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RADIOACTIVITY SURVEY DATA in Japan

Part 2
= Dietary Materials =

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Contents

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Environmental and Dietary Materials*

(Japan Chemical Analysis Center)

1. Collection and pretreatment of samples

(1) Rain and dry fallout

Rain and dry fallout was collected monthly on a sampling tray, approximately 5000cm^2 in area, which was filled with water to a depth of 1 cm at the beginning of every month.

Strontium and cesium carrier solutions were added after the sample was filtered. The tray was washed with 5ℓ of distilled water and the washing was combined to the filtrate.

The sample was passed through a cation exchange column (500mℓ of Dowex 50W X8, 50~100 mesh, Na form) at a rate flow of 80mℓ/min.

(2) Airborne dust

Airborne dust was collected by an electrostatic precipitator or a filter air sampler for every three-months at a rate of more than 3000m^3 per month.

The sampling was done 1 to 1.5 meters above the ground.

(3) Service water and freshwater

Service water, 100ℓ each, was collected at the intake of the water-treatment plant and at the tap after water was left running for five minutes. Strontium and cesium carriers were added to the filtered water sample. The subsequent process was the same as that described in the section (1). Freshwater was treated in the same way as the service water.

(4) Soil

Soil was collected from the location in the spacious and flat area without past surface disturbance caused by dust storms, inflow and out flow due to precipitation, etc.. Any places located under trees in a forest, in a stony area or inside of river banks were avoided. Soil was taken from two layers of different depths, 0-5cm and 5-20cm. The soil lumps were crushed by hands and dried in a drying oven regulated 105°C . The soil was then passed through a 2mm sieve to remove plant roots and pebbles.

(5) Sea water

Sea water was collected at the fixed stations where the effect of terrestrial fresh water from rivers was expected to be negligibly small. A special consideration was also given to weather conditions.

The sampling was carried out when there was no rainfall for the last few days. To prevent contamination, water samples were collected at the bow of a sampling boat just before she stood still by scooping surface water using a polyethylene bucket.

Immediately after the collection, the samples were acidified to a pH lower than 3 by adding concentrated hydrochloric acid in a ratio of 1mℓ to 1ℓ of sea water, and then stored in 20ℓ polyethylene containers. The sampling equipments as well as containers were thoroughly rinsed with dilute hydrochloric acid and then with distilled water before use. Two hundred milliliters of sea water was also collected at the same stations for the determination of chlorinity.

(6) Sea sediments

Sediment was collected in the same area as that for the sea water sample, taking the following criteria into account:

a. The depth of water exceeds 1m at low tide.
b. No significant sedimental movement is observed in the vicinity of concern.
c. Mud, silt and fine sand are preferable.

A conventional sediment sampling device was used for collecting the top few centimeters of surface sediment. Approximately 4kg of the sample in wet weight was spread on a stainless steel dish after removed of the pebbles, shells and other foreign materials, and dried in a drying oven regulated at 105°C.

(7) Total diet

A full one day ordinary diet including three meals, water, tea and other in-between snacks for five persons was collected as a sample of "total diet".

The sample in a large stainless steel pan was carbonized carefully by direct application of gas flame, and was transferred to a porcelain dish and then ashed at 450°C in an electric muffle furnace.

(8) Rice

Polished rice was collected in producing districts at the harvest and in consuming areas when new crops were first put on sale. The sample was carbonized and ashed in a porcelain dish.

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* Samples were sent to the Center from 46 contracted prefectures.

(9) Milk

Raw milk was collected in producing districts and commercial milk was purchased in consuming districts. Milk in a stainless steel pan or a porcelain dish was evaporated to dryness followed by carbonization and ashing.

(10) Vegetables

Spinach and Japanese radish were selected as the representatives for left vegetables and for nonstarch roots, respectively. After removing soil, the edible part of vegetable sample was dried and carbonized in a stainless steel pan or a porcelain dish.

(11) Tea

Five hundred grams of manufactured green tea was collected, carbonized and ashed in a stainless steel pan or a porcelain dish.

(12) Fish, shellfish and seaweeds

a. Sea fish and freshwater fish

Fish was rinsed with water and blotted with a filter paper. Only the edible part was used in case of larger sized fish, and the whole part was used in case of smaller ones. Each sample was weighed and placed in a stainless steel pan or a porcelain dish. After carbonized, the sample was ashed in an electric muffle furnace.

b. Shellfish

Approximately 4kg of shellfish including the shells was collected or purchased. After removing the shells, it was treated in the same way as that for the sea fish.

c. Seaweeds

Edible seaweeds were collected and rinsed with water to remove sand and other adhering matters on the surface. These were removed of excess water, weighed dried and ashed.

Table 1 shows details of sample collection.

