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NUMBER 41
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National Institute of Radiological Sciences
Chiba, Japan

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Science and Technology Agency
National Institute of Radiological Sciences

Geographical Data

Strontium-90 and Cesium-137 in Soil

(Japan Chemical Analysis Center)

To determine the total deposits of fallout, Japan Chemical Analysis Center has analyzed surface soil samples collected from 30 prefectures by the commission of Science and Technology Agency of Japanese Government.

Sampling locations are shown in Figure 1.

Soil samples were collected at depths of 0~5 and 5~20 cm on grassland or bare surface at each sampling location. Radiochemical analysis of these samples was carried out using the method recommended by Science and Technology Agency. One-hundred gram of soil was used as one sample for analysis.

Results obtained during the period from July 1974 to March 1975 are shown in Table 1.

Table 1. ^{90}Sr and ^{137}Cs in Soil
– Jul., 1974 to Mar., 1975 –
(Japan Chemical Analysis Center)
(Continued from Table 1, No. 37 of this publication)

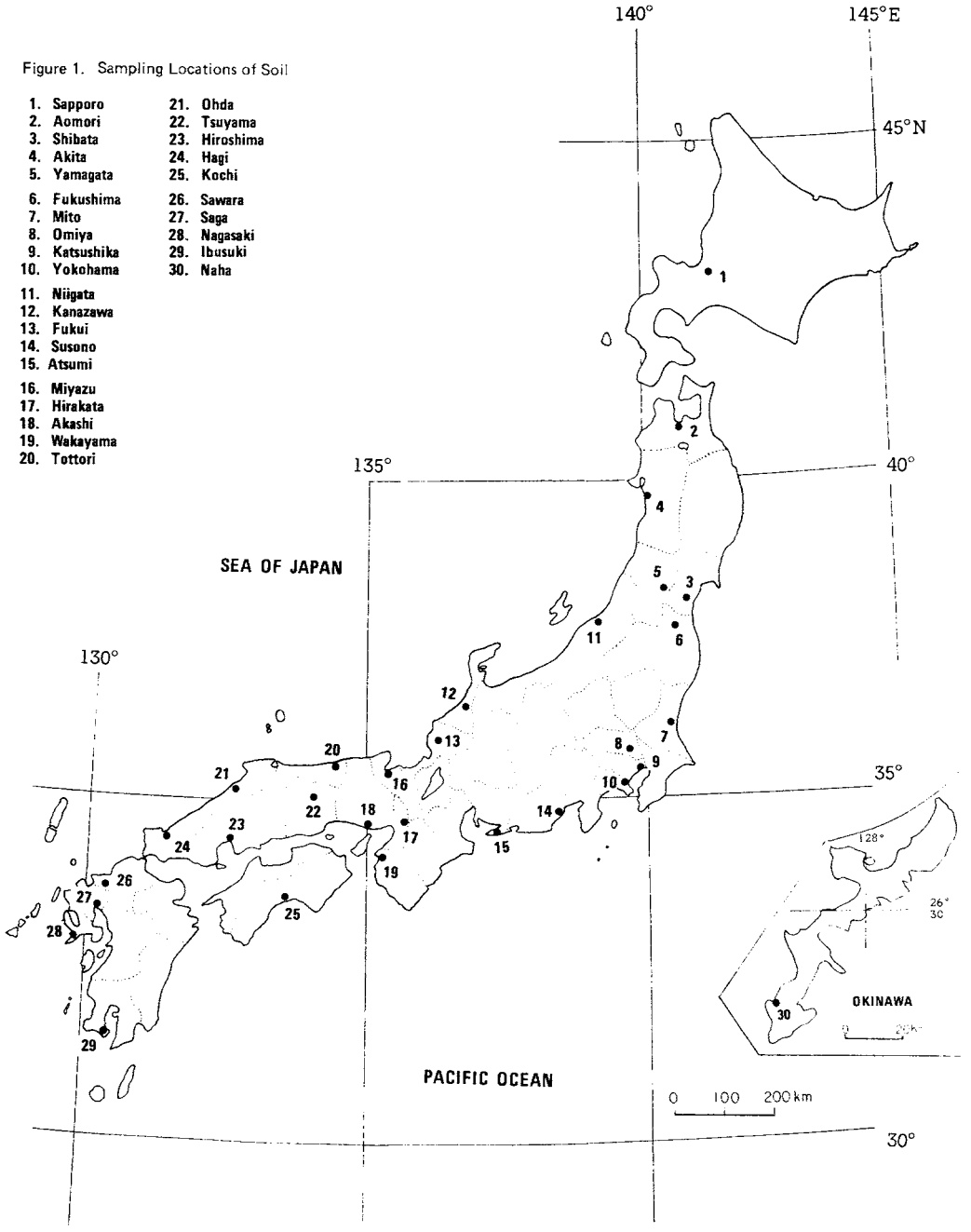
Location	Sampling Depth (cm)	Air Soil (%)	Dry Soil (kg/ℓ)	Sr (%)	^{90}Sr (pCi/kg)	^{90}Sr (mCi/km²)	^{137}Cs (pCi/kg)	^{137}Cs (mCi/km²)
Jul. 1974								
Yamagata, YAMAGATA	0~5	99.4	1.43	0.003	140±10	10 ±0	260±10	18 ±1
〃	5~20	99.6	1.32	0.004	100± 0	12 ±1	120±10	14 ±1
Mito, IBARAKI	0~5	90.1	0.90	0.005	690±10	24 ±0	2500± 0	86 ±1
〃	5~20	87.6	0.91	0.003	230±10	16 ±0	180±10	12 ±1
Omiya, SAITAMA	0~5	97.4	0.85	0.002	760±10	19 ±0	2100± 0	50 ±1
〃	5~20	96.1	0.90	0.004	240±10	21 ±1	310±10	26 ±1
Karihane, NIIGATA	0~5	98.1	1.10	0.005	700±10	29 ±0	1200± 0	50 ±1
〃	5~20	98.3	1.12	0.004	73± 5	9.4±0.7	870±20	110 ±0
Ohda, SHIMANE	0~5	99.3	1.00	0.003	730±10	18 ±0	2300± 0	55 ±1
〃	5~20	93.4	0.89	0.003	650±10	91 ±2	950±20	130 ±0
Aug. 1974								
Sapporo, HOKKAIDO	0~5	97.5	1.05	0.006	44± 3	1.5±0.1	210±10	7.3±0.3
〃	5~20	97.3	1.02	0.005	18± 2	3.5±0.5	110±10	22 ±1
Aomori, AOMORI	0~5	91.6	0.73	0.002	52± 3	2.0±0.1	110±10	4.0±0.2
〃	5~20	91.3	0.70	0.002	13± 2	1.0±0.2	84± 6	6.5±0.5
Hayama, FUKUSHIMA	0~5	98.5	1.22	0.001	190±10	9.1±0.2	440±10	21 ±1
〃	5~20	95.9	1.22	0.007	83± 5	18 ±1	31± 5	7 ±1
Katsushika, TOKYO	0~5	99.3	1.03	0.009	140±10	6.2±0.2	320±10	14 ±1
〃	5~20	99.1	1.03	0.008	190±10	25 ±1	330±10	44 ±1
Kanazawa, ISHIKAWA	0~5	98.2	1.24	0.002	130±10	6.2±0.3	260±10	13 ±0
〃	5~20	98.3	1.24	0.003	92± 4	12 ±1	250±10	32 ±1

Location	Sampling Depth (cm)	Air Soil (%)	Dry Soil (kg/ℓ)	Sr (%)	^{90}Sr (pCi/kg)	^{90}Sr (mCi/km^2)	^{137}Cs (pCi/kg)	^{137}Cs (mCi/km^2)
Fukui, FUKUI	0~5	96.8	1.03	0.003	110± 0	5.6±0.2	150±10	7.7±0.4
〃	5~20	96.3	1.00	0.004	56± 3	6.2±0.3	16± 6	1.8±0.7
Susono, SHIZUOKA	0~5	98.2	0.68	0.001	50± 3	1.4±0.1	340±10	9.6±0.3
〃	5~20	96.0	0.72	0.002	110± 0	9.5±0.4	320±10	29 ±1
Atsumi, AICHI	0~5	98.3	1.30	0.001	88± 4	5.8±0.3	560±20	37 ±1
〃	5~20	98.2	1.32	0.001	90± 4	28 ±1	330±10	100 ±0
Akashi, HYOGO	0~5	97.9	1.04	0.001	160±10	5.2±0.2	780±20	26 ±1
〃	5~20	94.9	1.05	0.000	120±10	17 ±1	280±10	39 ±2
Tottori, TOTTORI	0~5	98.6	1.13	0.002	290±10	14 ±0	1300± 0	66 ±1
〃	5~20	98.3	1.14	0.001	230±10	45 ±1	640±10	130 ±0
Tsuyama, OKAYAMA	0~5	97.5	1.26	0.002	45± 4	3.5±0.3	220±10	17 ±1
〃	5~20	98.2	1.19	0.001	27± 3	3.2±0.3	250±10	29 ±1
Hiroshima, HIROSHIMA	0~5	98.7	1.10	0.002	230±10	8.8±0.2	1000± 0	39 ±1
〃	5~20	98.4	1.19	0.002	160±10	23 ±1	340±10	46 ±2
Kochi, KOCHI	0~5	98.1	1.18	0.005	510±10	27 ±0	1500± 0	80 ±1
〃	5~20	99.2	1.04	0.004	240±10	32 ±1	370±10	49 ±2
Sawara, FUKUOKA	0~5	98.9	0.99	0.002	350±10	13 ±0	1400± 0	55 ±1
〃	5~20	98.4	1.17	0.002	190±10	53 ±1	370±10	100 ±0
Saga, SAGA	0~5	99.0	1.08	0.001	190±10	5.7±0.2	340±10	10 ±1
〃	5~20	99.5	1.26	0.002	27± 3	6.9±0.8	30± 4	7.6±1.1
Nagasaki, NAGASAKI	0~5	97.9	1.08	0.001	260±10	9.4±0.3	860±20	30 ±1
〃	5~20	97.8	1.11	0.001	190±10	25 ±1	330± 0	43 ±1
Ibusuki, KAGOSHIMA	0~5	95.5	1.25	0.010	380±10	29 ±1	1300± 0	100 ±0
〃	5~20	93.3	1.25	0.010	290±10	53 ±1	320±10	59 ±2
Sep. 1974								
Shibata, MIYAGI	0~5	95.0	0.98	0.003	350±10	14 ±3	1000± 0	40 ±1
〃	5~20	94.0	1.07	0.001	60± 4	6.1±0.4	110±10	11 ±1
Akita, AKITA	0~5	97.3	0.76	0.001	260±10	11 ±0	510±10	21 ±1
〃	5~20	97.4	0.84	0.002	200±10	34 ±1	310±10	51 ±2
Miyazu, KYOTO	0~5	98.9	1.45	0.001	250±10	15 ±0	390±10	23 ±1
〃	5~20	99.5	1.49	0.001	200±10	50 ±1	450±10	110 ±0
Hirakata, OSAKA	0~5	98.6	0.88	0.002	74± 4	2.7±0.2	430±10	16 ±1
〃	5~20	99.6	1.19	0.001	29± 3	6.2±0.6	160±10	35 ±2
Wakayama, WAKAYAMA	0~5	99.6	1.52	0.003	9± 2	0.5±0.1	79 ± 6	4.7±0.3
〃	5~20	99.7	1.49	0.002	10± 2	1.8±0.4	77± 5	14 ±1
Oct. 1974								
Hagi, YAMAGUCHI	0~5	98.3	0.93	0.001	130±10	8.8±0.4	380±10	27 ±1
〃	5~20	98.5	1.11	0.001	93± 4	29 ±1	270±10	85 ±3
Jan. 1975								
Yokohama, KANAGAWA	0~5	92.8	0.76	0.005	580±10	20 ±0	1700± 0	58 ±1
〃	5~20	91.4	0.70	0.011	150±10	14 ±1	240±10	23 ±1

