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# RADIOACTIVITY SURVEY DATA in Japan

= Environmental and Dietary Materials =

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Radioactivity Survey Data in Japan Number 140  
August 2005 = Environmental and Dietary Materials =

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## Environmental and Dietary Materials

### 1. Sampling and retrieval

#### (1) Rain and dry fallout

The collector, which was stainless steel tray, 5000 cm<sup>2</sup> in area, was placed outside on the first of the month and left there for one month. At the beginning of the month, 1 cm depth of water in the tray was kept.

At the end of the month, the water in the tray was transferred to a certain bottle. Water was added to the tray and the side and bottom were scrubbed. The slurry was transferred to the bottle. The washing was repeated with distilled water.

Strontium and cesium carrier solution was added to the sample. The sample solution was evaporated to dryness.

#### (2) Airborne dust

Airborne dust was collected by an appropriate filter and an air mover. The air mover was operated at a flow rate more than 3000 m<sup>3</sup> per month for three month sampling periods. The filter holder with the filter is mounted on a 1 to 1.5 m stand.

#### (3) Service water and fresh water

100 L of the water (service water, tap water or fresh water) was collected at the water-treatment plant prior to discharge into the distribution system and at the tap water was left running for five minutes.

Strontium and cesium carrier solution was added to the sample. The sample solution was evaporated to dryness.

#### (4) Soil

The area selected for sampling was spacious and flat, and then undisturbed for at least the time interval that was of interest. Soil cores were taken to a depth of 5 cm (surface soil) and 5 – 20 cm. The samples were dried at 105 – 110 °C and then passed through 2 mm sieve after removal of pebbles and plant roots.

#### (5) Seawater

Seawater was collected at the fixed station using a polyethylene bucket. The seawater was put into 20 L polyethylene containers and was acidified by adding concentrated HCl. Two hundred ml of seawater was also collected at the same station for the determination of chlorinity.

#### (6) Sediment

Sediment was collected at the same station of seawater collected using a conventional sediment sampler. The sampling station was selected taking the following criteria into account.

- a. The depth of water exceeds 1 m at low tide.
- b. Any significant sediment movement is not found in the vicinity of the sampling station.

The sample collected was spread on a stainless steel dish after filtration of water. The pebbles, shells and other foreign materials were removed. The sample was dried at 105 °C.

#### (7) Total diet

Total diet is meaning whole dietary food for five people in a day. The sample was dried at 105 °C and was reduced to ashes at 450 °C.

#### (8) Rice

Polished rice was collected or purchased at a rice-producing district or in consuming area.

#### (9) Milk

Raw milk was collected in producing districts and commercial milk was purchased in consuming area. Milk sample in a stainless or porcelain dish was evaporated to dryness and reduced to ashes at 450 °C.

#### (10) Vegetables

Spinach and Japanese radish were selected as the representatives for edible herbs and for edible roots. After removing soil, the samples were dried at 105 °C and reduced to ashes at 450 °C in porcelain dishes.

#### (11) Tea

Manufactured green tea was collected and reduced to ashes in a stainless or porcelain dishes at 450 °C.

#### (12) Fish, shellfish and seaweeds

##### a. Sea fish and freshwater fish

Fish was collected or purchased. After removing inedible part of big fish sample, the samples were dried at 105 °C and reduced to ashes at 450 °C in porcelain dishes.

##### b. Shellfish

Shellfish was collected or purchased. After removing the shells, the samples were

dried at 105 °C and reduced to ashes at 450 °C in porcelain dishes.

c. Seaweeds

Edible seaweeds were collected. After

removing sand and adhering materials, the samples were dried at 105 °C and reduced to ashes at 450 °C in porcelain dishes.

Table 1 Details of sample collection

Sample	Frequency of sampling	Quantity of sample
=Environmental materials=		
(1) Rain and dry fallout	Monthly	
1. For domestic program		
(2) Airborne dust	Quarterly	10000 m <sup>3</sup> /3 months
(3) Service water and freshwater		
1. Service water (source water)	Semiannually	100 L
2. Service water (tap water)	Semiannually	100 L
3. Freshwater	Yearly (fishing season)	100 L
(4) Soil		
1. 0~5 cm	Yearly	4 kg
2. 5~20 cm	Yearly	12 kg
(5) Seawater	Yearly	40 L
(6) Sea sediments	Yearly	4 kg
=Dietary materials=		
(7) Total diet	Semiannually	daily amount for 5 persons
(8) Rice		
1. Producing districts	Yearly (harvesting season)	5 kg (polished rice)
2. Consuming districts	Yearly (harvesting season)	5 kg (polished rice)
(9) Milk		
1. Producing districts	Quarterly (February, May, August and November)	3 L
2. Consuming districts	Semiannually (February and August)	3 L
3. Powdered milk	Semiannually (January and June)	2~3 kg
(10) Vegetables		
1. Producing districts	Yearly (harvesting season)	4 kg
2. Consuming districts	Yearly (harvesting season)	4 kg
(11) Tea	Yearly (the first harvesting season)	500 g (manufactured tea)
(12) Fish, shellfish and seaweeds		
1. Sea fish	Yearly (fishing season)	4 kg
2. Freshwater fish	Yearly (fishing season)	4 kg
3. Shellfish	Yearly (fishing season)	4~5 kg
4. Seaweeds	Yearly (fishing season)	2~3 kg

## 2. Preparation of samples for radiochemical analysis

### (1) Rain, service water and fresh water

The residue evaporated to dryness was decomposed with nitric acid and dissolved in hydrochloric acid.

### (2) Soil and sea sediment

Dried sample was ground into small particle (<0.25 mm in size) using a crusher. The sieved sample was heated in an electric muffle furnace at 450 °C. After that, strontium and cesium carrier solution and hydrochloric acid were added to the sample and was heated for three hours. The mixture was sometimes stirred during heating and the solution was filtered.

### (3) Rice

The ash sample was ground and passed through a 0.35 mm sieve. After that strontium and cesium carrier solution and aqua regia were added to the sample and the mixture was heated. The sample solution was evaporated to dryness. The residue was decomposed with nitric acid and dissolved in hydrochloric acid. The solution was filtered.

### (4) Airborne dust, total diet, milk, vegetables, shell fish, seaweeds, tea and others

The same procedure as described in the section 2 (3) were carried out.

## 3. Radiochemical separation of strontium-90 and cesium-137

### (1) Strontium-90

The acidic sample solution, prepared as in the section 2, was alkalinized with sodium hydroxide. Alkaline earth carbonate was precipitated by adding sodium carbonate. The supernatant was retained for determination of cesium-137.

The carbonate was dissolved in hydrochloric acid. Alkaline earth oxalates was precipitated at pH 4.2 by adding aqueous ammonia. The oxalate was heated in an electric funace at 600 °C. The residue was dissolved in 0.5M hydrochloric acid. The solution was adsorbed on a chromatographic column containing a cation exchange resin. Strontium was eluted from the column with 2M ammonium acetate. The strontium fraction was evaporated to dryness. The residue was

dissolved in water and iron carrier solution was added. The solution was alkalinized with carbonate-free aqueous ammonia and heated to complete the precipitation. The precipitation was filtered and rejected. The filtrate was made up to an appropriate volume with deionized water and measured strontium by ICP-AES to determine strontium recovery. Iron carrier solution was added. The solution was stored for at least 2 weeks. Yttrium-90 was co-precipitated with ferric hydroxide. The precipitate was filtered through a filter paper and mounted on a planchette with paste.

### (2) Cesium-137

After precipitating strontium carbonate, the supernatant was acidified with hydrochloric acid. Ammonium phosphomolybdate was added to adsorb cesium while stirring the mixture for thirty minutes and allowed to stand. After the supernatant was decanted off and discarded, the solid was dissolved in 6M sodium hydroxide. The solution was adjusted to pH 8.2 with hydrochloric acid. The solution was filtered. Ethylenediaminetetraacetic acid tetrasodium solution was added to the filtrate. The solution was adsorbed on a chromatographic column containing a cation exchange resin. Cesium was eluted from the column with 2M hydrochloric acid. The cesium fraction was evaporated to dryness. The residue was dissolved in water. Chloroplatinatic acid was added to the solution to produce cesium precipitate. The precipitate was filtered through a filter paper and weighed to determine the cesium recovery. The precipitate was covered with mylar and mounted on a planchette.

## 4. Determination of stable strontium, calcium and potassium

An weighed amount of soil or sea sediment was heated in an electric muffle furnace at 450 °C and then treated with a hydrochloric acid for extraction. An weighed aliquot of ashed samples of total diet, vegetables, milk, fish, shellfish or seaweeds were decomposed with nitric acid and dissolved in hydrochloric acid. After filtered, the solution was made up to an

appropriate volume with deionized water. Stable strontium and calcium were determined by ICP-AES and potassium was determined by flame photometry.

## 5. Counting

After the radiochemical separation, the mounted precipitates were counted for radioactivity using low background gas-flow type GM counters for 60 to 90

minutes.

Radioactivity of strontium-90 and cesium-137 were corrected for counting efficiency and chemical recovery. From the results, concentrations of these nuclides in the original samples were calculated.

The radioactivity concentration was shown in significant figures 2 digits. The error was shown only the counting error.

- |                |                |
|----------------|----------------|
| 1 : Sapporo    | 28 : Kobe      |
| 2 : Aomori     | 29 : Nara      |
| 3 : Morioka    | 30 : Wakayama  |
| 4 : Sendai     | 31 : Tottori   |
| 5 : Akita      | 32 : Matsue    |
| 6 : Yamagata   | 33 : Okayama   |
| 7 : Fukushima  | 34 : Hiroshima |
| 8 : Mito       | 35 : Yamaguchi |
| 9 : Utsunomiya | 36 : Tokushima |
| 10 : Maebashi  | 37 : Takamatsu |
| 11 : Saitama   | 38 : Matsuyama |
| 12 : Chiba     | 39 : Kochi     |
| 13 : Shinjuku  | 40 : Fukuoka   |
| 14 : Yokohama  | 41 : Saga      |
| 15 : Niigata   | 42 : Nagasaki  |
| 16 : Toyama    | 43 : Kumamoto  |
| 17 : Kanazawa  | 44 : Oita      |
| 18 : Fukui     | 45 : Miyazaki  |
| 19 : Kofu      | 46 : Kagoshima |
| 20 : Nagano    | 47 : Naha      |
| 21 : Gifu      |                |
| 22 : Shizuoka  |                |
| 23 : Nagoya    |                |
| 24 : Tsu       |                |
| 25 : Otsu      |                |
| 26 : Kyoto     |                |
| 27 : Osaka     |                |

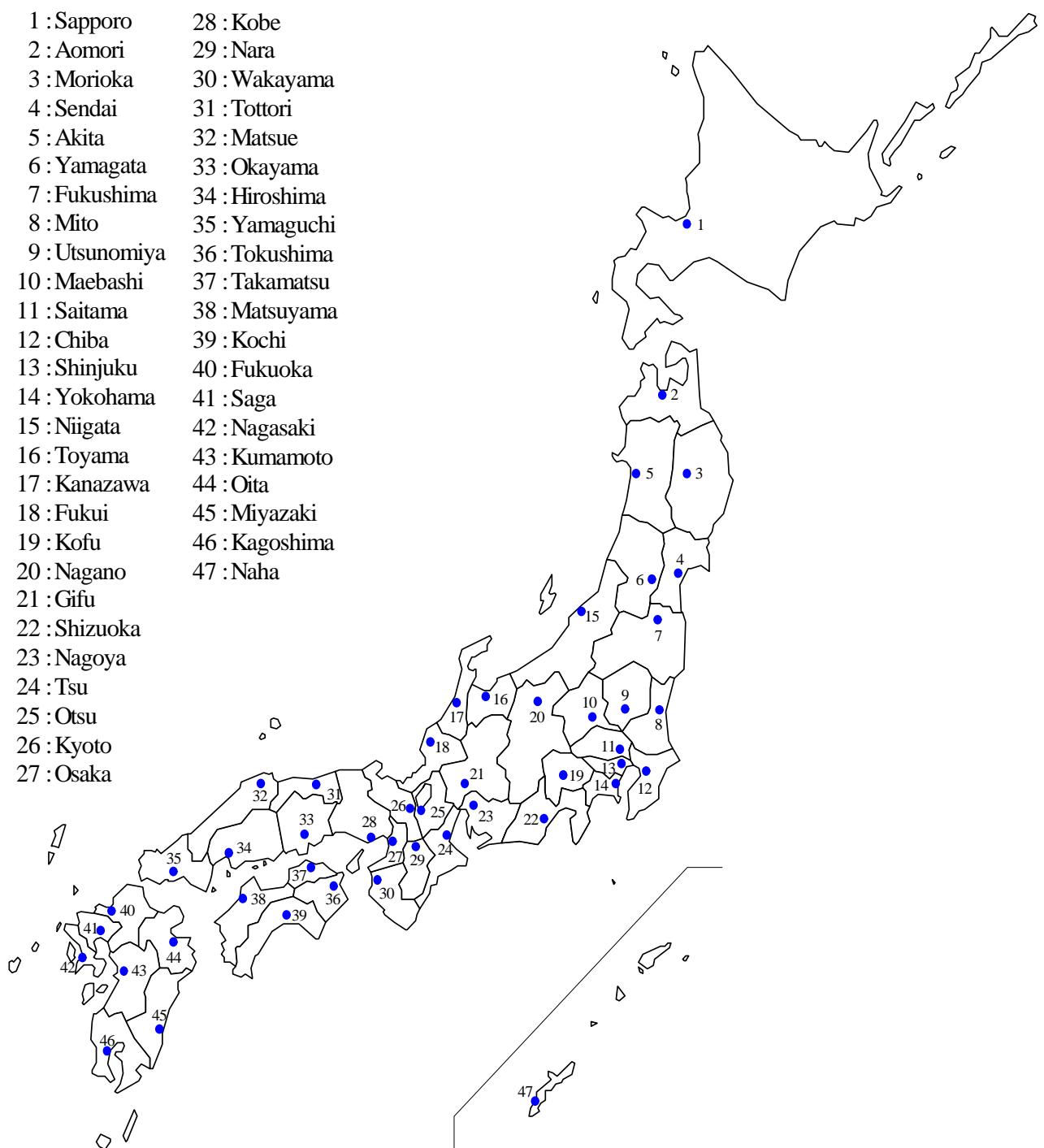


Figure 1. Sampling Locations in Japan

## 6. Results

### (1) Strontium-90 and Cesium-137 in Rain and dry fallout (from Apr. 2003 to Mar. 2004)

Table (1) : Strontium-90 and Cesium-137 in Rain and dry fallout

Location	Duration (Days)	Precipitation (mm)	Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
<b>Apr. 2003</b>						
Sapporo, HOKKAIDO	30	59.5	0.092	± 0.019	0.039	± 0.014
Aomori, AOMORI	30	96.6	0.012	± 0.013	0.022	± 0.0090
Morioka, IWATE	30	109.2	0.017	± 0.014	0.057	± 0.011
Onagawa-machi, MIYAGI	31	103.0	0.019	± 0.015	0.0075	± 0.0089
Akita, AKITA	30	158.0	0.024	± 0.013	0.037	± 0.010
Yamagata, YAMAGATA	30	79.0	0.022	± 0.014	0.027	± 0.0095
Okuma-machi, FUKUSHIMA	30	100.0	0.000	± 0.011	0.0088	± 0.0093
Mito, IBARAKI	30	138.0	0.046	± 0.014	0.042	± 0.011
Kawachi-machi, TOCHIGI	30	127.2	0.006	± 0.012	0.018	± 0.0084
Maebashi, GUNMA	30	106.0	0.018	± 0.015	0.041	± 0.010
Saitama, SAITAMA	30	110.2	0.044	± 0.010	0.025	± 0.0071
Ichihara, CHIBA	30	118.0	0.000	± 0.011	0.019	± 0.0093
Chiba, CHIBA	31	136.8	0.022	± 0.013	0.018	± 0.0084
Shinjuku, TOKYO	30	146.9	0.077	± 0.032	0.029	± 0.012
Yokohama, KANAGAWA	31	139.4	0.031	± 0.013	0.023	± 0.0093
Niigata, NIIGATA	30	171.4	0.019	± 0.014	0.020	± 0.0094
Kosugi-machi, TOYAMA	30	254.5	0.003	± 0.016	0.032	± 0.0095
Kanazawa, ISHIKAWA	30	213.0	0.033	± 0.013	0.012	± 0.0088
Fukui, FUKUI	30	226.7	0.000	± 0.064	0.041	± 0.044
Kofu, YAMANASHI	31	110.5	0.026	± 0.012	0.0082	± 0.0083
Nagano, NAGANO	30	71.8	0.008	± 0.014	0.021	± 0.0086
Kakamigahara, GIFU	30	286.5	0.027	± 0.015	0.020	± 0.010
Shizuoka, SHIZUOKA	31	240.5	0.010	± 0.014	0.0000	± 0.0085
Nagoya, AICHI	30	189.1	0.010	± 0.012	0.061	± 0.011
Yokkaichi, MIE	30	175.0	0.016	± 0.012	0.0088	± 0.0083
Otsu, SHIGA	30	165.6	0.031	± 0.013	0.0029	± 0.0076
Kyoto, KYOTO	35	134.5	0.026	± 0.014	0.011	± 0.0089
Osaka, OSAKA	31	128.04	0.068	± 0.023	0.0057	± 0.0096
Kobe, HYOGO	30	147.6	0.033	± 0.013	0.0059	± 0.0079

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
Nara, NARA	30	206.5	0.011	± 0.012	0.0045	± 0.0095	
Wakayama, WAKAYAMA	30	165.5	0.034	± 0.015	0.0030	± 0.0084	
Hawai-machi, TOTTORI	30	149.2	0.019	± 0.016	0.0000	± 0.0075	
Matsue, SHIMANE	28	191.8	0.031	± 0.0098	0.11	± 0.010	
Okayama, OKAYAMA	30	130.2	0.045	± 0.016	0.012	± 0.0092	
Hiroshima, HIROSHIMA	30	214.8	0.009	± 0.011	0.0058	± 0.0082	
Yamaguchi, YAMAGUCHI	30	200.0	0.035	± 0.013	0.0058	± 0.0078	
Ishii-machi, TOKUSHIMA	28	90.5	0.042	± 0.023	0.0074	± 0.0085	
Takamatsu, KAGAWA	30	76.5	0.016	± 0.013	0.0042	± 0.0081	
Matsuyama, EHIME	30	155.0	0.000	± 0.011	0.030	± 0.0097	
Kochi, KOCHI	30	211.0	0.062	± 0.016	0.037	± 0.010	
Dazaifu, FUKUOKA	30	144.0	0.016	± 0.012	0.009	± 0.013	
Saga, SAGA	30	221.1	0.006	± 0.010	0.0006	± 0.0087	
Nagasaki, NAGASAKI	30	241.5	0.006	± 0.011	0.0035	± 0.0075	
Uto, KUMAMOTO	30	219.9	0.030	± 0.013	0.019	± 0.0087	
Oita, OITA	30	116.0	0.042	± 0.014	0.0000	± 0.0075	
Miyazaki, MIYAZAKI	30	277.9	0.001	± 0.012	0.012	± 0.0091	
Kagoshima, KAGOSHIMA	30	195.5	0.005	± 0.011	0.0023	± 0.0081	
Yonashiro-machi, OKINAWA	29	110.0	0.000	± 0.013	0.026	± 0.011	
May 2003							
Sapporo, HOKKAIDO	32	51.0	0.007	± 0.014	0.020	± 0.014	
Aomori, AOMORI	32	62.5	0.012	± 0.013	0.0041	± 0.0075	
Morioka, IWATE	32	60.4	0.005	± 0.015	0.013	± 0.0087	
Onagawa-machi, MIYAGI	32	40.5	0.056	± 0.017	0.0000	± 0.0074	
Akita, AKITA	32	38.1	0.011	± 0.011	0.0000	± 0.0071	
Yamagata, YAMAGATA	32	8.6	0.000	± 0.011	0.0061	± 0.0087	
Okuma-machi, FUKUSHIMA	32	33.5	0.008	± 0.012	0.0017	± 0.0087	
Mito, IBARAKI	32	86.0	0.024	± 0.014	0.012	± 0.0093	
Kawachi-machi, TOCHIGI	32	113.9	0.006	± 0.011	0.012	± 0.0090	
Maebashi, GUNMA	32	83.5	0.009	± 0.014	0.022	± 0.0088	
Saitama, SAITAMA	32	145.4	0.012	± 0.0081	0.0053	± 0.0058	
Ichihara, CHIBA	32	139.1	0.008	± 0.014	0.013	± 0.0090	
Chiba, CHIBA	31	145.5	0.008	± 0.013	0.028	± 0.0092	
Shinjuku, TOKYO	32	190.2	0.012	± 0.013	0.0059	± 0.0084	

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
Yokohama, KANAGAWA	29	64.4	0.026	± 0.014	0.0066	± 0.0084	
Niigata, NIIGATA	32	70.7	0.004	± 0.013	0.011	± 0.0088	
Kosugi-machi, TOYAMA	29	59.4	0.018	± 0.018	0.0030	± 0.0074	
Kanazawa, ISHIKAWA	29	60.5	0.028	± 0.013	0.0000	± 0.0082	
Fukui, FUKUI	32	52.8	0.005	± 0.058	0.000	± 0.040	
Kofu, YAMANASHI	31	136.0	0.000	± 0.012	0.0069	± 0.0075	
Nagano, NAGANO	32	47.8	0.000	± 0.013	0.024	± 0.0089	
Kakamigahara, GIFU	32	136.5	0.023	± 0.014	0.0000	± 0.0081	
Shizuoka, SHIZUOKA	32	261.5	0.021	± 0.013	0.0018	± 0.0090	
Nagoya, AICHI	32	119.0	0.019	± 0.012	0.0059	± 0.0078	
Yokkaichi, MIE	32	245.0	0.000	± 0.013	0.014	± 0.0081	
Otsu, SHIGA	32	98.0	0.011	± 0.016	0.0099	± 0.0090	
Kyoto, KYOTO	35	118.0	0.020	± 0.014	0.011	± 0.0088	
Osaka, OSAKA	32	88.93	0.062	± 0.016	0.0020	± 0.0090	
Kobe, HYOGO	30	78.0	0.030	± 0.013	0.0000	± 0.0072	
Nara, NARA	32	147.9	0.017	± 0.013	0.0078	± 0.0091	
Wakayama, WAKAYAMA	29	68.0	0.007	± 0.013	0.0042	± 0.0086	
Hawai-machi, TOTTORI	31	96.0	0.000	± 0.011	0.028	± 0.0095	
Matsue, SHIMANE	29	148.6	0.017	± 0.0072	0.016	± 0.0058	
Okayama, OKAYAMA	32	140.1	0.000	± 0.012	0.0062	± 0.0085	
Hiroshima, HIROSHIMA	32	182.8	0.032	± 0.012	0.0000	± 0.0079	
Yamaguchi, YAMAGUCHI	31	162.0	0.018	± 0.012	0.0006	± 0.0077	
Ishii-machi, TOKUSHIMA	31	93.8	0.022	± 0.020	0.0084	± 0.0084	
Takamatsu, KAGAWA	32	85.0	0.000	± 0.011	0.021	± 0.0096	
Matsuyama, EHIME	32	169.5	0.000	± 0.012	0.0023	± 0.0079	
Kochi, KOCHI	32	479.9	0.062	± 0.017	0.042	± 0.011	
Dazaifu, FUKUOKA	32	130.4	0.027	± 0.012	0.006	± 0.013	
Saga, SAGA	32	175.0	0.004	± 0.010	0.0098	± 0.0094	
Nagasaki, NAGASAKI	32	115.5	0.021	± 0.014	0.0035	± 0.0076	
Uto, KUMAMOTO	32	174.4	0.016	± 0.012	0.012	± 0.0089	
Oita, OITA	32	327.5	0.019	± 0.014	0.0036	± 0.0086	
Miyazaki, MIYAZAKI	32	696.6	0.000	± 0.011	0.022	± 0.0099	
Kagoshima, KAGOSHIMA	29	115.5	0.009	± 0.011	0.011	± 0.0087	
Yonashiro-machi, OKINAWA	32	116.5	0.002	± 0.013	0.0054	± 0.0086	