Table 1 Details of sample collection

Sample	Frequency of sampling	Quantity of sample
=Environmental materials=		
(1) Rain and dry fallout		
1. For domestic program	monthly	
2. For WHO program	monthly	
(2) Airborne dust	quarterly	>3000 m^3/month
(3) Service water and freshwater		
1. Service water (source water)	semiyearly	100 ℓ
2. Service water (tap water)	semiyearly	100 ℓ
3. Freshwater	yearly (fishing season)	100 ℓ
(4) Soil		
1. 0～ 5 cm	yearly	4 kg
2. 5～ 20cm	yearly	4 kg
(5) Sea water	yearly	40 ℓ
(6) Sea sediments	yearly	4 kg
=Dietary materials=		
(7) Total diet	semiyearly	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 for WHO program	quarterly (February, May, August and November)	3 ℓ
2. Producing districts for domestic program	semiyearly (February and August)	3 ℓ

Sample	Frequency of sampling	Quantity of sample
3. Consuming districts	semiyearly (February and August)	3 ℓ
4. Powdered milk	semiyearly (April and October)	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)	500g (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 kg
4. Seaweeds	yearly (fishing season)	2～ 3 kg

2. Preparation of samples for analysis

(1) Rain, service water and freshwater

Strontium and cesium were eluted with hydrochloric acid from the cation exchange column. The residue of rain sample on the filter paper was ashed in an electric muffle furnace and the ash was dissolved in hydrochloric acid. The insoluble part was filtered and washed. The filtrate and the washings were combined to the previous eluate and used for radiochemical analysis.

(2) Soil and Sea sediment

Dried soil was crushed to smaller ones than 0.25mm in size by a crusher. The sieved sample was ashed in an electric muffle furnace regulated at 450 ℃. The sample was then heated with hydrochloric acid, strontium and cesium carrier solutions and the mixture was heated. The insoluble constituent was filtered off and washed with water.

The dried sample was crushed to smaller ones than 0.25mm by a crushing machine. The further preparation of the sample was the same as that described in the section 2-(2).

(3) Rice

The ashed sample was pulverized with a porcelain mortar and passed through a 0.35mm sieve. The sieved sample to which both strontium and cesium carriers were added, was digested with nitric acid by heating. After the sample was heated again with nitric acid to dryness, strontium and cesium were extracted with hydrochloric acid and water. The insoluble constituent was filtered and washed. The filtrate and washings were combined for subsequent radiochemical analysis.

(4) Airborne dust, diet, milk, vegetables, fish and shellfish, seaweeds, tea and others

These ashed samples were treated with the same procedure as that described in the section 2-(4).

3. Separation of strontium-90 and cesium-137

(1) Strontium-90

Sample solutions, prepared as in the foregoing sections 2-(1) through 2-(4), were neutralized with sodium hydroxide. After sodium carbonate was added, the precipitate of strontium and calcium carbonates was separated. The supernatant solution was retained for cesium-137 determination.

The carbonates were dissolved in hydrochloric acid and strontium and calcium were precipitated as oxalates. The precipitate was dissolved in nitric acid and strontium was separated from calcium by successive fuming nitric acid separation. Iron scavenge was made after addition of ferric iron carrier followed by barium chromate separation after addition of barium carrier to remove radium, its daughters and lead. Strontium was recovered as carbonate, and the precipitate was dried and weighed to determine strontium recovery. The strontium carbonate was dissolved in hydrochloric acid and iron carrier was added. The solution was allowed to stand for two weeks for strontium-90 and yttrium-90 to attain equilibrium. Yttrium-90 was coprecipitated with ferric hydroxide and the precipitate was filtered off, washed and counted.

(2) Cesium-137

The supernatant separated from the strontium fraction was acidified with hydrochloric acid. While stirring, cesium was adsorbed on the ammonium molybdophosphate added.

After filtered off and washed with hydrochloric acid the precipitate was dissolved in 2.5N sodium hydroxide solution. The solution was adjusted to pH 8.2 with hydrochloric acid and allowed to cool.

Resultant molybdenum hydroxide which separated

out in the solution, was filtered off and washed with water. EDTA was added to the filtrate and washings. Cesium and rubidium were adsorbed on a cation exchange column and cesium was separated from rubidium by eluting with hydrochloric acid.

The eluate was evaporated to dryness and was dissolved. The solution was filtered.
Chloroplatinic acid was added to precipitate cesium. The precipitate was filtered onto a tared paper using a demountable filter and washed with water and then ethanol. After drying, the chemical yield of cesium was determined by weighing the precipitate. Cesium-137 radioactivity was measured for this precipitate.