Location	Sampling Depth (cm)	Air Soil (%)	Dry Soil (kg/ℓ)	Sr (%)	^{90}Sr		^{137}Cs	
					(pCi/kg)	(mCi/km^2)	(pCi/kg)	(mCi/km^2)
Mar. 1975								
Naha, OKINAWA	0~5	97.8	0.97	0.017	100± 0	4.8±0.2	280±10	14 ± 1
〃	5~20	97.1	0.89	0.022	130± 0	33 ±1	430±10	110 ± 0

Figure 1. Sampling Locations of Soil

1. Sapporo
2. Aomori
3. Shibata
4. Akita
5. Yamagata
6. Fukushima
7. Mito
8. Omiya
9. Katsushika
10. Yokohama
11. Niigata
12. Kanazawa
13. Fukui
14. Susono
15. Atsumi
16. Miyazu
17. Hirakata
18. Akashi
19. Wakayama
20. Tottori
21. Ohda
22. Tsuyama
23. Hiroshima
24. Hagi
25. Kochi
26. Sawara
27. Saga
28. Nagasaki
29. Ibusuki
30. Naha



Water Data

Strontium-90 and Cesium-137 in Source Water

(Japan Chemical Analysis Center)

Japan Chemical Analysis Center has analyzed the strontium-90 and cesium-137 contents in source water from 29 locations in Japan by the commission of Science and Technology Agency of Japanese Government.

Sampling locations are shown in Figure 2.

To concentrate the strontium-90 and cesium-137, the ion exchange method has been used. The column, filled with sodium cation exchange resin (Dowex 50W-X8,50~80 mesh), and 100 ml of carrier solution containing both 100 mg of strontium and cesium, were sent in advance from Japan Chemical Analysis Center to each prefectural public health laboratory.

At each prefectural public health laboratory, a 100 liter of water sample was passed through the column at the rate of 12 liters per hour, then the column was returned to Japan Chemical Analysis Center.

At Japan Chemical Analysis Center, after 2 liters of 5%-oxalic acid was passed through the column to remove other metals by complex ionization, strontium and cesium adsorbed on the resin were eluted by 3 liters of 3N-hydrochloric acid. The hydrochloric acid fraction was analyzed using the method recommended by Science and Technology Agency.

Results obtained during the period June 1974 to March 1975 are shown in Table 2.

Table 2. ^{90}Sr and ^{137}Cs in Source Water
– Jun., 1974 to Mar., 1975 –
(Japan Chemical Analysis Center)
(Continued from Table 2, No. 37 of this publication)

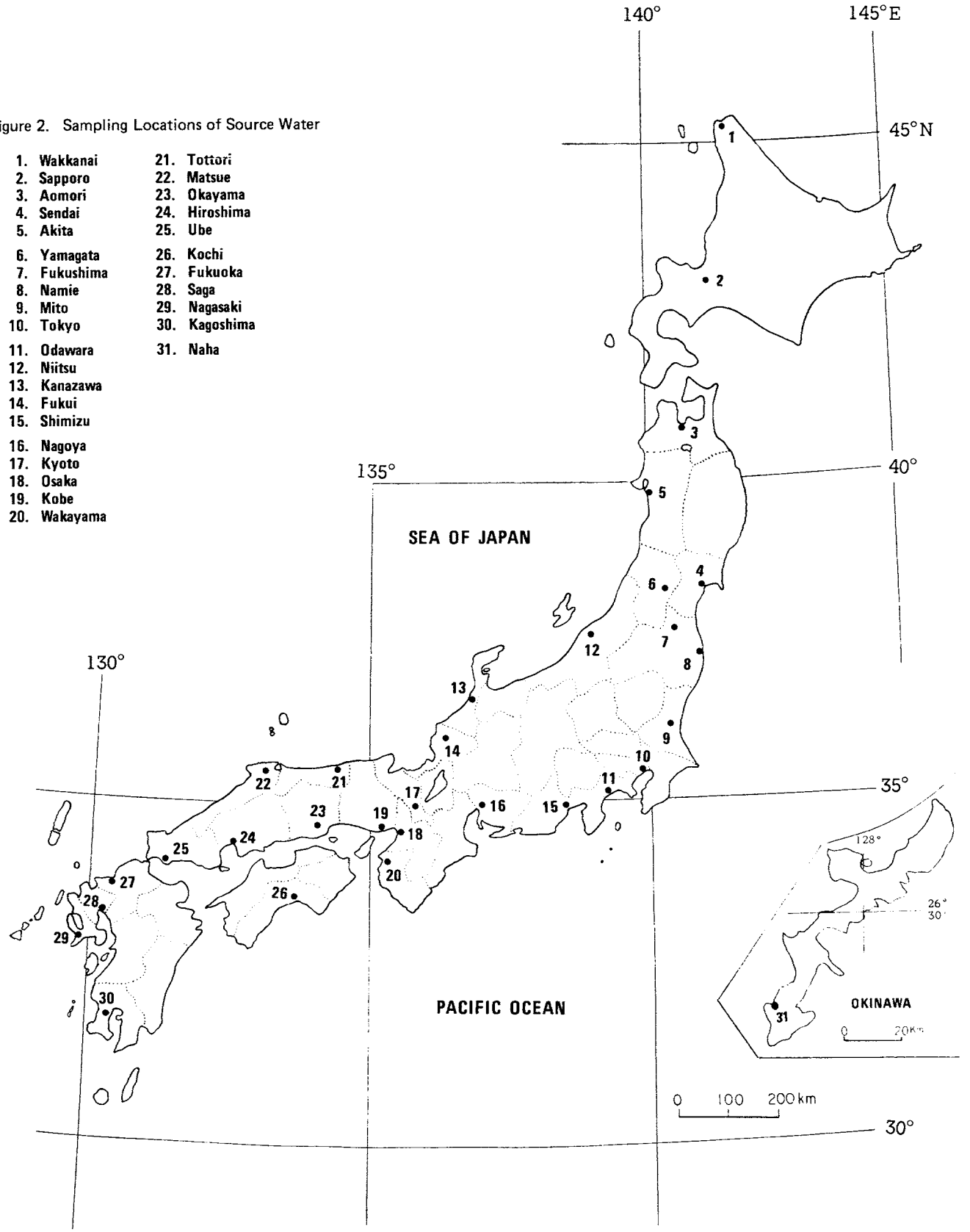
Location	Source	Type	pH	^{90}Sr (pCi/ℓ)	^{137}Cs (pCi/ℓ)
Jun. 1974					
Yamagata, YAMAGATA	Institute of Public Health	T.W.	7.2	0.16 ±0.01	0.088±0.006
Niitsu, NIIGATA	Water Purification Station	"	6.9	0.24 ±0.01	0.015±0.003
Kobe, HYOGO	Reservoir	S.W.	7.3	0.14 ±0.00	0.13 ±0.01
Tottori, TOTTORI	"	"	6.7	0.11 ±0.00	0.11 ±0.01
Jul. 1974					
Sapporo, HOKKAIDO	Water Purification Station	S.W.	7.1	0.12 ±0.00	0.040±0.005
Aomori, AOMORI	"	"	7.0	0.068±0.004	0.037±0.004
Namie, FUKUSHIMA	"	T.W.	6.3	0.044±0.003	0.009±0.003
TOKYO	"	S.W.	7.0	0.22 ±0.01	0.042±0.005
TOKYO	"	T.W.	7.1	0.20 ±0.01	0.042±0.005
Kanazawa, ISHIKAWA	Water Purification Station	S.W.	7.3	0.21 ±0.01	0.058±0.006
Shimizu, SHIZUOKA	Reservoir	"		0.053±0.003	0.010±0.004
Nagoya, AICHI	Station Intake	"	6.6	0.13 ±0.00	0.014±0.003
Okayama, OKAYAMA		"		0.17 ±0.01	0.084±0.006
Hiroshima, HIROSHIMA	Water Purification Station	"	7.1	0.077±0.004	0.11 ±0.01

Location	Source	Type	pH	^{90}Sr (pCi/ℓ)	^{137}Cs (pCi/ℓ)
Ube, YAMAGUCHI	Kotou Dam Intake	S.W.	7.0	0.21 ±0.01	0.13 ±0.01
Kochi, KOCHI		"	7.2	0.086±0.004	0.014±0.003
Fukuoka, FUKUOKA		"	6.8	0.11 ±0.00	0.10 ±0.01
Saga, SAGA	Station Intake	"	7.3	0.10 ±0.01	0.019±0.004
Nagasaki, NAGASAKI	Reservoir	"	6.9	0.084±0.003	0.046±0.004
Aug. 1974					
Wakkanai, HOKKAIDO	Water Purification Station	S.W.	6.8	0.30 ±0.01	0.081±0.006
Akita, AKITA	"	"	7.1	0.25 ±0.01	0.33 ±0.01
Akita, AKITA	"	T.W.	6.5	0.19 ±0.01	0.019±0.004
Fukui, FUKUI	"	S.W.	7.3	0.012±0.002	0.083±0.005
Kyoto, KYOTO	"	"		0.40 ±0.01	0.092±0.006
Sep. 1974					
Aomori, AOMORI	Water Purification Station	S.W.	7.0	0.094±0.004	0.049±0.004
Sendai, MIYAGI	"	"	7.2	0.13 ±0.01	0.032±0.004
Odawara, KANAGAWA	Station Intake	T.W.	7.2	0.022±0.002	0.002±0.003
Fukui, FUKUI	Water Purification Station	S.W.	6.8	0.006±0.001	0.010±0.003
Osaka, OSAKA	"	"	6.9	0.27 ±0.01	0.026±0.004
Oct. 1974					
Akita, AKITA	Water Purification Station	T.W.	6.5	0.23 ±0.01	0.018±0.003
Mito, IBARAKI	Institute of Public Health	"	7.2	0.064±0.003	0.059±0.005
Osaka, OSAKA	"	"	6.8	0.12 ±0.00	0.006±0.003
Osaka, OSAKA	Water Purification Station	S.W.	6.8	0.25 ±0.01	0.026±0.004
Kagoshima, KAGOSHIMA	Station Intake	"	7.7	0.016±0.002	0.033±0.005
Nov. 1974					
Wakkanai, HOKKAIDO	Water Purification Station	S.W.	6.8	0.44 ±0.01	0.32 ±0.01
Kyoto, KYOTO	"	"	7.8	0.36 ±0.01	0.11 ±0.01
Dec. 1974					
Yamagata, YAMAGATA	Institute of Public Health	T.W.	7.4	0.16 ±0.01	0.012±0.003
Fukushima, FUKUSHIMA		"	7.1	0.17 ±0.01	0.012±0.003
Mito, IBARAKI	Institute of Public Health	"	7.0	0.058±0.003	0.013±0.003
TOKYO	Water Purification Station	S.W.	7.0	0.13 ±0.01	0.028±0.004
TOKYO	"	T.W.	6.8	0.13 ±0.00	0.028±0.004
Odawara, KANAGAWA		T.W.	6.7	0.051±0.003	0.11 ±0.01
Niitsu, NIIGATA	Water Purification Station	"	7.5	0.43 ±0.01	0.015±0.003
Kanazawa, ISHIKAWA	"	S.W.	7.0	0.20 ±0.01	0.026±0.004
Shimizu, SHIZUOKA	Reservoir	"		0.045±0.003	0.004±0.003
Nagoya, AICHI	Station Intake	"	6.9	0.10 ±0.00	0.026±0.004
Osaka, OSAKA	Institute of Public Health	T.W.	6.4	0.14 ±0.01	0.008±0.003
Tottori, TOTTORI	Reservoir	S.W.	6.7	0.11 ±0.00	0.003±0.003
Matsue, SHIMANE	Senbon Dam Intake	"	7.0	0.54 ±0.02	0.022±0.003
Okayama, OKAYAMA	"	"		0.16 ±0.01	0.13 ±0.01
Hiroshima, HIROSHIMA	Water Purification Station	"	7.1	0.15 ±0.00	0.029±0.004