Location	Duration (Days)	Precipitation (mm)	Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
<b>Jun. 2003</b>						
Sapporo, HOKKAIDO	29	39.5	0.018	± 0.014	0.021	± 0.013
Aomori, AOMORI	29	115.2	0.022	± 0.013	0.0000	± 0.0084
Morioka, IWATE	29	69.9	0.007	± 0.013	0.0030	± 0.0085
Onagawa-machi, MIYAGI	29	83.0	0.002	± 0.011	0.0000	± 0.0073
Akita, AKITA	29	94.9	0.025	± 0.013	0.0000	± 0.0092
Yamagata, YAMAGATA	29	120.2	0.027	± 0.017	0.012	± 0.0094
Okuma-machi, FUKUSHIMA	29	85.5	0.008	± 0.010	0.0029	± 0.0089
Mito, IBARAKI	29	168.0	0.0000	± 0.0093	0.017	± 0.0092
Kawachi-machi, TOCHIGI	29	107.1	0.000	± 0.010	0.010	± 0.0087
Maebashi, GUNMA	29	88.5	0.0010	± 0.0091	0.0058	± 0.0079
Saitama, SAITAMA	29	86.1	0.017	± 0.0081	0.0000	± 0.0049
Ichihara, CHIBA	29	37.4	0.008	± 0.011	0.025	± 0.010
Chiba, CHIBA	29	52.2	0.032	± 0.015	0.0000	± 0.0073
Shinjuku, TOKYO	30	97.8	0.035	± 0.016	0.0000	± 0.0083
Chigasaki, KANAGAWA	28	67.3	0.005	± 0.014	0.0024	± 0.0073
Niigata, NIIGATA	29	115.6	0.008	± 0.013	0.016	± 0.0094
Kosugi-machi, TOYAMA	32	181.6	0.044	± 0.021	0.011	± 0.0088
Kanazawa, ISHIKAWA	31	165.5	0.031	± 0.013	0.0024	± 0.0082
Fukui, FUKUI	31	245.6	0.039	± 0.061	0.000	± 0.044
Kofu, YAMANASHI	30	60.0	0.000	± 0.010	0.0069	± 0.0075
Nagano, NAGANO	29	61.2	0.000	± 0.014	0.012	± 0.0084
Kakamigahara, GIFU	29	228.0	0.010	± 0.013	0.0031	± 0.0086
Shizuoka, SHIZUOKA	28	116.0	0.008	± 0.013	0.0095	± 0.0098
Nagoya, AICHI	29	165.6	0.027	± 0.013	0.019	± 0.0088
Yokkaichi, MIE	29	282.0	0.028	± 0.014	0.0099	± 0.0090
Otsu, SHIGA	29	308.9	0.021	± 0.014	0.0000	± 0.0076
Kyoto, KYOTO	20	234.0	0.046	± 0.013	0.0023	± 0.0080
Osaka, OSAKA	30	148.55	0.040	± 0.013	0.012	± 0.011
Kobe, HYOGO	31	226.2	0.005	± 0.011	0.0076	± 0.0083
Nara, NARA	29	252.9	0.076	± 0.024	0.0000	± 0.0084
Wakayama, WAKAYAMA	34	241.0	0.054	± 0.018	0.0000	± 0.0087
Hawai-machi, TOTTORI	30	111.0	0.002	± 0.015	0.0000	± 0.0075
Matsue, SHIMANE	33	145.6	0.027	± 0.0085	0.053	± 0.0078

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
Okayama, OKAYAMA	30	184.9	0.019	± 0.014	0.011	± 0.0085	
Hiroshima, HIROSHIMA	28	198.0	0.005	± 0.012	0.0000	± 0.0081	
Yamaguchi, YAMAGUCHI	30	230.0	0.030	± 0.013	0.0053	± 0.0076	
Ishii-machi, TOKUSHIMA	31	264.6	0.014	± 0.014	0.41	± 0.024	
Takamatsu, KAGAWA	29	98.5	0.000	± 0.011	0.013	± 0.0090	
Matsuyama, EHIME	29	138.5	0.003	± 0.013	0.0047	± 0.0081	
Kochi, KOCHI	28	341.4	0.042	± 0.017	0.0086	± 0.0093	
Dazaifu, FUKUOKA	29	249.9	0.0080	± 0.0092	0.000	± 0.012	
Saga, SAGA	29	244.8	0.003	± 0.011	0.0080	± 0.0082	
Nagasaki, NAGASAKI	29	274.5	0.000	± 0.014	0.0000	± 0.0070	
Uto, KUMAMOTO	29	326.0	0.008	± 0.012	0.012	± 0.0092	
Oita, OITA	29	234.0	0.006	± 0.012	0.0000	± 0.0076	
Miyazaki, MIYAZAKI	29	808.9	0.014	± 0.011	0.019	± 0.0093	
Kagoshima, KAGOSHIMA	32	552.5	0.015	± 0.012	0.024	± 0.0096	
Yonashiro-machi, OKINAWA	29	192.0	0.029	± 0.021	0.014	± 0.0093	
Jul. 2003							
Sapporo, HOKKAIDO	31	28.0	0.002	± 0.015	0.000	± 0.013	
Aomori, AOMORI	31	76.2	0.000	± 0.011	0.0000	± 0.0075	
Morioka, IWATE	31	196.1	0.014	± 0.011	0.0030	± 0.0084	
Onagawa-machi, MIYAGI	31	497.5	0.000	± 0.012	0.0000	± 0.0065	
Akita, AKITA	31	174.1	0.045	± 0.015	0.0035	± 0.0083	
Yamagata, YAMAGATA	31	182.3	0.011	± 0.014	0.012	± 0.0088	
Okuma-machi, FUKUSHIMA	31	322.5	0.027	± 0.011	0.0000	± 0.0067	
Mito, IBARAKI	31	141.0	0.012	± 0.013	0.018	± 0.0098	
Kawachi-machi, TOCHIGI	31	184.7	0.000	± 0.012	0.0081	± 0.0086	
Maebashi, GUNMA	31	218.0	0.028	± 0.013	0.0000	± 0.0073	
Saitama, SAITAMA	31	154.2	0.0000	± 0.0093	0.0000	± 0.0080	
Ichihara, CHIBA	31	134.4	0.004	± 0.013	0.030	± 0.011	
Chiba, CHIBA	31	114.9	0.018	± 0.014	0.012	± 0.0081	
Shinjuku, TOKYO	30	175.4	0.031	± 0.0090	0.0064	± 0.0093	
Chigasaki, KANAGAWA	31	214.6	0.023	± 0.019	0.0064	± 0.0077	
Niigata, NIIGATA	31	281.6	0.000	± 0.011	0.0054	± 0.0088	
Kosugi-machi, TOYAMA	31	196.4	0.029	± 0.012	0.014	± 0.0082	
Kanazawa, ISHIKAWA	31	192.0	0.008	± 0.012	0.0000	± 0.0089	

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )
Fukui, FUKUI	29	251.9	0.090	± 0.063	0.000	± 0.043
Kofu, YAMANASHI	30	179.0	0.016	± 0.012	0.0052	± 0.0078
Nagano, NAGANO	31	84.6	0.006	± 0.015	0.0046	± 0.0081
Kakamigahara, GIFU	31	444.5	0.010	± 0.017	0.016	± 0.0095
Shizuoka, SHIZUOKA	31	704.5	0.046	± 0.015	0.0000	± 0.0073
Nagoya, AICHI	31	426.3	0.026	± 0.014	0.0029	± 0.0075
Yokkaichi, MIE	31	429.0	0.007	± 0.014	0.0000	± 0.0086
Otsu, SHIGA	31	281.8	0.007	± 0.013	0.0000	± 0.0071
Kyoto, KYOTO	30	214.0	0.014	± 0.010	0.0013	± 0.0085
Osaka, OSAKA	30	148.60	0.015	± 0.011	0.0000	± 0.0084
Kobe, HYOGO	31	194.6	0.014	± 0.012	0.0000	± 0.0073
Nara, NARA	31	203.6	0.004	± 0.013	0.0000	± 0.0075
Wakayama, WAKAYAMA	29	72.5	0.047	± 0.025	0.0000	± 0.0078
Hawai-machi, TOTTORI	31	240.9	0.000	± 0.018	0.000	± 0.013
Matsue, SHIMANE	30	330.1	0.050	± 0.011	0.065	± 0.0084
Okayama, OKAYAMA	30	211.9	0.017	± 0.014	0.0000	± 0.0075
Hiroshima, HIROSHIMA	32	434.8	0.016	± 0.013	0.0073	± 0.0089
Yamaguchi, YAMAGUCHI	31	674.5	0.012	± 0.012	0.0000	± 0.0082
Ishii-machi, TOKUSHIMA	30	144.9	0.000	± 0.023	0.049	± 0.012
Takamatsu, KAGAWA	31	119.5	0.000	± 0.014	0.011	± 0.014
Matsuyama, EHIME	31	270.0	0.023	± 0.011	0.0000	± 0.0087
Kochi, KOCHI	32	253.7	0.025	± 0.015	0.0026	± 0.0083
Dazaifu, FUKUOKA	31	585.5	0.016	± 0.010	0.000	± 0.012
Saga, SAGA	31	378.6	0.0000	± 0.0099	0.0035	± 0.0080
Nagasaki, NAGASAKI	31	243.0	0.000	± 0.015	0.000	± 0.013
Uto, KUMAMOTO	31	256.6	0.020	± 0.015	0.0064	± 0.0084
Oita, OITA	31	258.5	0.011	± 0.013	0.0000	± 0.0070
Miyazaki, MIYAZAKI	31	93.6	0.021	± 0.013	0.0017	± 0.0082
Kagoshima, KAGOSHIMA	31	310.5	0.000	± 0.014	0.006	± 0.012
Yonashiro-machi, OKINAWA	30	47.5	0.005	± 0.018	0.001	± 0.011
Aug. 2003						
Sapporo, HOKKAIDO	31	85.0	0.012	± 0.014	0.033	± 0.013
Aomori, AOMORI	31	161.7	0.022	± 0.013	0.0023	± 0.0082
Morioka, IWATE	31	237.8	0.020	± 0.012	0.0000	± 0.0069

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )
Onagawa-machi, MIYAGI	31	147.5	0.016	± 0.013	0.0000	± 0.0072
Akita, AKITA	31	213.2	0.021	± 0.015	0.0036	± 0.0079
Yamagata, YAMAGATA	31	162.2	0.029	± 0.012	0.0093	± 0.0077
Okuma-machi, FUKUSHIMA	31	285.0	0.014	± 0.011	0.0000	± 0.0071
Mito, IBARAKI	31	191.0	0.025	± 0.014	0.0000	± 0.0085
Kawachi-machi, TOCHIGI	31	194.7	0.000	± 0.010	0.0000	± 0.0083
Maebashi, GUNMA	31	148.5	0.008	± 0.010	0.0058	± 0.0079
Saitama, SAITAMA	31	273.4	0.0000	± 0.0094	0.0000	± 0.0082
Ichihara, CHIBA	31	337.3	0.000	± 0.013	0.020	± 0.0087
Chiba, CHIBA	31	343.8	0.023	± 0.015	0.0062	± 0.0082
Shinjuku, TOKYO	31	290.6	0.028	± 0.023	0.0065	± 0.0097
Chigasaki, KANAGAWA	32	449.9	0.019	± 0.012	0.0087	± 0.0077
Niigata, NIIGATA	31	203.5	0.015	± 0.014	0.0000	± 0.0077
Kosugi-machi, TOYAMA	31	292.3	0.006	± 0.011	0.017	± 0.0087
Kanazawa, ISHIKAWA	29	185.5	0.009	± 0.012	0.0000	± 0.0066
Fukui, FUKUI	33	213.6	0.11	± 0.065	0.025	± 0.044
Kofu, YAMANASHI	31	311.0	0.012	± 0.011	0.0000	± 0.0072
Nagano, NAGANO	31	122.0	0.008	± 0.013	0.0000	± 0.0073
Kakamigahara, GIFU	31	298.5	0.000	± 0.014	0.0000	± 0.0080
Nagoya, AICHI	31	283.6	0.012	± 0.020	0.000	± 0.012
Yokkaichi, MIE	31	425.0	0.000	± 0.011	0.0000	± 0.0081
Otsu, SHIGA	31	346.2	0.009	± 0.014	0.0000	± 0.0084
Kyoto, KYOTO	33	305.0	0.019	± 0.011	0.0000	± 0.0070
Osaka, OSAKA	31	131.55	0.028	± 0.015	0.0000	± 0.0084
Kobe, HYOGO	29	301.5	0.001	± 0.011	0.0077	± 0.0087
Nara, NARA	31	293.3	0.044	± 0.014	0.0078	± 0.0091
Wakayama, WAKAYAMA	31	278.0	0.004	± 0.012	0.0000	± 0.0073
Hawai-machi, TOTTORI	31	193.4	0.018	± 0.014	0.036	± 0.015
Matsue, SHIMANE	31	185.0	0.039	± 0.010	0.079	± 0.0090
Okayama, OKAYAMA	31	171.3	0.019	± 0.012	0.0000	± 0.0074
Hiroshima, HIROSHIMA	31	179.6	0.008	± 0.012	0.0070	± 0.0085
Yamaguchi, YAMAGUCHI	31	365.5	0.015	± 0.012	0.0000	± 0.0079
Ishii-machi, TOKUSHIMA	33	268.5	0.028	± 0.027	0.017	± 0.010
Takamatsu, KAGAWA	31	268.5	0.010	± 0.013	0.000	± 0.012

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
Matsuyama, EHIME	31	169.0	0.0000	± 0.0093	0.0000	± 0.0082	
Kochi, KOCHI	31	512.8	0.034	± 0.016	0.0079	± 0.0089	
Dazaifu, FUKUOKA	31	289.8	0.019	± 0.011	0.000	± 0.012	
Saga, SAGA	31	261.7	0.000	± 0.011	0.0017	± 0.0084	
Nagasaki, NAGASAKI	31	283.5	0.052	± 0.016	0.000	± 0.011	
Uto, KUMAMOTO	31	313.7	0.005	± 0.014	0.0017	± 0.0076	
Oita, OITA	31	398.5	0.013	± 0.014	0.014	± 0.0092	
Miyazaki, MIYAZAKI	31	248.1	0.010	± 0.013	0.0033	± 0.0079	
Kagoshima, KAGOSHIMA	29	178.5	0.030	± 0.013	0.015	± 0.0092	
Yonashiro-machi, OKINAWA	32	228.5	0.000	± 0.017	0.0000	± 0.0086	
Sep. 2003							
Sapporo, HOKKAIDO	30	91.0	0.000	± 0.013	0.013	± 0.013	
Aomori, AOMORI	30	147.9	0.000	± 0.011	0.010	± 0.0080	
Morioka, IWATE	30	123.6	0.018	± 0.014	0.0041	± 0.0074	
Onagawa-machi, MIYAGI	30	76.5	0.000	± 0.013	0.0000	± 0.0068	
Akita, AKITA	30	124.7	0.031	± 0.014	0.018	± 0.0090	
Yamagata, YAMAGATA	30	109.7	0.021	± 0.012	0.0000	± 0.0077	
Okuma-machi, FUKUSHIMA	30	137.0	0.033	± 0.014	0.0000	± 0.0075	
Mito, IBARAKI	30	106.5	0.000	± 0.011	0.021	± 0.0097	
Kawachi-machi, TOCHIGI	30	146.7	0.014	± 0.012	0.0000	± 0.0070	
Maebashi, GUNMA	30	160.0	0.0000	± 0.0094	0.0000	± 0.0071	
Saitama, SAITAMA	30	160.3	0.018	± 0.0075	0.0000	± 0.0078	
Ichihara, CHIBA	30	150.7	0.001	± 0.011	0.0017	± 0.0077	
Chiba, CHIBA	30	130.0	0.007	± 0.013	0.0000	± 0.0069	
Shinjuku, TOKYO	30	132.0	0.036	± 0.018	0.010	± 0.011	
Chigasaki, KANAGAWA	29	149.2	0.004	± 0.014	0.0000	± 0.0084	
Niigata, NIIGATA	30	72.4	0.001	± 0.012	0.0029	± 0.0083	
Kosugi-machi, TOYAMA	30	89.9	0.021	± 0.012	0.0060	± 0.0077	
Kanazawa, ISHIKAWA	32	221.5	0.000	± 0.010	0.0036	± 0.0079	
Fukui, FUKUI	29	75.2	0.10	± 0.060	0.000	± 0.039	
Kofu, YAMANASHI	30	151.5	0.006	± 0.010	0.0006	± 0.0074	
Nagano, NAGANO	30	79.9	0.000	± 0.011	0.0022	± 0.0077	
Kakamigahara, GIFU	30	271.0	0.011	± 0.020	0.0082	± 0.0095	
Shizuoka, SHIZUOKA	30	217.0	0.022	± 0.014	0.0000	± 0.0076	

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
Nagoya, AICHI	30	149.7	0.030	± 0.014	0.000	± 0.012	
Yokkaichi, MIE	30	144.5	0.031	± 0.017	0.015	± 0.0086	
Otsu, SHIGA	30	177.2	0.000	± 0.012	0.0000	± 0.0084	
Kyoto, KYOTO	29	135.0	0.029	± 0.011	0.0000	± 0.0070	
Osaka, OSAKA	30	142.72	0.023	± 0.016	0.000	± 0.012	
Kobe, HYOGO	32	119.1	0.012	± 0.013	0.0000	± 0.0075	
Nara, NARA	30	237.0	0.010	± 0.018	0.0000	± 0.0089	
Wakayama, WAKAYAMA	30	196	0.021	± 0.013	0.0000	± 0.0078	
Hawai-machi, TOTTORI	30	190.0	0.007	± 0.013	0.005	± 0.013	
Matsue, SHIMANE	30	108.3	0.035	± 0.0083	0.071	± 0.0087	
Okayama, OKAYAMA	30	68.9	0.008	± 0.012	0.0000	± 0.0077	
Hiroshima, HIROSHIMA	30	85.2	0.033	± 0.014	0.0040	± 0.0088	
Yamaguchi, YAMAGUCHI	30	52.5	0.031	± 0.013	0.0032	± 0.0085	
Ishii-machi, TOKUSHIMA	28	268.4	0.000	± 0.031	0.0000	± 0.0097	
Takamatsu, KAGAWA	30	52.0	0.000	± 0.011	0.009	± 0.013	
Matsuyama, EHIME	30	49.5	0.017	± 0.011	0.0000	± 0.0093	
Kochi, KOCHI	29	302.1	0.060	± 0.023	0.0000	± 0.0081	
Dazaifu, FUKUOKA	30	54.6	0.015	± 0.013	0.0017	± 0.0073	
Saga, SAGA	30	57.6	0.000	± 0.010	0.0017	± 0.0084	
Nagasaki, NAGASAKI	30	120.0	0.031	± 0.012	0.000	± 0.011	
Uto, KUMAMOTO	30	20.4	0.008	± 0.012	0.0040	± 0.0077	
Oita, OITA	30	202.5	0.000	± 0.013	0.0000	± 0.0080	
Miyazaki, MIYAZAKI	30	204.5	0.014	± 0.011	0.016	± 0.0086	
Kagoshima, KAGOSHIMA	32	40.5	0.008	± 0.015	0.0094	± 0.0085	
Yonashiro-machi, OKINAWA	31	170.0	0.036	± 0.019	0.0007	± 0.0091	
Oct. 2003							
Aomori, AOMORI	34	105.1	0.000	± 0.012	0.0023	± 0.0074	
Morioka, IWATE	34	78.3	0.012	± 0.011	0.012	± 0.0085	
Onagawa-machi, MIYAGI	35	60.5	0.005	± 0.014	0.0000	± 0.0068	
Akita, AKITA	34	193.0	0.027	± 0.016	0.0000	± 0.0079	
Yamagata, YAMAGATA	34	40.7	0.008	± 0.010	0.0000	± 0.0070	
Mito, IBARAKI	34	110.5	0.000	± 0.011	0.0044	± 0.0082	
Kawachi-machi, TOCHIGI	34	109.3	0.002	± 0.012	0.0012	± 0.0076	
Maebashi, GUNMA	34	73.0	0.011	± 0.012	0.019	± 0.0088	

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
Saitama, SAITAMA	34	109.2	0.015	± 0.0074	0.0078	± 0.0087	
Ichihara, CHIBA	34	165.0	0.024	± 0.011	0.0095	± 0.0072	
Chiba, CHIBA	34	134.9	0.015	± 0.013	0.0091	± 0.0077	
Shinjuku, TOKYO	34	179.6	0.014	± 0.015	0.0000	± 0.0070	
Chigasaki, KANAGAWA	31	180.5	0.011	± 0.012	0.0000	± 0.0080	
Niigata, NIIGATA	34	147.0	0.000	± 0.012	0.011	± 0.0092	
Kosugi-machi, TOYAMA	30	114.8	0.004	± 0.015	0.0029	± 0.0081	
Kanazawa, ISHIKAWA	31	125.5	0.018	± 0.012	0.0028	± 0.0075	
Fukui, FUKUI	33	92.0	0.040	± 0.054	0.000	± 0.041	
Kofu, YAMANASHI	34	72.0	0.011	± 0.010	0.0000	± 0.0072	
Nagano, NAGANO	34	34.4	0.000	± 0.013	0.011	± 0.0084	
Kakamigahara, GIFU	34	76.0	0.007	± 0.013	0.0011	± 0.0079	
Shizuoka, SHIZUOKA	34	162.0	0.021	± 0.011	0.0000	± 0.0078	
Nagoya, AICHI	34	106.5	0.020	± 0.014	0.000	± 0.012	
Yokkaichi, MIE	34	128.0	0.017	± 0.013	0.0096	± 0.0077	
Otsu, SHIGA	34	89.7	0.014	± 0.016	0.0093	± 0.0082	
Kyoto, KYOTO	31	68.0	0.000	± 0.013	0.0000	± 0.0082	
Osaka, OSAKA	34	111.12	0.025	± 0.012	0.000	± 0.011	
Nara, NARA	34	131.1	0.003	± 0.015	0.0047	± 0.0099	
Wakayama, WAKAYAMA	30	90.5	0.031	± 0.013	0.0000	± 0.0077	
Hawai-machi, TOTTORI	31	49.6	0.023	± 0.014	0.0060	± 0.0081	
Matsue, SHIMANE	30	13.2	0.0074	± 0.0063	0.026	± 0.0066	
Okayama, OKAYAMA	34	59.7	0.000	± 0.011	0.0051	± 0.0074	
Hiroshima, HIROSHIMA	29	1.8	0.000	± 0.011	0.0000	± 0.0077	
Yamaguchi, YAMAGUCHI	31	1.5	0.008	± 0.013	0.0000	± 0.0083	
Ishii-machi, TOKUSHIMA	34	145.2	0.015	± 0.021	0.001	± 0.010	
Takamatsu, KAGAWA	34	59.5	0.010	± 0.014	0.000	± 0.012	
Matsuyama, EHIME	34	80.0	0.017	± 0.011	0.0000	± 0.0072	
Kochi, KOCHI	31	186.9	0.052	± 0.017	0.017	± 0.010	
Dazaifu, FUKUOKA	34	33.9	0.002	± 0.013	0.0062	± 0.0076	
Saga, SAGA	34	30.1	0.008	± 0.013	0.017	± 0.0078	
Nagasaki, NAGASAKI	34	60.5	0.017	± 0.011	0.000	± 0.012	
Uto, KUMAMOTO	34	69.2	0.011	± 0.012	0.0000	± 0.0075	
Oita, OITA	34	73.5	0.000	± 0.012	0.0000	± 0.0081	