4. Determination of stable strontium, calcium and potassium

A weighed amount of soil or sea sediment was heated in a electric muffle furnace at 450°C and then treated with hydrochloric acid for extraction.
A weighed aliquot of ashed samples of total diet, vegetables, milk, fish, shellfish or seaweeds was digested with hydrofluoric acid and nitric acid.
The extract was made up to an appropriate volume with dilute hydrochloric acid. The sample solution was analyzed for calcium by titration with standard potassium permanganate solution after separating calcium as oxalate. Atomic absorption spectroscopy was applied when appropriate. Stable strontium and potassium were determined by atomic absorption and flame emission spectrometry, respectively.

5. Counting

After the radiochemical separation the mounted precipitates were counted for activity using low background beta counters normally for 60 to 90min. Net sample counting rates were corrected for counter efficiency, recovery, self-absorption and decay to obtain the content of strontium-90 and cesium-137per sample aliquot. From the results, concentrations of these nuclides in the original samples were calculated.

6. Results

(1) Strontium-90 and Cesium-137 in Total Diet

(form Oct. 1999 to Mar. 2000)

-continued from No. 131 for this publication-

Table (1) : Strontium-90 and Cesium-137 in Total Diet

Location	Ash	Ca	K	90Sr		137Cs	
	(g/p/d)	(mg/p/d)	(mg/p/d)	(Bq/p/d)	(Bq/g Ca)	(Bq/p/d)	(Bq/g K)
Oct, 1999							
Kochi, KOCHI	14.2	426	1690	0.019 ± 0.0076	0.044 ± 0.018	0.03 ± 0.0068	0.018 ± 0.004
Saga-machi, KOCHI	12.1	363	1600	0.031 ± 0.0087	0.086 ± 0.024	0.01 ± 0.0053	0.0065 ± 0.0033
Oita, OITA	12.9	465	2000	0.037 ± 0.008	0.08 ± 0.017	0.04 ± 0.0071	0.02 ± 0.0036
Saeki, OITA	13.6	303	1190	0.041 ± 0.0084	0.14 ± 0.028	0.012 ± 0.0051	0.011 ± 0.0043
Nov, 1999							
Iwaizumi-machi, IWATE	15.4	501	2160	0.073 ± 0.011	0.15 ± 0.023	0.069 ± 0.0083	0.032 ± 0.0039
Ishinomaki, MIYAGI	18.9	1070	2150	0.083 ± 0.012	0.077 ± 0.011	0.055 ± 0.0093	0.026 ± 0.0043
Onagawa-machi, MIYAGI	19.2	1120	2150	0.075 ± 0.012	0.067 ± 0.01	0.04 ± 0.0086	0.019 ± 0.004
Yamagata, YAMAGATA	15.6	500	1700	0.083 ± 0.012	0.17 ± 0.024	0.069 ± 0.0084	0.041 ± 0.005
Sagae, YAMAGATA	14.3	669	1040	0.044 ± 0.0094	0.066 ± 0.014	0.022 ± 0.0058	0.021 ± 0.0056
Fukushima, FUKUSHIMA	14.1	404	1700	0.054 ± 0.01	0.13 ± 0.025	0.042 ± 0.0069	0.025 ± 0.0041
Okuma-machi, FUKUSHIMA	13.8	664	1730	0.062 ± 0.011	0.094 ± 0.016	0.098 ± 0.0097	0.057 ± 0.0056
Utsunomiya, TOCHIGI	12.4	382	1620	0.051 ± 0.01	0.13 ± 0.027	0.022 ± 0.0058	0.014 ± 0.0036
minamikawachi-machi, TOCHIGI	16.6	548	2250	0.068 ± 0.011	0.12 ± 0.021	0.045 ± 0.0074	0.02 ± 0.0033
Urawa, SAITAMA	19.1	695	2570	0.068 ± 0.01	0.097 ± 0.015	0.041 ± 0.0073	0.016 ± 0.0028
Kumagaya, SAITAMA	13.2	371	1790	0.032 ± 0.0078	0.087 ± 0.021	0.0098 ± 0.005	0.0055 ± 0.0028
Chiba, CHIBA	16.4	643	2340	0.054 ± 0.01	0.084 ± 0.016	0.02 ± 0.0074	0.0087 ± 0.0032
Chikura-machi, CHIBA	17.8	684	2580	0.049 ± 0.01	0.072 ± 0.015	0.022 ± 0.0076	0.0087 ± 0.003
Toyama, TOYAMA	13.5	341	2230	0.026 ± 0.0099	0.077 ± 0.029	0.039 ± 0.0065	0.018 ± 0.0029
Shinminato, TOYAMA	11.9	359	1780	0.038 ± 0.012	0.11 ± 0.035	0.028 ± 0.0059	0.016 ± 0.0033
Nagano, NAGANO	17.6	688	2040	0.051 ± 0.0095	0.074 ± 0.014	0.022 ± 0.0055	0.011 ± 0.0027
Sanada-machi, NAGANO	15	634	1830	0.036 ± 0.0083	0.057 ± 0.013	0.025 ± 0.0058	0.014 ± 0.0032