Location	Source	Type	pH	^{90}Sr (pCi/ℓ)	^{137}Cs (pCi/ℓ)
Ube, YAMAGUCHI	Kotou Dam Intake	S.W.	7.0	0.11 ±0.00	0.018±0.004
Kochi, KOCHI		〃	7.2	0.078±0.003	0.037±0.004
Fukuoka, FUKUOKA		〃	6.8	0.098±0.004	0.10 ±0.01
Saga, SAGA	Station Intake	〃		0.099±0.005	0.028±0.004
Nagasaki, NAGASAKI	Reservoir	〃	7.1	0.11 ±0.00	0.081±0.006
Kagoshima, KAGOSHIMA	Station Intake	S.W.	7.5	0.044±0.003	0.020±0.004
Jan. 1975					
Wakkanai, HOKKAIDO		T.W.	6.8	0.48 ±0.01	0.018±0.003
Sapporo, HOKKAIDO	Water Purification Station	S.W.	7.1	0.11 ±0.00	0.044±0.05
Fukui, FUKUI	Institute of Public Health	T.W.	7.5	0.004±0.001	0.011±0.003
Kobe, HYOGO	Reservoir	S.W.	7.4	0.11 ±0.00	0.011±0.003
Wakayama, WAKAYAMA	Water Purification Station	〃	7.2	0.088±0.004	0.006±0.003
Feb. 1975					
Sendai, MIYAGI	Water Purification Station	S.W.	6.9	0.13 ±0.00	0.012±0.003
Fukui, FUKUI	Institute of Public Health	T.W.	6.8	0.007±0.002	0.021±0.004
Wakayama, WAKAYAMA	Water Purification Station	S.W.	7.2	0.088±0.004	0.006±0.003
Naha, OKINAWA	〃	〃	7.8	0.16 ±0.01	0.010±0.004
Mar. 1975					
Naha, OKINAWA	Water Purification Station	S.W.	7.6	0.17 ±0.01	0.015±0.004

Figure 2. Sampling Locations of Source Water

1. Wakkanai
2. Sapporo
3. Aomori
4. Sendai
5. Akita
6. Yamagata
7. Fukushima
8. Namie
9. Mito
10. Tokyo
11. Odawara
12. Niitsu
13. Kanazawa
14. Fukui
15. Shimizu
16. Nagoya
17. Kyoto
18. Osaka
19. Kobe
20. Wakayama
21. Tottori
22. Matsue
23. Okayama
24. Hiroshima
25. Ube
26. Kochi
27. Fukuoka
28. Saga
29. Nagasaki
30. Kagoshima
31. Naha



Dietary Data

Strontium-90 and Cesium-137 in Total Diet

(Japan Chemical Analysis Center)

By the commission of Science and Technology Agency of Japanese Government, Japan Chemical Analysis Center has analyzed total diet samples collected from 29 prefectures.

One city and one village in each prefecture were chosen as representatives of urban and rural district of these prefectures, respectively. And the regular diet consumed in one day by an adult and a child was randomly presented for radiochemical analysis in each location. Diet at special occasions were avoided. Radiochemical Analysis of these samples was carried out using the method recommended by Science and Technology Agency.

Results obtained during the period from June 1974 to March 1975 are shown in Table 3.

Table 3. ^{90}Sr and ^{137}Cs in Total Diet
– Jun., 1974 to Mar., 1975 –
(Japan Chemical Analysis Center)
(Continued from Table 3, No. 35 of this publication)

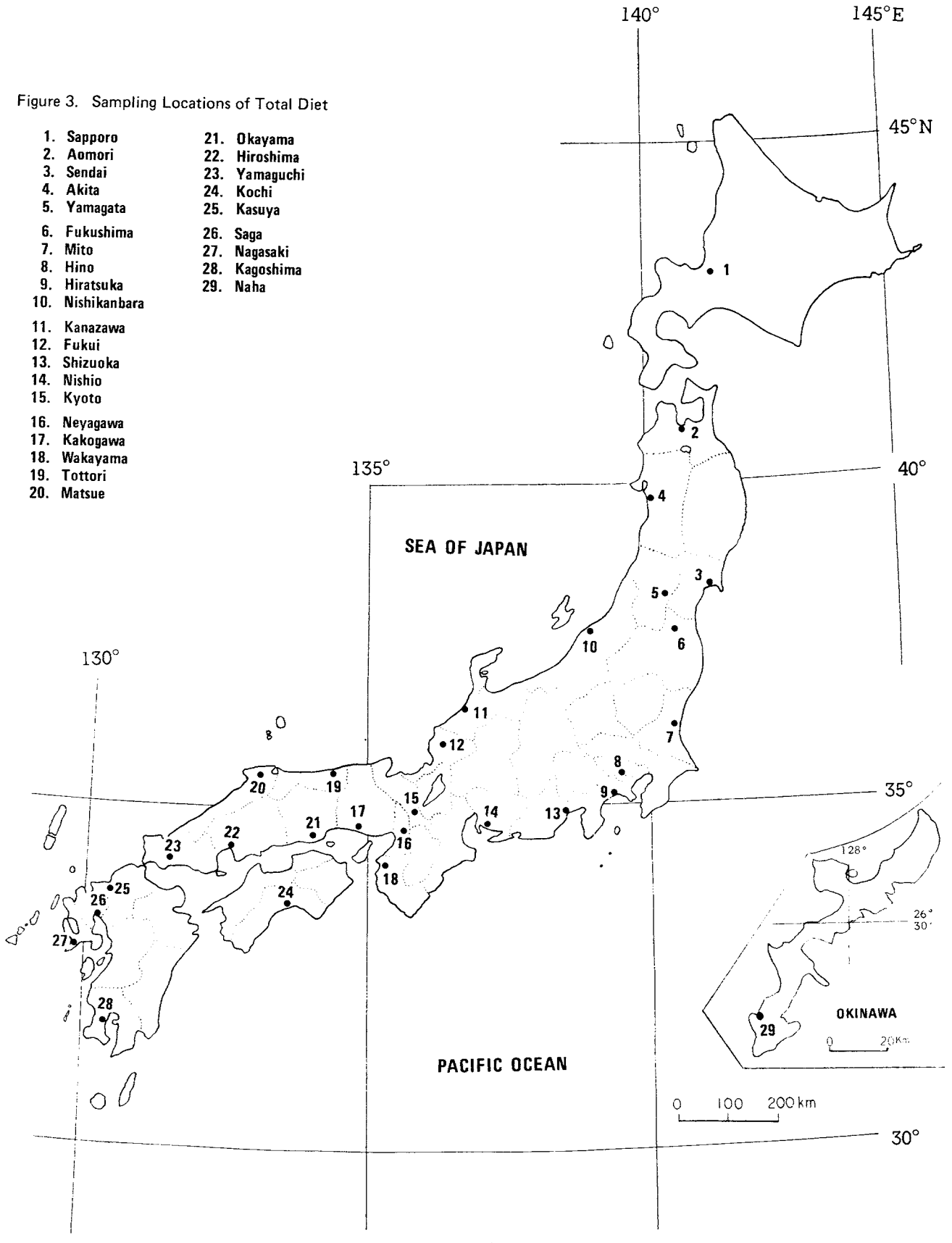
Location	Date	Sorting*	Ash		Ca	K	^{90}Sr		^{137}Cs	
			(g/p/d)	(g)	(mg/p/d)	(mg/p/d)	(pCi/p/d)	(pCi/gCa)	(pCi/p/d)	(pCi/gK)
– 1974 –										
Yamagata, YAMAGATA	6.16	A	19.9	20	505	2130	6.4±0.3	12 ±1	8.0±0.5	3.8±0.2
Mito, IBARAKI	6.25	〃	19.8	〃	615	2990	2.9±0.3	4.8±0.5	10 ±1	3.3±0.2
Hino, TOKYO	6.18	〃	17.9	10	500	2000	3.4±0.4	6.8±0.7	8.9±0.7	4.5±0.4
Kakogawa, HYOGO	6.24	〃	23.2	〃	1140	1650	4.6±0.5	4.1±0.4	14 ±1	8.2±0.7
Tottori, TOTTORI	6.12	〃	23.8	〃	385	2260	7.4±0.5	19 ±1	28 ±2	12 ±1
Saga, SAGA	6.17	〃	19.5	20	2060	1600	5.3±0.3	2.6±0.2	6.8±0.5	4.2±0.3
Sapporo, HOKKAIDO	7.	〃	17.0	〃	295	1850	5.1±0.3	17 ±1	6.1±0.4	3.3±0.2
Sendai, MIYAGI	7.2	〃	21.9	〃	398	1900	4.6±0.3	12 ±1	10 ±1	5.3±0.3
Akita, AKITA	7.	〃	14.8	10	598	1740	4.4±0.3	7.4±0.5	9.9±0.6	5.7±0.3
Nishikanbara, NIIGATA	7.19	B	20.2	20	615	2450	7.3±0.4	12 ±1	9.0±0.6	3.7±0.2
Kanazawa, ISHIKAWA	7.	A	17.2	〃	513	1660	2.9±0.3	5.7±0.5	6.8±0.4	4.1±0.2
Fukui, FUKUI	7.	〃	16.3	〃	293	1120	1.9±0.2	6.4±0.6	4.9±0.3	4.4±0.3
Shizuoka, SHIZUOKA	7.	〃	16.0	〃	413	2360	3.8±0.3	9.3±0.6	11 ±1	4.6±0.2
Nishio, AICHI	7.21	B	18.7	〃	516	2650	3.5±0.3	6.8±0.5	11 ±1	4.0±0.2
Neyagawa, OSAKA	7.15	A	18.1	〃	419	2390	3.7±0.3	8.9±0.6	6.7±0.5	2.8±0.2
Okayama, OKAYAMA	7.21	〃	18.0	〃	440	1830	3.0±0.2	6.8±0.6	5.6±0.4	3.1±0.2
Hiroshima, HIROSHIMA	7.	〃	18.3	〃	331	1670	4.1±0.3	12 ±1	7.0±0.5	4.2±0.3
Kochi, KOCHI	7.	〃	15.1	〃	482	1790	3.5±0.2	7.2±0.5	8.9±0.4	4.9±0.2
Nagasaki, NAGASAKI	7.	〃	12.4	10	436	1390	2.6±0.2	6.0 ±0.6	11 ±1	7.9±0.5
Aomori, AOMORI	8.23	〃	17.9	20	395	1680	8.8±0.4	22 ±1	11 ±1	6.3±0.3

