAGASAKI	5.45	5.70	1.27	0.35
<b>Jan 1965</b>				
Kushimoto, WAKAYAMA	3.26	5.20	0.42	0.96
Kobe, HYOGO	4.52	2.68	3.30	0.27
Niimi, OKAYAMA	5.88	0.68	1.15	0.03
Nadazaki, OKAYAMA	3.80	0.42	5.92	0.04
Matsunaga, HIROSHIMA	2.14	0.04	0.50	0.07
Muroto, KOCHI	5.32	0.82	1.34	0.16
Sukumoto, KOCHI	6.98	6.60	1.55	0.54
Fukue, NAGASAKI	5.83	11.14	1.86	0.45
<b>Feb 1965</b>				
Izuoshima, TOKYO	7.05	2.30	8.98	0.37
<b>Mar 1965</b>				
Ojika, MIYAGI	43.61	37.11	9.05	18.52

### Strontium-90 and Cesium-137 in Source Water

(Japan Analytical Chemistry Research Institute)

Since May 1963, the Japan Analytical Chemistry Research Institute, on commission by the Science and Technology Agency, has analyzed the strontium-90 and cesium-137 content in source water from 25 locations in Japan. Sampling locations are shown in Figure 13.

The analytical procedure applied is the same as that shown on page 9, Issue No. 6 of this publication.

Results obtained during the period October 1964 to August 1965 are shown in Table 9.

Figure 14 shows the all Japan mean value of source water.

Figure 13. Source Water Sampling Locations

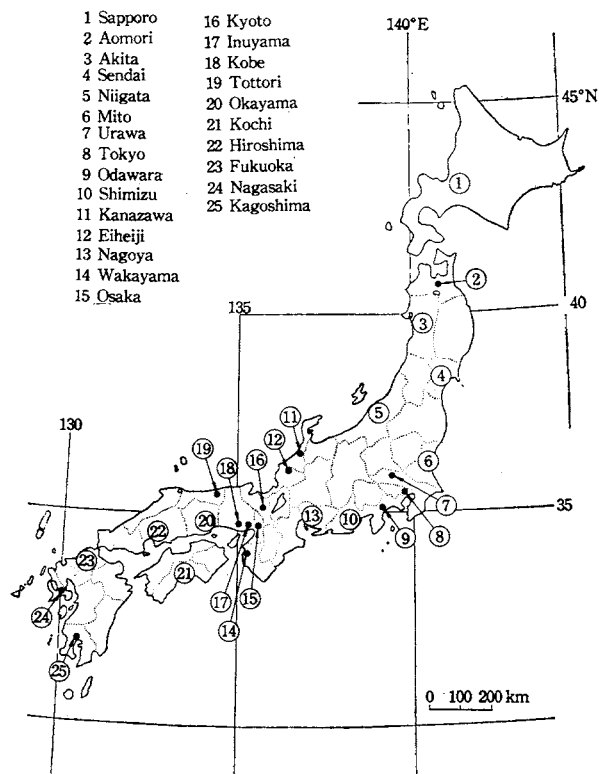


Table 9.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Source Water —Oct. 1964 to Aug. 1965—  
 By T. Asari, M. Chiba and M. Kuroda  
 (Japan Analytical Chemistry Research Institute)