Location	Ash	Ca	K	90Sr		137Cs	
	(g/p/d)	(mg/p/d)	(mg/p/d)	(Bq/p/d)	(Bq/g Ca)	(Bq/p/d)	(Bq/g K)
Shizuoka, SHIZUOKA	14.4	599	2020	0.056 ± 0.013	0.093 ± 0.021	0.045 ± 0.0068	0.023 ± 0.0034
Hamaoka-machi, SHIZUOKA	11.3	368	1570	0.026 ± 0.01	0.072 ± 0.028	0.033 ± 0.0065	0.021 ± 0.0041
Nagoya, AICHI	14.3	492	1260	0.046 ± 0.01	0.094 ± 0.02	0.028 ± 0.0064	0.022 ± 0.0051
Shinshiro, AICHI	12.2	288	1480	0.027 ± 0.0081	0.093 ± 0.028	0.031 ± 0.0064	0.021 ± 0.0044
Tsu, MIE	14.5	472	1800	0.044 ± 0.0093	0.093 ± 0.02	0.052 ± 0.0076	0.029 ± 0.0042
Otsu, SHIGA	13.4	506	2050	0.043 ± 0.012	0.086 ± 0.024	0.034 ± 0.0066	0.017 ± 0.0032
Imazu-machi, SHIGA	14.9	755	1730	0.061 ± 0.012	0.081 ± 0.016	0.026 ± 0.006	0.015 ± 0.0035
Kashihara, NARA	12.1	699	1630	0.036 ± 0.0085	0.052 ± 0.012	0.036 ± 0.0065	0.022 ± 0.004
Gojo, NARA	15.1	1150	1860	0.067 ± 0.011	0.058 ± 0.0096	0.013 ± 0.0056	0.0068 ± 0.003
Wakayama, WAKAYAMA	14	393	1660	0.028 ± 0.0084	0.071 ± 0.021	0.019 ± 0.0051	0.011 ± 0.0031
Shingu, WAKAYAMA	11.4	614	1430	0.067 ± 0.011	0.11 ± 0.017	0.018 ± 0.0051	0.013 ± 0.0036
Okayama, OKAYAMA	16.9	847	2140	0.042 ± 0.0091	0.049 ± 0.011	0.038 ± 0.0065	0.018 ± 0.0031
Kamisaibara-mura, OKAYA	13.6	394	1320	0.045 ± 0.0097	0.12 ± 0.025	0.063 ± 0.0079	0.048 ± 0.006
Kamiita-machi, TOKUSHIMA	16.3	424	2280	0.038 ± 0.0096	0.089 ± 0.023	0.051 ± 0.0073	0.022 ± 0.0032
Matsuyama, EHIME	11.1	573	1730	0.031 ± 0.0093	0.053 ± 0.016	0.0025 ± 0.0039	0.0014 ± 0.0022
Ikata-machi, EHIME	8.9	295	898	0.0037 ± 0.0068	0.012 ± 0.023	0.0094 ± 0.0044	0.01 ± 0.0049
Dazaifu, FUKUOKA	12.1	469	1800	0.051 ± 0.0094	0.11 ± 0.02	0.02 ± 0.0051	0.011 ± 0.0028
Fukuoka, FUKUOKA	13.9	400	1430	0.018 ± 0.0072	0.045 ± 0.018	0.016 ± 0.0048	0.011 ± 0.0033
Saga, SAGA	13.5	435	1740	0.029 ± 0.0076	0.068 ± 0.018	0.012 ± 0.0047	0.0067 ± 0.0027
Karatsu, SAGA	14.9	565	2070	0.028 ± 0.0078	0.05 ± 0.014	0.021 ± 0.0055	0.0099 ± 0.0026
Nagasaki, NAGASAKI	16.5	588	2040	0.028 ± 0.0084	0.048 ± 0.014	0.019 ± 0.0051	0.0094 ± 0.0025
Matsuura, NAGASAKI	9.9	424	1450	0.04 ± 0.0092	0.095 ± 0.022	0.01 ± 0.0051	0.0072 ± 0.0035
Sendai, KAGOSHIMA	15.5	355	1760	0.044 ± 0.0099	0.12 ± 0.028	0.014 ± 0.0053	0.0081 ± 0.003
Okuchi, KAGOSHIMA	17.3	835	1940	0.059 ± 0.01	0.071 ± 0.013	0.033 ± 0.0066	0.017 ± 0.0034
Dec, 1999							
Sapporo, HOKKAIDO	14.5	608	2120	0.037 ± 0.0088	0.061 ± 0.014	0.064 ± 0.008	0.03 ± 0.0038
Iwanai-machi, HOKKAIDO	13.7	447	1930	0.06 ± 0.0099	0.13 ± 0.022	0.033 ± 0.0067	0.017 ± 0.0034
Aomori, AOMORI	22.1	776	2410	0.057 ± 0.011	0.073 ± 0.014	0.047 ± 0.0087	0.019 ± 0.0036