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )		
Miyazaki, MIYAZAKI	34	207.0	0.001	±	0.011	0.017	±	0.0093
Kagoshima, KAGOSHIMA	31	46.0	0.008	±	0.014	0.012	±	0.014
Yonashiro-machi, OKINAWA	33	204.5	0.013	±	0.020	0.0000	±	0.0075
Nov. 2003								
Sapporo, HOKKAIDO	31	73.0	0.013	±	0.013	0.016	±	0.0090
Aomori, AOMORI	27	87.5	0.021	±	0.013	0.032	±	0.0091
Morioka, IWATE	27	114.9	0.013	±	0.011	0.018	±	0.0089
Onagawa-machi, MIYAGI	27	162.0	0.005	±	0.014	0.0000	±	0.0071
Akita, AKITA	27	99.5	0.012	±	0.014	0.0024	±	0.0082
Yamagata, YAMAGATA	27	110.6	0.000	±	0.011	0.0018	±	0.0069
Okuma-machi, FUKUSHIMA	27	120.5	0.002	±	0.010	0.0000	±	0.0077
Mito, IBARAKI	27	151.5	0.003	±	0.012	0.015	±	0.0085
Kawachi-machi, TOCHIGI	27	196.3	0.002	±	0.012	0.0000	±	0.0074
Maebashi, GUNMA	27	108.5	0.0000	±	0.0093	0.0000	±	0.0078
Saitama, SAITAMA	27	162.8	0.013	±	0.0078	0.0008	±	0.0056
Ichihara, CHIBA	27	244.3	0.016	±	0.011	0.016	±	0.0091
Chiba, CHIBA	27	233.9	0.009	±	0.013	0.011	±	0.0080
Shinjuku, TOKYO	27	223.6	0.047	±	0.022	0.0029	±	0.0092
Chigasaki, KANAGAWA	32	305.4	0.000	±	0.015	0.011	±	0.0085
Niigata, NIIGATA	27	159.0	0.015	±	0.015	0.0007	±	0.0096
Kosugi-machi, TOYAMA	31	261.1	0.011	±	0.018	0.0000	±	0.0077
Kanazawa, ISHIKAWA	28	187.0	0.021	±	0.013	0.0000	±	0.0071
Fukui, FUKUI	27	186.7	0.067	±	0.063	0.000	±	0.043
Kofu, YAMANASHI	28	165.5	0.024	±	0.012	0.0000	±	0.0080
Nagano, NAGANO	27	113.3	0.007	±	0.012	0.0000	±	0.0091
Kakamigahara, GIFU	27	205.5	0.000	±	0.040	0.0000	±	0.0092
Shizuoka, SHIZUOKA	27	328.5	0.015	±	0.011	0.0000	±	0.0098
Nagoya, AICHI	27	193.6	0.011	±	0.015	0.0000	±	0.0082
Yokkaichi, MIE	27	206.0	0.020	±	0.013	0.0062	±	0.0074
Otsu, SHIGA	27	165.4	0.000	±	0.011	0.010	±	0.0084
Kyoto, KYOTO	27	130.0	0.005	±	0.013	0.0000	±	0.0084
Osaka, OSAKA	27	150.48	0.012	±	0.011	0.000	±	0.012
Kobe, HYOGO	28	103.7	0.002	±	0.013	0.000	±	0.011
Nara, NARA	27	238.2	0.025	±	0.021	0.0020	±	0.0095

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
Wakayama, WAKAYAMA	31	258.0	0.010	± 0.013	0.0000	± 0.0075	
Hawai-machi, TOTTORI	30	114.3	0.026	± 0.016	0.0024	± 0.0079	
Matsue, SHIMANE	31	54.8	0.016	± 0.0074	0.0000	± 0.0045	
Okayama, OKAYAMA	27	114.2	0.007	± 0.012	0.0074	± 0.0076	
Hiroshima, HIROSHIMA	32	131.2	0.000	± 0.010	0.0000	± 0.0075	
Yamaguchi, YAMAGUCHI	30	128.5	0.021	± 0.019	0.0000	± 0.0076	
Ishii-machi, TOKUSHIMA	27	126.8	0.000	± 0.012	0.013	± 0.0089	
Takamatsu, KAGAWA	27	110.0	0.000	± 0.014	0.0082	± 0.0080	
Matsuyama, EHIME	27	105.0	0.018	± 0.014	0.0037	± 0.0088	
Kochi, KOCHI	31	290.6	0.033	± 0.017	0.000	± 0.014	
Dazaifu, FUKUOKA	27	107.0	0.012	± 0.013	0.0063	± 0.0069	
Saga, SAGA	27	134.2	0.000	± 0.013	0.0018	± 0.0065	
Nagasaki, NAGASAKI	27	118.5	0.000	± 0.011	0.000	± 0.011	
Uto, KUMAMOTO	27	181.8	0.023	± 0.013	0.0028	± 0.0072	
Oita, OITA	27	188.0	0.003	± 0.019	0.0000	± 0.0079	
Miyazaki, MIYAZAKI	27	226.4	0.006	± 0.011	0.017	± 0.0079	
Kagoshima, KAGOSHIMA	28	202.5	0.026	± 0.017	0.011	± 0.0084	
Yonashiro-machi, OKINAWA	27	99.0	0.000	± 0.017	0.025	± 0.012	
Dec. 2003							
Sapporo, HOKKAIDO	25	40.0	0.000	± 0.011	0.0000	± 0.0073	
Aomori, AOMORI	35	119.5	0.006	± 0.014	0.030	± 0.0099	
Morioka, IWATE	35	92.5	0.016	± 0.012	0.012	± 0.0088	
Onagawa-machi, MIYAGI	24	30.5	0.017	± 0.017	0.0000	± 0.0073	
Akita, AKITA	35	157.7	0.000	± 0.010	0.0080	± 0.0085	
Yamagata, YAMAGATA	35	82.3	0.000	± 0.011	0.022	± 0.0085	
Okuma-machi, FUKUSHIMA	35	99.5	0.021	± 0.012	0.0000	± 0.0090	
Kawachi-machi, TOCHIGI	35	26.9	0.021	± 0.013	0.0000	± 0.0072	
Maebashi, GUNMA	35	25.5	0.027	± 0.017	0.0024	± 0.0075	
Saitama, SAITAMA	35	37.2	0.0000	± 0.0067	0.0034	± 0.0057	
Ichihara, CHIBA	35	49.6	0.023	± 0.012	0.019	± 0.0081	
Chiba, CHIBA	35	52.8	0.022	± 0.013	0.0000	± 0.0077	
Shinjuku, TOKYO	35	47.6	0.000	± 0.012	0.0094	± 0.0080	
Chigasaki, KANAGAWA	24	29.6	0.013	± 0.013	0.0000	± 0.0069	
Niigata, NIIGATA	35	234.9	0.010	± 0.011	0.013	± 0.0091	

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )
Kosugi-machi, TOYAMA	25	204.5	0.004	± 0.010	0.0081	± 0.0075
Kanazawa, ISHIKAWA	28	304.0	0.014	± 0.012	0.0000	± 0.0076
Fukui, FUKUI	25	230.2	0.19	± 0.088	0.000	± 0.039
Kofu, YAMANASHI	34	10.0	0.026	± 0.047	0.0006	± 0.0079
Nagano, NAGANO	35	54.0	0.000	± 0.011	0.016	± 0.0078
Kakamigahara, GIFU	36	71.5	0.000	± 0.029	0.0000	± 0.0078
Shizuoka, SHIZUOKA	35	39.5	0.007	± 0.010	0.0000	± 0.0075
Nagoya, AICHI	35	36.7	0.008	± 0.011	0.0000	± 0.0067
Yokkaichi, MIE	35	60.5	0.010	± 0.011	0.0036	± 0.0088
Otsu, SHIGA	35	45.4	0.023	± 0.022	0.0000	± 0.0074
Kyoto, KYOTO	29	66.0	0.000	± 0.011	0.0000	± 0.0081
Osaka, OSAKA	35	17.78	0.011	± 0.013	0.0000	± 0.0070
Kobe, HYOGO	28	73.3	0.008	± 0.014	0.0000	± 0.0066
Nara, NARA	35	32.6	0.000	± 0.014	0.0000	± 0.0082
Wakayama, WAKAYAMA	35	40.5	0.026	± 0.012	0.0024	± 0.0078
Matsue, SHIMANE	35	211.5	0.022	± 0.0089	0.020	± 0.0064
Okayama, OKAYAMA	35	27.4	0.020	± 0.011	0.0000	± 0.0072
Hiroshima, HIROSHIMA	35	36.7	0.016	± 0.011	0.0000	± 0.0080
Yamaguchi, YAMAGUCHI	34	59.5	0.016	± 0.017	0.0062	± 0.0083
Ishii-machi, TOKUSHIMA	36	120.7	0.012	± 0.017	0.0000	± 0.0076
Takamatsu, KAGAWA	35	25.0	0.012	± 0.011	0.0000	± 0.0068
Matsuyama, EHIME	35	37.0	0.014	± 0.012	0.0011	± 0.0077
Kochi, KOCHI	35	54.4	0.060	± 0.017	0.0000	± 0.0074
Dazaifu, FUKUOKA	35	40.4	0.004	± 0.014	0.0074	± 0.0070
Saga, SAGA	35	33.9	0.000	± 0.014	0.027	± 0.0085
Nagasaki, NAGASAKI	35	33.0	0.000	± 0.014	0.027	± 0.0087
Uto, KUMAMOTO	35	39.4	0.027	± 0.014	0.019	± 0.0085
Oita, OITA	35	26.5	0.008	± 0.011	0.0017	± 0.0083
Miyazaki, MIYAZAKI	35	37.3	0.028	± 0.013	0.0018	± 0.0071
Kagoshima, KAGOSHIMA	28	28.0	0.000	± 0.013	0.0054	± 0.0077
Yonashiro-machi, OKINAWA	36	80.5	0.000	± 0.015	0.000	± 0.011
Jan. 2004						
Sapporo, HOKKAIDO	35	104.5	0.013	± 0.011	0.0018	± 0.0084
Aomori, AOMORI	28	63.8	0.021	± 0.012	0.0023	± 0.0078

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
Morioka, IWATE	28	60.3	0.012	± 0.010	0.0054	± 0.0084	
Onagawa-machi, MIYAGI	38	18.0	0.013	± 0.012	0.0090	± 0.0091	
Akita, AKITA	28	175.8	0.008	± 0.015	0.0000	± 0.0076	
Yamagata, YAMAGATA	28	123.5	0.000	± 0.010	0.0042	± 0.0072	
Okuma-machi, FUKUSHIMA	28	11.5	0.013	± 0.012	0.0080	± 0.0092	
Mito, IBARAKI	28	20.0	0.010	± 0.010	0.035	± 0.010	
Kawachi-machi, TOCHIGI	28	5.7	0.015	± 0.011	0.020	± 0.0089	
Maebashi, GUNMA	28	0.0	0.006	± 0.013	0.0006	± 0.0074	
Saitama, SAITAMA	28	4.1	0.016	± 0.0071	0.039	± 0.0072	
Ichihara, CHIBA	28	12.9	0.033	± 0.014	0.017	± 0.0085	
Chiba, CHIBA	28	9.5	0.019	± 0.014	0.027	± 0.0097	
Shinjuku, TOKYO	28	3.6	0.015	± 0.016	0.0000	± 0.0077	
Chigasaki, KANAGAWA	35	13.5	0.020	± 0.013	0.0000	± 0.0077	
Niigata, NIIGATA	28	149.3	0.016	± 0.011	0.0000	± 0.0079	
Kosugi-machi, TOYAMA	35	207.3	0.016	± 0.010	0.019	± 0.0083	
Kanazawa, ISHIKAWA	35	351.0	0.012	± 0.015	0.022	± 0.0091	
Fukui, FUKUI	39	430.0	0.000	± 0.069	0.000	± 0.036	
Kofu, YAMANASHI	28	15.0	0.028	± 0.012	0.0006	± 0.0080	
Nagano, NAGANO	28	34.0	0.000	± 0.011	0.016	± 0.0084	
Kakamigahara, GIFU	28	27.5	0.013	± 0.013	0.0095	± 0.0090	
Shizuoka, SHIZUOKA	28	58.5	0.013	± 0.010	0.022	± 0.0096	
Nagoya, AICHI	28	23.3	0.008	± 0.011	0.0000	± 0.0070	
Yokkaichi, MIE	28	41.5	0.000	± 0.011	0.0000	± 0.0077	
Otsu, SHIGA	28	26.3	0.016	± 0.014	0.0000	± 0.0084	
Kyoto, KYOTO	38	21.5	0.014	± 0.014	0.0000	± 0.0082	
Osaka, OSAKA	29	26.0	0.000	± 0.011	0.0000	± 0.0080	
Kobe, HYOGO	35	9.8	0.009	± 0.015	0.0018	± 0.0072	
Nara, NARA	28	40.9	0.019	± 0.014	0.0000	± 0.0084	
Wakayama, WAKAYAMA	28	21.0	0.059	± 0.017	0.0083	± 0.0083	
Hawai-machi, TOTTORI	27	171.4	0.006	± 0.011	0.0058	± 0.0093	
Matsue, SHIMANE	28	118.1	0.036	± 0.010	0.032	± 0.0069	
Okayama, OKAYAMA	28	3.0	0.045	± 0.014	0.0000	± 0.0081	
Hirosshima, HIROSHIMA	28	8.5	0.0000	± 0.0087	0.0000	± 0.0084	
Yamaguchi, YAMAGUCHI	29	31.5	0.000	± 0.011	0.0000	± 0.0073	

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )
Ishii-machi, TOKUSHIMA	26	10.1	0.000	± 0.013	0.0000	± 0.0081
Takamatsu, KAGAWA	28	6.5	0.005	± 0.012	0.0000	± 0.0074
Matsuyama, EHIME	28	25.5	0.016	± 0.011	0.0000	± 0.0071
Kochi, KOCHI	28	19.6	0.000	± 0.015	0.0012	± 0.0078
Dazaifu, FUKUOKA	28	42.0	0.028	± 0.012	0.0043	± 0.0079
Saga, SAGA	28	28.0	0.007	± 0.011	0.0045	± 0.0085
Nagasaki, NAGASAKI	28	53.0	0.000	± 0.014	0.031	± 0.0091
Uto, KUMAMOTO	28	39.3	0.008	± 0.011	0.029	± 0.010
Oita, OITA	28	37.5	0.023	± 0.014	0.0072	± 0.0089
Miyazaki, MIYAZAKI	28	55.1	0.011	± 0.011	0.022	± 0.0084
Kagoshima, KAGOSHIMA	35	44.0	0.016	± 0.013	0.0054	± 0.0078
Yonashiro-machi, OKINAWA	27	59.5	0.000	± 0.013	0.0000	± 0.0087
Feb. 2004						
Sapporo, HOKKAIDO	31	120.5	0.028	± 0.014	0.0000	± 0.0080
Aomori, AOMORI	28	84.5	0.045	± 0.013	0.020	± 0.0091
Morioka, IWATE	28	63.0	0.023	± 0.012	0.042	± 0.011
Onagawa-machi, MIYAGI	28	37.0	0.008	± 0.012	0.0087	± 0.0088
Akita, AKITA	28	79.1	0.000	± 0.011	0.032	± 0.010
Yamagata, YAMAGATA	28	70.3	0.013	± 0.010	0.038	± 0.010
Okuma-machi, FUKUSHIMA	28	26.0	0.043	± 0.015	0.23	± 0.019
Mito, IBARAKI	28	19.0	0.038	± 0.013	0.059	± 0.012
Kawachi-machi, TOCHIGI	29	13.5	0.0077	± 0.010	0.029	± 0.0095
Maebashi, GUNMA	28	15.5	0.004	± 0.012	0.014	± 0.0091
Saitama, SAITAMA	28	9.7	0.029	± 0.0098	0.031	± 0.0084
Ichihara, CHIBA	28	23.7	0.017	± 0.013	0.031	± 0.0092
Chiba, CHIBA	28	20.5	0.030	± 0.014	0.019	± 0.0095
Shinjuku, TOKYO	28	20.6	0.023	± 0.013	0.025	± 0.0096
Chigasaki, KANAGAWA	28	33.4	0.001	± 0.011	0.0000	± 0.0079
Niigata, NIIGATA	28	114.7	0.001	± 0.011	0.048	± 0.011
Kosugi-machi, TOYAMA	31	206.7	0.021	± 0.011	0.065	± 0.011
Kanazawa, ISHIKAWA	31	306.0	0.000	± 0.013	0.086	± 0.013
Fukui, FUKUI	27	267.3	0.071	± 0.070	0.085	± 0.048
Kofu, YAMANASHI	28	27.0	0.013	± 0.012	0.0000	± 0.0075
Nagano, NAGANO	28	64.2	0.000	± 0.014	0.036	± 0.0093

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )
Kakamigahara, Gifu	28	61.5	0.041	± 0.021	0.029	± 0.010
Shizuoka, SHIZUOKA	28	62.5	0.0000	± 0.0091	0.014	± 0.0089
Nagoya, AICHI	28	44.6	0.023	± 0.013	0.014	± 0.0086
Yokkaichi, MIE	28	56.0	0.008	± 0.013	0.035	± 0.0098
Otsu, SHIGA	28	53.5	0.014	± 0.013	0.0070	± 0.0086
Kyoto, KYOTO	35	51.0	0.010	± 0.013	0.029	± 0.010
Osaka, OSAKA	27	43.39	0.005	± 0.011	0.015	± 0.0088
Kobe, HYOGO	28	20.6	0.009	± 0.012	0.0055	± 0.0075
Nara, NARA	28	25.5	0.000	± 0.012	0.015	± 0.0099
Wakayama, WAKAYAMA	28	68.0	0.057	± 0.017	0.0071	± 0.0082
Hawai-machi, TOTTORI	29	131.9	0.0000	± 0.0087	0.032	± 0.011
Matsue, SHIMANE	28	69.4	0.025	± 0.010	0.11	± 0.010
Okayama, OKAYAMA	28	40.2	0.039	± 0.014	0.0042	± 0.0086
Hiroshima, HIROSHIMA	28	39.2	0.006	± 0.012	0.021	± 0.0087
Yamaguchi, YAMAGUCHI	28	81.0	0.011	± 0.014	0.026	± 0.0086
Ishii-machi, TOKUSHIMA	29	31.7	0.003	± 0.017	0.003	± 0.015
Takamatsu, KAGAWA	28	32.5	0.013	± 0.014	0.017	± 0.0081
Matsuyama, EHIME	28	70.5	0.009	± 0.011	0.015	± 0.0088
Kochi, KOCHI	28	78.7	0.016	± 0.015	0.020	± 0.011
Dazaifu, FUKUOKA	28	80.8	0.043	± 0.014	0.013	± 0.0087
Saga, SAGA	28	132.4	0.031	± 0.015	0.021	± 0.0093
Nagasaki, NAGASAKI	28	70.5	0.000	± 0.014	0.027	± 0.0095
Uto, KUMAMOTO	28	67.9	0.032	± 0.013	0.077	± 0.012
Miyazaki, MIYAZAKI	28	10.2	0.001	± 0.011	0.019	± 0.0089
Kagoshima, KAGOSHIMA	28	9.0	0.017	± 0.013	0.0040	± 0.0076
Yonashiro-machi, OKINAWA	28	103.5	0.025	± 0.016	0.0084	± 0.0098
Mar. 2004						
Sapporo, HOKKAIDO	31	29.0	0.081	± 0.015	0.13	± 0.015
Aomori, AOMORI	31	69.1	0.027	± 0.012	0.12	± 0.014
Morioka, IWATE	31	63.2	0.042	± 0.014	0.058	± 0.011
Onagawa-machi, MIYAGI	31	22.5	0.032	± 0.011	0.019	± 0.0095
Akita, AKITA	31	92.9	0.042	± 0.014	0.089	± 0.012
Yamagata, YAMAGATA	31	16.9	0.028	± 0.014	0.084	± 0.016
Okuma-machi, FUKUSHIMA	31	38.0	0.029	± 0.013	0.036	± 0.010

Location	Duration (Days)	Precipitation (mm)		Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )
Mito, IBARAKI	31	108.0	0.034	± 0.013	0.079	± 0.013
Kawachi-machi, TOCHIGI	30	73.1	0.0000	± 0.0094	0.017	± 0.0089
Maebashi, GUNMA	31	42.0	0.000	± 0.012	0.063	± 0.012
Saitama, SAITAMA	31	105.3	0.017	± 0.0091	0.038	± 0.0086
Ichihara, CHIBA	31	122.7	0.011	± 0.010	0.060	± 0.012
Chiba, CHIBA	31	120.6	0.017	± 0.013	0.082	± 0.013
Shinjuku, TOKYO	32	172.4	0.020	± 0.014	0.0077	± 0.0084
Chigasaki, KANAGAWA	33	146.1	0.0095	± 0.0099	0.026	± 0.0099
Niigata, NIIGATA	31	71.9	0.028	± 0.015	0.088	± 0.013
Kosugi-machi, TOYAMA	31	88.7	0.042	± 0.016	0.065	± 0.011
Kanazawa, ISHIKAWA	30	113.5	0.013	± 0.011	0.058	± 0.012
Fukui, FUKUI	31	119.5	0.12	± 0.074	0.048	± 0.047
Kofu, YAMANASHI	31	70.5	0.036	± 0.013	0.015	± 0.0082
Nagano, NAGANO	31	19.5	0.015	± 0.013	0.025	± 0.0090
Kakamigahara, GIFU	21	26.0	0.000	± 0.011	0.018	± 0.0088
Shizuoka, SHIZUOKA	31	147.5	0.015	± 0.014	0.024	± 0.0095
Yokkaichi, MIE	31	104.5	0.010	± 0.013	0.029	± 0.0089
Otsu, SHIGA	31	86.4	0.023	± 0.012	0.017	± 0.0089
Kyoto, KYOTO	24	73.0	0.060	± 0.018	0.0088	± 0.0089
Osaka, OSAKA	30	82.36	0.008	± 0.014	0.014	± 0.0084
Kobe, HYOGO	33	85.0	0.003	± 0.011	0.0065	± 0.0084
Nara, NARA	31	183.3	0.027	± 0.013	0.022	± 0.0099
Wakayama, WAKAYAMA	31	73.0	0.068	± 0.015	0.011	± 0.0083
Hawai-machi, TOTTORI	31	153	0.018	± 0.012	0.042	± 0.011
Matsue, SHIMANE	31	67.4	0.053	± 0.011	0.23	± 0.014
Okayama, OKAYAMA	31	65.4	0.023	± 0.011	0.0076	± 0.0085
Hiroshima, HIROSHIMA	31	69.9	0.012	± 0.012	0.016	± 0.0085
Yamaguchi, YAMAGUCHI	31	114.5	0.014	± 0.012	0.021	± 0.0097
Ishii-machi, TOKUSHIMA	35	136.4	0.015	± 0.016	0.023	± 0.0097
Takamatsu, KAGAWA	31	63.5	0.057	± 0.018	0.018	± 0.0079
Matsuyama, EHIME	31	75.0	0.026	± 0.013	0.0063	± 0.0082
Kochi, KOCHI	31	213.9	0.056	± 0.019	0.0098	± 0.0094
Dazaifu, FUKUOKA	31	103.0	0.001	± 0.010	0.020	± 0.0087
Saga, SAGA	31	88.2	0.025	± 0.011	0.030	± 0.0099

Location	Duration (Days)	Precipitation (mm)	Sr-90 (MBq/km <sup>2</sup> )		Cs-137 (MBq/km <sup>2</sup> )	
Nagasaki, NAGASAKI	31	130.0	0.013	± 0.016	0.014	± 0.0085
Uto, KUMAMOTO	31	105.7	0.044	± 0.017	0.019	± 0.0093
Oita, OITA	31	96.0	0.000	± 0.014	0.021	± 0.0097
Miyazaki, MIYAZAKI	31	238.3	0.015	± 0.014	0.023	± 0.0092
Kagoshima, KAGOSHIMA	33	141.0	0.027	± 0.014	0.026	± 0.0096
Yonashiro-machi, OKINAWA	31	122.0	0.037	± 0.014	0.0000	± 0.0093

## (2) Strontium-90 and Cesium-137 in Airborne dust

(from Apr. 2003 to Apr. 2004)