Location	Source	$^{90}\text{Sr}$ (pCi/l)	$^{137}\text{Cs}$ (pCi/l)	Nature of Water pH	Appearance
<b>Oct 1964</b>					
Sapporo, HOKKAIDO	Water Purification Station	0.42	0.08	7.2	clear
Aomori, AOMORI	" "	0.18	0.06	7.0	—
Akita, AKITA	" "	0.48	0.12	6.9	—
Sendai, MIYAGI	" "	0.41	0.17	6.8	—
Mito, IBARAGI	" "	0.24	0.04	7.2	slight muddy (brawn)
Urawa, SAITAMA	" "	0.11	0.01	7.5	—
TOKYO	" "	0.21	0.05	7.2	—
Odawara, KANAGAWA	Station Intake	0.16	0.02	—	—
Niigata, NIIGATA	Shinano River	0.54	0.35	7.0	—
Kanazawa, ISHIKAWA	Water Purification Station	0.53	0.01	7.2	—
Eiheiji, FUKUI	" "	0.18	0.05	7.6	—
Shimizu, SHIZUOKA	Reservoir	0.11	0.01	7.4	—
Nagoya, AICHI	Station Intake	0.26	0.05	6.7	—
Kyoto, KYOTO	" "	1.19	0.13	7.3	slight muddy (white)
Osaka, OSAKA	" "	0.93	0.11	6.6	—
Kobe, HYOGO	Reservoir	0.43	0.04	7.0	—
Wakayama, WAKAYAMA	Water Purification Station	0.10	0.05	6.8	—
Tottori, TOTTORI	Reservoir	0.47	0.12	6.8	—
Okayama, OKAYAMA	" "	0.46	0.06	7.0	—
Hiroshima, HIROSHIMA	Station Intake	0.28	0.07	7.1	—
Kochi, KOCHI	" "	0.30	0.04	7.2	—
Fukuoka, FUKUOKA	Water Purification Station	0.37	0.08	6.8	—
Nagasaki, NAGASAKI	Reservoir	0.25	0.21	8.6	—
Kagoshima, KAGOSHIMA	Reservoir	0.64	0.02	6.9	clear
<b>Dec 1964</b>					
Sapporo, HOKKAIDO	Water Purification Station	0.35	0.04	7.1	—
Aomori, AOMORI	" "	0.22	0.12	7.0	—
Akita, AKITA	" "	0.50	0.18	6.7	—
Sendai, MIYAGI	" "	0.34	0.17	6.7	—
Mito, IBARAGI	" "	0.12	0.10	7.2	—
Urawa, SAITAMA	" "	0.02	0.009	7.4	—
TOKYO	" "	0.39	0.05	7.2	—
Odawara, KANAGAWA	Station Intake	0.04	0.005	—	—
Niigata, NIIGATA	Shinano River	0.88	0.49	7.2	—
Kanazawa, ISHIKAWA	Water Purification Station	0.70	0.08	7.1	—
Eiheiji, FUKUI	" "	0.18	0.08	7.1	—
Shimizu, SHIZUOKA	Reservoir	0.09	0.02	7.4	—
Nagoya, AICHI	Station Intake	0.85	0.05	6.8	—
Kyoto, KYOTO	" "	1.13	0.11	7.2	—
Osaka, OSAKA	" "	0.98	0.11	6.6	—
Kobe, HYOGO	Reservoir	0.37	0.08	6.9	—
Wakayama, WAKAYAMA	Water Purification Station	0.13	0.05	—	—
Tottori, TOTTORI	Reservoir	0.48	0.12	6.9	—
Okayama, OKAYAMA	" "	0.38	0.06	7.0	—
Hiroshima, HIROSHIMA	Station Intake	0.30	0.04	7.1	—
Kochi, KOCHI	" "	0.20	0.06	7.2	—
Fukuoka, FUKUOKA	Water Purification Station	0.21	0.13	6.8	—
Nagasaki, NAGASAKI	Reservoir	0.56	0.23	7.2	—
Kagoshima, KAGOSHIMA	Reservoir	0.04	0.02	6.6	—
<b>Feb 1965</b>					
Sapporo, HOKKAIDO	Water Purification Station	0.36	0.45	7.1	—
Aomori, AOMORI	" "	0.78	0.23	6.8	—
Akita, AKITA	" "	0.64	0.33	6.8	—
Sendai, MIYAGI	" "	0.39	0.20	6.9	—
Mito, IBARAGI	" "	0.26	0.28	6.9	—
Urawa, SAITAMA	" "	0.20	0.03	7.3	—
TOKYO	" "	0.24	0.57	7.1	—
Odawara, KANAGAWA	Station Intake	0.09	0.01	—	—
Niigata, NIIGATA	Shinano River	0.71	0.22	7.0	—
Kanazawa, ISHIKAWA	Water Purification Station	0.71	0.17	7.0	—