Location	Ash	Ca	K	90Sr		137Cs	
	(g/p/d)	(mg/p/d)	(mg/p/d)	(Bq/p/d)	(Bq/g Ca)	(Bq/p/d)	(Bq/g K)
Ajigasawa-machi, AOMORI	15.2	507	1560	0.044 ± 0.0094	0.087 ± 0.019	0.025 ± 0.0076	0.016 ± 0.0049
Morioka, IWATE	15.7	374	2000	0.046 ± 0.012	0.12 ± 0.031	0.036 ± 0.0064	0.018 ± 0.0032
Akita, AKITA	13.6	400	1810	0.04 ± 0.0091	0.099 ± 0.023	0.044 ± 0.0068	0.024 ± 0.0038
Yokote, AKITA	16.6	564	2070	0.05 ± 0.009	0.088 ± 0.016	0.059 ± 0.0075	0.029 ± 0.0036
Mito, IBARAKI	20	905	2670	0.097 ± 0.011	0.11 ± 0.013	0.04 ± 0.0065	0.015 ± 0.0024
Tokai-mura, IBARAKI	19.5	600	2180	0.064 ± 0.0099	0.11 ± 0.016	0.021 ± 0.0051	0.0096 ± 0.0024
Maebashi, GUNMA	19.4	720	2460	0.067 ± 0.011	0.094 ± 0.016	0.078 ± 0.0088	0.032 ± 0.0036
Nakanojo-machi, GUNMA	17.4	555	2420	0.1 ± 0.013	0.18 ± 0.024	0.04 ± 0.007	0.017 ± 0.0029
Shinjuku, TOKYO	10.9	443	1540	0.044 ± 0.01	0.098 ± 0.023	0.031 ± 0.0076	0.02 ± 0.0049
Hachijo-machi, TOKYO	17.9	742	1960	0.061 ± 0.011	0.082 ± 0.014	0.036 ± 0.0063	0.018 ± 0.0032
Yokohama, KANAGAWA	12.8	551	1480	0.043 ± 0.0084	0.079 ± 0.015	0.026 ± 0.0053	0.017 ± 0.0036
Hiratsuka, KANAGAWA	13.9	474	2030	0.052 ± 0.0093	0.11 ± 0.02	0.023 ± 0.0052	0.011 ± 0.0026
Nishikawa-machi, NIIGATA	24.8	808	2930	0.073 ± 0.011	0.09 ± 0.013	0.068 ± 0.0082	0.023 ± 0.0028
Kashiwazaki, NIIGATA	22.2	928	2110	0.091 ± 0.011	0.098 ± 0.012	0.045 ± 0.0068	0.021 ± 0.0032
Kanazawa, ISHIKAWA	15.3	525	1570	0.036 ± 0.0079	0.069 ± 0.015	0.042 ± 0.007	0.026 ± 0.0044
Torigoe-mura, ISHIKAWA	18.5	816	2370	0.048 ± 0.0091	0.059 ± 0.011	0.058 ± 0.0083	0.025 ± 0.0035
Fukui, FUKUI	18.7	1180	2160	0.09 ± 0.012	0.077 ± 0.01	0.038 ± 0.0065	0.017 ± 0.003
Tsuruga, FUKUI	21.2	1140	2290	0.067 ± 0.012	0.058 ± 0.011	0.044 ± 0.007	0.019 ± 0.0031
Kofu, YAMANASHI	14.9	387	1940	0.028 ± 0.0077	0.073 ± 0.02	0.013 ± 0.0049	0.0065 ± 0.0025
fuziyosida-shi, YAMANASHI	15.6	639	1990	0.05 ± 0.0093	0.078 ± 0.015	0.029 ± 0.0061	0.015 ± 0.0031
Gifu, GIFU	13.3	522	1730	0.079 ± 0.011	0.15 ± 0.022	0.038 ± 0.0068	0.022 ± 0.004
Takayama, GIFU	9.1	232	1110	0.029 ± 0.0092	0.12 ± 0.04	0.017 ± 0.0054	0.016 ± 0.0048
Owase, MIE	14.3	359	1480	0.061 ± 0.011	0.17 ± 0.031	0.019 ± 0.0061	0.013 ± 0.0042
Kyoto, KYOTO	14.6	591	1780	0.023 ± 0.0081	0.04 ± 0.014	0.0083 ± 0.0045	0.0046 ± 0.0025
Maizuru, KYOTO	12	567	1940	0.058 ± 0.01	0.1 ± 0.018	0.013 ± 0.0052	0.0066 ± 0.0027
Osaka, OSAKA	16.5	628	2080	0.043 ± 0.0095	0.069 ± 0.015	0.031 ± 0.0062	0.015 ± 0.003
Izumiotsu, OSAKA	13.3	447	1630	0.049 ± 0.01	0.11 ± 0.023	0.033 ± 0.0062	0.02 ± 0.0038
Kakogawa, HYOGO	12.2	536	1440	0.045 ± 0.0093	0.083 ± 0.017	0.022 ± 0.0057	0.015 ± 0.0039