Location	Date	Sorting*	Ash		Ca	K	^{90}Sr		^{137}Cs	
			(g/p/d)	(g)	(mg/p/d)	(mg/p/d)	(pCi/p/d)	(pCi/gCa)	(pCi/p/d)	(pCi/gK)
Hiratsuka, KANAGAWA	8.	A	19.6	20	350	1770	3.0±0.3	8.5±0.8	7.5±0.5	4.2±0.3
Wakayama, WAKAYAMA	8.11	〃	19.4	〃	1480	1360	14 ±1	9.6±0.4	5.5±0.4	4.0±0.3
Matsue, SHIMANE	8.18	〃	18.2	〃	1220	1880	5.7±0.3	4.7±0.2	8.9±0.4	4.7±0.2
Kasuya, FUKUOKA	8.26	B	16.2	〃	553	1590	3.5±0.2	6.3±0.3	6.1±0.4	3.8±0.3
Fukushima, FUKUSHIMA	9.17	A	17.9	10	443	1840	4.8±0.4	11 ±1	13 ±1	7.1±0.4
Kyoto, KYOTO	9.	〃	19.9	20	627	1970	5.2±0.3	8.3±0.5	9.8±0.5	5.0±0.3
Kasuya, FUKUOKA	10.21	B	16.9	〃	537	1660	3.2±0.3	6.0±0.5	5.1±0.4	3.1±0.2
Kagoshima, KAGOSHIMA	10.24	A	19.5	10	605	1970	6.3±0.6	10 ±1	22 ±1	11 ±1
Sapporo, HOKKAIDO	11.13	〃	12.9	〃	446	1590	4.7±0.3	10 ±1	9.3±0.6	5.8±0.4
Aomori, AOMORI	11.25	〃	20.7	20	637	1690	8.2±0.4	13 ±1	8.2±0.5	4.9±0.3
Akita, AKITA	11.	〃	17.7	〃	841	1790	6.5±0.3	7.8±0.3	14 ±1	7.9±0.3
Yamagata, YAMAGATA	11.	〃	13.6	〃	349	1840	2.5±0.2	7.2±0.4	6.8±0.4	3.7±0.2
Mito, IBARAKI	11.14	〃	17.9	10	563	2690	6.5±0.5	12 ±1	17 ±1	6.2±0.4
Nishikanbara, NIIGATA	11.26	B	25.5	20	798	2450	8.7±0.4	11 ±1	12 ±1	4.7±0.2
Kanazawa, ISHIKAWA	11.10	A	15.8	10	253	1250	4.0±0.3	16 ±1	5.2±0.5	4.2±0.4
Fukui, FUKUI	11.	〃	18.0	20	380	1530	4.5±0.3	12 ±1	12 ±1	7.6±0.3
Shizuoka, SHIZUOKA	11.29	〃	18.2	〃	867	2010	6.2±0.3	7.2±0.3	9.1±0.5	4.5±0.2
Neyagawa, OSAKA	11.20	〃	21.2	〃	810	2720	7.3±0.3	9.0±0.4	10 ±1	3.8±0.2
Kakogawa, HYOGO	11.26	〃	24.8	10	757	2230	7.0±0.7	9.2±0.9	16 ±1	7.2±0.6
Yamaguchi, YAMAGUCHI	11.	〃	17.9	20	452	1500	3.7±0.3	8.3±0.6	7.9±0.4	5.3±0.3
Kochi, KOCHI	11.	〃	15.1	〃	427	1450	4.2±0.2	9.9±0.5	6.9±0.4	4.8±0.3
Saga, SAGA	11.	〃	23.8	〃	1020	2020	6.4±0.4	6.3±0.4	9.3±0.5	4.6±0.2
Sendai, MIYAGI	12.9	〃	18.9	〃	628	2400	4.2±0.3	6.7±0.5	10 ±1	4.2±0.2
Fukushima, FUKUSHIMA	12.13	〃	19.2	〃	440	1630	3.8±0.3	8.7±0.7	9.1±0.5	5.6±0.3
Hino, TOKYO	12.18	〃	18.0	〃	500	1850	6.1±0.3	12 ±1	9.6±0.5	5.2±0.3
Hiratsuka, KANAGAWA	12.3	〃	18.0	〃	688	2330	3.1±0.3	4.5±0.4	13 ±1	5.7±0.2
Nishio, AICHI	12.15	B	20.0	〃	640	2040	4.9±0.3	7.7±0.5	8.2±0.5	4.0±0.2
Kyoto, KYOTO	12.	A	19.8	〃	713	1720	3.6±0.2	5.0±0.3	7.7±0.5	4.5±0.3
Tottori, TOTTORI	12.4	〃	24.0	〃	567	2360	8.9±0.4	16 ±1	11 ±1	4.8±0.3
Matsue, SHIMANE	12.15	〃	14.0	10	654	1300	5.6±0.3	8.6±0.4	5.4±0.5	4.2±0.4
Okayama, OKAYAMA	12.22	〃	22.3	20	525	1760	4.5±0.3	8.5±0.6	7.9±0.5	4.5±0.3
Hiroshima, HIROSHIMA	12.	〃	19.9	〃	734	2090	9.3±0.4	13 ±1	10 ±1	4.8±0.2
Nagasaki, NAGASAKI	12.	〃	14.1	〃	535	1340	3.2±0.2	5.9±0.4	5.9±0.3	4.4±0.2
– 1975 –										
Wakayama, WAKAYAMA	1.26	A	22.9	20	1880	2180	11 ±1	5.7±0.2	6.7±0.5	3.1±0.2
Yamaguchi, YAMAGUCHI	1.	〃	20.6	10	488	2060	6.6±0.4	13 ±1	11 ±1	5.1±0.4
Kagoshima, KAGOSHIMA	2.5	〃	20.0	20	527	1860	7.3±0.3	14 ±1	9.6±0.5	5.2±0.3
Naha, OKINAWA	3.30	〃	17.4	10	1040	1810	3.3±0.3	3.2±0.3	9.5±0.7	5.2±0.4
Naha, OKINAWA	3.30	〃	22.9	〃	606	1720	3.4±0.5	5.7±0.8	9.1±0.8	5.3±0.5

*) A: Urban adult
B: Rural adult

Figure 3. Sampling Locations of Total Diet

1. Sapporo
2. Aomori
3. Sendai
4. Akita
5. Yamagata
6. Fukushima
7. Mito
8. Hino
9. Hiratsuka
10. Nishikanbara
11. Kanazawa
12. Fukui
13. Shizuoka
14. Nishio
15. Kyoto
16. Neyagawa
17. Kakogawa
18. Wakayama
19. Tottori
20. Matsue
21. Okayama
22. Hiroshima
23. Yamaguchi
24. Kochi
25. Kasuya
26. Saga
27. Nagasaki
28. Kagoshima
29. Naha



Strontium-90 and Cesium-137 in Vegetable

(Japan Chemical Analysis Center)

Japan Chemical Analysis Center has analyzed the strontium-90 and cesium-137 contents in vegetables obtained from 16 prefectures.

Sampling locations shown in Figure 4.

The samples were taken twice at the same location during the harvest period. At prefectural public health laboratories, several kilograms of the fresh vegetable samples were washed with water, and the inedible parts removed, then only edible parts ashed at 450°C. These samples were then sent to Japan Chemical Analysis Center, and analyzed for strontium-90 and Cesium-137 contents, using the method recommended by Science and Technology Agency.

Results obtained during the period from May 1974 to January 1975 are shown in Table 4.

Table 4. ^{90}Sr and ^{137}Cs in Vegetable
– May, 1974 to Jan., 1975 –
(Japan Chemical Analysis Center)
(Continued from Table 5, No. 37 of this publication)

Location	Month Harvested	Component (% by Weight) Ash (%)	Ca (%)	K (%)	Ash (g)	^{90}Sr (pCi/kg)	S.U	^{137}Cs (pCi/kg)	C.U
(Spinach)									
Furukawa, MIYAGI	May '74	2.26	0.07	0.93	20	18 ±1	25 ±1	18 ±1	1.9±0.1
Shiroishi, MIYAGI	〃	2.09	0.09	0.74	20	9.6±0.4	10 ±0	3.1±0.4	0.4±0.1
Fukushima, FUKUSHIMA	〃	1.88	0.17	0.65	10	23 ±1	13 ±0	8.7±0.7	1.3±0.1
Atsumi, AICHI	〃	1.45	0.08	0.46	15	5.4±0.3	7.1±0.4	5.4±0.4	1.2±0.1
Kasuya, FUKUOKA	〃	1.57	0.09	0.59	10	11 ±1	12 ±1	12 ±1	2.1±0.1
Ishikari, HOKKAIDO	Jul. '74	1.84	0.20	0.39	10	49 ±1	24 ±1	20 ±1	5.0±0.3
Mihama, FUKUI	Nov. '74	1.63	0.07	0.50	15	9.5±0.4	14 ±1	15 ±1	2.9±0.1
Gotenba, SHIZUOKA	〃	2.00	0.09	0.76	10	30 ±1	35 ±1	27 ±1	3.6±0.1
Kurayoshi, TOTTORI	〃	1.60	0.07	0.59	15	21 ±1	28 ±1	11 ±1	1.8±0.1
Tokai, IBARAKI	Dec. '74	1.64	0.06	0.62	15	8.6±0.3	15 ±1	10 ±1	1.7±0.1
Mito, IBARAKI	〃	2.16	0.05	0.81	20	14 ±1	29 ±1	12 ±1	1.4±0.1
Odawara, KANAGAWA	Jan. '75	1.37	0.06	0.43	10	3.8±0.4	6.2±0.7	15 ±1	3.6±0.2
(Japanese Radish Whole)									
Atsumi, AICHI	May '74	0.53	0.03	0.16	5	5.1±0.3	18 ±1	7.3±0.5	4.6±0.3
Kasuya, FUKUOKA	〃	0.54	0.02	0.19	5	2.8±0.2	12 ±1	7.1±0.4	3.8±0.2
Ishikari, HOKKAIDO	Jul. '74	0.64	0.02	0.25	10	19 ±1	92 ±2	5.0±0.3	2.0±0.1
Kitakanbara, NIIGATA	〃	0.58	0.02	0.21	5	6.8±0.3	35 ±2	3.3±0.4	1.6±0.2
Akatsukadani, NIIGATA	〃	0.45	0.02	0.15	5	3.2±0.3	16 ±1	16 ±1	11 ±1
Ohda, SHIMANE	〃	0.58	0.02	0.22	10	63 ±1	320 ±0	19 ±1	8.9±0.2
Akita, AKITA	Aug. '74	0.59	0.02	0.22	5	20 ±1	85 ±3	8.1±0.5	3.8±0.2
Fukushima, FUKUSHIMA	〃	0.54	0.02	0.21	5	23 ±1	97 ±3	8.6±0.5	4.0±0.2
Aomori, AOMORI (1)	Oct. '74	0.51	0.03	0.16	5	13 ±0	42 ±1	9.4±0.5	6.0±0.3
Aomori, AOMORI (2)	〃	0.47	0.03	0.14	5	18 ±1	66 ±2	8.2±0.5	5.8±0.4