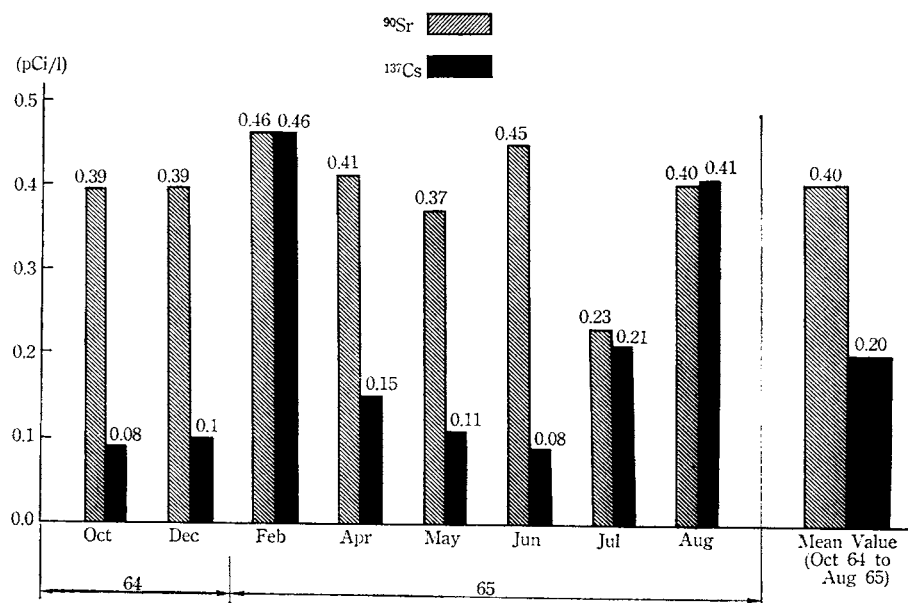
Table 9. <sup>90</sup>Sr and <sup>137</sup>Cs in Source Water --Oct. 1964 to Aug. 1965-- (continued)