Location	Ash	Ca	K	90Sr		137Cs	
	(g/p/d)	(mg/p/d)	(mg/p/d)	(Bq/p/d)	(Bq/g Ca)	(Bq/p/d)	(Bq/g K)
Hamasaka-machi, HYOGO	13.2	602	1090	0.056 ± 0.01	0.094 ± 0.017	0.013 ± 0.005	0.012 ± 0.0045
Matsue, SHIMANE	18.8	906	2460	0.073 ± 0.013	0.081 ± 0.015	0.031 ± 0.0065	0.012 ± 0.0026
Kashima-machi, SHIMANE	16.4	891	2660	0.062 ± 0.012	0.07 ± 0.013	0.04 ± 0.0075	0.015 ± 0.0028
Hiroshima, HIROSHIMA	10.9	453	1630	0.037 ± 0.0088	0.083 ± 0.019	0.032 ± 0.0065	0.02 ± 0.004
Miyoshi, HIROSHIMA	9	286	1130	0.028 ± 0.0078	0.097 ± 0.027	0.011 ± 0.0045	0.0095 ± 0.004
Yamaguchi, YAMAGUCHI	12.4	388	1560	0.039 ± 0.0088	0.1 ± 0.023	0.047 ± 0.0071	0.03 ± 0.0045
Mine, YAMAGUCHI	14.4	494	1900	0.042 ± 0.0092	0.085 ± 0.019	0.038 ± 0.0068	0.02 ± 0.0036
Tokushima, TOKUSHIMA	15.1	571	1830	0.068 ± 0.011	0.12 ± 0.02	0.028 ± 0.0059	0.015 ± 0.0032
Takamatsu, KAGAWA	14.2	438	1610	0.061 ± 0.01	0.14 ± 0.024	0.0075 ± 0.0041	0.0046 ± 0.0025
Marugame, KAGAWA	13.6	411	1810	0.029 ± 0.0083	0.07 ± 0.02	0.017 ± 0.0049	0.0094 ± 0.0027
Kumamoto, KUMAMOTO	14.2	583	2120	0.035 ± 0.0094	0.06 ± 0.016	0.034 ± 0.0062	0.016 ± 0.0029
Tomiai-machi, KUMAMOTO	16.3	603	1930	0.041 ± 0.0097	0.068 ± 0.016	0.013 ± 0.0047	0.0069 ± 0.0025
Miyazaki, MIYAZAKI	12.3	424	1710	0.049 ± 0.0097	0.11 ± 0.023	0.037 ± 0.0062	0.022 ± 0.0036
Takachiho-machi, MIYAZAKI	18.4	833	2440	0.063 ± 0.011	0.076 ± 0.013	0.047 ± 0.007	0.019 ± 0.0029
Feb, 2000							
Naha, OKINAWA	16.4	704	2170	0.033 ± 0.0096	0.047 ± 0.014	0.033 ± 0.006	0.015 ± 0.0028
Itoman, OKINAWA	16.4	422	2230	0.035 ± 0.01	0.083 ± 0.024	0.049 ± 0.0069	0.022 ± 0.0031

(2)-1 Strontium-90 and Cesium-137 in Rice(producing districts)
(form Oct.1999 to Mar.2000)

-continued from No. 131 for this publication-

Table (2)-1 : Strontium-90 and Cesium-137 in Rice(producing districts)