Location	Month Harvested	Component (% by Weight)			Ash	^{90}Sr		^{137}Cs	
		Ash (%)	Ca (%)	K (%)	(g)	(pCi/kg)	S.U	(pCi/kg)	C.U
Zao, YAMAGATA	Oct. '74	0.59	0.03	0.23	5	13 ±1	51 ±2	16 ±1	6.9±0.3
Higashisawa, YAMAGATA	"	0.52	0.02	0.19	5	4.1±0.3	19 ±1	2.9±0.3	1.5±0.2
Aira, KAGOSHIMA	"	0.68	0.04	0.24	10	19 ±0	52 ±1	19 ±1	7.8±0.2
Ibusuki, KAGOSHIMA	"	0.58	0.02	0.23	5	14 ±1	66 ±2	10 ±1	4.3±0.3
Akita, AKITA	Nov. '74	0.39	0.02	0.13	5	13 ±0	66 ±2	4.0±0.3	3.0±0.2
Miura, KANAGAWA	"	0.56	0.03	0.21	5	1.4±0.2	5.7±0.9	6.7±0.5	3.2±0.2
Tsuruga, FUKUI	"	0.60	0.02	0.15	10	30 ±1	190 ±0	7.7±0.3	5.1±0.2
Gotenba, SHIZUOKA	"	0.34	0.03	0.11	5	38 ±1	150 ±0	13 ±1	12 ±1
Iwami, TOTTORI	"	0.62	0.02	0.22	10	15 ±0	63 ±2	2.3±0.2	1.1±0.1
Ohda, SHIMANE	"	0.57	0.03	0.19	5	31 ±1	96 ±2	3.3±0.4	1.7±0.2

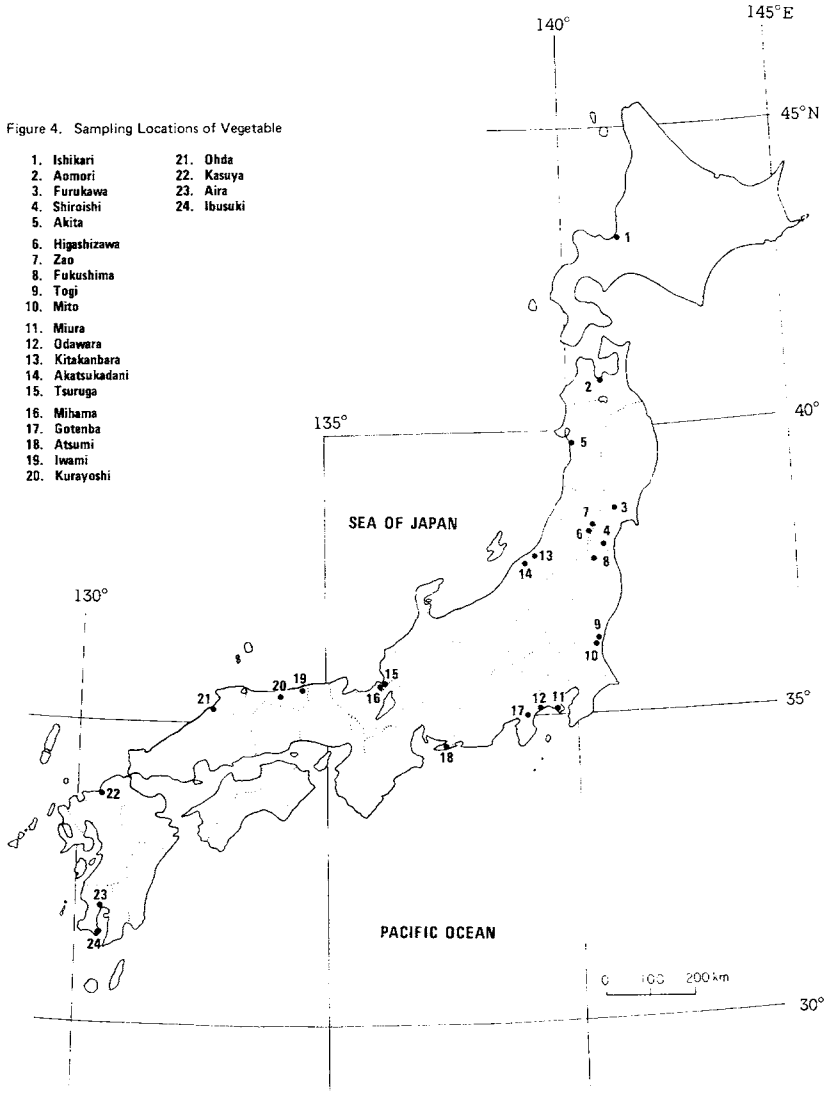


Figure 4. Sampling Locations of Vegetable

Strontium-90 and Cesium-137 in Milk

(Japan Chemical Analysis Center)

The milk samples have been collected from 28 prefectures by prefectural public health laboratories, and analyzed for strontium-90 and cesium-137 content at Japan Chemical Analysis Center.

Sampling locations are indicated in Figure 5.

Three liters of fresh milk were purchased at a representative farm in each prefecture and carbonized by prefectural public health laboratories. Such samples were sent to Japan Chemical Analysis Center, and ashed, then analyzed using the method recommended by Science and Technology Agency.

Results obtained during the period from June 1974 to March 1975 are shown in Table 5.

Table 5. ^{90}Sr and ^{137}Cs in Milk
– Jun., 1974 to Mar., 1975 –
(Japan Chemical Analysis Center)
(Continued from Table 7, No. 36 of this publication)

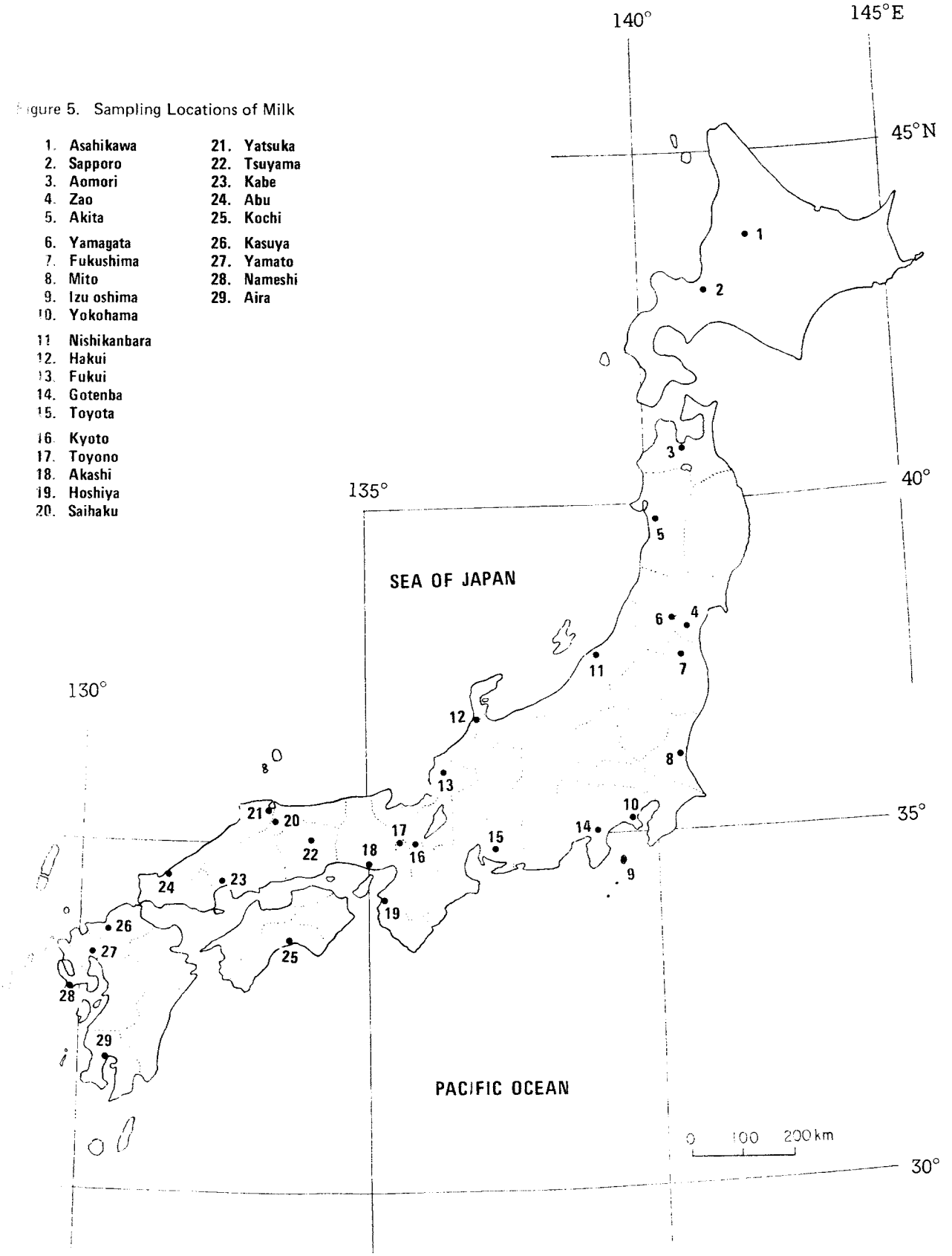
Location	Ash	Component			^{90}Sr		^{137}Cs	
	(g)	Ash (g/ℓ)	Ca (g/ℓ)	K (g/ℓ)	(pCi/ℓ)	S.U	(pCi/ℓ)	C.U.
Jun. 1974								
Sapporo, HOKKAIDO	10	7.02	1.09	1.54	3.4±0.2	3.1±0.2	6.1±0.4	4.0±0.3
Asahikawa, HOKKAIDO	〃	6.57	0.99	1.57	4.3±0.3	4.3±0.3		
Yamagata, YAMAGATA	〃	6.44	1.02	1.40	1.0±0.1	1.0±0.1	6.2±0.4	4.4±0.3
Toyono, OSAKA	〃	7.42	1.08	1.54	2.5±0.2	2.3±0.2	3.5±0.4	2.3±0.3
Saihaku, TOTTORI	〃	7.68	1.03	1.52	4.5±0.2	4.4±0.2	11 ±1	7.2±0.7
Jul. 1974								
Aomori, AOMORI	〃	6.26	0.83	1.40	28 ±1	34 ±1	24 ±1	17 ±1
Akita, AKITA	〃	6.30	0.69	1.29	4.8±0.2	7.0±0.3	5.7±0.4	4.4±0.3
Fukushima, FUKUSHIMA	〃	7.59	1.21	1.76	3.0±0.2	2.5±0.2	7.6±0.5	4.3±0.3
Mito, IBARAKI	〃	7.63	1.51	1.53	2.9±0.2	1.9±0.1	7.5±0.4	4.9±0.3
Izu oshima, TOKYO	〃	6.68	0.92	1.54	2.7±0.2	2.9±0.2	19 ±1	12 ±1
Yokohama, KANAGAWA	〃	7.33	1.08	1.74	1.0±0.2	0.9±0.2	2.2±0.3	1.3±0.2
Nishikanbara, NIIGATA	〃	7.16	1.07	1.45	3.4±0.2	3.2±0.2	11 ±0	7.6±0
Hakui, ISHIKAWA	〃	6.33	0.83	1.58	3.8±0.3	4.6±0.4	8.1±0.4	5.1±0.3
Gotenba, SHIZUOKA	〃	7.23	1.19	1.56	5.9±0.2	5.0±0.2	46 ±1	29 ±1
Toyota, AICHI	〃	8.13	1.25	1.66	1.4±0.2	1.1±0.2	2.4±0.3	1.4±0.2
Yatsuka, SHIMANE	〃	7.05	1.06	1.38	3.5±0.2	3.3±0.2	3.9±0.3	2.8±0.2
Tsuyama, OKAYAMA	〃	7.34	1.17	1.56	1.3±0.2	1.1±0.2	6.6±0.4	4.2±0.3
Kabe, HIROSHIMA	〃	6.66	1.17	1.43	2.4±0.2	2.1±0.2	5.7±0.4	4.0±0.3
Kochi, KOCHI	〃	7.21	1.15	1.43	1.9±0.2	1.7±0.2	3.7±0.3	2.6±0.2
Kasuya, FUKUOKA	〃	7.42	1.17	1.77	1.9±0.2	1.6±0.2	3.5±0.3	2.0±0.2
Nameshi, NAGASAKI	〃	7.13	1.08	1.73	3.9±0.2	3.6±0.2	16 ±1	9.2±0.6
Aira, KAGOSHIMA	〃	6.95	1.12	1.40	2.4±0.1	2.1±0.1	6.4±0.4	4.6±0.3