Location	Source	<sup>90</sup> Sr (pCi/l)	<sup>137</sup> Cs (pCi/l)	Nature of Water pH	Appearance
<b>Feb 1965</b>					
Eiheiji, FUKUI	" "	0.28	1.54	7.5	—
Shimizu, SHIZUOKA	Reservoir	0.11	0.43	7.4	—
Nagoya, AICHI	Station Intake	0.41	0.20	6.7	—
Kyoto, KYOTO	" "	1.13	0.28	7.1	—
Osaka, OSAKA	" "	0.87	0.09	6.8	—
Kobe, HYOGO	Reservoir	0.37	0.68	7.0	—
Wakayama, WAKAYAMA	Water Purification Station	0.16	0.08	7.1	—
Tottri, TOTTRI	Reservoir	0.79	0.55	—	—
Okayama, OKAYAMA	" "	0.51	3.72	7.0	—
Hiroshima, HIROSHIMA	Station Intake	0.45	0.14	7.1	—
Kochi, KOCHI	" "	0.21	0.08	7.2	—
Fukuoka, FUKUOKA	Water Purification Station	0.42	0.13	6.8	—
Nagasaki, NAGASAKI	Reservoir	0.84	0.49	7.2	—
Kagoshima, KAGOSHIMA	Reservoir	0.09	0.02	6.7	—
<b>Apr 1965</b>					
Aomori, AOMORI	Water Purification Station	0.56	0.19	7.0	clear
Sendai, MIYAGI	" "	0.56	0.10	6.7	slight muddy
Mito, IBARAGI	" "	0.22	0.07	7.0	slight muddy
Odawara, KANAGAWA	Station Intake	0.14	0.02	6.8	—
Kanazawa, ISHIKAWA	Water Purification Station	0.77	0.62	7.3	clear
Shimizu, SHIZUOKA	Reservoir	0.30	0.31	7.4	clear
Inuyama, AICHI	Station Intake	0.26	0.06	4.5	slight muddy
Kyoto, KYOTO	" "	1.24	0.10	7.3	clear
Wakayama, WAKAYAMA	Water Purification Station	0.18	0.39	7.2	slight muddy
Okayama, OKAYAMA	Reservoir	0.12	0.09	6.7	clear
Hiroshima, HIROSHIMA	Station Intake	0.40	0.08	7.1	clear
Kochi, KOCHI	" "	0.17	0.02	7.2	—
Fukuoka, FUKUOKA	Water Purification Station	0.37	0.07	6.8	—
Nagasaki, NAGASAKI	Reservoir	0.86	0.12	8.8	slight muddy
Kagoshima, KAGOSHIMA	Reservoir	0.03	0.01	6.9	clear
<b>May 1965</b>					
Sapporo, HOKKAIDO	Water Purification Station	0.42	0.17	7.0	slight muddy (yellow)
Eiheiji, FUKUI	" "	0.25	0.05	7.9	clear
Tottori, TOTTORI	Reservoir	0.49	0.18	6.9	muddy (brawn)
Kobe, HYOGO	" "	0.33	0.03	7.0	—
<b>Jun 1965</b>					
Akita, AKITA	Water Purification Station	0.66	0.02	6.8	clear
Mito, IBARAGI	" "	0.30	0.11	6.9	slight muddy
Urawa, SAITAMA	" "	0.29	0.13	7.4	clear
Odawara, KANAGAWA	Station Intake	0.09	0.05	6.8	—
Kanazawa, ISHIKAWA	Water Purification Station	0.67	0.07	—	—
Inuyama, AICHI	" "	0.09	0.09	6.8	slight muddy
Kyoto, KYOTO	Station Intake	1.18	0.11	7.7	clear
Wakayama, HYOGO	" "	0.39	0.13	6.9	clear
Fukuoka, FUKUOKA	Water Purification Station	0.37	0.03	—	—
<b>Jul 1965</b>					
Sapporo, HOKKAIDO	Water Purification Station	0.33	0.01	7.1	slight muddy (white)
Aomori, AOMORI	" "	0.25	0.30	7.0	clear
Eiheiji, FUKUI	" "	0.19	0.07	7.6	clear
Shimizu, SHIZUOKA	Reservoir	0.12	0.03	7.4	clear
Wakayama, WAKAYAMA	Water Purification Station	0.19	0.10	6.6	slight muddy
Tottori, TOTTORI	Reservoir	0.38	0.07	—	muddy (brawn)
Okayama, OKAYAMA	" "	0.41	0.78	7.0	clear
Hiroshima, HIROSHIMA	Station Intake	0.31	0.61	7.1	clear
Kochi, KOCHI	" "	0.16	0.09	7.2	—
Nagasaki, NAGASAKI	Reservoir	0.19	0.10	6.8	—
Kagoshima, KAGOSHIMA	Reservoir	0.04	0.13	6.9	clear

Table 9.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Source Water —Oct. 1964 to Aug. 1965— (continued)

Location	Source	$^{90}\text{Sr}$ (pCi/l)	$^{137}\text{Cs}$ (pCi/l)	Nature of Water pH	Appearance
<b>Aug 1965</b>					
Akita, AKITA	Water Purification Station	0.28	0.93	6.8	clear
Urawa, SAITAMA	" "	0.01	0.14	7.4	clear
Odawara, KANAGAWA	Reservoir	0.69	0.22	6.8	—
Inuyama, AICHI	Station Intake	0.30	0.16	7.0	clear
Kyoto, KYOTO	" "	1.05	0.62	7.6	clear
Kobe, HYOGO	Reservoir	0.05	0.38	6.8	slight muddy (yellow)

Figure 14.  $^{90}\text{Sr}$  and  $^{137}\text{Cs}$  in Source Water —Oct. 1964 to Aug. 1965—  
—All Japan Mean Values—



### Contributors

The results quoted in this Issue were contributed by the following Institutes.

Institute and Address	Item
National Institute of Agricultural Sciences 1, 2-Chome, Nishigahara, Kita-ku, Tokyo	Rice, Wheat
Japan Analytical Chemistry Research Institute 17, 2-Chome, Kikukawa-cho, Sumida-ku, Tokyo	Vegetables, Powdered Milk, Potable Rain Water used by Lighthouses, Potable Rain Water, Source Water
National Institute of Radiological Sciences 9-1, 4-Chome, Anagawa, Chiba-shi	Total Diet