Location	Component			90Sr		137Cs	
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/gK)
Oct, 1999							
Mito, IBARAKI	0.53	0.039	0.822	0.018 ± 0.0075	0.45 ± 0.19	0.048 ± 0.0073	0.058 ± 0.0089
Maki-machi, NIIGATA	0.529	0.028	0.667	0.0086 ± 0.0066	0.31 ± 0.24	0.0026 ± 0.0043	0.0038 ± 0.0064
Uchinada-machi, ISHIKAWA	0.455	0.03	0.723	0.015 ± 0.0062	0.49 ± 0.21	0.0057 ± 0.0036	0.0079 ± 0.005
Shiga-machi, SHIGA	0.622	0.05	1.09	0.006 ± 0.0065	0.12 ± 0.13	0.021 ± 0.0056	0.02 ± 0.0051
Kashihara, NARA	0.606	0.038	0.909	0 ± 0.0048	0 ± 0.13	0 ± 0.004	0 ± 0.0044
Yamaguchi, YAMAGUCHI	0.537	0.045	0.768	0.0021 ± 0.0063	0.05 ± 0.14	0.014 ± 0.0052	0.019 ± 0.0068
Miki-machi, KAGAWA	0.476	0.025	0.8	0.0042 ± 0.0056	0.17 ± 0.22	0 ± 0.0033	0 ± 0.0042
Koshi-machi, KUMAMOTO	0.655	0.029	0.989	0 ± 0.0049	0 ± 0.17	0 ± 0.0035	0 ± 0.0035
Usa, OITA	0.57	0.03	0.775	0.0095 ± 0.0065	0.31 ± 0.21	0 ± 0.034	0 ± 0.0043
Nov, 1999							
Ishikari-machi, HOKKAIDO	0.653	0.03	0.836	0.015 ± 0.0069	0.49 ± 0.23	0 ± 0.0032	0 ± 0.0038
Takizawa-mura, IWATE	0.661	0.037	0.859	0 ± 0.0047	0 ± 0.13	0.077 ± 0.0085	0.09 ± 0.0099
Ishinomaki, MIYAGI	0.647	0.046	0.971	0.017 ± 0.0085	0.36 ± 0.18	0.0044 ± 0.0044	0.0045 ± 0.0045
Fukushima, FUKUSHIMA	0.67	0.039	1.07	0.0022 ± 0.0062	0.05 ± 0.16	0.034 ± 0.0062	0.032 ± 0.0058
Maebashi, GUNMA	0.547	0.038	0.684	0.0066 ± 0.0047	0.17 ± 0.12	0.0046 ± 0.0054	0.0067 ± 0.0079
Kosugi-machi, TOYAMA	0.461	0.034	0.821	0.003 ± 0.0041	0.09 ± 0.12	0.0099 ± 0.0057	0.012 ± 0.007
Toyosina-machi, NAGANO	0.394	0.034	0.816	0.0007 ± 0.0053	0.02 ± 0.16	0 ± 0.0056	0 ± 0.0069
Dec, 1999							
Utsunomiya, TOCHIGI	0.552	0.036	0.624	0.0019 ± 0.005	0.05 ± 0.14	0.018 ± 0.0052	0.029 ± 0.0083
Takane-machi, YAMANASHI	0.641	0.034	0.955	0.0066 ± 0.0071	0.19 ± 0.21	0.0039 ± 0.0044	0.0041 ± 0.0047
Kasai, HYOGO	0.601	0.045	0.769	0.011 ± 0.0068	0.25 ± 0.15	0 ± 0.0035	0 ± 0.0045
Chikushino, FUKUOKA	0.523	0.037	0.769	0.0017 ± 0.0046	0.05 ± 0.12	0.054 ± 0.0083	0.071 ± 0.011

Location	Component			90Sr		137Cs	
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/gK)
Jan, 2000							
Ishii-machi, TOKUSHIMA	0.452	0.04	0.819	0.0006 ± 0.0047	0.01 ± 0.12	0 ± 0.0055	0 ± 0.0068
Mar, 2000							
Kanzaki-machi, SAGA	0.52	0.033	0.915	0 ± 0.0036	0 ± 0.11	0.0069 ± 0.0057	0.0076 ± 0.0062

(2)-2 Strontium-90 and Cesium-137 in Rice(consuming districts)
(form Oct.1999 to Mar.2000)