Location	Ash	Component			^{90}Sr		^{137}Cs	
	(g)	Ash (g/ℓ)	Ca (g/ℓ)	K (g/ℓ)	(pCi/ℓ)	S.U	(pCi/ℓ)	C.U
Aug. 1974								
Asahikawa, HOKKAIDO	10	7.40	1.11	1.58	5.3±0.3	4.8±0.3	8.0±0.7	5.1±0.4
Zao, MIYAGI	〃	7.20	1.57	1.76	13 ±0.4	8.0±0.3	55 ±1	31 ±1
Izu oshima, TOKYO	〃	6.78	1.00	1.32	5.4±0.3	5.4±0.3	38 ±1	29 ±1
Nishikanbara, NIIGATA	20	14.3	1.14	1.36	2.9±0.2	2.5±0.2	3.1±0.3	2.3±0.2
Fukui, FUKUI	10	7.38	1.09	1.51	2.8±0.2	2.6±0.2	6.5±0.4	4.3±0.3
Kyoto, KYOTO	〃	6.38	0.99	1.33	2.4±0.2	2.4±0.2	1.4±0.2	1.1±0.2
Akashi, HYOGO	〃	7.11	1.02	1.53	3.1±0.2	3.0±0.2	3.2±0.3	2.1±0.2
Kabe, HIROSHIMA	〃	6.76	1.02	1.49	1.8±0.2	1.8±0.2	4.7±0.4	3.2±0.3
Abu, YAMAGUCHI	〃	6.67	1.02	1.78	2.6±0.2	2.5±0.2	5.3±0.4	3.0±0.2
Kochi, KOCHI	〃	7.08	0.99	1.34	2.7±0.2	2.7±0.2	2.4±0.3	1.8±0.2
Kasuya, FUKUOKA	〃	7.19	1.06	1.45	1.8±0.1	1.7±0.1	1.7±0.3	1.2±0.2
Yamato, SAGA	〃	7.08	1.10	1.61	3.0±0.2	2.7±0.2	10 ±0	6.2±0
Sep. 1974								
Fukushima, FUKUSHIMA	〃	7.70	1.24	1.59	2.8±0.2	2.3±0.2	8.2±0.5	5.2±0.3
Yokohama, KANAGAWA	〃	7.74	1.16	1.56	1.4±0.2	1.2±0.2	3.1±0.3	2.0±0.2
Fukui, FUKUI	〃	7.04	1.07	1.39	2.6±0.1	2.4±0.1	4.1±0.4	2.9±0.3
Toyono, OSAKA	〃	7.48	1.11	1.38	2.3±0.1	2.1±0.1	2.6±0.3	1.9±0.2
Abu, YAMAGUCHI	〃	7.27	1.13	1.41	2.6±0.1	2.3±0.1	6.0±0.4	4.3±0.3
Aira, KAGOSHIMA	〃	7.99	1.18	1.53	3.7±0.2	3.1±0.2	11 ±1	7.2±0.7
Oct. 1974								
Akita, AKITA	〃	6.98	0.99	1.43	1.6±0.1	1.6±0.1	4.9±0.4	3.4±0.3
Yamagata, YAMAGATA	〃	6.76	1.02	1.66	2.1±0.1	2.1±0.1	5.5±0.4	3.3±0.2
Mito, IBARAKI	〃	7.40	0.95	1.55	2.1±0.2	2.2±0.2		
Izu oshima, TOKYO	〃	7.89	1.22	1.70	21 ±1	17 ±1	113 ±0	66 ±0
Nishikanbara, NIIGATA	〃	11.4	1.23	1.41	2.5±0.2	2.0±0.2	3.8±0.4	2.7±0.3
Hakui, ISHIKAWA	〃	7.30	1.10	1.85	1.5±0.2	1.4±0.2	8.0±0.6	4.3±0.3
Fukui, FUKUI	〃	8.33	1.28	1.68	3.7±0.2	2.9±0.2	8.8±0.5	5.2±0.3
Gotenba, SHIZUOKA	〃	7.42	1.15	1.47	4.3±0.2	3.7±0.2	11 ±1	7.5±0.7
Toyota, AICHI	〃	7.95	1.15	1.56	1.4±0.2	1.2±0.2	3.6±0.4	2.3±0.3
Akashi, HYOGO	〃	7.38	1.10	1.34	2.8±0.2	2.5±0.2	2.3±0.3	1.7±0.2
Saihaku, TOTTORI	〃	7.74	0.99	1.46	1.4±0.2	1.4±0.2	4.6±0.4	3.2±0.3
Yatsuka, SHIMANE	〃	6.67	1.06	1.35	1.7±0.1	1.6±0.1	4.5±0.4	3.3±0.3
Tsuyama, OKAYAMA	〃	7.65	1.25	1.53	1.8±0.2	1.4±0.2	1.8±0.3	1.2±0.2
Kabe, HIROSHIMA	〃	8.88	1.30	1.85	2.9±0.3	2.2±0.2	6.6±0.5	3.6±0.3
Kochi, KOCHI	〃	7.45	0.99	1.74	7.6±0.3	7.7±0.3	3.4±0.3	2.0±0.2
Kasuya, FUKUOKA	〃	7.48	0.99	1.26	2.4±0.2	2.4±0.2	2.9±0.3	2.3±0.2
Nameshi, NAGASAKI	〃	6.68	0.96	1.59	1.9±0.1	2.0±0.1	3.5±0.3	2.2±0.2
Nov. 1974								
Asahikawa, HOKKAIDO	〃	6.98	0.93	1.66	8.1±0.4	8.7±0.4	11 ±1	6.6±0.6
Sapporo, HOKKAIDO	〃	6.90	1.09	1.53	2.8±0.2	2.6±0.2	7.6±0.4	5.0±0.3

Location	Ash (g)	Component			^{90}Sr		^{137}Cs	
		Ash (g/ℓ)	Ca (g/ℓ)	K (g/ℓ)	(pCi/ℓ)	S.U	(pCi/ℓ)	C.U
Aomori, AOMORI	10	7.07	0.92	1.35	11 ±1	12 ±1	8.7±0.5	6.4±0.4
Zao, MIYAGI	〃	7.56	1.22	1.57	8.7±0.4	7.1±0.3	31 ±1	20 ±1
Kyoto, KYOTO	〃	6.10	0.93	1.13	1.8±0.1	1.9±0.1	3.0±0.3	2.7±0.3
Toyono, OSAKA	〃	7.27	1.05	1.32	2.0±0.2	1.9±0.2	1.9±0.3	1.4±0.2
Yamato, SAGA	〃	7.38	1.12	1.31	2.1±0.1	1.9±0.1	4.7±0.4	3.6±0.3
Dec. 1974								
Yatsuka, SHIMANE	〃	6.27	0.92	1.20	2.4±0.2	2.6±0.2	5.4±0.4	4.5±0.3
Aira, KAGOSHIMA	〃	7.41	1.15	1.47	3.2±0.2	2.8±0.2	9.6±0.5	6.5±0.3
Jan. 1975								
Asahikawa, HOKKAIDO	〃	7.14	1.10	1.41	3.8±0.2	3.5±0.2		
Izu oshima, TOKYO	〃	7.18	1.18	1.44	5.7±0.3	4.8±0.3	34 ±1	24 ±1
Nishikanbara, NIIGATA	〃	7.08	1.06	1.31	2.5±0.2	2.4±0.2	6.6±0.5	5.0±0.4
Fukui, FUKUI	〃	7.28	1.09	1.44	3.1±0.2	2.8±0.2	5.7±0.4	4.0±0.3
Toyono, OSAKA	〃	7.29	1.09	1.36	1.7±0.1	1.6±0.1	2.5±0.3	1.8±0.2
Hoshiya, WAKAYAMA	〃	7.43	1.03	1.41	1.3±0.1	1.3±0.1	2.5±0.3	1.8±0.2
Hoshiya, WAKAYAMA	〃	7.44	1.13	1.50	1.6±0.1	1.4±0.1	1.8±0.3	1.2±0.2
Kabe, HIROSHIMA	〃	6.63	0.93	1.36	3.4±0.2	3.7±0.2	2.2±0.3	1.6±0.2
Kochi, KOCHI	〃	7.46	1.10	1.42	3.9±0.2	3.5±0.2	3.2±0.4	2.3±0.3
Kasuya, FUKUOKA	〃	7.36	1.14	1.37	2.1±0.1	1.8±0.1	5.4±0.4	3.9±0.3
Feb. 1975								
Yatsuka, SHIMANE	〃	6.78	1.13	1.46	9.8±0.4	8.7±0.4	4.7±0.4	3.2±0.3
Mar. 1975								
Aira, KAGOSHIMA	〃	7.13	1.04	1.36	4.1±0.2	3.0±0.1	37 ±1	27 ±1

Figure 5. Sampling Locations of Milk

1. Asahikawa
2. Sapporo
3. Aomori
4. Zao
5. Akita
6. Yamagata
7. Fukushima
8. Mito
9. Izu oshima
10. Yokohama
11. Nishikanbara
12. Hakui
13. Fukui
14. Gotenba
15. Toyota
16. Kyoto
17. Toyono
18. Akashi
19. Hoshiya
20. Saihaku
21. Yatsuka
22. Tsuyama
23. Kabe
24. Abu
25. Kochi
26. Kasuya
27. Yamato
28. Nameshi
29. Aira



Strontium-90 and Cesium-137 in Powdered Milk

(Japan Chemical Analysis Center)

Japan Chemical Analysis Center has analyzed the strontium-90 and cesium-137 content in powdered milk.

The samples were purchased on the open market from powdered milk producers.

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

Results obtained in February 1975 are shown in Table 6.

Table 6. ^{90}Sr and ^{137}Cs in Powdered Milk – February, 1975 –

(Japan Chemical Analysis Center)

(Continued from Table 8, No. 36 of this publication)

Name of Producer	Ash (g)	Component (% by weight)			^{90}Sr		^{137}Cs	
		Ash (%)	Ca (%)	K (%)	(pCi/kg)	S.U	(pCi/kg)	C.U
YUKIJIRUSHI	30	3.28	0.31	0.56	13 ±1	4.1±0.2	110±0	20 ±0
WAKODO	30	3.04	0.31	0.60	7.7±0.3	2.5±0.1	34±1	5.6±0.2
MEIJI	30	2.89	0.43	0.61	20 ±0	4.6±0.1	150±0	25 ±0
MORINAGA	30	2.21	0.44	0.62	16 ±0	3.6±0.1	100±0	16 ±0

Strontium-90 and Cesium-137 in Tea

(Japan Chemical Analysis Center)

Japan Chemical Analysis Center has analyzed the strontium-90 and cesium-137 content in processed-tea.

Tea samples were send by prefectural public health laboratories of Shizuoka, Kyoto and Kagoshima.

Sampling locations are shown in Figure 7.

These samples were ashed at 450°C, and analyzed by the method recommended by Science and Technology Agency.