Table (2) : Strontium-90 and Cesium-137 in Airborne dust

Location	Sampling Period		Absorption (m <sup>3</sup> )	Sr-90 (mBq/m <sup>3</sup> )		Cs-137 (mBq/m <sup>3</sup> )	
	04	-	05	±	0.00047	0.00034	±
<b>Apr. 2003~May 2003</b>							
Yokohama, KANAGAWA	04	-	10397.4	0.00009	±	0.00047	0.00034
<b>Apr. 2003~Jun. 2003</b>							
Morioka, IWATE	04	-	10368.0	0.0019	±	0.00069	0.00000
Akita, AKITA	04	-	10800.0	0.00049	±	0.00057	0.00044
Yamagata, YAMAGATA	04	-	12960.0	0.00043	±	0.00046	0.00015
Okuma-machi, FUKUSHIMA	04	-	9919.8	0.00022	±	0.00064	0.00062
Kawachi-machi, TOCHIGI	04	-	13937.6	0.00032	±	0.00048	0.00000
Ichihara, CHIBA	04	-	10000.6	0.00073	±	0.00059	0.00000
Niigata, NIIGATA	04	-	9935.7	0.00010	±	0.00053	0.00000
Kosugi-machi, TOYAMA	04	-	18070.8	0.00067	±	0.00036	0.00015
Fukui, FUKUI	04	-	12959.1	0.00060	±	0.00044	0.00045
Kofu, YAMANASHI	04	-	12603.6	0.00078	±	0.00047	0.00054
Nagano, NAGANO	04	-	10987.5	0.0013	±	0.00052	0.00024
Hamaoka-machi, SHIZUOKA	04	-	11104.0	0.00000	±	0.00055	0.00004
Nagoya, AICHI	04	-	10367.6	0.00000	±	0.00057	0.00042
Yokkaichi, MIE	04	-	14448.3	0.0012	±	0.00045	0.00004
Otsu, SHIGA	04	-	10025.7	0.0012	±	0.00057	0.00006
Kyoto, KYOTO	04	-	10063.2	0.00057	±	0.00060	0.00029
Osaka, OSAKA	04	-	13077.0	0.00061	±	0.00052	0.00021
Kobe, HYOGO	04	-	10367.5	0.00010	±	0.00052	0.00000
Nara, NARA	04	-	10615.5	0.00005	±	0.00051	0.00024
Wakayama, WAKAYAMA	04	-	7373.4	0.0020	±	0.00080	0.00000
Hawai-machi, TOTTORI	04	-	14340.0	0.00000	±	0.00034	0.00000
Okayama, OKAYAMA	04	-	12886.0	0.00046	±	0.00043	0.00000
Hirosshima, HIROSHIMA	04	-	10217.3	0.0010	±	0.00056	0.00006
Yamaguchi, YAMAGUCHI	04	-	21796.4	0.00005	±	0.00026	0.00014
Tokushima, TOKUSHIMA	04	-	10080.0	0.00031	±	0.00058	0.00007
Takamatsu, KAGAWA	04	-	12673.0	0.00078	±	0.00052	0.00000
Saga, SAGA	04	-	10550.7	0.00000	±	0.00057	0.00014
Nagasaki, NAGASAKI	04	-	8640.0	0.00000	±	0.00056	0.00049

Location	Sampling Period		Absorption (m <sup>3</sup> )	Sr-90 (mBq/m <sup>3</sup> )		Cs-137 (mBq/m <sup>3</sup> )			
				±	0.00034	0.00007	±	0.00020	
Apr. 2003~Jul. 2003	Uto, KUMAMOTO	04	-	06	15424.0	0.00056	±	0.00034	
	Oita, OITA	04	-	06	10450.8	0.00000	±	0.00050	
	Miyazaki, MIYAZAKI	04	-	06	13377.0	0.00039	±	0.00048	
	Mito, IBARAKI	04	-	07	10756.7	0.00000	±	0.00058	
May 2003~Jun. 2003							0.00000	±	0.00023
	Maebashi, GUNMA	05	-	06	10006.0	0.00077	±	0.00055	
	Kakamigahara, GIFU	05	-	06	11462.1	0.00066	±	0.00046	
Jul. 2003~Sep. 2003	Morioka, IWATE	07	-	09	10368.0	0.00000	±	0.00057	
	Akita, AKITA	07	-	09	10800.0	0.00000	±	0.00047	
	Yamagata, YAMAGATA	07	-	09	12960.0	0.00042	±	0.00045	
	Okuma-machi, FUKUSHIMA	07	-	09	9947.0	0.00006	±	0.00053	
	Kawachi-machi, TOCHIGI	07	-	09	14513.7	0.00038	±	0.00043	
	Maebashi, GUNMA	07	-	09	9964.0	0.00034	±	0.00053	
	Ichihara, CHIBA	07	-	09	10036.8	0.0012	±	0.00064	
	Chigasaki, KANAGAWA	07	-	09	10468.6	0.00000	±	0.00054	
	Niigata, NIIGATA	07	-	09	9935.7	0.00000	±	0.00062	
	Kosugi-machi, TOYAMA	07	-	09	18073.6	0.00077	±	0.00034	
	Fukui, FUKUI	07	-	09	12959.1	0.0015	±	0.00053	
	Kofu, YAMANASHI	07	-	09	12603.6	0.00000	±	0.00046	
	Nagano, NAGANO	07	-	09	11316.0	0.00026	±	0.00041	
	Kakamigahara, GIFU	07	-	09	11121.9	0.00032	±	0.00044	
	Hamaoka-machi, SHIZUOKA	07	-	09	12324.0	0.00000	±	0.00034	
	Nagoya, AICHI	07	-	09	10367.4	0.0018	±	0.00063	
	Yokkaichi, MIE	07	-	09	14497.8	0.00000	±	0.00032	
	Otsu, SHIGA	07	-	09	10108.0	0.00061	±	0.00059	
	Kyoto, KYOTO	07	-	09	10338.0	0.00000	±	0.00056	
	Osaka, OSAKA	07	-	09	13004.0	0.00000	±	0.00047	
	Kobe, HYOGO	07	-	09	10367.5	0.00047	±	0.00052	
	Nara, NARA	07	-	09	10615.1	0.00000	±	0.00074	
	Wakayama, WAKAYAMA	07	-	09	7349.1	0.0023	±	0.00082	
	Hawai-machi, TOTTORI	07	-	09	14340.0	0.0011	±	0.00045	
	Okayama, OKAYAMA	07	-	09	13256.0	0.00049	±	0.00060	

Location	Sampling Period		Absorption (m <sup>3</sup> )	Sr-90 (mBq/m <sup>3</sup> )		Cs-137 (mBq/m <sup>3</sup> )		
	07	-	09	±	0.00071	0.00011	±	0.00028
Hiroshima, HIROSHIMA	07	-	09	10059.3	0.0011	0.00028	0.00027	0.00010
Yamaguchi, YAMAGUCHI	07	-	09	21687.0	0.00080	0.00050	0.00000	0.00013
Tokushima, TOKUSHIMA	07	-	09	10080.0	0.00032	0.00032	0.00001	0.00029
Takamatsu, KAGAWA	07	-	09	15321.1	0.00000	0.00044	0.00000	0.00019
Saga, SAGA	07	-	09	10448.3	0.00025	0.00068	0.00000	0.00025
Nagasaki, NAGASAKI	07	-	09	8640.0	0.0015	0.00060	0.00000	0.00032
Uto, KUMAMOTO	07	-	09	11981.0	0.00089	0.00051	0.00000	0.00023
Oita, OITA	07	-	09	10368.0	0.0016	0.00064	0.00000	0.00026
Miyazaki, MIYAZAKI	07	-	09	13198.0	0.0011	0.00058	0.00010	0.00021
Jul. 2003~Oct. 2003								
Mito, IBARAKI	07	-	10	10093.3	0.0016	0.00055	0.00000	0.00029
Oct. 2003~Dec. 2003								
Morioka, IWATE	10	-	12	10368.0	0.00061	0.00039	0.00000	0.00026
Yamagata, YAMAGATA	10	-	12	12960.0	0.00019	0.00050	0.00000	0.00022
Okuma-machi, FUKUSHIMA	10	-	12	10175.0	0.00051	0.00036	0.00000	0.00028
Kawachi-machi, TOCHIGI	10	-	12	14027.4	0.00011	0.00045	0.00009	0.00021
Maebashi, GUNMA	10	-	12	10034.0	0.00000	0.00054	0.00037	0.00029
Ichihara, CHIBA	10	-	12	10231.6	0.00004	0.00050	0.00013	0.00031
Chigasaki, KANAGAWA	10	-	12	10807.2	0.00000	0.00051	0.00000	0.00027
Niigata, NIIGATA	10	-	12	9935.7	0.00000	0.00053	0.00018	0.00029
Kosugi-machi, TOYAMA	10	-	12	18067.2	0.00014	0.00030	0.00000	0.00015
Fukui, FUKUI	10	-	12	12959.1	0.00030	0.00052	0.00000	0.00024
Kofu, YAMANASHI	10	-	12	11073.6	0.00051	0.00043	0.00000	0.00027
Nagano, NAGANO	10	-	12	11316.0	0.00070	0.00053	0.00000	0.00025
Kakamigahara, Gifu	10	-	12	11890.3	0.00039	0.00046	0.00000	0.00023
Hamaoka-machi, SHIZUOKA	10	-	12	9590.0	0.00032	0.00049	0.00023	0.00033
Nagoya, AICHI	10	-	12	10367.7	0.00000	0.00051	0.00042	0.00031
Yokkaichi, MIE	10	-	12	14524.6	0.00000	0.00032	0.00000	0.00019
Otsu, SHIGA	10	-	12	10115.3	0.00090	0.00086	0.00000	0.00028
Kyoto, KYOTO	10	-	12	10296.0	0.00016	0.00059	0.00054	0.00031
Osaka, OSAKA	10	-	12	12859.0	0.0012	0.00053	0.00000	0.00023
Kobe, HYOGO	10	-	12	10367.4	0.0016	0.00060	0.00000	0.00027
Nara, NARA	10	-	12	10800.7	0.0012	0.00081	0.00006	0.00027
Wakayama, WAKAYAMA	10	-	12	7364.3	0.00094	0.00078	0.00000	0.00038

Location	Sampling Period		Absorption (m <sup>3</sup> )	Sr-90 (mBq/m <sup>3</sup> )		Cs-137 (mBq/m <sup>3</sup> )				
	Month	Year		±	0.00040	0.00012	±	0.00020		
Hawai-machi, TOTTORI	10	-	12	14340.0	0.00042	±	0.00035	±	0.00021	
Okayama, OKAYAMA	10	-	12	13083.0	0.00011	±	0.00061	0.00000	±	0.00027
Hirosima, HIROSHIMA	10	-	12	10267.2	0.00078	±	0.00032	0.00000	±	0.00013
Yamaguchi, YAMAGUCHI	10	-	12	21806.8	0.00010	±	0.00041	0.00009	±	0.00032
Tokushima, TOKUSHIMA	10	-	12	10080.0	0.00000	±	0.00040	0.00000	±	0.00019
Takamatsu, KAGAWA	10	-	12	14976.0	0.00038	±	0.00047	0.00000	±	0.00024
Saga, SAGA	10	-	12	11807.9	0.00094	±	0.00043	0.00002	±	0.00033
Nagasaki, NAGASAKI	10	-	12	8640.0	0.0021	±	0.00070	0.00018	±	0.00029
Uto, KUMAMOTO	10	-	12	12514.0	0.00059	±	0.00043	0.00014	±	0.00027
Oita, OITA	10	-	12	10368.4	0.00073	±	0.00079	0.00000	±	0.00022
Miyazaki, MIYAZAKI	10	-	12	13490.0	0.00042	±	0.00040	0.00023	±	0.00027
Oct. 2003~Jan. 2004										
Mito, IBARAKI	10	-	01	10694.6	0.00005	±	0.00046	0.00000	±	0.00027
Jan. 2004~Mar. 2004										
Morioka, IWATE	01	-	03	10368.0	0.00076	±	0.00048	0.00000	±	0.00024
Yamagata, YAMAGATA	01	-	03	12960.0	0.00000	±	0.00041	0.00000	±	0.00020
Okuma-machi, FUKUSHIMA	01	-	03	9977.3	0.00019	±	0.00052	0.00016	±	0.00032
Kawachi-machi, TOCHIGI	01	-	03	13491.3	0.00046	±	0.00044	0.00000	±	0.00022
Maebashi, GUNMA	01	-	03	10217.0	0.00058	±	0.00057	0.00051	±	0.00030
Ichihara, CHIBA	01	-	03	10029.6	0.00016	±	0.00053	0.00000	±	0.00029
Chigasaki, KANAGAWA	01	-	03	11028.5	0.00060	±	0.00066	0.00037	±	0.00027
Niigata, NIIGATA	01	-	03	9935.7	0.00059	±	0.00050	0.00000	±	0.00026
Kosugi-machi, TOYAMA	01	-	03	18076.6	0.00046	±	0.00030	0.00000	±	0.00014
Fukui, FUKUI	01	-	03	12959.1	0.00021	±	0.00044	0.00000	±	0.00021
Kofu, YAMANASHI	01	-	03	12225.6	0.00000	±	0.00035	0.00002	±	0.00027
Nagano, NAGANO	01	-	03	11040.0	0.00000	±	0.00046	0.00000	±	0.00026
Kakamigahara, GIFU	01	-	03	10848.0	0.00000	±	0.00038	0.00023	±	0.00027
Hamaoka-machi, SHIZUOKA	01	-	03	10794.0	0.00024	±	0.00051	0.00019	±	0.00027
Nagoya, AICHI	01	-	03	10366.9	0.00020	±	0.00057	0.00032	±	0.00029
Yokkaichi, MIE	01	-	03	14397.0	0.00086	±	0.00043	0.00037	±	0.00022
Otsu, SHIGA	01	-	03	10141.4	0.0014	±	0.00059	0.00087	±	0.00035
Kyoto, KYOTO	01	-	03	10422.0	0.00091	±	0.00063	0.00015	±	0.00028
Osaka, OSAKA	01	-	03	12866.0	0.00015	±	0.00042	0.00000	±	0.00022
Kobe, HYOGO	01	-	03	10367.4	0.00036	±	0.00055	0.00059	±	0.00033

Location	Sampling Period		Absorption (m <sup>3</sup> )	Sr-90 (mBq/m <sup>3</sup> )		Cs-137 (mBq/m <sup>3</sup> )		
	01	-	03	±	0.00047	0.00008	±	0.00028
Nara, NARA	01	-	03	10907.5	0.00090	±	0.00069	0.00000
Wakayama, WAKAYAMA	01	-	03	8627.9	0.00082	±	0.00040	0.00000
Hawa i-machi, TOTTORI	01	-	03	14340.0	0.00097	±	0.00034	0.00019
Okayama, OKAYAMA	01	-	03	12788.0	0.00004	±	0.00064	0.00036
Hiroshima, HIROSHIMA	01	-	03	10329.9	0.0011	±	0.00051	0.00000
Yamaguchi, YAMAGUCHI	01	-	03	21852.7	0.00012	±	0.00040	0.00015
Tokushima, TOKUSHIMA	01	-	03	10080.0	0.00000	±	0.00048	0.00030
Takamatsu, KAGAWA	01	-	03	13570.0	0.00020	±	0.00043	0.00010
Saga, SAGA	01	-	03	10542.1	0.0014	±	0.00066	0.00000
Nagasaki, NAGASAKI	01	-	03	8640.0	0.00044	±	0.00065	0.00003
Uto, KUMAMOTO	01	-	03	12687.0	0.00004	±	0.00050	0.00057
Oita, OITA	01	-	03	10443.2	0.00014	±	0.00048	0.00000
Miyazaki, MIYAZAKI	01	-	03	13564.0	0.00041	±	0.00043	0.00035
Jan. 2004~Apr. 2004								
Mito, IBARAKI	01	-	04	9212.5	0.00024	±	0.00064	0.00019

## (3) Strontium-90 and Cesium-137 in Service water

(from Apr. 2003 to Mar. 2004)

Table (3) : Strontium-90 and Cesium-137 in Service water

Location	pH (pH)	Sr-90 (mBq/L)			Cs-137 (mBq/L)		
<b>(Source water)</b>							
May 2003							
Sapporo, HOKKAIDO	7.2	1.1	±	0.11	0.095	±	0.052
Jun. 2003							
Saitama, SAITAMA	7.4	0.082	±	0.055	0.000	±	0.037
Kisarazu, CHIBA	7.6	1.6	±	0.14	0.015	±	0.048
Tsukui-machi, KANAGAWA	8.21	0.34	±	0.12	0.000	±	0.044
Inuyama, AICHI	7.1	1.7	±	0.14	0.000	±	0.047
Moriguchi, OSAKA	7.2	2.2	±	0.18	0.070	±	0.054
Fukuoka, FUKUOKA	7.2	1.7	±	0.17	0.006	±	0.038
Jul. 2003							
Kyoto, KYOTO	6.30	1.8	±	0.15	0.032	±	0.041
<b>(Tap water)</b>							
May 2003							
Nagasaki, NAGASAKI	7.1	0.93	±	0.12	0.000	±	0.049
Jun. 2003							
Wakkanai, HOKKAIDO	7.1	0.86	±	0.11	0.020	±	0.048
Aomori, AOMORI	6.5	1.0	±	0.12	0.16	±	0.054
Sendai, MIYAGI	—	1.1	±	0.12	0.006	±	0.040
Akita, AKITA	6.89	2.1	±	0.22	0.020	±	0.055
Yamagata, YAMAGATA	7.0	1.4	±	0.15	0.000	±	0.043
Fukushima, FUKUSHIMA	7.3	2.1	±	0.17	0.008	±	0.037
Mito, IBARAKI	7.73	1.2	±	0.12	0.006	±	0.039
Maebashi, GUNMA	6.93	0.92	±	0.13	0.029	±	0.042
Saitama, SAITAMA	7.2	1.4	±	0.12	0.055	±	0.044
Ichihara, CHIBA	8.0	1.5	±	0.14	0.000	±	0.042
Katsushika, TOKYO	7.4	1.1	±	0.13	0.10	±	0.044
Niigata, NIIGATA	7.8	1.9	±	0.17	0.093	±	0.041
Kosugi-machi, TOYAMA	7.3	1.2	±	0.13	0.052	±	0.036
Kanazawa, ISHIKAWA	7.42	1.6	±	0.14	0.006	±	0.044
Fukui, FUKUI	7.0	0.64	±	0.11	0.000	±	0.040

Location	pH (pH)	Sr-90 (mBq/L)		Cs-137 (mBq/L)	
Kofu, YAMANASHI	7.2	0.79	±	0.10	0.000 ± 0.042
Nagano, NAGANO	7.46	0.76	±	0.096	0.000 ± 0.037
Shizuoka, SHIZUOKA	7.06	0.76	±	0.12	0.062 ± 0.043
Nagoya, AICHI	7.0	1.7	±	0.15	0.000 ± 0.043
Yokkaichi, MIE	7.6	3.4	±	0.19	0.10 ± 0.041
Otsu, SHIGA	7.1	2.4	±	0.16	0.000 ± 0.042
Kobe, HYOGO	7.06	1.7	±	0.13	0.000 ± 0.044
Nara, NARA	7.6	2.2	±	0.18	0.000 ± 0.042
Hawai-machi, TOTTORI	7.30	0.049	±	0.069	0.010 ± 0.052
Matsue, SHIMANE	—	2.0	±	0.15	0.031 ± 0.036
Okayama, OKAYAMA	6.8	1.7	±	0.14	0.000 ± 0.035
Hiroshima, HIROSHIMA	6.4	1.9	±	0.14	0.000 ± 0.045
Ube, YAMAGUCHI	7.4	1.4	±	0.12	0.000 ± 0.040
Tokushima, TOKUSHIMA	7.0	1.4	±	0.17	0.006 ± 0.041
Takamatsu, KAGAWA	7.45	2.1	±	0.16	0.000 ± 0.044
Matsuyama, EHIME	7.5	1.4	±	0.13	0.000 ± 0.040
Fukuoka, FUKUOKA	7.2	1.9	±	0.18	0.012 ± 0.038
Saga, SAGA	6.5	1.3	±	0.11	0.009 ± 0.041
Uto, KUMAMOTO	7.45	0.052	±	0.061	0.000 ± 0.042
Oita, OITA	7.7	0.83	±	0.13	0.060 ± 0.062
Miyazaki, MIYAZAKI	7.1	1.2	±	0.13	0.051 ± 0.038
Jul. 2003					
Morioka, IWATE	7.29	0.84	±	0.12	0.000 ± 0.037
Chigasaki, KANAGAWA	7.6	0.32	±	0.088	0.013 ± 0.044
Kyoto, KYOTO	6.32	1.9	±	0.16	0.058 ± 0.044
Osaka, OSAKA	7.5	2.2	±	0.16	0.003 ± 0.034
Aug. 2003					
Kagoshima, KAGOSHIMA	7.7	0.56	±	0.11	0.025 ± 0.039
Naha, OKINAWA	7.575	2.6	±	0.18	0.000 ± 0.032
Sep. 2003					
Shingu, WAKAYAMA	6.1	1.5	±	0.15	0.075 ± 0.044
Jan. 2004					
Kawachi-machi, TOCHIGI	7.1	0.34	±	0.080	0.024 ± 0.041

(4) Strontium-90 and Cesium-137 in Fresh water  
 (from Apr. 2003 to Mar. 2004)

Table (4) : Strontium-90 and Cesium-137 in Fresh water

	Location	pH (pH)	Sr-90 (mBq/L)		Cs-137 (mBq/L)	
(Fresh water)						
May 2003	Tsuchiura, IBARAKI	8.3	2.1	± 0.16	0.49	± 0.062
Jul. 2003	Ishikari, HOKKAIDO	7.1	1.5	± 0.14	0.31	± 0.064
Aug. 2003	Akita, AKITA	6.53	2.4	± 0.20	0.31	± 0.063
	Tsuruga, FUKUI	7.0	3.0	± 0.19	1.3	± 0.09
Sep. 2003	Fukushima, FUKUSHIMA	6.4	0.15	± 0.086	0.043	± 0.035
Oct. 2003	Seki-machi, MIE	7.2	4.6	± 0.23	0.000	± 0.038
	Syobara, HIROSHIMA	7.1	1.5	± 0.13	0.012	± 0.043
Nov. 2003	Niigata, NIIGATA	6.84	2.0	± 0.19	0.071	± 0.045
	Suwa, NAGANO	8.88	0.65	± 0.094	0.11	± 0.048
Dec. 2003	Uji, KYOTO	7.06	0.091	± 0.061	0.003	± 0.041

## (5) Strontium-90 and Cesium-137 in Soil

(from Apr. 2003 to Mar. 2004)

Table (5) : Strontium-90 and Cesium-137 in Soil

Location	Sampling depth(cm)	Sr-90					Cs-137						
		(Bq/kg)	(MBq/km <sup>2</sup> )			(Bq/kg)	(MBq/km <sup>2</sup> )						
<b>May 2003</b>													
Tokai-mura, IBARAKI	0 - 5	2.0	±	0.19	72	±	7.0	18	±	0.4	670	±	15
Tokai-mura, IBARAKI	5 - 20	5.2	±	0.28	680	±	37	12	±	0.3	1500	±	40
Akabane-machi, AICHI	0 - 5	1.2	±	0.14	30	±	3.5	7.1	±	0.24	180	±	6
Akabane-machi, AICHI	5 - 20	0.86	±	0.12	59	±	8.3	9.6	±	0.28	660	±	19
Shingu, WAKAYAMA	0 - 5	0.14	±	0.063	5.0	±	2.2	2.7	±	0.15	98	±	5.4
Shingu, WAKAYAMA	5 - 20	0.26	±	0.085	29	±	9.3	0.94	±	0.094	100	±	10
<b>Jun. 2003</b>													
Fukushima, FUKUSHIMA	0 - 5	1.6	±	0.15	56	±	5.2	22	±	0.4	780	±	15
Fukushima, FUKUSHIMA	5 - 20	2.0	±	0.17	200	±	17	14	±	0.3	1400	±	30
<b>Jul. 2003</b>													
Aomori, AOMORI	0 - 5	2.4	±	0.18	91	±	6.9	6.0	±	0.23	230	±	9
Aomori, AOMORI	5 - 20	2.3	±	0.19	210	±	17	5.8	±	0.22	530	±	20
Maebashi, GUNMA	0 - 5	1.7	±	0.16	76	±	7.3	3.2	±	0.17	150	±	8
Maebashi, GUNMA	5 - 20	0.93	±	0.12	69	±	9.2	0.92	±	0.10	68	±	7.4
Kashiwazaki, NIIGATA	0 - 5	0.23	±	0.076	14	±	4.5	14	±	0.3	840	±	20
Kashiwazaki, NIIGATA	5 - 20	0.17	±	0.071	36	±	15	8.7	±	0.26	1800	±	50
Kosugi-machi, TOYAMA	0 - 5	0.35	±	0.084	18	±	4.3	0.75	±	0.085	38	±	4.3
Kosugi-machi, TOYAMA	5 - 20	0.15	±	0.068	22	±	10	0.43	±	0.069	63	±	10
Kanazawa, ISHIKAWA	0 - 5	4.8	±	0.27	180	±	10	31	±	0.5	1200	±	20
Kanazawa, ISHIKAWA	5 - 20	4.8	±	0.29	550	±	34	26	±	0.5	3100	±	60
Fukui, FUKUI	0 - 5	0.32	±	0.088	15	±	4.1	2.9	±	0.16	140	±	7
Fukui, FUKUI	5 - 20	0.43	±	0.095	32	±	7.1	1.8	±	0.13	140	±	10
Gifu, GIFU	0 - 5	0.37	±	0.091	13	±	3.3	7.7	±	0.26	280	±	9
Gifu, GIFU	5 - 20	1.2	±	0.14	170	±	20	6.2	±	0.23	870	±	32
Gotenba, SHIZUOKA	0 - 5	0.52	±	0.10	12	±	2.5	7.0	±	0.25	160	±	6
Gotenba, SHIZUOKA	5 - 20	0.46	±	0.11	38	±	9.1	3.2	±	0.17	270	±	14
Yasu-machi, SHIGA	0 - 5	0.19	±	0.077	11	±	4.6	0.50	±	0.072	30	±	4.3
Yasu-machi, SHIGA	5 - 20	0.32	±	0.088	42	±	12	1.6	±	0.12	210	±	15
Kyoto, KYOTO	0 - 5	1.1	±	0.13	27	±	3.2	2.6	±	0.15	62	±	3.5
Kyoto, KYOTO	5 - 20	0.62	±	0.11	93	±	16	2.0	±	0.13	300	±	20

Location	Sampling depth (cm)	Sr-90				Cs-137					
		(Bq/kg)		(MBq/km <sup>2</sup> )		(Bq/kg)		(MBq/km <sup>2</sup> )			
Kasai, HYOGO	0 - 5	1.4	±	0.14	86	±	9.1	18	± 0.4	1200	± 20
Kasai, HYOGO	5 - 20	0.24	±	0.083	34	±	12	1.3	± 0.11	190	± 15
Kashihara, NARA	0 - 5	0.54	±	0.10	37	±	7.0	4.2	± 0.18	290	± 13
Kashihara, NARA	5 - 20	0.54	±	0.11	35	±	6.9	4.4	± 0.19	290	± 12
Hawai-machi, TOTTORI	0 - 5	0.052	±	0.055	4.2	±	4.4	0.41	± 0.078	33	± 6.3
Hawai-machi, TOTTORI	5 - 20	0.26	±	0.074	31	±	8.8	0.37	± 0.065	44	± 7.7
Oda, SHIMANE	0 - 5	6.0	±	0.35	92	±	5.3	18	± 0.5	280	± 7
Oda, SHIMANE	5 - 20	2.6	±	0.20	210	±	16	9.4	± 0.28	730	± 22
Asahi-machi, OKAYAMA	0 - 5	0.93	±	0.12	53	±	7.0	1.2	± 0.10	66	± 6.0
Asahi-machi, OKAYAMA	5 - 20	0.42	±	0.088	73	±	15	0.061	± 0.043	11	± 7.5
Hiroshima, HIROSHIMA	0 - 5	0.76	±	0.11	61	±	8.7	3.2	± 0.16	260	± 13
Hiroshima, HIROSHIMA	5 - 20	1.1	±	0.13	190	±	21	6.5	± 0.22	1100	± 40
Kamiita-machi, TOKUSHIMA	0 - 5	0.49	±	0.090	27	±	5.1	1.9	± 0.13	110	± 7
Kamiita-machi, TOKUSHIMA	5 - 20	0.51	±	0.094	74	±	14	2.0	± 0.13	290	± 19
Sakaide, KAGAWA	0 - 5	1.4	±	0.15	52	±	5.4	5.8	± 0.22	210	± 8
Sakaide, KAGAWA	5 - 20	1.6	±	0.16	94	±	9.2	0.66	± 0.082	39	± 4.8
Matsuyama, EHIME	0 - 5	2.0	±	0.17	22	±	1.9	21	± 0.4	240	± 5
Matsuyama, EHIME	5 - 20	0.61	±	0.10	21	±	3.5	17	± 0.4	570	± 12
Kochi, KOCHI	0 - 5	3.0	±	0.21	82	±	5.7	20	± 0.4	540	± 11
Kochi, KOCHI	5 - 20	3.9	±	0.27	180	±	12	12	± 0.3	550	± 15
Fukuoka, FUKUOKA	0 - 5	4.7	±	0.26	350	±	20	2.7	± 0.15	210	± 11
Fukuoka, FUKUOKA	5 - 20	1.9	±	0.17	320	±	29	0.81	± 0.086	140	± 15
Obama-machi, NAGASAKI	0 - 5	2.2	±	0.17	38	±	3.1	34	± 0.5	610	± 9
Obama-machi, NAGASAKI	5 - 20	3.4	±	0.22	130	±	8	19	± 0.4	710	± 15
Nishihara-mura, KUMAMOTO	0 - 5	3.3	±	0.21	74	±	4.8	54	± 0.6	1200	± 10
Nishihara-mura, KUMAMOTO	5 - 20	4.0	±	0.23	250	±	14	14	± 0.3	860	± 20
Kuju-machi, OITA	0 - 5	1.6	±	0.15	24	±	2.3	56	± 0.7	860	± 11
Kuju-machi, OITA	5 - 20	1.6	±	0.15	72	±	6.8	15	± 0.4	680	± 15
Sadowara-machi, MIYAZAKI	0 - 5	0.71	±	0.11	28	±	4.3	1.9	± 0.13	76	± 5.0
Sadowara-machi, MIYAZAKI	5 - 20	0.63	±	0.11	100	±	17	2.0	± 0.13	330	± 21
Aug. 2003											
Sapporo, HOKKAIDO	0 - 5	5.1	±	0.27	110	±	6	24	± 0.4	530	± 9
Sapporo, HOKKAIDO	5 - 20	5.2	±	0.27	480	±	25	14	± 0.3	1300	± 30
Mutsu, AOMORI	0 - 5	0.28	±	0.082	12	±	3.3	3.0	± 0.16	120	± 6

Location	Sampling depth (cm)	Sr-90					Cs-137						
		(Bq/kg)		(MBq/km <sup>2</sup> )			(Bq/kg)		(MBq/km <sup>2</sup> )				
Mutsu, AOMORI	5 - 20	0.55	±	0.10	89	±	17	0.63	±	0.077	100	±	12
Takizawa-mura, IWATE	0 - 5	6.7	±	0.30	190	±	8	57	±	0.7	1600	±	20
Takizawa-mura, IWATE	5 - 20	7.7	±	0.31	680	±	28	8.7	±	0.27	760	±	23
Imaichi, TOCHIGI	0 - 5	6.8	±	0.31	58	±	2.6	35	±	0.5	300	±	5
Imaichi, TOCHIGI	5 - 20	2.4	±	0.19	84	±	6.7	5.2	±	0.21	180	±	7
Saitama, SAITAMA	0 - 5	1.0	±	0.13	26	±	3.5	7.4	±	0.25	190	±	6
Saitama, SAITAMA	5 - 20	1.1	±	0.14	100	±	12	0.82	±	0.088	75	±	8.1
Ichihara, CHIBA	0 - 5	0.026	±	0.056	1.0	±	2.2	1.9	±	0.13	75	±	5.2
Ichihara, CHIBA	5 - 20	0.24	±	0.074	34	±	11	1.6	±	0.12	230	±	18
Shinjuku, TOKYO	0 - 5	1.1	±	0.16	35	±	5.3	4.2	±	0.19	140	±	7
Shinjuku, TOKYO	5 - 20	0.56	±	0.13	54	±	13	4.2	±	0.20	400	±	19
Yokohama, KANAGAWA	0 - 5	0.59	±	0.11	17	±	3.1	1.9	±	0.13	54	±	3.7
Yokohama, KANAGAWA	5 - 20	0.80	±	0.12	71	±	11	1.7	±	0.13	150	±	11
Takane-machi, YAMANASHI	0 - 5	5.3	±	0.30	120	±	7	20	±	0.4	450	±	9
Takane-machi, YAMANASHI	5 - 20	6.1	±	0.30	420	±	20	13	±	0.3	920	±	23
Nagano, NAGANO	0 - 5	1.2	±	0.13	26	±	2.9	8.9	±	0.27	200	±	6
Nagano, NAGANO	5 - 20	0.77	±	0.12	58	±	9.0	1.0	±	0.10	79	±	7.5
Osaka, OSAKA	0 - 5	0.28	±	0.081	15	±	4.3	2.1	±	0.14	110	±	7
Osaka, OSAKA	5 - 20	0.73	±	0.11	120	±	18	3.1	±	0.16	500	±	26
Hagi, YAMAGUCHI	0 - 5	0.51	±	0.096	40	±	7.4	4.6	±	0.19	360	±	15
Hagi, YAMAGUCHI	5 - 20	1.4	±	0.14	340	±	35	4.6	±	0.19	1200	±	50
Naha, OKINAWA	0 - 5	0.88	±	0.11	47	±	5.9	4.8	±	0.20	250	±	11
Naha, OKINAWA	5 - 20	0.75	±	0.11	130	±	18	3.1	±	0.17	530	±	29
Sep. 2003													
Iwadeyama-machi, MIYAGI	0 - 5	1.6	±	0.17	64	±	6.7	4.0	±	0.19	160	±	7
Iwadeyama-machi, MIYAGI	5 - 20	1.5	±	0.15	270	±	29	2.8	±	0.16	520	±	29
Yamagata, YAMAGATA	0 - 5	3.2	±	0.21	150	±	10	21	±	0.4	1000	±	20
Yamagata, YAMAGATA	5 - 20	2.0	±	0.17	200	±	17	6.3	±	0.23	630	±	23
Komono-machi, MIE	0 - 5	0.074	±	0.047	4.5	±	2.9	0.66	±	0.079	40	±	4.8
Komono-machi, MIE	5 - 20	0.14	±	0.055	34	±	14	0.042	±	0.038	10	±	9.5
Saga, SAGA	0 - 5	0.034	±	0.058	0.8	±	1.4	0.98	±	0.095	23	±	2.2
Saga, SAGA	5 - 20	0.17	±	0.074	15	±	6.2	0.34	±	0.063	29	±	5.3
Kaimon-machi, KAGOSHIMA	0 - 5	0.16	±	0.065	11	±	4.6	0.69	±	0.086	49	±	6.1
Kaimon-machi, KAGOSHIMA	5 - 20	0.23	±	0.074	35	±	11	0.79	±	0.089	120	±	14

Location	Sampling depth (cm)	Sr-90						Cs-137					
		(Bq/kg)			(MBq/km <sup>2</sup> )			(Bq/kg)			(MBq/km <sup>2</sup> )		
Oct. 2003													
Akita, AKITA	0 - 5	2.5	±	0.18	87	±	6.4	27	±	0.5	940	±	16
Akita, AKITA	5 - 20	3.7	±	0.24	300	±	19	17	±	0.4	1400	±	30

## (6) Strontium-90 and Cesium-137 in Seawater

(from Apr. 2003 to Mar. 2004)

Table (6) : Strontium-90 and Cesium-137 in Seawater

Location	Sample analyzed ( L )	Volume (%)	Cl	Sr-90			Cs-137	
					(mBq/L)		(mBq/L)	
<b>Jun. 2003</b>								
Yoichi-bay, HOKKAIDO	40	18.64		1.5	± 0.28		2.0	± 0.33
<b>Jul. 2003</b>								
Soma, FUKUSHIMA	40	13.90		1.4	± 0.27		0.96	± 0.26
Tokai-mura, IBARAKI	40	16.23		1.8	± 0.37		1.4	± 0.28
Ichihara, CHIBA	40	18		1.3	± 0.26		1.7	± 0.31
Niigata, NIIGATA	40	19.30		1.4	± 0.26		1.9	± 0.33
Osaka-Port, OSAKA	40	9.36		1.6	± 0.36		1.2	± 0.26
<b>Aug. 2003</b>								
Mutsu-bay, AOMORI	40	17.4		1.7	± 0.30		1.8	± 0.30
Mutsu, AOMORI	40	18.6		1.7	± 0.29		2.1	± 0.32
Taneichi-machi, IWATE	40	18.2		1.0	± 0.23		1.9	± 0.32
Tokoname, AICHI	40	10.19		1.9	± 0.29		1.2	± 0.27
Yamaguchi-bay, YAMAGUCHI	40	13.35		1.4	± 0.29		1.6	± 0.31
Kitakyusyu, FUKUOKA	40	18.20		1.6	± 0.31		1.7	± 0.29
<b>Sep. 2003</b>								
Otawa-bay, KANAGAWA	40	18.2		1.4	± 0.27		2.2	± 0.34
Kaseda, KAGOSHIMA	40	15.74		1.7	± 0.30		1.4	± 0.27
<b>Nov. 2003</b>								
White-beach, OKINAWA	40	20.19		1.3	± 0.28		1.9	± 0.33

## (7) Strontium-90 and Cesium-137 in Sea sediments

(from Apr. 2003 to Mar. 2004)

Table (7) : Strontium-90 and Cesium-137 in Sea sediments

Location	Depth (m)	Sr-90 (Bq/kg)		Cs-137 (Bq/kg)	
Jun. 2003					
Yoichi-bay, HOKKAIDO	13	0.000	± 0.047	0.32	± 0.066
Jul. 2003					
Soma, FUKUSHIMA	5	0.019	± 0.054	0.23	± 0.051
Tokai-mura, IBARAKI	10	0.000	± 0.050	0.29	± 0.061
Ichihara, CHIBA	16.2	0.006	± 0.050	2.0	± 0.13
Niigata, NIIGATA	25.0	0.007	± 0.058	1.1	± 0.10
Osaka-Port, OSAKA	17.5	0.081	± 0.059	1.8	± 0.13
Aug. 2003					
Mutsu-bay, AOMORI	10.0	0.13	± 0.070	4.2	± 0.19
Mutsu, AOMORI	14.0	0.000	± 0.059	0.096	± 0.050
Tokoname, AICHI	7.0	0.042	± 0.053	0.35	± 0.060
Yamaguchi-bay, YAMAGUCHI	12.6	0.059	± 0.059	2.5	± 0.15
Kitakyusyu, FUKUOKA	5	0.27	± 0.091	2.1	± 0.14
Sep. 2003					
Otawa-bay, KANAGAWA	7.2	0.12	± 0.077	1.4	± 0.11
Kaseda, KAGOSHIMA	7.0	0.026	± 0.058	0.26	± 0.059
Nov. 2003					
White-beach, OKINAWA	13.6	0.031	± 0.056	0.099	± 0.047

## (8) Strontium-90 and Cesium-137 in Total diet

(from Apr. 2003 to Mar. 2004)

Table (8) : Strontium-90 and Cesium-137 in Total diet

(p/d : person/day)

Location	Ash	Ca	K	Sr-90				Cs-137				
	(g/p/d)	(mg/p/d)	(mg/p/d)	(Bq/p/d)		(Bq/g Ca)		(Bq/p/d)		(Bq/g K)		
May 2003												
Yamagata, YAMAGATA	11.7	292	1400	0.052	± 0.010	0.18	± 0.035	0.017	± 0.0046	0.012	± 0.0033	
Jun. 2003												
Sapporo, HOKKAIDO	14.7	559	2040	0.031	± 0.0081	0.056	± 0.014	0.026	± 0.0057	0.013	± 0.0028	
Aomori, AOMORI	21.9	670	3240	0.10	± 0.013	0.15	± 0.019	0.038	± 0.0066	0.012	± 0.0020	
Morioka, IWATE	9.60	239	1180	0.029	± 0.0076	0.12	± 0.032	0.018	± 0.0053	0.015	± 0.0044	
Fukushima, FUKUSHIMA	18.9	722	2730	0.038	± 0.0090	0.052	± 0.012	0.035	± 0.0063	0.013	± 0.0023	
Mito, IBARAKI	10.8	304	1450	0.035	± 0.0099	0.11	± 0.032	0.0078	± 0.0045	0.0054	± 0.0031	
Utsunomiya, TOCHIGI	21.2	367	2000	0.057	± 0.0098	0.16	± 0.027	0.0072	± 0.0049	0.0036	± 0.0025	
Maebashi, GUNMA	17.9	529	2410	0.055	± 0.010	0.10	± 0.020	0.078	± 0.0091	0.032	± 0.0038	
Saitama, SAITAMA	15.8	412	1950	0.036	± 0.0085	0.088	± 0.021	0.026	± 0.0059	0.013	± 0.0030	
Chiba, CHIBA	14.3	613	2160	0.045	± 0.0087	0.073	± 0.014	0.015	± 0.0049	0.0068	± 0.0023	
Shinjuku, TOKYO	12.2	397	1590	0.018	± 0.0063	0.045	± 0.016	0.019	± 0.0048	0.012	± 0.0030	
Nishikawa-machi, NIIGATA	21.4	556	2720	0.032	± 0.0072	0.058	± 0.013	0.018	± 0.0053	0.0068	± 0.0020	
Toyama, TOYAMA	12.2	481	1500	0.016	± 0.0068	0.034	± 0.014	0.024	± 0.0053	0.016	± 0.0035	
Kanazawa, ISHIKAWA	12.1	416	1380	0.017	± 0.0068	0.041	± 0.016	0.016	± 0.0047	0.012	± 0.0034	
Fukui, FUKUI	14.2	1550	1560	0.028	± 0.0072	0.018	± 0.0046	0.0085	± 0.0042	0.0055	± 0.0027	
Kofu, YAMANASHI	14.4	431	1980	0.032	± 0.0077	0.074	± 0.018	0.030	± 0.0067	0.015	± 0.0034	
Suzaka, NAGANO	12.5	564	1780	0.024	± 0.0077	0.043	± 0.014	0.022	± 0.0051	0.012	± 0.0029	
Gifu, GIFU	12.5	438	2000	0.028	± 0.0082	0.064	± 0.019	0.025	± 0.0052	0.013	± 0.0026	
Shizuoka, SHIZUOKA	14.3	452	1990	0.059	± 0.011	0.13	± 0.024	0.018	± 0.0054	0.0093	± 0.0027	
Nagoya, AICHI	12.8	385	1960	0.030	± 0.0077	0.078	± 0.020	0.037	± 0.0062	0.019	± 0.0032	
Tsu, MIE	16.1	540	2160	0.043	± 0.0090	0.080	± 0.017	0.023	± 0.0052	0.011	± 0.0024	
Otsu, SHIGA	11.6	384	1500	0.022	± 0.0072	0.058	± 0.019	0.014	± 0.0045	0.0094	± 0.0030	
Kyoto, KYOTO	12.2	495	1740	0.038	± 0.0088	0.076	± 0.018	0.029	± 0.0061	0.017	± 0.0035	
Osaka, OSAKA	13.0	536	1940	0.047	± 0.0087	0.087	± 0.016	0.036	± 0.0063	0.019	± 0.0032	
Kakogawa, HYOGO	11.3	513	1460	0.033	± 0.0079	0.064	± 0.015	0.013	± 0.0047	0.0091	± 0.0032	
Kashihara, NARA	9.90	545	1410	0.033	± 0.0082	0.061	± 0.015	0.010	± 0.0044	0.0071	± 0.0031	
Tottori, TOTTORI	10.6	278	1460	0.0088	± 0.0065	0.032	± 0.023	0.043	± 0.0065	0.029	± 0.0045	
Matsue, SHIMANE	15.9	622	2380	0.043	± 0.0097	0.070	± 0.016	0.036	± 0.0064	0.015	± 0.0027	
Okayama, OKAYAMA	14.9	560	1880	0.024	± 0.0076	0.043	± 0.014	0.016	± 0.0045	0.0083	± 0.0024	
Hiroshima, HIROSHIMA	12.2	265	1360	0.039	± 0.0088	0.15	± 0.033	0.010	± 0.0044	0.0074	± 0.0033	
Yamaguchi, YAMAGUCHI	14.7	652	1680	0.033	± 0.0077	0.051	± 0.012	0.030	± 0.0056	0.018	± 0.0033	

Location	Ash	Ca	K	Sr-90				Cs-137			
	(g/p/d)	(mg/p/d)	(mg/p/d)	(Bq/p/d)		(Bq/g Ca)		(Bq/p/d)		(Bq/g K)	
Tokushima, TOKUSHIMA	11.1	401	1720	0.017	± 0.0070	0.042	± 0.018	0.018	± 0.0046	0.010	± 0.0027
Takamatsu, KAGAWA	13.5	283	2150	0.016	± 0.0072	0.055	± 0.026	0.020	± 0.0049	0.0093	± 0.0023
Matsuyama, EHIME	14.6	500	2160	0.017	± 0.0077	0.033	± 0.015	0.030	± 0.0060	0.014	± 0.0028
Kochi, KOCHI	14.4	420	1700	0.036	± 0.0085	0.085	± 0.020	0.019	± 0.0051	0.011	± 0.0030
Dazaifu, FUKUOKA	14.0	447	1870	0.037	± 0.0083	0.082	± 0.019	0.012	± 0.0053	0.0064	± 0.0028
Saga, SAGA	10.3	287	1370	0.018	± 0.0074	0.064	± 0.026	0.0060	± 0.0039	0.0044	± 0.0029
Nagasaki, NAGASAKI	16.0	364	1730	0.036	± 0.0088	0.099	± 0.024	0.016	± 0.0048	0.0092	± 0.0028
Kumamoto, KUMAMOTO	16.0	479	2470	0.036	± 0.0085	0.075	± 0.018	0.049	± 0.0069	0.020	± 0.0028
Oita, OITA	11.5	259	1430	0.025	± 0.0077	0.098	± 0.030	0.022	± 0.0054	0.016	± 0.0038
Miyazaki, MIYAZAKI	16.2	583	1940	0.025	± 0.0076	0.042	± 0.013	0.029	± 0.0055	0.015	± 0.0028
Sendai, KAGOSHIMA	14.2	357	2030	0.048	± 0.0099	0.14	± 0.028	0.035	± 0.0061	0.017	± 0.0030
Jul. 2003											
Ishinomaki, MIYAGI	17.1	660	2160	0.030	± 0.0088	0.045	± 0.013	0.023	± 0.0055	0.011	± 0.0026
Akita, AKITA	10.9	414	1510	0.041	± 0.0085	0.099	± 0.021	0.012	± 0.0052	0.0078	± 0.0034
Wakayama, WAKAYAMA	12.3	298	1760	0.0072	± 0.0057	0.024	± 0.019	0.023	± 0.0052	0.013	± 0.0030
Aug. 2003											
Hiratsuka, KANAGAWA	14.4	480	2540	0.040	± 0.0085	0.084	± 0.018	0.040	± 0.0071	0.016	± 0.0028
Naha, OKINAWA	11.0	420	1500	0.022	± 0.0076	0.053	± 0.018	0.014	± 0.0045	0.0096	± 0.0030
Oct. 2003											
Nagasaki, NAGASAKI	15.4	436	1750	0.044	± 0.011	0.10	± 0.025	0.016	± 0.0052	0.0090	± 0.0030
Nov. 2003											
Morioka, IWATE	11.5	326	1610	0.023	± 0.0071	0.071	± 0.022	0.027	± 0.0057	0.017	± 0.0035
Ishinomaki, MIYAGI	16.1	759	2340	0.038	± 0.0088	0.050	± 0.012	0.026	± 0.0062	0.011	± 0.0026
Yamagata, YAMAGATA	11.9	242	1590	0.024	± 0.0072	0.10	± 0.030	0.015	± 0.0048	0.0096	± 0.0030
Fukushima, FUKUSHIMA	14.9	609	2250	0.062	± 0.010	0.10	± 0.017	0.016	± 0.0045	0.0070	± 0.0020
Saitama, SAITAMA	19.5	495	2100	0.051	± 0.011	0.10	± 0.021	0.017	± 0.0053	0.0079	± 0.0025
Toyama, TOYAMA	14.5	513	2040	0.054	± 0.0096	0.11	± 0.019	0.022	± 0.0061	0.011	± 0.0030
Fukui, FUKUI	14.0	405	1790	0.032	± 0.0078	0.079	± 0.019	0.012	± 0.0047	0.0070	± 0.0026
Suzaka, NAGANO	11.6	506	1800	0.025	± 0.0078	0.050	± 0.015	0.031	± 0.0057	0.017	± 0.0032
Shizuoka, SHIZUOKA	17.7	618	3060	0.047	± 0.0093	0.076	± 0.015	0.044	± 0.0072	0.014	± 0.0024
Nagoya, AICHI	17.4	546	2230	0.033	± 0.0086	0.061	± 0.016	0.023	± 0.0057	0.010	± 0.0026
Kashihara, NARA	10.0	709	1420	0.037	± 0.0079	0.053	± 0.011	0.023	± 0.0054	0.016	± 0.0038
Tottori, TOTTORI	10.2	275	1250	0.030	± 0.0075	0.11	± 0.027	0.010	± 0.0046	0.0082	± 0.0037
Matsue, SHIMANE	19.1	596	2460	0.045	± 0.0090	0.076	± 0.015	0.028	± 0.0063	0.011	± 0.0026
Okayama, OKAYAMA	14.1	588	1940	0.047	± 0.0088	0.080	± 0.015	0.011	± 0.0053	0.0058	± 0.0027
Matsuyama, EHIME	14.7	434	2320	0.045	± 0.0090	0.10	± 0.021	0.028	± 0.0061	0.012	± 0.0026