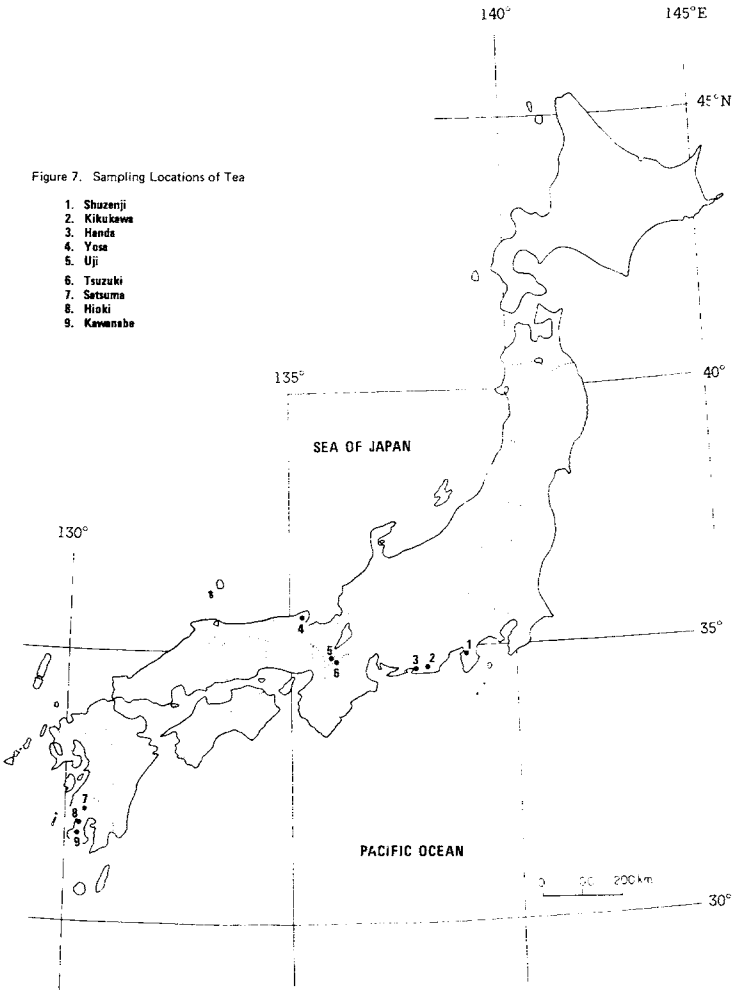
Results obtained during the period from May to October 1974 are shown in Table 7.

Table 7. ^{90}Sr and ^{137}Cs in Tea – May to Oct., 1974 –

(Japan Chemical Analysis Center)

(Continued from Table 11, No. 36 of this publication)

Location		Date of Sampling	Ash (g)	Component (% by fresh weight)			^{90}Sr		^{137}Cs	
				Ash (%)	Ca (%)	K (%)	(pCi/kg) fresh	S.U	(pCi/kg) fresh	C.U
Kikukawa	SHIZUOKA	1974. 7	15	4.73	0.311	1.48	150± 0	47±1	480±10	32 ±0
Shuzenji	"	7	5	5.04			200±10		240±10	
Handa	"	7	5	5.32	0.279	1.55	130± 0	48±2	120±10	7.5±0.5
Tsuzuki	KYOTO	7	15	5.83	0.281	2.68	120± 0	44±1	140± 0	5.3±0.1
Yosa	"	7	15	6.33	0.419	2.08	210± 0	51±1	280±10	14 ±0
Uji	"	1974. 10	5	5.82			120± 0		160±10	
Kawanabe	KAGOSHIMA	1974. 5	15	4.87	0.300	2.01	120± 0	41±1	260± 0	13 ±0
Satsuma	"	5	15	5.46	0.250	1.94	95± 2	38±1	240± 0	12 ±0
Hioki	"	5	5	5.98			150±10		290±10	



Data of the 17th Nuclear Explosion Test (Under Ground) of the People's Republic of China

Indian Atomic Research Center announced that it had detected the 17th Chinese nuclear test conducted under ground on the 27th October 1975. And the scale of this explosion was equivalent to 20 kilotons TNT.

On the 27th October 1975, New China News Agency announced formally test the People's Republic of China has proved a great success in the under ground nuclear explosion test.

Concerning this test, the gross beta-radioactivity in upper atmosphere and the radioactivity in air at ground-level were measured, and the gross beta-radioactivity in rain and dry fallout was also measured under the condition of ordinary surveillance system.

fallout was also measured under the condition of ordinary surveillance system.

As a results of these measurements, it was recognized that no especially significant changes were noted in the radioactivity levels observed in rain-out dust, air at ground-level, and particles in the upper atomosphere.

Then, the surveillance system was reverted to the condition of ordinary operation.

Gross Beta-Radioactivity in Rain and Dry Fallout

(Japan Meteorological Agency)
(Prefectural Institutes and Laboratories)

Rain water and dry fallout samples were measured by Japan Meteorological Agency (Wajima) and 18 prefectural public health laboratories during the period from October 28 to November 10, 1975.

And gross beta-activity in each sample showed the same as normal value.

The results obtained and the sampling locations are shown in Table 8, and Figure 8, respectively.

Table 8. Gross Beta-Radioactivity in Rain and Dry Fallout
(Japan Meteorological Agency)
(Prefectural Institutes and Laboratories)

Upper row: Concentration (pCi/cm^3)
(Lower row): Deposition (mCi/Km^2)

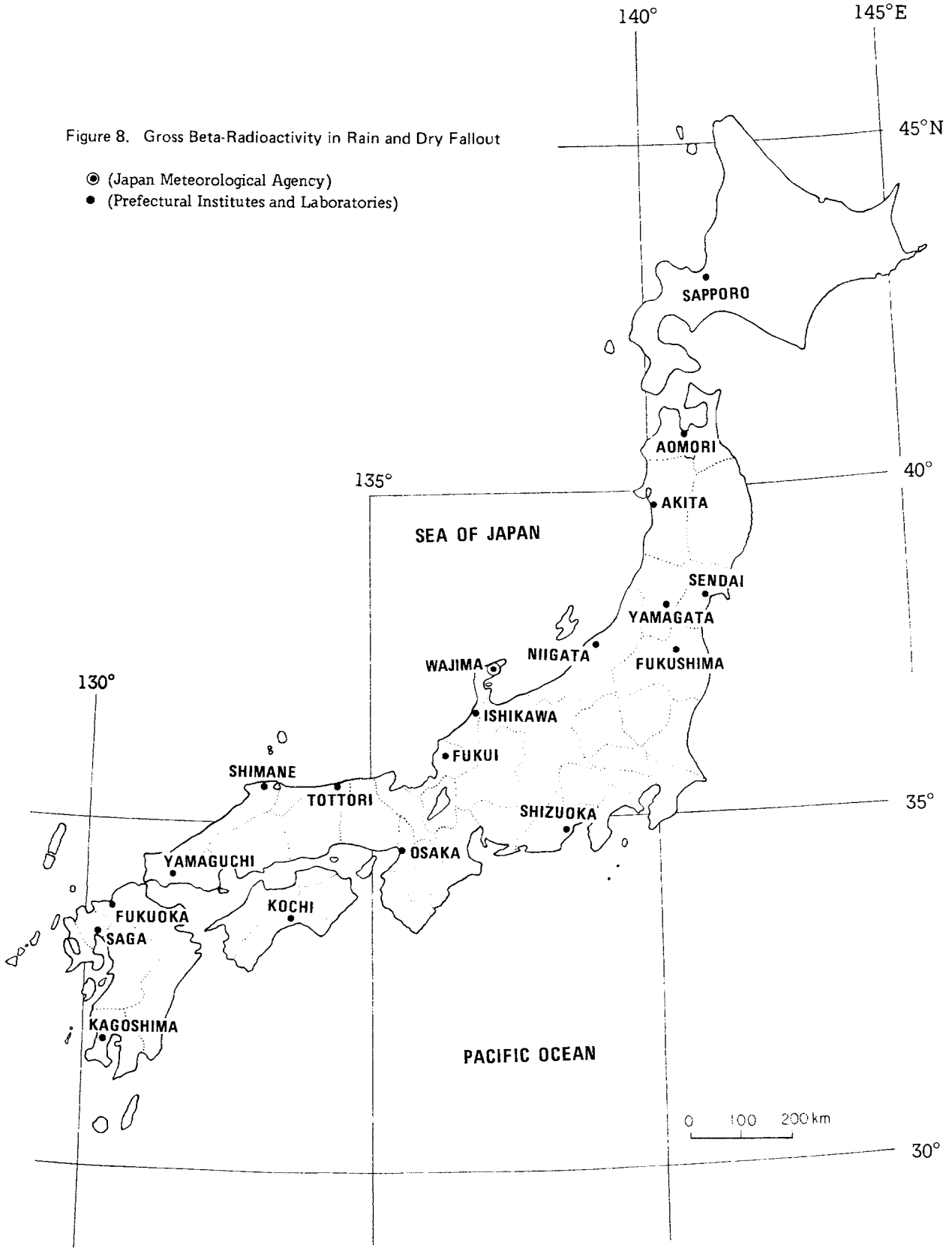
Station \ Date	Oct. 1975 28~29	29~30	30~31	31~1 Nov.	1~2	2~3	3~4	4~5	5~6	6~7	7~8	8~9	9~10
Wajima							0.0		0.0	0.0			
							(−)		(−)	(−)			
Hokkaido	0.068	0.08				0.02	0.05			0.037	0.01	0.024	
	(0.03)	(3.98)				(0.02)	(0.20)			(0.14)	(0.81)	(0.32)	
Aomori	0.024	0.015								0.026	0.013		0.027
	(0.27)	(0.35)								(0.21)	(0.06)		(0.23)
Akita	0.0	0.0								0.0	0.0	0.0	0.0
	(−)	(−)								(−)	(−)	(−)	(−)
Yamagata	0.008	0.001								0.022	0.018		
	(0.01)	(0.04)								(0.49)	(0.16)		
Miyagi	0.011	0.022	0.003							0.048			
	(0.03)	(0.05)	(0.01)							(0.8)			

Data / Station	Oct. 1975 28~29	29~30	30~31	31~1 Nov.	1~2	2~3	3~4	4~5	5~6	6~7	7~8	8~9	9~10
Fukushima	0.0 (−)	0.007 (0.07)	0.004 (0.01)	0.13 (0.24)				0.006 (0.42)	0.0 (−)	0.0 (−)	0.0 (−)		
Niigata	0.006 (0.08)	0.004 (0.05)					0.008 (0.06)			0.002 (0.03)	0.003 (0.05)		0.004 (0.05)
Fukui	0.007 (0.06)	0.009 (0.15)								0.0 (−)	0.004 (0.05)		
Ishikawa	0.067 (1.3)	0.029 (0.6)								0.124 (2.7)	0.024 (3.6)	0.155 (8.5)	0.024 (1.1)
Shizuoka			0.0 (−)	0.0 (−)						0.004 (0.31)	0.002 (0.001)		
Osaka	0.019 (0.35)	0.0006 (0.01)	0.007 (0.07)							0.0 (−)			
Tottori	0.026 (1.2)		0.053 (0.38)	0.005 (0.012)				0.003 (0.15)		0.015 (0.11)	0.015 (0.35)		0.019 (0.65)
Shimane	0.0 (−)	0.18 (0.04)					0.032 (0.26)		0.0 (−)	0.030 (0.29)	0.039 (0.05)		
Yamaguchi	0.004 (0.02)								0.029 (0.25)	0.052 (1.3)			
Kochi		0.011 (0.06)	0.012	0.031					0.080 (0.11)	0.0 (−)			
Fukuoka	0.012 (0.48)	0.020 (0.11)							0.050 (0.44)	0.018 (0.31)	0.003 (0.003)		
Saga	0.0 (−)	0.0 (−)							0.0 (−)	0.026 (0.29)			
Kagoshima	0.016 (1.1)		0.035 (0.18)				0.022 (0.03)		0.020 (0.67)	0.023 (0.21)			

Normal value is under 0.0 − 1.0 pCi/cm^3

Figure 8. Gross Beta-Radioactivity in Rain and Dry Fallout

◉ (Japan Meteorological Agency)
● (Prefectural Institutes and Laboratories)



Gross Beta-Radioactivity in Upper Air

(Research and Development H.Q., Japan Defence Agency)

Concerning this test, Research and Development H.Q., Japan Defence Agency, has collected the dust samples in upper atomosphere using aircrafts as collectors during the period from October 30 to November 1 and 4, 1975, and has measured the beta-radioactivity of such samples.