Location	Ash	Ca	K	Sr-90				Cs-137			
	(g/p/d)	(mg/p/d)	(mg/p/d)	(Bq/p/d)		(Bq/g Ca)		(Bq/p/d)		(Bq/g K)	
Kochi, KOCHI	14.7	330	1840	0.037	± 0.0098	0.11	± 0.030	0.023	± 0.0057	0.013	± 0.0031
Dazaifu, FUKUOKA	13.2	444	1880	0.034	± 0.0095	0.076	± 0.021	0.032	± 0.0059	0.017	± 0.0032
Saga, SAGA	12.7	265	1780	0.019	± 0.0073	0.073	± 0.028	0.019	± 0.0054	0.011	± 0.0030
Oita, OITA	11.7	338	1420	0.027	± 0.0073	0.081	± 0.022	0.015	± 0.0050	0.011	± 0.0035
Sendai, KAGOSHIMA	16.8	511	2250	0.057	± 0.010	0.11	± 0.020	0.042	± 0.0068	0.018	± 0.0030
Dec. 2003											
Sapporo, HOKKAIDO	19.7	426	2480	0.033	± 0.0086	0.078	± 0.020	0.023	± 0.0057	0.0093	± 0.0023
Aomori, AOMORI	17.3	533	2960	0.096	± 0.012	0.18	± 0.023	0.038	± 0.0067	0.013	± 0.0023
Akita, AKITA	11.8	475	1740	0.047	± 0.0097	0.098	± 0.020	0.022	± 0.0050	0.012	± 0.0029
Mito, IBARAKI	15.9	368	2130	0.028	± 0.0084	0.077	± 0.023	0.028	± 0.0060	0.013	± 0.0028
Utsunomiya, TOCHIGI	18.4	499	2970	0.052	± 0.0097	0.10	± 0.019	0.036	± 0.0065	0.012	± 0.0022
Maebashi, GUNMA	18.3	566	3030	0.045	± 0.0090	0.079	± 0.016	0.092	± 0.0093	0.030	± 0.0031
Chiba, CHIBA	14.0	454	2230	0.040	± 0.0088	0.088	± 0.019	0.012	± 0.0050	0.0053	± 0.0022
Shinjuku, TOKYO	14.3	323	1960	0.056	± 0.0093	0.17	± 0.029	0.014	± 0.0055	0.0073	± 0.0028
Hiratsuka, KANAGAWA	13.7	533	2370	0.048	± 0.0094	0.090	± 0.018	0.042	± 0.0068	0.018	± 0.0029
Nishikawa-machi, NIIGATA	21.6	836	2870	0.051	± 0.0085	0.061	± 0.010	0.026	± 0.0057	0.0091	± 0.0020
Kanazawa, ISHIKAWA	12.1	403	1260	0.017	± 0.0064	0.042	± 0.016	0.014	± 0.0048	0.011	± 0.0038
Kofu, YAMANASHI	13.1	537	2010	0.053	± 0.0092	0.098	± 0.017	0.031	± 0.0066	0.015	± 0.0033
Gifu, GIFU	16.3	789	2330	0.034	± 0.0086	0.043	± 0.011	0.031	± 0.0062	0.013	± 0.0027
Tsu, MIE	18.8	634	2940	0.036	± 0.0085	0.057	± 0.013	0.025	± 0.0058	0.0086	± 0.0020
Otsu, SHIGA	13.1	426	1960	0.030	± 0.0077	0.071	± 0.018	0.025	± 0.0056	0.013	± 0.0029
Kyoto, KYOTO	13.2	416	1460	0.032	± 0.0084	0.076	± 0.020	0.037	± 0.0066	0.025	± 0.0045
Osaka, OSAKA	16.2	655	2610	0.040	± 0.0084	0.061	± 0.013	0.045	± 0.0069	0.017	± 0.0026
Kakogawa, HYOGO	14.2	552	1760	0.033	± 0.0095	0.059	± 0.017	0.014	± 0.0047	0.0081	± 0.0027
Hiroshima, HIROSHIMA	13.3	245	1650	0.020	± 0.0072	0.082	± 0.029	0.013	± 0.0051	0.0081	± 0.0031
Yamaguchi, YAMAGUCHI	17.1	623	2360	0.025	± 0.0071	0.040	± 0.011	0.037	± 0.0067	0.016	± 0.0029
Tokushima, TOKUSHIMA	12.6	378	1540	0.019	± 0.0075	0.050	± 0.020	0.018	± 0.0051	0.011	± 0.0033
Takamatsu, KAGAWA	20.2	683	2590	0.044	± 0.0087	0.065	± 0.013	0.037	± 0.0063	0.014	± 0.0025
Kumamoto, KUMAMOTO	16.0	660	2640	0.037	± 0.0083	0.056	± 0.013	0.028	± 0.0060	0.011	± 0.0023
Miyazaki, MIYAZAKI	16.4	723	2450	0.044	± 0.0093	0.061	± 0.013	0.032	± 0.0064	0.013	± 0.0026
Jan. 2004											
Wakayama, WAKAYAMA	10.8	329	1550	0.015	± 0.0071	0.047	± 0.022	0.015	± 0.0044	0.0097	± 0.0029
Feb. 2004											
Naha, OKINAWA	11.1	366	1550	0.028	± 0.0081	0.078	± 0.022	0.0083	± 0.0044	0.0054	± 0.0028

(9)-1

## Strontium-90 and Cesium-137 in Rice(producing districts)

(from Apr. 2003 to Mar. 2004)

Table (9)-1 : Strontium-90 and Cesium-137 in Rice(producing districts)

Location	Ash	Ca	K	Sr-90				Cs-137			
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)		(Bq/g Ca)		(Bq/kg wet)		(Bq/g K)	
Aug. 2003											
Sadowara-machi, MIYAZAKI	0.670	0.043	0.878	0.0036	± 0.0050	0.08	± 0.12	0.0022	± 0.0037	0.0025	± 0.0042
Sep. 2003											
Chiba, CHIBA	0.703	0.043	0.851	0.0088	± 0.0059	0.20	± 0.14	0.0000	± 0.0035	0.0000	± 0.0042
Uchinada-machi, ISHIKAWA	0.626	0.041	0.676	0.0023	± 0.0047	0.06	± 0.11	0.0000	± 0.0029	0.0000	± 0.0044
Matsusaka, MIE	0.699	0.050	0.881	0.0081	± 0.0059	0.16	± 0.12	0.0049	± 0.0033	0.0056	± 0.0038
Oct. 2003											
Mito, IBARAKI	0.519	0.044	0.758	0.0074	± 0.0048	0.17	± 0.11	0.0080	± 0.0043	0.011	± 0.0057
Utsunomiya, TOCHIGI	0.817	0.045	0.882	0.0000	± 0.0049	0.00	± 0.11	0.0043	± 0.0041	0.0049	± 0.0046
Maki-machi, NIIGATA	0.698	0.040	0.775	0.0061	± 0.0053	0.15	± 0.13	0.0071	± 0.0049	0.0092	± 0.0064
Kosugi-machi, TOYAMA	0.559	0.045	0.839	0.0050	± 0.0055	0.11	± 0.12	0.0098	± 0.0041	0.012	± 0.0049
Toyoshina-machi, NAGANO	0.553	0.042	0.769	0.012	± 0.0054	0.28	± 0.13	0.0000	± 0.0034	0.0000	± 0.0044
Gifu, Gifu	0.552	0.045	0.834	0.0000	± 0.0048	0.00	± 0.11	0.0029	± 0.0033	0.0034	± 0.0040
Shiga-machi, SHIGA	0.753	0.049	1.11	0.0065	± 0.0054	0.13	± 0.11	0.0045	± 0.0037	0.0041	± 0.0033
Kashihara, NARA	0.756	0.048	0.809	0.0057	± 0.0057	0.12	± 0.12	0.0000	± 0.0037	0.0000	± 0.0045
Yamaguchi, YAMAGUCHI	0.785	0.047	1.03	0.0053	± 0.0057	0.11	± 0.12	0.0089	± 0.0047	0.0086	± 0.0045
Miki-machi, KAGAWA	0.608	0.036	0.478	0.0000	± 0.0045	0.00	± 0.13	0.0063	± 0.0034	0.013	± 0.0072
Koshi-machi, KUMAMOTO	0.787	0.038	0.937	0.0018	± 0.0050	0.05	± 0.13	0.0049	± 0.0042	0.0052	± 0.0045
Nov. 2003											
Ishikari, HOKKAIDO	0.813	0.043	0.821	0.0000	± 0.0049	0.00	± 0.11	0.0081	± 0.0037	0.0098	± 0.0045
Takizawa-mura, IWATE	0.713	0.045	1.09	0.0044	± 0.0055	0.10	± 0.12	0.046	± 0.0066	0.042	± 0.0061
Ishinomaki, MIYAGI	0.694	0.035	0.909	0.0031	± 0.0057	0.09	± 0.16	0.0035	± 0.0039	0.0038	± 0.0043
Fukushima, FUKUSHIMA	0.677	0.047	0.799	0.015	± 0.0069	0.32	± 0.15	0.0019	± 0.0029	0.0024	± 0.0037
Saga, SAGA	0.585	0.038	0.936	0.0093	± 0.0058	0.24	± 0.15	0.014	± 0.0049	0.015	± 0.0052
Usa, OITA	0.625	0.036	0.769	0.0071	± 0.0053	0.20	± 0.15	0.0000	± 0.0035	0.0000	± 0.0045
Dec. 2003											
Maebashi, GUNMA	0.495	0.037	0.743	0.0000	± 0.0045	0.00	± 0.12	0.0041	± 0.0038	0.0055	± 0.0051
Takane-machi, YAMANASHI	0.751	0.049	1.24	0.0036	± 0.0051	0.07	± 0.10	0.0042	± 0.0038	0.0033	± 0.0031
Kasai, HYOGO	0.649	0.046	0.915	0.0048	± 0.0062	0.10	± 0.13	0.0056	± 0.0033	0.0061	± 0.0037
Chikushino, FUKUOKA	0.703	0.048	0.914	0.0043	± 0.0054	0.09	± 0.11	0.0027	± 0.0042	0.0030	± 0.0045

Location	Ash	Ca	K	Sr-90			Cs-137		
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)	(Bq/g Ca)		(Bq/kg wet)	(Bq/g K)	
Jan. 2004 Ishii-machi, TOKUSHIMA	0.517	0.043	0.900	0.0035 ± 0.0049	0.08 ± 0.12		0.0064 ± 0.0039	0.0071 ± 0.0044	

(9)-2

## Strontium-90 and Cesium-137 in Rice(consuming districts)

(from Apr. 2003 to Mar. 2004)

Table (9)-2 : Strontium-90 and Cesium-137 in Rice(consuming districts)

Location	Ash	Ca	K	Sr-90				Cs-137							
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)		(Bq/g Ca)		(Bq/kg wet)		(Bq/g K)					
<b>Oct. 2003</b>															
Akita, AKITA	0.592	0.041	0.550	0.020	±	0.0069	0.50	±	0.17	0.0046	±	0.0046	0.0083	±	0.0083
Saitama, SAITAMA	0.481	0.041	0.736	0.0000	±	0.0051	0.00	±	0.13	0.0000	±	0.0028	0.0000	±	0.0038
Shinjuku, TOKYO	0.701	0.053	0.693	0.011	±	0.0069	0.20	±	0.13	0.12	±	0.010	0.18	±	0.015
Chigasaki, KANAGAWA	0.577	0.043	0.739	0.0031	±	0.0052	0.07	±	0.12	0.0037	±	0.0036	0.0050	±	0.0048
Niigata, NIIGATA	0.539	0.042	0.641	0.0069	±	0.0051	0.16	±	0.12	0.0084	±	0.0045	0.013	±	0.0070
Fukui, FUKUI	0.596	0.042	0.721	0.0076	±	0.0056	0.18	±	0.13	0.0000	±	0.0040	0.0000	±	0.0056
Hiroshima, HIROSHIMA	0.581	0.046	0.749	0.0000	±	0.0038	0.000	±	0.082	0.017	±	0.0054	0.022	±	0.0072
Matsuyama, EHIME	0.514	0.037	0.678	0.011	±	0.0054	0.29	±	0.15	0.0000	±	0.0028	0.0000	±	0.0041
<b>Nov. 2003</b>															
Sapporo, HOKKAIDO	0.739	0.051	0.828	0.0097	±	0.0062	0.19	±	0.12	0.0034	±	0.0032	0.0041	±	0.0038
Yamagata, YAMAGATA	0.647	0.046	0.763	0.013	±	0.0057	0.28	±	0.12	0.0000	±	0.0035	0.0000	±	0.0046
Shizuoka, SHIZUOKA	0.558	0.041	0.714	0.0031	±	0.0054	0.08	±	0.13	0.0048	±	0.0038	0.0067	±	0.0053
Kyoto, KYOTO	0.644	0.040	0.882	0.0097	±	0.0063	0.24	±	0.16	0.0000	±	0.0029	0.0000	±	0.0032
Osaka, OSAKA	0.656	0.044	0.853	0.0078	±	0.0060	0.18	±	0.14	0.012	±	0.0046	0.014	±	0.0054
Kobe, HYOGO	0.647	0.045	0.783	0.0048	±	0.0063	0.11	±	0.14	0.0092	±	0.0037	0.012	±	0.0047
Shingu, WAKAYAMA	0.463	0.040	0.718	0.016	±	0.0065	0.40	±	0.16	0.029	±	0.0059	0.041	±	0.0082
Yonashiro-machi, OKINAWA	0.707	0.042	0.983	0.010	±	0.0055	0.24	±	0.13	0.0000	±	0.0035	0.0000	±	0.0036
<b>Dec. 2003</b>															
Nagoya, AICHI	0.669	0.044	0.836	0.0093	±	0.0051	0.21	±	0.11	0.0012	±	0.0040	0.0014	±	0.0047
Kurayoshi, TOTTORI	0.644	0.039	0.766	0.0099	±	0.0061	0.25	±	0.16	0.042	±	0.0067	0.055	±	0.0088
Matsue, SHIMANE	0.483	0.039	0.811	0.0065	±	0.0050	0.17	±	0.13	0.0070	±	0.0046	0.0086	±	0.0057
Seto-machi, OKAYAMA	0.701	0.039	0.806	0.0000	±	0.0049	0.00	±	0.13	0.0000	±	0.0037	0.0000	±	0.0046
Kasuga, FUKUOKA	0.565	0.042	0.819	0.0043	±	0.0054	0.10	±	0.13	0.0019	±	0.0041	0.0024	±	0.0050
Kagoshima, KAGOSHIMA	0.541	0.041	0.795	0.0000	±	0.0050	0.00	±	0.12	0.031	±	0.0059	0.039	±	0.0074
<b>Jan. 2004</b>															
Hirosaki, AOMORI	0.575	0.044	0.955	0.0044	±	0.0055	0.10	±	0.12	0.015	±	0.0049	0.016	±	0.0052
Kochi, KOCHI	0.597	0.038	0.830	0.014	±	0.0060	0.37	±	0.16	0.0042	±	0.0041	0.0051	±	0.0050
Nagasaki, NAGASAKI	0.606	0.043	0.788	0.0082	±	0.0058	0.19	±	0.14	0.011	±	0.0044	0.014	±	0.0056

(10)-1

## Strontium-90 and Cesium-137 in Milk (producing districts)

(from Apr. 2003 to Mar. 2004)

Table (10)-1 : Strontium-90 and Cesium-137 in Milk (producing districts)

Location	Ash (w/v%)	Ca (g/L)	K (g/L)	Sr-90				Cs-137			
	(Bq/L)	(Bq/g Ca)		(Bq/L)		(Bq/g K)		(Bq/L)		(Bq/g K)	
<b>May 2003</b>											
Sapporo, HOKKAIDO	0.728	1.16	1.51	0.032 ± 0.0080	0.027 ± 0.0069	0.024 ± 0.0058	0.016 ± 0.0038	0.0035 ± 0.0042	0.0023 ± 0.0027		
Hachijo-machi, TOKYO	0.742	1.04	1.53	0.018 ± 0.0068	0.017 ± 0.0065	0.013 ± 0.0042	0.0021 ± 0.0023	0.0027 ± 0.0027			
<b>Aug. 2003</b>											
Aomori, AOMORI	0.739	1.16	1.66	0.022 ± 0.0069	0.019 ± 0.0060	0.030 ± 0.0060	0.018 ± 0.0036	0.0076 ± 0.0068	0.029 ± 0.0043	0.0021 ± 0.0023	
Takizawa-mura, IWATE	0.712	1.02	1.57	0.0078 ± 0.0053	0.016 ± 0.0054	0.0034 ± 0.0038	0.0021 ± 0.0023	0.0051 ± 0.0042	0.0078 ± 0.0027	0.0016 ± 0.0027	
Mito, IBARAKI	0.751	1.10	1.61	0.018 ± 0.0060	0.013 ± 0.0057	0.0027 ± 0.0044	0.0016 ± 0.0027	0.0054 ± 0.0044	0.0045 ± 0.0028	0.0011 ± 0.0025	
Nishinasuno-machi, TOCHIGI	0.665	1.04	1.57	0.047 ± 0.0083	0.045 ± 0.0079	0.012 ± 0.0042	0.0098 ± 0.0039	0.0079 ± 0.0039	0.0021 ± 0.0025	0.0016 ± 0.0027	
Fujimi-mura, GUNMA	0.688	1.07	1.54	0.030 ± 0.0073	0.028 ± 0.0068	0.0098 ± 0.0039	0.0063 ± 0.0027	0.0068 ± 0.0044	0.0016 ± 0.0027	0.0011 ± 0.0027	
Yachimata, CHIBA	0.721	1.06	1.59	0.016 ± 0.0070	0.015 ± 0.0066	0.014 ± 0.0045	0.0090 ± 0.0028	0.0066 ± 0.0045	0.0021 ± 0.0028	0.0011 ± 0.0028	
Iwamuro-mura, NIIGATA	0.740	1.15	1.64	0.015 ± 0.0066	0.013 ± 0.0057	0.0027 ± 0.0044	0.0016 ± 0.0027	0.0066 ± 0.0044	0.0016 ± 0.0027	0.0011 ± 0.0027	
Tonami, TOYAMA	0.679	1.03	1.51	0.011 ± 0.0061	0.010 ± 0.0059	0.026 ± 0.0055	0.017 ± 0.0037	0.0059 ± 0.0055	0.0017 ± 0.0037	0.0011 ± 0.0037	
Oshimizu-machi, ISHIKAWA	0.752	1.20	1.67	0.029 ± 0.0076	0.024 ± 0.0063	0.0045 ± 0.0045	0.0027 ± 0.0027	0.0076 ± 0.0027	0.0009 ± 0.0023	0.0016 ± 0.0023	
Katsuyama, FUKUI	0.721	1.07	1.70	0.024 ± 0.0075	0.023 ± 0.0071	0.0016 ± 0.0040	0.0009 ± 0.0024	0.0075 ± 0.0040	0.0009 ± 0.0024	0.0016 ± 0.0024	
Takane-machi, YAMANASHI	0.746	1.17	1.86	0.026 ± 0.0073	0.022 ± 0.0062	0.0097 ± 0.0044	0.0052 ± 0.0024	0.0073 ± 0.0044	0.0026 ± 0.0026	0.0016 ± 0.0026	
Kasamatsu-machi, GIFU	0.694	1.09	1.48	0.021 ± 0.0069	0.019 ± 0.0063	0.0056 ± 0.0039	0.0038 ± 0.0026	0.0069 ± 0.0039	0.0012 ± 0.0020	0.0006 ± 0.0020	
Ouchiyama-mura, MIE	0.724	1.12	1.78	0.030 ± 0.0081	0.027 ± 0.0072	0.0012 ± 0.0036	0.0006 ± 0.0020	0.0081 ± 0.0036	0.0021 ± 0.0020	0.0006 ± 0.0020	
Hino-machi, SHIGA	0.720	1.14	1.65	0.0000 ± 0.0063	0.0000 ± 0.0055	0.0058 ± 0.0045	0.0035 ± 0.0027	0.0000 ± 0.0045	0.0014 ± 0.0027	0.0005 ± 0.0027	
Sakai, Habikino, OSAKA	0.741	1.08	1.62	0.022 ± 0.0077	0.020 ± 0.0071	0.014 ± 0.0050	0.0089 ± 0.0031	0.0077 ± 0.0050	0.0021 ± 0.0031	0.0009 ± 0.0031	
Mihara-machi, HYOGO	0.707	1.13	1.65	0.0067 ± 0.0062	0.0059 ± 0.0055	0.0090 ± 0.0040	0.0054 ± 0.0024	0.0062 ± 0.0040	0.0023 ± 0.0024	0.0011 ± 0.0024	
Ouda-machi, NARA	0.691	1.01	1.55	0.0027 ± 0.0058	0.0027 ± 0.0058	0.012 ± 0.0043	0.0077 ± 0.0027	0.0058 ± 0.0043	0.0021 ± 0.0027	0.0011 ± 0.0027	
Matsue, SHIMANE	0.746	1.21	1.68	0.020 ± 0.0067	0.016 ± 0.0056	0.0038 ± 0.0045	0.0023 ± 0.0027	0.0067 ± 0.0045	0.0012 ± 0.0027	0.0006 ± 0.0027	
Chiyoda-machi, HIROSHIMA	0.717	1.17	1.66	0.019 ± 0.0070	0.017 ± 0.0060	0.0051 ± 0.0044	0.0031 ± 0.0026	0.0070 ± 0.0044	0.0012 ± 0.0026	0.0006 ± 0.0026	
Kamiita-machi, TOKUSHIMA	0.708	1.11	1.59	0.025 ± 0.0079	0.023 ± 0.0071	0.0012 ± 0.0037	0.0007 ± 0.0023	0.0079 ± 0.0037	0.0016 ± 0.0023	0.0007 ± 0.0023	
Kawauchi-machi, EHIME	0.671	1.05	1.52	0.015 ± 0.0072	0.014 ± 0.0068	0.0000 ± 0.0032	0.0000 ± 0.0021	0.0072 ± 0.0032	0.0010 ± 0.0021	0.0000 ± 0.0021	
Kochi, KOCHI	0.739	1.09	1.70	0.020 ± 0.0072	0.018 ± 0.0066	0.0094 ± 0.0041	0.0055 ± 0.0024	0.0066 ± 0.0041	0.0021 ± 0.0024	0.0011 ± 0.0024	
Yasu-machi, FUKUOKA	0.686	1.05	1.53	0.019 ± 0.0073	0.018 ± 0.0070	0.010 ± 0.0041	0.0068 ± 0.0027	0.0073 ± 0.0041	0.0023 ± 0.0027	0.0011 ± 0.0027	
Koshi-machi, KUMAMOTO	0.742	1.17	1.68	0.024 ± 0.0067	0.020 ± 0.0057	0.0072 ± 0.0045	0.0043 ± 0.0027	0.0067 ± 0.0045	0.0023 ± 0.0027	0.0011 ± 0.0027	
Kuju-machi, OITA	0.740	1.18	1.75	0.013 ± 0.0066	0.011 ± 0.0056	0.083 ± 0.0085	0.048 ± 0.0048	0.0066 ± 0.0085	0.015 ± 0.0048	0.0077 ± 0.0048	
Takaharu-machi, MIYAZAKI	0.722	1.11	1.71	0.017 ± 0.0062	0.015 ± 0.0056	0.015 ± 0.0052	0.0087 ± 0.0030	0.0062 ± 0.0052	0.0087 ± 0.0030	0.0021 ± 0.0030	

Location	Ash (w/v%)	Ca (g/L)	K (g/L)	Sr-90				Cs-137							
				(Bq/L)		(Bq/g Ca)		(Bq/L)		(Bq/g K)					
Sep. 2003 Kanoya, KAGOSHIMA	0.720	1.12	1.66	0.017	±	0.0070	0.015	±	0.0062	0.0057	±	0.0045	0.0034	±	0.0027
Oct. 2003 Yamato-machi, SAGA	0.745	1.13	1.60	0.019	±	0.0063	0.017	±	0.0055	0.016	±	0.0049	0.0097	±	0.0030
Jan. 2004 Takase-machi, KAGAWA	0.746	1.15	1.66	0.011	±	0.0063	0.0098	±	0.0055	0.0043	±	0.0039	0.0026	±	0.0024

(10)-2

## Strontium-90 and Cesium-137 in Milk (consuming districts)

(from Apr. 2003 to Mar. 2004)

Table (10)-2 : Strontium-90 and Cesium-137 in Milk (consuming districts)

Location	Ash (w/v%)	Ca (g/L)	K (g/L)	Sr-90			Cs-137		
	(Bq/L)	(Bq/g Ca)	(Bq/L)	(Bq/g K)					
<b>May 2003</b>									
Sapporo, HOKKAIDO	0.735	1.16	1.63	0.035 ± 0.0079	0.030 ± 0.0068	0.027 ± 0.0057	0.017 ± 0.0035		
Shinjuku, TOKYO	0.702	1.09	1.53	0.023 ± 0.0073	0.021 ± 0.0067	0.015 ± 0.0053	0.0096 ± 0.0034		
<b>Jun. 2003</b>									
Fukushima, FUKUSHIMA	0.742	1.14	1.69	0.016 ± 0.0068	0.014 ± 0.0060	0.013 ± 0.0050	0.0079 ± 0.0029		
Shingu, WAKAYAMA	0.677	1.06	1.52	0.0025 ± 0.0065	0.0024 ± 0.0062	0.0027 ± 0.0042	0.0018 ± 0.0028		
<b>Jul. 2003</b>									
Rifu-machi, MIYAGI	0.727	1.11	1.64	0.023 ± 0.0077	0.020 ± 0.0069	0.015 ± 0.0051	0.0093 ± 0.0031		
<b>Aug. 2003</b>									
Akita, AKITA	0.712	1.11	1.63	0.040 ± 0.0078	0.036 ± 0.0071	0.079 ± 0.0083	0.049 ± 0.0051		
Yamagata, YAMAGATA	0.691	1.04	1.62	0.013 ± 0.0065	0.012 ± 0.0062	0.0073 ± 0.0042	0.0045 ± 0.0026		
Saitama, SAITAMA	0.728	1.13	1.61	0.017 ± 0.0069	0.015 ± 0.0061	0.015 ± 0.0053	0.0091 ± 0.0033		
Niigata, NIIGATA	0.739	1.14	1.64	0.017 ± 0.0068	0.015 ± 0.0060	0.0034 ± 0.0044	0.0021 ± 0.0027		
Fukui, FUKUI	0.720	1.12	1.64	0.032 ± 0.0085	0.029 ± 0.0076	0.011 ± 0.0048	0.0070 ± 0.0029		
Shizuoka, SHIZUOKA	0.875	1.36	1.98	0.019 ± 0.0067	0.014 ± 0.0049	0.020 ± 0.0058	0.010 ± 0.0029		
Nagoya, AICHI	0.718	1.13	1.59	0.012 ± 0.0071	0.011 ± 0.0063	0.0000 ± 0.0042	0.0000 ± 0.0027		
Kyoto, KYOTO	0.717	1.10	1.55	0.014 ± 0.011	0.013 ± 0.0096	0.0008 ± 0.0034	0.0005 ± 0.0022		
Osaka, OSAKA	0.732	1.08	1.64	0.028 ± 0.0080	0.026 ± 0.0074	0.0075 ± 0.0039	0.0046 ± 0.0024		
Tohaku-machi, TOTTORI	0.646	1.00	1.51	0.019 ± 0.0068	0.019 ± 0.0067	0.018 ± 0.0049	0.012 ± 0.0032		
Matsue, SHIMANE	0.735	1.13	1.66	0.029 ± 0.0076	0.026 ± 0.0068	0.0098 ± 0.0049	0.0059 ± 0.0030		
Okayama, OKAYAMA	0.719	1.10	1.69	0.021 ± 0.0070	0.019 ± 0.0064	0.013 ± 0.0048	0.0077 ± 0.0028		
Hiroshima, HIROSHIMA	0.694	1.04	1.62	0.0074 ± 0.0058	0.0072 ± 0.0056	0.019 ± 0.0049	0.011 ± 0.0030		
Yamaguchi, YAMAGUCHI	0.705	1.10	1.62	0.0083 ± 0.0067	0.0075 ± 0.0061	0.0071 ± 0.0045	0.0044 ± 0.0028		
Kawauchi-machi, EHIME	0.679	1.07	1.58	0.0075 ± 0.0056	0.0070 ± 0.0052	0.0038 ± 0.0045	0.0024 ± 0.0028		
Kochi, KOCHI	0.728	1.11	1.65	0.022 ± 0.0071	0.020 ± 0.0064	0.019 ± 0.0055	0.012 ± 0.0033		
Chikushino, FUKUOKA	0.685	1.05	1.64	0.035 ± 0.0078	0.034 ± 0.0075	0.020 ± 0.0048	0.012 ± 0.0029		
Nagasaki, NAGASAKI	0.716	1.08	1.57	0.011 ± 0.0065	0.010 ± 0.0061	0.015 ± 0.0052	0.0094 ± 0.0033		
Yonashiro-machi, OKINAWA	0.707	1.08	1.63	0.016 ± 0.0067	0.015 ± 0.0062	0.0086 ± 0.0041	0.0053 ± 0.0025		
<b>Sep. 2003</b>									
Nagano, NAGANO	0.686	1.03	1.61	0.012 ± 0.0061	0.011 ± 0.0059	0.0073 ± 0.0041	0.0045 ± 0.0025		
Kagoshima, KAGOSHIMA	0.732	1.16	1.82	0.022 ± 0.0074	0.019 ± 0.0064	0.0096 ± 0.0049	0.0053 ± 0.0027		

Location	Ash (w/v%)	Ca (g/L)	K (g/L)	Sr-90			Cs-137		
				(Bq/L)	(Bq/g Ca)		(Bq/L)	(Bq/g K)	
Oct. 2003 Chigasaki, KANAGAWA	0.749	1.11	1.80	0.015 ± 0.0058	0.014 ± 0.0053		0.020 ± 0.0048	0.011 ± 0.0027	

(10)-3

## Strontium-90 and Cesium-137 in Milk (powdered milk)

(from Apr. 2003 to Mar. 2004)

Table (10)-3 : Strontium-90 and Cesium-137 in Milk (powdered milk)

Location	Ash	Ca	K	Sr-90				Cs-137			
	(%)	(g/kg)	(g/kg)	(Bq/kg)		(Bq/g Ca)	(Bq/kg)		(Bq/g K)		
<b>Jun. 2003</b>											
Sample A	7.95	12.8	17.3	0.29	± 0.024	0.023 ± 0.0019	1.1 ± 0.04	0.066 ± 0.0022			
Sample B	2.41	3.40	5.18	0.032	± 0.0077	0.0094 ± 0.0023	0.065 ± 0.0087	0.013 ± 0.0017			
Sample D	2.30	3.45	5.15	0.019	± 0.0067	0.0056 ± 0.0019	0.028 ± 0.0067	0.0054 ± 0.0013			
Sample E	3.63	6.03	7.55	0.10	± 0.012	0.017 ± 0.0020	0.12 ± 0.011	0.016 ± 0.0015			
Sample F	2.39	3.44	4.97	0.032	± 0.0079	0.0093 ± 0.0023	0.15 ± 0.012	0.030 ± 0.0024			
<b>Jul. 2003</b>											
Sample C	7.66	11.6	17.5	0.45	± 0.029	0.038 ± 0.0025	1.2 ± 0.04	0.070 ± 0.0022			
<b>Jan. 2004</b>											
Sample A	7.97	13.3	17.3	0.32	± 0.027	0.024 ± 0.0020	0.46 ± 0.024	0.027 ± 0.0014			
Sample B	2.41	3.66	5.37	0.029	± 0.0079	0.0080 ± 0.0022	0.068 ± 0.0081	0.013 ± 0.0015			
Sample C	7.97	12.8	17.5	0.43	± 0.030	0.033 ± 0.0024	1.5 ± 0.04	0.086 ± 0.0025			
Sample D	2.41	3.64	5.47	0.031	± 0.0071	0.0086 ± 0.0020	0.022 ± 0.0053	0.0039 ± 0.00096			
Sample E	3.57	6.10	7.28	0.11	± 0.012	0.018 ± 0.0020	0.075 ± 0.0084	0.010 ± 0.0012			
Sample F	2.44	3.71	5.05	0.030	± 0.0071	0.0080 ± 0.0019	0.14 ± 0.011	0.027 ± 0.0022			

(11)-1

Strontium-90 and Cesium-137 in Vegetables (producing districts)  
(from Apr. 2003 to Mar. 2004)

Table (11)-1 : Strontium-90 and Cesium-137 in Vegetables (producing districts)

Location	Ash	Ca	K	Sr-90				Cs-137			
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)		(Bq/g Ca)		(Bq/kg wet)		(Bq/g K)	
<u>(Leafy vegetables)</u>											
May 2003											
Tahara-machi, AICHI	1.44	0.340	6.41	0.040	± 0.0078	0.12	± 0.023	0.0000	± 0.0032	0.00000 ± 0.00050	
Koshi-machi, KUMAMOTO	2.40	1.05	9.10	0.20	± 0.016	0.19	± 0.015	0.0000	± 0.0037	0.00000 ± 0.00041	
Jul. 2003											
Oda, SHIMANE	0.823	0.708	2.78	0.36	± 0.021	0.51	± 0.030	0.31	± 0.015	0.11	± 0.006
Aug. 2003											
Eniwa, HOKKAIDO	1.55	0.381	6.98	0.023	± 0.0085	0.060	± 0.022	0.0072	± 0.0044	0.0010 ± 0.00063	
Oct. 2003											
Mutsu, AOMORI	0.520	0.275	2.09	0.14	± 0.015	0.51	± 0.053	0.0000	± 0.0027	0.0000 ± 0.0013	
Tamayama-mura, IWATE	0.519	0.406	2.22	0.12	± 0.014	0.29	± 0.035	0.025	± 0.0063	0.011 ± 0.0028	
Utsunomiya, TOCHIGI	0.647	0.458	2.51	0.28	± 0.019	0.60	± 0.041	0.010	± 0.0044	0.0041 ± 0.0017	
Toyama, TOYAMA	1.30	0.533	5.67	0.096	± 0.012	0.18	± 0.023	0.024	± 0.0058	0.0042 ± 0.0010	
Saku, NAGANO	1.84	0.422	8.26	0.037	± 0.010	0.087	± 0.024	0.0000	± 0.0029	0.00000 ± 0.00036	
Nov. 2003											
Sannohe-machi, AOMORI	0.531	0.385	2.04	0.11	± 0.013	0.28	± 0.034	0.039	± 0.0065	0.019 ± 0.0032	
Fukushima, FUKUSHIMA	1.70	0.784	6.64	0.070	± 0.012	0.089	± 0.015	0.0042	± 0.0048	0.00064 ± 0.00072	
Mito, IBARAKI	1.46	0.797	6.39	0.076	± 0.012	0.095	± 0.015	0.044	± 0.0067	0.0069 ± 0.0011	
Chiba, CHIBA	1.59	0.929	6.53	0.029	± 0.0076	0.031	± 0.0082	0.0000	± 0.0038	0.00000 ± 0.00059	
Fukui, FUKUI	2.00	0.436	8.89	0.065	± 0.011	0.15	± 0.024	0.0030	± 0.0044	0.00033 ± 0.00049	
Gotenba, SHIZUOKA	1.65	0.647	7.16	0.043	± 0.0090	0.067	± 0.014	0.021	± 0.0058	0.0029 ± 0.00081	
Kusu-machi, MIE	1.20	1.19	4.30	0.086	± 0.012	0.072	± 0.010	0.029	± 0.0063	0.0067 ± 0.0015	
Kasai, HYOGO	1.73	0.499	7.38	0.051	± 0.011	0.10	± 0.021	0.011	± 0.0049	0.0015 ± 0.00067	
Kurayoshi, TOTTORI	1.38	0.473	4.77	0.084	± 0.011	0.18	± 0.024	0.051	± 0.0075	0.011 ± 0.0016	
Takamatsu, KAGAWA	1.64	0.473	6.71	0.023	± 0.0088	0.048	± 0.019	0.012	± 0.0044	0.0018 ± 0.00066	
Matsuyama, EHIME	1.53	0.502	6.62	0.12	± 0.014	0.23	± 0.029	0.0074	± 0.0040	0.0011 ± 0.00061	
Shime-machi, FUKUOKA	1.31	0.603	5.41	0.057	± 0.011	0.094	± 0.019	0.0000	± 0.0038	0.00000 ± 0.00070	
Usa, OITA	2.15	0.413	9.52	0.052	± 0.011	0.13	± 0.026	0.0027	± 0.0036	0.00029 ± 0.00037	
Takanabe-machi, MIYAZAKI	1.50	0.329	6.45	0.054	± 0.010	0.17	± 0.031	0.0062	± 0.0043	0.00097 ± 0.00066	
Dec. 2003											

Location	Ash	Ca	K	Sr-90				Cs-137			
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)		(Bq/g Ca)		(Bq/kg wet)		(Bq/g K)	
Maebashi, GUNMA	2.05	0.968	8.73	0.013	± 0.0069	0.013	± 0.0072	0.0051	± 0.0044	0.00058	± 0.00051
Takane-machi, YAMANASHI	1.94	0.803	7.42	0.25	± 0.021	0.31	± 0.026	0.0048	± 0.0046	0.00065	± 0.00062
Kakamigahara, Gifu	0.992	1.22	3.02	0.0061	± 0.0063	0.0050	± 0.0052	0.013	± 0.0048	0.0042	± 0.0016
Azuchi-machi, SHIGA	1.19	0.470	4.91	0.038	± 0.0089	0.081	± 0.019	0.0004	± 0.0040	0.00008	± 0.00082
Haibara-machi, NARA	0.917	0.161	3.63	0.015	± 0.0067	0.091	± 0.042	0.0016	± 0.0037	0.0004	± 0.0010
Hiroshima, HIROSHIMA	1.71	0.335	7.60	0.0045	± 0.0069	0.013	± 0.020	0.0000	± 0.0038	0.00000	± 0.00050
Nankoku, KOCHI	1.71	1.48	5.76	0.11	± 0.013	0.074	± 0.0089	0.0070	± 0.0047	0.0012	± 0.00081
Saga, SAGA	1.43	1.18	5.62	0.017	± 0.0071	0.015	± 0.0060	0.0098	± 0.0043	0.0017	± 0.00077
Matsumoto-machi, KAGOSHIMA	1.68	0.857	4.82	0.049	± 0.0095	0.057	± 0.011	0.15	± 0.012	0.032	± 0.0025
Jan. 2004											
Kumatori-machi, OSAKA	0.665	0.378	2.59	0.044	± 0.0089	0.12	± 0.024	0.0004	± 0.0039	0.0001	± 0.0015
Yuya-machi, YAMAGUCHI	1.91	0.695	6.72	0.22	± 0.017	0.31	± 0.024	0.0082	± 0.0043	0.0012	± 0.00065
Ishii-machi, TOKUSHIMA	1.61	0.562	6.24	0.020	± 0.0072	0.036	± 0.013	0.0066	± 0.0048	0.0011	± 0.00077
Feb. 2004											
Shingu, WAKAYAMA (Root vegetables)	0.636	0.385	2.54	0.27	± 0.021	0.70	± 0.054	0.0008	± 0.0042	0.0003	± 0.0016
May 2003											
Tahara-machi, AICHI	0.755	0.150	3.41	0.026	± 0.0068	0.18	± 0.045	0.0000	± 0.0031	0.00000	± 0.00092
Koshi-machi, KUMAMOTO	0.703	0.220	2.82	0.068	± 0.0094	0.31	± 0.043	0.0041	± 0.0037	0.0015	± 0.0013
Jul. 2003											
Kumatori-machi, OSAKA	0.353	0.131	1.42	0.033	± 0.0077	0.25	± 0.059	0.0031	± 0.0034	0.0022	± 0.0024
Oda, SHIMANE	0.655	0.157	2.73	0.37	± 0.020	2.4	± 0.13	0.010	± 0.0036	0.0037	± 0.0013
Aug. 2003											
Eniwa, HOKKAIDO	0.544	0.140	2.42	0.066	± 0.010	0.47	± 0.074	0.0032	± 0.0034	0.0013	± 0.0014
Mutsu, AOMORI	0.860	0.0465	4.00	0.0088	± 0.0064	0.19	± 0.14	0.011	± 0.0045	0.0028	± 0.0011
Oct. 2003											
Tamayama-mura, IWATE	0.386	0.180	1.59	0.047	± 0.0070	0.26	± 0.039	0.0089	± 0.0030	0.0056	± 0.0019
Utsunomiya, TOCHIGI	0.406	0.191	1.68	0.089	± 0.011	0.47	± 0.056	0.0077	± 0.0038	0.0046	± 0.0022
Saku, NAGANO	0.547	0.178	2.32	0.039	± 0.010	0.22	± 0.057	0.018	± 0.0050	0.0078	± 0.0021
Nov. 2003											
Sannohe-machi, AOMORI	0.468	0.211	1.96	0.091	± 0.012	0.43	± 0.059	0.028	± 0.0060	0.014	± 0.0031
Fukushima, FUKUSHIMA	0.498	0.209	1.99	0.039	± 0.0095	0.19	± 0.045	0.0000	± 0.0038	0.0000	± 0.0019
Mito, IBARAKI	0.695	0.532	2.40	0.074	± 0.011	0.14	± 0.021	0.011	± 0.0042	0.0045	± 0.0017
Chiba, CHIBA	0.615	0.339	2.58	0.12	± 0.014	0.36	± 0.041	0.0051	± 0.0044	0.0020	± 0.0017

Location	Ash	Ca	K	Sr-90				Cs-137			
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)	(Bq/g Ca)		(Bq/kg wet)	(Bq/g K)			
Kosugi-machi, TOYAMA	0.392	0.147	1.64	0.024 ± 0.0072	0.17 ± 0.049	0.0042 ± 0.0037	0.0025 ± 0.0023				
Mikuni-machi, FUKUI	0.462	0.177	1.99	0.024 ± 0.0071	0.14 ± 0.040	0.0034 ± 0.0040	0.0017 ± 0.0020				
Gotenba, SHIZUOKA	0.487	0.222	1.91	0.047 ± 0.0093	0.21 ± 0.042	0.053 ± 0.0075	0.028 ± 0.0039				
Hamamatsu, SHIZUOKA	0.604	0.182	2.63	0.036 ± 0.0096	0.20 ± 0.053	0.0000 ± 0.0036	0.0000 ± 0.0014				
Meiwa-machi, MIE	0.503	0.320	2.12	0.051 ± 0.010	0.16 ± 0.032	0.0055 ± 0.0043	0.0026 ± 0.0020				
Azuchi-machi, SHIGA	0.465	0.133	2.19	0.16 ± 0.016	1.2 ± 0.12	0.0000 ± 0.0036	0.0000 ± 0.0017				
Kasai, HYOGO	0.500	0.148	2.19	0.029 ± 0.0079	0.19 ± 0.053	0.0000 ± 0.0032	0.0000 ± 0.0014				
Kokufu-machi, TOTTORI	0.589	0.242	2.50	0.087 ± 0.011	0.36 ± 0.045	0.0017 ± 0.0034	0.0007 ± 0.0013				
Hiroshima, HIROSHIMA	0.597	0.234	2.61	0.064 ± 0.011	0.27 ± 0.049	0.0000 ± 0.0034	0.0000 ± 0.0013				
Takamatsu, KAGAWA	0.543	0.207	2.48	0.015 ± 0.0076	0.071 ± 0.037	0.0000 ± 0.0027	0.0000 ± 0.0011				
Shime-machi, FUKUOKA	0.494	0.238	1.93	0.061 ± 0.012	0.26 ± 0.050	0.027 ± 0.0060	0.014 ± 0.0031				
Saga, SAGA	0.607	0.222	2.71	0.041 ± 0.0090	0.19 ± 0.040	0.0000 ± 0.0038	0.0000 ± 0.0014				
Usa, OITA	0.792	0.208	3.40	0.040 ± 0.0087	0.19 ± 0.042	0.0008 ± 0.0034	0.0002 ± 0.0010				
Takanabe-machi, MIYAZAKI	0.696	0.193	3.14	0.094 ± 0.013	0.48 ± 0.065	0.0036 ± 0.0038	0.0011 ± 0.0012				
Dec. 2003											
Maebashi, GUNMA	0.488	0.431	1.93	0.019 ± 0.0074	0.044 ± 0.017	0.0055 ± 0.0041	0.0028 ± 0.0021				
Takane-machi, YAMANASHI	0.698	0.505	2.66	0.11 ± 0.014	0.22 ± 0.028	0.0000 ± 0.0034	0.0000 ± 0.0013				
Kakamigahara, GIFU	0.440	0.218	1.74	0.025 ± 0.0083	0.11 ± 0.038	0.0023 ± 0.0038	0.0013 ± 0.0022				
Haibara-machi, NARA	0.536	0.209	2.36	0.041 ± 0.0081	0.20 ± 0.039	0.0014 ± 0.0032	0.0006 ± 0.0014				
Nankoku, KOCHI	0.524	0.354	2.15	0.047 ± 0.0097	0.13 ± 0.027	0.0058 ± 0.0046	0.0027 ± 0.0022				
Kaimon-machi, KAGOSHIMA	0.609	0.234	2.39	0.076 ± 0.010	0.32 ± 0.043	0.018 ± 0.0047	0.0074 ± 0.0020				
Jan. 2004											
Yuya-machi, YAMAGUCHI	0.671	0.294	2.36	0.056 ± 0.0082	0.19 ± 0.028	0.011 ± 0.0037	0.0049 ± 0.0016				
Ishii-machi, TOKUSHIMA	0.470	0.204	1.73	0.018 ± 0.0070	0.088 ± 0.034	0.0030 ± 0.0041	0.0017 ± 0.0024				
Feb. 2004											
Shingu, WAKAYAMA	0.427	0.267	1.64	0.041 ± 0.010	0.15 ± 0.037	0.0004 ± 0.0037	0.0002 ± 0.0023				

(11)-2

Strontium-90 and Cesium-137 in Vegetable(consuming districts)  
(from Apr. 2003 to Mar. 2004)

Table (11)-2 : Strontium-90 and Cesium-137 in Vegetable(consuming districts)

Location	Ash	Ca	K	Sr-90			Cs-137		
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)	(Bq/g Ca)		(Bq/kg wet)	(Bq/g K)	
<u>(Leafy vegetables)</u>									
Jun. 2003									
Niigata, NIIGATA	2.36	1.00	10.1	0.019 ± 0.0083	0.019 ± 0.0083		0.0000 ± 0.0031	0.00000 ± 0.00031	
Jul. 2003									
Rifu-machi, MIYAGI	1.65	0.656	6.56	0.11 ± 0.013	0.17 ± 0.020		0.0008 ± 0.0039	0.00012 ± 0.00060	
Sep. 2003									
Saitama, SAITAMA	1.95	0.580	8.53	0.026 ± 0.0080	0.045 ± 0.014		0.050 ± 0.0073	0.0058 ± 0.00086	
Kanazawa, ISHIKAWA	1.66	0.252	7.43	0.028 ± 0.0079	0.11 ± 0.031		0.0077 ± 0.0043	0.0010 ± 0.00058	
Oct. 2003									
Akita, AKITA	0.614	0.528	2.29	0.028 ± 0.0078	0.052 ± 0.015		0.0097 ± 0.0040	0.0042 ± 0.0017	
Yamagata, YAMAGATA	1.95	0.541	8.87	0.025 ± 0.0080	0.047 ± 0.015		0.0000 ± 0.0035	0.00000 ± 0.00040	
Shinjuku, TOKYO	1.58	0.473	7.36	0.052 ± 0.0094	0.11 ± 0.020		0.0055 ± 0.0043	0.00075 ± 0.00058	
Nov. 2003									
Kyoto, KYOTO	1.50	0.717	5.95	0.044 ± 0.0091	0.061 ± 0.013		0.0000 ± 0.0038	0.00000 ± 0.00063	
Osaka, OSAKA	1.68	0.525	7.37	0.039 ± 0.0097	0.075 ± 0.019		0.0000 ± 0.0038	0.00000 ± 0.00052	
Matsuyama, EHIME	1.82	0.465	7.96	0.034 ± 0.010	0.074 ± 0.022		0.012 ± 0.0045	0.0015 ± 0.00057	
Yonashiro-machi, OKINAWA	0.954	0.484	3.48	0.0092 ± 0.0066	0.019 ± 0.014		0.0000 ± 0.0032	0.00000 ± 0.00091	
Dec. 2003									
Okayama, OKAYAMA	1.55	0.649	6.51	0.027 ± 0.0083	0.042 ± 0.013		0.0072 ± 0.0047	0.0011 ± 0.00072	
Jan. 2004									
Chigasaki, KANAGAWA	1.84	0.433	7.99	0.054 ± 0.011	0.13 ± 0.025		0.015 ± 0.0054	0.0018 ± 0.00067	
Nagasaki, NAGASAKI	1.68	0.718	6.42	0.043 ± 0.0099	0.059 ± 0.014		0.018 ± 0.0059	0.0028 ± 0.00093	
<u>(Root vegetables)</u>									
Sep. 2003									
Rifu-machi, MIYAGI	0.561	0.149	2.43	3.3 ± 0.06	22 ± 0.4		0.016 ± 0.0042	0.0065 ± 0.0017	
Saitama, SAITAMA	0.367	0.337	1.01	0.34 ± 0.021	1.0 ± 0.06		0.091 ± 0.0087	0.090 ± 0.0086	
Kanazawa, ISHIKAWA	0.467	0.155	1.91	0.10 ± 0.012	0.66 ± 0.080		0.013 ± 0.0044	0.0070 ± 0.0023	
Oct. 2003									
Akita, AKITA	0.524	0.221	2.19	0.10 ± 0.012	0.47 ± 0.053		0.0081 ± 0.0040	0.0037 ± 0.0018	
Yamagata, YAMAGATA	0.511	0.163	2.06	0.028 ± 0.0084	0.17 ± 0.051		0.019 ± 0.0050	0.0094 ± 0.0024	
Shinjuku, TOKYO	0.408	0.147	1.63	0.076 ± 0.010	0.52 ± 0.070		0.0017 ± 0.0029	0.0011 ± 0.0018	