Figure 9, shows two sampling areas in Japan.

Results obtained are shown in Table 9. And, as shown in Table 9, gross beta-radioactivity in samples collected showed the same as normal value.

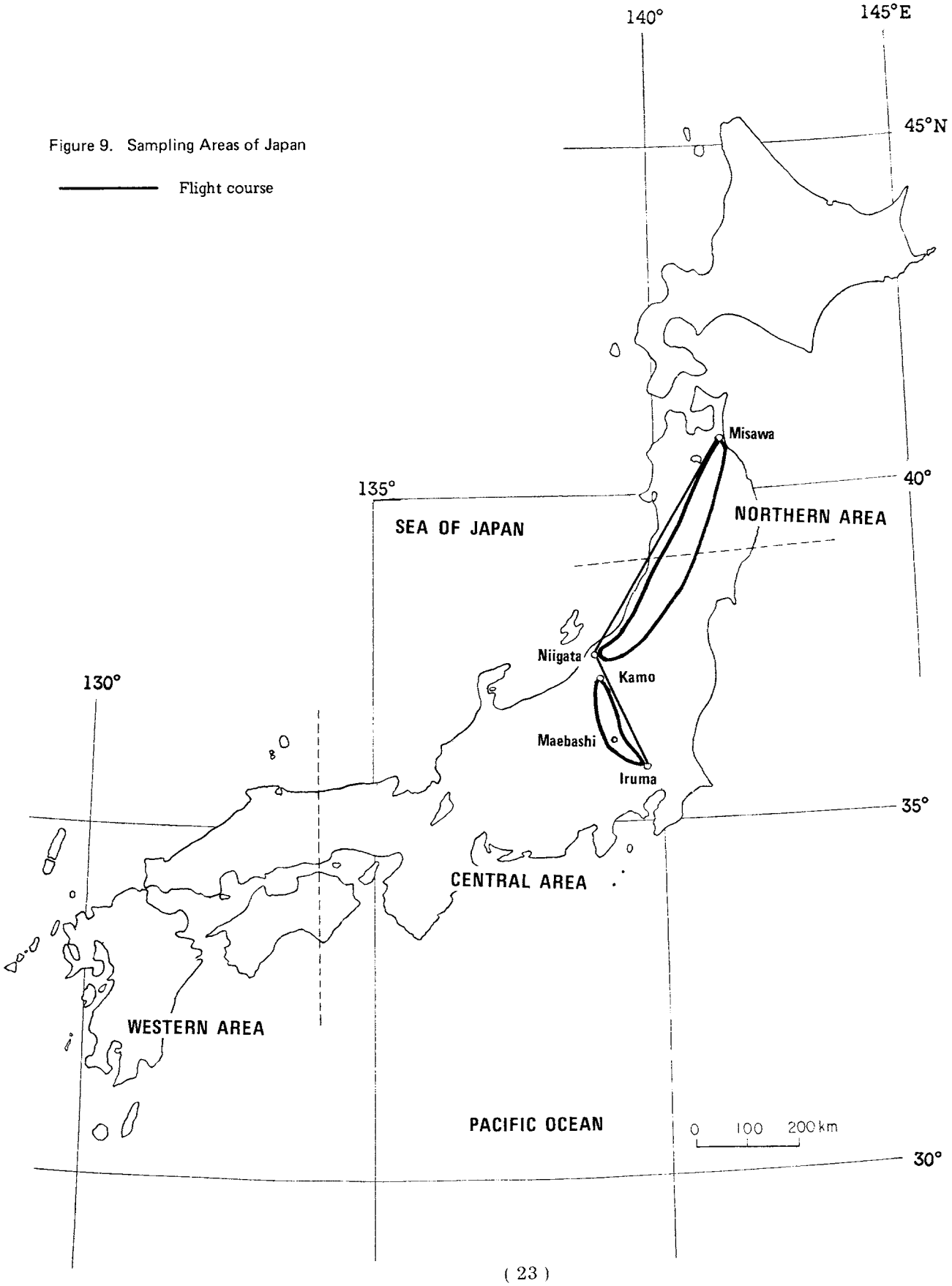
Table 9. Gross Beta-Radioactivity in Upper Air
(Research and Development H.Q., Japan Defence Agency)

Area	Take – Off Data	Take – Off Time	Flight course	Altitude (m)	Activity (pCi/m^3)
Northern Area	Oct. 30th	8:39 ~ 9:55	Misawa–Niigata–Misawa	6,000	0.05
	" 31th	8:30 ~ 9:47	"	6,000	0.03
	Nov. 1st	8:20 ~ 9:20	Misawa–Niigata–Iruma	6,000	0.05
Central Area	Nov. 4th	9:30 ~10:17	Iruma–Maebashi–Kamo–Maebashi–Iruma	6,000	0.06

In 1973 & 1974, Normal value of Gross Beta-Radioactivity in Upper Air (Altitude 6,000 m) is 0.02 ~ 2.21 pCi/m^3.

Figure 9. Sampling Areas of Japan

Flight course



Monitoring Posts

(Japan Meteorological Agency)
(Prefectural Institutes and Laboratories)

Radioactivity in air was measured in two monitoring posts of Japan Meteorological Agency (Asahikawa and Wajima), and in 18 prefectural monitoring ones. However, activity measured shown the same as normal value.

Results obtained and the locations of monitoring posts in Japan are shown in Table 10, and Figure 10, respectively.

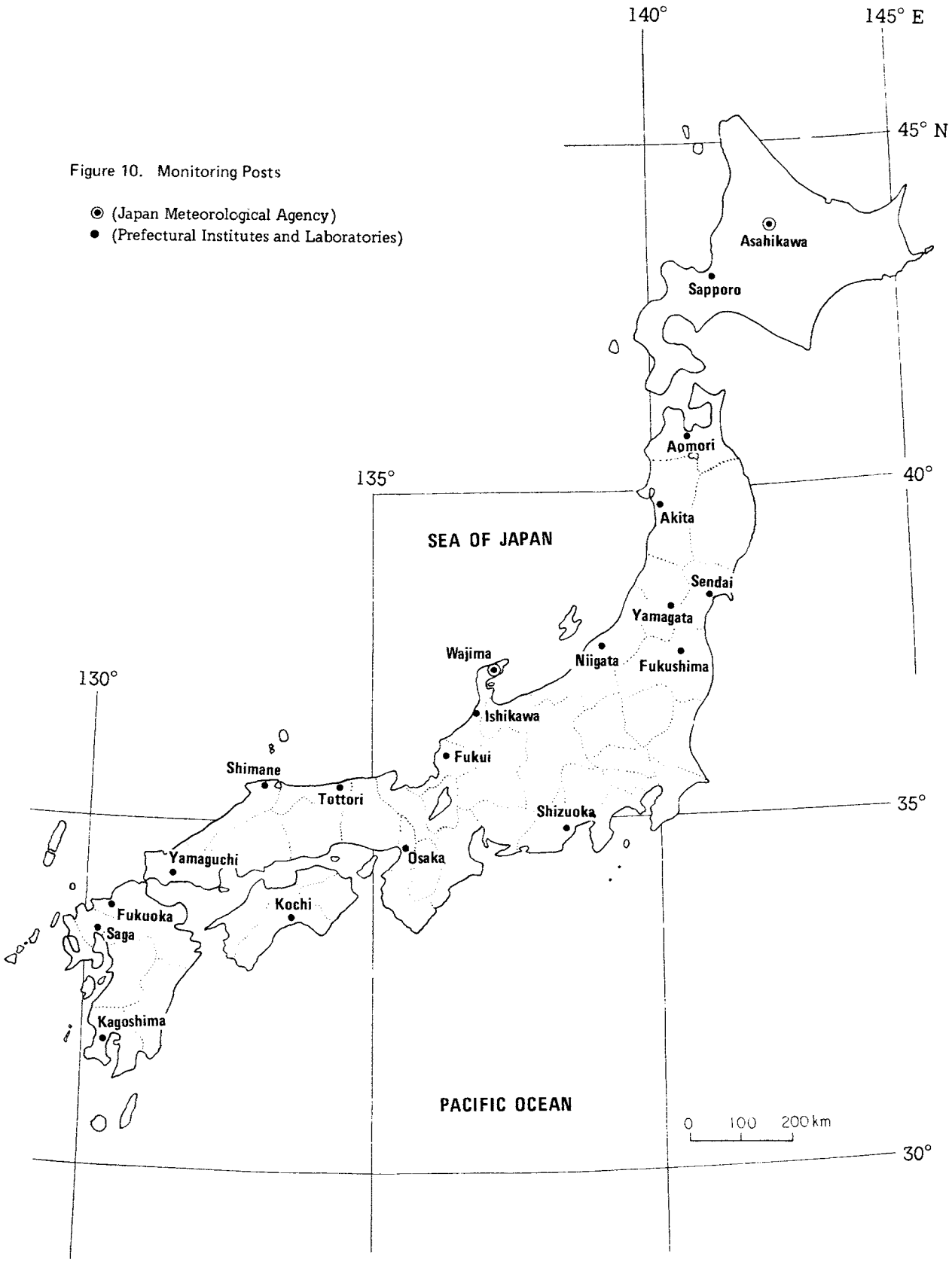
Table 10. Counting Rate Obtained with the Monitoring Posts – Oct. 28th to Nov. 10th 1975 –
(Japan Meteorological Agency)
(Prefectural Institutes and Laboratories)

Station	Oct. 28th – Nov. 10th		Normal State	
	Highest Value	Lowest Value	Highest Value	Lowest Value
Asahikawa	20.0	12.1	27.0	8.0
Wajima	24.0	12.0	25.0	12.0
Hokkaido	19.3	8.7	29.0	7.0
Aomori	14.0	8.0	28.2	5.0
Akita	20.0	12.5	29.0	9.0
Yamagata	16.0	11.2	–	–*
Miyagi	13.0	9.5	24.8	8.2
Fukushima	18.3	12.3	20.8	11.3
Niigata	25.5	19.2	37.3	18.8
Fukui	20.0	15.0	24.5	11.0
Ishikawa	20.9	13.9	28.9	11.0
Shizuoka	20.5	15.0	28.5	15.0
Osaka	14.9	11.8	17.5	11.4
Tottori	30.3	18.1	35.8	13.0
Shimane	19.0	14.3	39.7	13.0
Yamaguchi	25.0	20.5	43.5	17.0
Kochi	12.0	8.2	14.4	8.1
Fukuoka	21.0	16.0	28.0	13.5
Saga	19.5	13.2	24.2	10.4
Kagoshima	18.0	14.0	21.5	13.0

*) established in 1975

Figure 10. Monitoring Posts

◉ (Japan Meteorological Agency)
● (Prefectural Institutes and Laboratories)



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