Location	Ash	Ca	K	Sr-90				Cs-137							
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)		(Bq/g Ca)		(Bq/kg wet)		(Bq/g K)					
<b>Nov. 2003</b>															
Niigata, NIIGATA	0.455	0.194	1.70	0.0000	±	0.0044	0.000	±	0.023	0.017	±	0.0051	0.010	±	0.0030
Kyoto, KYOTO	0.529	0.171	2.18	0.022	±	0.0073	0.13	±	0.043	0.021	±	0.0061	0.0096	±	0.0028
Osaka, OSAKA	0.498	0.147	2.16	0.012	±	0.0072	0.078	±	0.049	0.0000	±	0.0037	0.0000	±	0.0017
<b>Dec. 2003</b>															
Okayama, OKAYAMA	0.533	0.209	2.20	0.061	±	0.012	0.29	±	0.057	0.0000	±	0.0035	0.0000	±	0.0016
<b>Jan. 2004</b>															
Chigasaki, KANAGAWA	0.601	0.191	2.57	0.049	±	0.010	0.26	±	0.054	0.0000	±	0.0031	0.0000	±	0.0012
Nagasaki, NAGASAKI	0.415	0.184	1.61	0.075	±	0.013	0.41	±	0.069	0.0016	±	0.0043	0.0010	±	0.0026
<b>Feb. 2004</b>															
Yonashiro-machi, OKINAWA	0.556	0.361	2.31	0.0000	±	0.0058	0.000	±	0.016	0.0000	±	0.0035	0.0000	±	0.0015

## (12) Strontium-90 and Cesium-137 in Tea (Japanese tea)

(from Apr. 2003 to Mar. 2004)

Table (12) : Strontium-90 and Cesium-137 in Tea (Japanese tea)

Location	Ash	Ca	K	Sr-90				Cs-137			
	(%)	(g/kg)	(g/kg)	(Bq/kg)		(Bq/g Ca)	(Bq/kg)		(Bq/g K)		
Apr. 2003											
Mifune-machi, KUMAMOTO	4.92	2.08	17.8	0.12	± 0.029	0.058	± 0.014	0.038	± 0.017	0.0022	± 0.00095
Miyakonojo, MIYAZAKI	5.30	2.19	18.2	0.091	± 0.028	0.042	± 0.013	0.87	± 0.052	0.048	± 0.0028
Kawaminami-machi, MIYAZAKI	5.25	1.74	18.1	0.19	± 0.038	0.11	± 0.022	1.4	± 0.06	0.079	± 0.0036
May 2003											
Shirakawa-machi, Gifu	4.48	2.04	17.0	0.29	± 0.042	0.14	± 0.021	0.075	± 0.020	0.0044	± 0.0012
Ikeda-machi, Gifu	4.48	2.28	16.6	0.24	± 0.040	0.10	± 0.017	0.13	± 0.023	0.0081	± 0.0014
Syuzenji-machi, SHIZUOKA*	1.36	0.622	5.03	0.27	± 0.019	0.43	± 0.031	0.055	± 0.0077	0.011	± 0.0015
Iwata, SHIZUOKA*	1.28	0.528	4.74	0.046	± 0.0088	0.088	± 0.017	0.0091	± 0.0043	0.0019	± 0.00091
Kameyama, MIE	5.21	2.63	18.8	0.83	± 0.064	0.32	± 0.024	0.068	± 0.019	0.0036	± 0.00099
Odai-machi, MIE	5.06	2.17	17.9	0.27	± 0.040	0.13	± 0.018	0.093	± 0.021	0.0052	± 0.0012
Uji, KYOTO	5.43	2.77	20.6	0.42	± 0.047	0.15	± 0.017	0.000	± 0.012	0.00000	± 0.00060
Kaya-machi, KYOTO	4.81	2.87	17.6	0.68	± 0.059	0.24	± 0.020	0.12	± 0.022	0.0069	± 0.0013
Asagiri-machi, KUMAMOTO	4.88	2.79	16.7	0.33	± 0.043	0.12	± 0.015	0.15	± 0.024	0.0089	± 0.0014
Chiran-machi, KAGOSHIMA	5.62	2.19	19.8	0.12	± 0.033	0.053	± 0.015	1.4	± 0.07	0.070	± 0.0034
Jun. 2003											
Iruma, SAITAMA	5.11	2.11	18.3	0.20	± 0.033	0.096	± 0.016	0.21	± 0.027	0.011	± 0.0015
Tokorozawa, SAITAMA	5.48	2.36	18.9	0.16	± 0.033	0.067	± 0.014	0.23	± 0.029	0.012	± 0.0016
Nara, NARA	4.71	2.14	17.1	0.30	± 0.037	0.14	± 0.017	0.29	± 0.030	0.017	± 0.0018
Nara, NARA	5.36	2.40	18.9	0.32	± 0.044	0.13	± 0.018	0.063	± 0.020	0.0033	± 0.0010
Nachikatsuura-machi, WAKAYAMA	5.33	2.45	18.7	1.4	± 0.08	0.56	± 0.035	0.48	± 0.040	0.025	± 0.0021
Miyanojo-machi, KAGOSHIMA	5.48	2.48	19.3	0.33	± 0.046	0.13	± 0.019	0.50	± 0.042	0.026	± 0.0022

\* g/kg wet : Ca, K

Bq/kg wet : Sr-90, Cs-137

## (13) Strontium-90 and Cesium-137 in Sea fish

(from Apr. 2003 to Mar. 2004)

Table (13) : Strontium-90 and Cesium-137 in Sea fish

Location	Ash (%)	Ca (g/kg wet)	K (g/kg wet)	Sr-90			Cs-137		
				(Bq/kg wet)	(Bq/g Ca)		(Bq/kg wet)	(Bq/g K)	
<u>(Ammodytes personatus)</u>									
Apr. 2003									
Kobe, HYOGO	2.28	2.93	3.85	0.0000 ± 0.0058	0.0000 ± 0.0020	0.041 ± 0.0067	0.011 ± 0.0017		
<u>(Branchiostegus sp.)</u>									
Nov. 2003									
Nagasaki, NAGASAKI	1.02	0.242	3.27	0.0007 ± 0.0055	0.003 ± 0.023	0.11 ± 0.010	0.033 ± 0.0030		
<u>(Hexagrammos otakii)</u>									
Sep. 2003									
Soma, FUKUSHIMA	1.35	0.616	3.74	0.0019 ± 0.0052	0.0030 ± 0.0084	0.13 ± 0.011	0.034 ± 0.0029		
<u>(Katsuwonus pelamis)</u>									
May 2003									
Tosa, KOCHI	1.26	0.102	3.94	0.0000 ± 0.0062	0.000 ± 0.060	0.23 ± 0.014	0.059 ± 0.0035		
<u>(Mugil cephalus cephalus)</u>									
Aug. 2003									
Morodomi-machi, SAGA	1.36	0.530	4.20	0.0090 ± 0.0060	0.017 ± 0.011	0.059 ± 0.0079	0.014 ± 0.0019		
Dec. 2003									
Ushimado-machi, OKAYAMA	1.48	0.707	3.55	0.028 ± 0.011	0.039 ± 0.015	0.058 ± 0.0093	0.016 ± 0.0026		
<u>(Oncorhynchus keta)</u>									
Sep. 2003									
Urakawa-machi, HOKKAIDO	1.39	0.667	3.96	0.0052 ± 0.0057	0.0079 ± 0.0086	0.081 ± 0.0090	0.020 ± 0.0023		
<u>(Pleuronectidae)</u>									
Jul. 2003									
Rifu-machi, MIYAGI	3.76	9.24	2.82	0.0086 ± 0.0075	0.00093 ± 0.00081	0.068 ± 0.0081	0.024 ± 0.0029		
Nov. 2003									
Mutsu-bay, AOMORI	1.25	0.341	3.60	0.0021 ± 0.0058	0.006 ± 0.017	0.082 ± 0.0088	0.023 ± 0.0024		
Niigata, NIIGATA	1.32	0.880	3.43	0.0000 ± 0.0043	0.0000 ± 0.0048	0.077 ± 0.0086	0.022 ± 0.0025		
Fukui, FUKUI	1.21	0.914	2.88	0.0027 ± 0.0057	0.0029 ± 0.0063	0.094 ± 0.0094	0.033 ± 0.0033		
Aji-machi, KAGAWA	2.08	3.14	4.49	0.0034 ± 0.0051	0.0011 ± 0.0016	0.038 ± 0.0064	0.0086 ± 0.0014		
Feb. 2004									
Otake, HIROSHIMA	3.25	8.07	3.01	0.010 ± 0.0065	0.0013 ± 0.00080	0.047 ± 0.0073	0.016 ± 0.0024		

Location	Ash (%)	Ca (g/kg wet)	K (g/kg wet)	Sr-90				Cs-137							
				(Bq/kg wet)		(Bq/g Ca)		(Bq/kg wet)		(Bq/g K)					
<b>(Pterocasio diagramma)</b>															
Nov. 2003															
Yonashiro-machi, OKINAWA (Sardinops sp.)	4.76	12.2	4.06	0.019	±	0.0070	0.0016	±	0.00057	0.092	±	0.0093	0.023	±	0.0023
Aug. 2003															
Yamagata, YAMAGATA	2.47	5.59	1.92	0.0076	±	0.0061	0.0014	±	0.0011	0.053	±	0.0071	0.027	±	0.0037
Jan. 2004															
Nagano, NAGANO (Scomber australasicus)	3.16	6.03	2.51	0.0000	±	0.0048	0.00000	±	0.00080	0.080	±	0.0086	0.032	±	0.0034
Feb. 2004															
Chikura-machi, CHIBA (Scomber sp.)	1.51	0.129	4.08	0.0076	±	0.0054	0.059	±	0.042	0.11	±	0.010	0.027	±	0.0025
Aug. 2003															
Iyonada, EHIME	1.21	0.448	4.01	0.0060	±	0.0063	0.013	±	0.014	0.080	±	0.0088	0.020	±	0.0022
Nov. 2003															
Kyoto, KYOTO	1.01	0.199	1.81	0.017	±	0.0073	0.084	±	0.036	0.077	±	0.0084	0.042	±	0.0047
Osaka, OSAKA	1.27	0.172	2.41	0.0000	±	0.0051	0.000	±	0.030	0.080	±	0.0086	0.033	±	0.0036
Feb. 2004															
Sakaiminato, TOTTORI (Sebastes inermis)	1.79	1.71	3.42	0.011	±	0.0066	0.0066	±	0.0038	0.10	±	0.010	0.031	±	0.0029
Mar. 2004															
Yamaguchi, YAMAGUCHI (Sebastiscus marmoratus)	3.82	9.97	3.02	0.018	±	0.0063	0.0018	±	0.00063	0.15	±	0.012	0.048	±	0.0039
May 2003															
Hamada, SHIMANE (Seriola quinqueradiata)	5.89	18.0	2.67	0.019	±	0.0069	0.0010	±	0.00038	0.089	±	0.0094	0.033	±	0.0035
Sep. 2003															
Monzen-machi, ISHIKAWA (Sillago sp.)	1.55	0.818	5.12	0.0006	±	0.0052	0.0007	±	0.0063	0.12	±	0.010	0.023	±	0.0020
Jun. 2003															
Minamichita-machi, AICHI (Sparidae)	3.21	7.70	2.59	0.0095	±	0.0057	0.0012	±	0.00074	0.053	±	0.0075	0.020	±	0.0029
May 2003															

Location	Ash	Ca	K	Sr-90				Cs-137			
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)		(Bq/g Ca)		(Bq/kg wet)		(Bq/g K)	
Kiinagashima-machi, MIE Jul. 2003	1.51	0.293	4.70	0.0041	± 0.0065	0.014	± 0.022	0.14	± 0.011	0.030	± 0.0023
Fukuoka, FUKUOKA Sep. 2003	1.37	0.499	4.38	0.0021	± 0.0050	0.004	± 0.010	0.16	± 0.012	0.037	± 0.0027
Oga, AKITA <i>(Spratelloides gracilis)</i> Nov. 2003	1.38	1.12	3.72	0.0000	± 0.0046	0.0000	± 0.0041	0.11	± 0.010	0.030	± 0.0027
Akune, KAGOSHIMA <i>(Trachurus japonicus)</i> Oct. 2003	2.95	5.85	3.59	0.0055	± 0.0055	0.00094	± 0.00094	0.11	± 0.010	0.029	± 0.0028
Odawara, KANAGAWA <i>(Trachurus sp.)</i>	1.26	0.177	4.06	0.0000	± 0.0049	0.000	± 0.028	0.15	± 0.011	0.036	± 0.0028
Hachijo-machi, TOKYO Nov. 2003	1.82	1.93	4.33	0.0053	± 0.0053	0.0028	± 0.0028	0.15	± 0.011	0.034	± 0.0026
Shizuoka, SHIZUOKA	3.31	7.53	2.50	0.0032	± 0.0052	0.00042	± 0.00069	0.10	± 0.010	0.041	± 0.0039
Shingu, WAKAYAMA	1.19	0.704	3.32	0.0037	± 0.0065	0.0052	± 0.0092	0.11	± 0.010	0.035	± 0.0031

## (14) Strontium-90 and Cesium-137 in Freshwater fish

(from Apr. 2003 to Mar. 2004)

Table (14) : Strontium-90 and Cesium-137 in Freshwater fish

Location	Ash (%)	Ca (g/kg wet)	K (g/kg wet)	Sr-90			Cs-137		
	(Bq/kg wet)	(Bq/g Ca)	(Bq/kg wet)	(Bq/g K)					
<u>(Carassius sp.)</u>									
Jul. 2003									
Barato-lake, HOKKAIDO	4.21	12.4	2.08	0.40 ± 0.026	0.032 ± 0.0021	0.037 ± 0.0065	0.018 ± 0.0031		
Nov. 2003									
Niigata, NIIGATA	1.14	0.774	3.11	0.055 ± 0.010	0.071 ± 0.013	0.11 ± 0.010	0.037 ± 0.0033		
Dec. 2003									
Mikata-machi, FUKUI	2.02	3.39	3.19	0.17 ± 0.016	0.051 ± 0.0046	0.12 ± 0.011	0.038 ± 0.0034		
Uji, KYOTO	4.41	12.7	2.62	0.50 ± 0.030	0.039 ± 0.0023	0.016 ± 0.0050	0.0061 ± 0.0019		
<u>(Cyprinus carpio)</u>									
May 2003									
Kasumigaura-lake, IBARAKI	1.09	0.196	3.94	0.0000 ± 0.0053	0.000 ± 0.027	0.20 ± 0.013	0.050 ± 0.0033		
Aug. 2003									
Hachirogata-machi, AKITA	3.75	11.2	2.17	0.75 ± 0.033	0.066 ± 0.0030	0.076 ± 0.0085	0.035 ± 0.0039		
Oct. 2003									
Syobara, HIROSHIMA	1.04	0.373	3.49	0.021 ± 0.0075	0.057 ± 0.020	0.095 ± 0.0094	0.027 ± 0.0027		
<u>(Hypomesus nipponensis)</u>									
Dec. 2003									
Suwa-lake, NAGANO	2.72	7.27	2.15	0.099 ± 0.012	0.014 ± 0.0017	0.080 ± 0.0085	0.037 ± 0.0039		
<u>(Salmo gairdneri)</u>									
Oct. 2003									
Kumagaya, SAITAMA	1.16	0.124	4.13	0.0000 ± 0.0051	0.000 ± 0.041	0.30 ± 0.016	0.074 ± 0.0038		
<u>(Salvelinus leucomaenis)</u>									
Sep. 2003									
Fukushima, FUKUSHIMA	1.26	0.454	4.24	0.011 ± 0.0069	0.025 ± 0.015	0.12 ± 0.011	0.029 ± 0.0025		

## (15) Strontium-90 and Cesium-137 in Shellfish

(from Apr. 2003 to Mar. 2004)

Table (15) : Strontium-90 and Cesium-137 in Shellfish

Location	Ash	Ca	K	Sr-90			Cs-137		
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)	(Bq/g Ca)		(Bq/kg wet)	(Bq/g K)	
<u>(Crassostrea gigas)</u>									
Feb. 2004									
Hatsukaichi, HIROSHIMA	2.11	0.843	2.53	0.0045 ± 0.0066	0.0053 ± 0.0078		0.013 ± 0.0049	0.0051 ± 0.0019	
<u>(Mytilus edulis)</u>									
Jun. 2003									
Mutsu, AOMORI	2.05	0.385	1.11	0.0044 ± 0.0054	0.011 ± 0.014		0.017 ± 0.0047	0.016 ± 0.0043	
<u>(Patinopecten yessoensis)</u>									
Nov. 2003									
Mutsu-bay, AOMORI	2.14	0.265	2.78	0.0083 ± 0.0069	0.031 ± 0.026		0.024 ± 0.0055	0.0086 ± 0.0020	
Feb. 2004									
Yamada-machi, IWATE	2.27	0.448	3.62	0.0035 ± 0.0059	0.008 ± 0.013		0.018 ± 0.0049	0.0051 ± 0.0013	
<u>(Tapes philippinarum)</u>									
Apr. 2003									
Ise, MIE	1.52	0.604	1.88	0.0000 ± 0.0049	0.0000 ± 0.0081		0.015 ± 0.0047	0.0080 ± 0.0025	
Konagai-machi, NAGASAKI	2.10	0.653	1.81	0.0050 ± 0.0066	0.008 ± 0.010		0.012 ± 0.0045	0.0065 ± 0.0025	
Jun. 2003									
Minamichita-machi, AICHI	2.01	0.640	3.22	0.018 ± 0.011	0.028 ± 0.017		0.020 ± 0.0052	0.0061 ± 0.0016	
<u>(Turbo (Batillus) cornutus)</u>									
Apr. 2003									
Ryotsu, NIIGATA	4.04	0.529	2.81	0.0040 ± 0.0086	0.008 ± 0.016		0.037 ± 0.0083	0.013 ± 0.0030	
Jun. 2003									
Sakata, YAMAGATA	2.60	1.17	2.19	0.0070 ± 0.0067	0.0060 ± 0.0057		0.032 ± 0.0058	0.015 ± 0.0027	
Monzen-machi, ISHIKAWA	3.12	2.02	2.18	0.0000 ± 0.0092	0.0000 ± 0.0045		0.028 ± 0.0050	0.013 ± 0.0023	

## (16) Strontium-90 and Cesium-137 in Seaweeds

(from Apr. 2003 to Mar. 2004)

Table (16) : Strontium-90 and Cesium-137 in Seaweeds

Location	Ash	Ca	K	Sr-90			Cs-137		
	(%)	(g/kg wet)	(g/kg wet)	(Bq/kg wet)	(Bq/g Ca)		(Bq/kg wet)	(Bq/g K)	
<b>(Undaria pinnatifida)</b>									
Apr. 2003									
Ryotsu, NIIGATA	2.75	0.651	7.92	0.021 ± 0.0074	0.032 ± 0.011		0.016 ± 0.0051	0.0021 ± 0.00065	
Monzen-machi, ISHIKAWA	3.92	0.854	6.39	0.0029 ± 0.0068	0.0034 ± 0.0079		0.017 ± 0.0048	0.0027 ± 0.00074	
May 2003									
Fukaura-machi, AOMORI	2.70	0.809	7.34	0.021 ± 0.0075	0.026 ± 0.0093		0.025 ± 0.0052	0.0034 ± 0.00071	
Mutsu, AOMORI	3.21	0.791	8.08	0.025 ± 0.0078	0.032 ± 0.0099		0.032 ± 0.0058	0.0040 ± 0.00071	
Jun. 2003									
Sakata, YAMAGATA	3.06	1.21	6.05	0.028 ± 0.0089	0.023 ± 0.0074		0.026 ± 0.0054	0.0042 ± 0.00090	
Feb. 2004									
Minamichita-machi, AICHI	2.63	0.806	7.79	0.026 ± 0.0079	0.033 ± 0.0098		0.021 ± 0.0052	0.0027 ± 0.00066	
Toba, MIE	1.89	0.682	5.36	0.036 ± 0.0080	0.053 ± 0.012		0.014 ± 0.0047	0.0026 ± 0.00088	
Hiroshima, HIROSHIMA	1.79	0.581	4.54	0.024 ± 0.0070	0.042 ± 0.012		0.0087 ± 0.0044	0.0019 ± 0.00096	
Shimabara, NAGASAKI	1.87	0.575	4.17	0.021 ± 0.0074	0.036 ± 0.013		0.024 ± 0.0051	0.0057 ± 0.0012	

Sea fish

Japanese name	English name	Scientific name
Ainame	Fat greenling	<i>Hexagrammos otakii</i>
Aji	Horse mackerel	<i>Trachurus</i> sp.
Amadai	Tilefish	<i>Branchiostegus</i> sp.
Bora	Striped mullet	<i>Mugil cephalus cephalus</i>
Fukuragi	Japanese amberjack	<i>Seriola quinqueradiata</i>
Gomasaba	Spotted chub mackerel	<i>Scomber australasicus</i>
Ikanago	Japanese sand lance	<i>Ammodytes personatus</i>
Iwashi	Sardine	<i>Sardinops</i> sp.
Karei	Righteye flounders	<i>Pleuronectidae</i>
Kasago	Marbled rockfish	<i>Sebastiscus marmoratus</i>
Katsuo	Skipjack	<i>Katsuwonus pelamis</i>
Kibinago	Banded blue sprat	<i>Spratelloides gracilis</i>
Kisu	Smelt-whiting	<i>Sillago</i> sp.
Maaji	Yellowfin horse mackerel	<i>Trachurus japonicus</i>
Mebaru	Darkbanded rockfish	<i>Sebastes inermis</i>
Saba	Mackerel	<i>Scomber</i> sp.
Sake	Salmon	<i>Oncorhynchus keta</i>
Tai	Sea bream	<i>Sparidae</i>
Takasago	Goldenbanded fusilier	<i>Pterocaesio diagramma</i>

Fresh water fish

Japanese name	English name	Scientific name
Funa	Crucian carp	<i>Carassius</i> sp.
Iwana	Japanese char	<i>Salvelinus leucomaenis</i>
Koi	Carp	<i>Cyprinus carpio</i>
Nijimasu	Rainbow trout	<i>Salmo gairdneri</i>
Wakasagi	Pond smelt	<i>Hypomesus japonensis</i>

Shellfish

Japanese name	English name	Scientific name
Asari	Japanese littleneck	<i>Tapes philippinarum</i>
Hotate	Yezo scallop	<i>Patinopecten yessoensis</i>
Kaki	Japanese oyster	<i>Crassostrea gigas</i>
Murasakiigai	Blue mussel	<i>Mytilus edulis</i>
Sazae	Horned turban	<i>Turbo(Batillus) cornutus</i>

Seaweeds

Japanese name	English name	Scientific name
Wakame	Sea mustard	<i>Undaria pinnatifida</i>