-continued from No. 131 for this publication-

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

Location	Component			90Sr		137Cs	
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/gK)
Oct,1999							
Akita,AKITA	0.417	0.037	0.663	0.013 ± 0.0075	0.34 ± 0.2	0.036 ± 0.0065	0.054 ± 0.0098
Shinjuku,TOKYO	0.456	0.036	0.848	0 ± 0.0046	0 ± 0.13	0.019 ± 0.0069	0.022 ± 0.0082
Niigata,NIIGATA	0.583	0.037	0.6	0.0031 ± 0.0057	0.08 ± 0.15	0.01 ± 0.0047	0.017 ± 0.0078
Fukui,FUKUI	0.503	0.046	0.855	0.0097 ± 0.0063	0.21 ± 0.14	0.0024 ± 0.0036	0.0028 ± 0.0042
Kyoto,KYOTO	0.459	0.034	0.734	0.0006 ± 0.0048	0.02 ± 0.14	0.01 ± 0.0065	0.014 ± 0.0089
Hiroshima,HIROSHIMA	0.49	0.043	0.632	0.0094 ± 0.0064	0.22 ± 0.15	0.0099 ± 0.0045	0.016 ± 0.0071
Matsuyama,EHIME	0.48	0.04	0.581	0 ± 0.0055	0 ± 0.14	0.0034 ± 0.0039	0.0059 ± 0.0068
Nov,1999							
Sapporo,HOKKAIDO	0.616	0.036	0.949	0.011 ± 0.0072	0.3 ± 0.2	0.0035 ± 0.0042	0.0037 ± 0.0044
Yamagata,YAMAGATA	0.522	0.041	0.736	0.015 ± 0.0065	0.38 ± 0.16	0.0094 ± 0.0049	0.013 ± 0.0067
Urawa,SAITAMA	0.53	0.039	0.79	0.0049 ± 0.0064	0.13 ± 0.16	0.049 ± 0.0073	0.062 ± 0.0092
Yokohama,KANAGAWA	0.429	0.036	0.665	0.0036 ± 0.0064	0.1 ± 0.18	0.0076 ± 0.0043	0.011 ± 0.0064
Shizuoka,SHIZUOKA	0.435	0.037	0.757	0.0085 ± 0.0053	0.23 ± 0.14	0.0054 ± 0.0055	0.0072 ± 0.0073
Osaka,OSAKA	0.478	0.061	0.707	0.011 ± 0.0055	0.18 ± 0.09	0 ± 0.0037	0 ± 0.0052
Kobe,HYOGO	0.518	0.033	0.767	0 ± 0.0055	0 ± 0.17	0.0038 ± 0.0043	0.0049 ± 0.0056
Kagoshima,KAGOSHIMA	0.484	0.038	0.731	0 ± 0.0073	0 ± 0.19	0.18 ± 0.012	0.25 ± 0.017
Yonagusuku-machi,OKINAWA	0.444	0.039	0.835	0 ± 0.005	0 ± 0.13	0.028 ± 0.0055	0.034 ± 0.0066
Dec,1999							
Nagoya,AICHI	0.502	0.044	0.728	0.0052 ± 0.005	0.12 ± 0.11	0 ± 0.0038	0 ± 0.0052
Tottori,TOTTORI	0.42	0.033	0.752	0.0016 ± 0.0045	0.05 ± 0.14	0.016 ± 0.0061	0.022 ± 0.0081
Matsue,SHIMANE	0.431	0.039	0.746	0.01 ± 0.0051	0.27 ± 0.13	0.063 ± 0.0075	0.085 ± 0.01
Seto-machi,OKAYAMA	0.434	0.038	0.812	0.0056 ± 0.0054	0.15 ± 0.14	0 ± 0.0035	0 ± 0.0043

Location	Component			90Sr		137Cs	
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/gK)
Kasuga, FUKUOKA Jan, 2000	0.434	0.035	0.842	0 ± 0.0041	0 ± 0.12	0.0019 ± 0.0054	0.0022 ± 0.0064
Hirosaki, AOMORI	0.377	0.038	0.795	0 ± 0.005	0 ± 0.13	0.0056 ± 0.0065	0.007 ± 0.0082
Kochi, KOCHI	0.482	0.039	0.766	0.01 ± 0.0051	0.26 ± 0.13	0.05 ± 0.0082	0.066 ± 0.011
Nagasaki, NAGASAKI	0.489	0.038	0.611	0.0093 ± 0.0052	0.25 ± 0.14	0.0089 ± 0.0059	0.014 ± 0.0097

(3)-1 Strontium-90 and Cesium-137 in Milk(producing districts for domestic proguram)
(form Oct. 1999 to Mar. 2000)

-continued from No. 131 for this publication-

Table (3)-1 : Strontium-90 and Cesium-137 in Milk(producing districts for domestic proguram)

Location	Component			90Sr		137Cs	
	Ash(%)	Ca(g/kg)	K(g/kg)	(Bq/kgwet)	(Bq/g Ca)	(Bq/kgwet)	(Bq/g K)
Oct, 1999							
Kamiita-machi, TOKUSHIMA	0.75	1.21	1.54	0.017 ± 0.0077	0.014 ± 0.0064	0.0036 ± 0.0058	0.0023 ± 0.0037
Nov, 1999							
Fujimi-mura, GUNMA	0.74	1.21	1.5	0.028 ± 0.0075	0.023 ± 0.0062	0.012 ± 0.0045	0.008 ± 0.003
Yamato-machi, SAGA	0.75	1.09	1.53	0.021 ± 0.0062	0.019 ± 0.0057	0.0032 ± 0.0032	0.0021 ± 0.0021
Feb, 2000							
Aomori, AOMORI	0.73	1.12	1.57	0.039 ± 0.0094	0.035 ± 0.0084	0.04 ± 0.0085	0.026 ± 0.0054
Takizawa-mura, IWATE	0.73	1.16	1.51	0.041 ± 0.0086	0.035 ± 0.0074	0.059 ± 0.0095	0.039 ± 0.0063
Mito, IBARAKI	0.74	1.16	1.37	0.0014 ± 0.0067	0.0012 ± 0.0058	0.014 ± 0.0047	0.01 ± 0.0035
Nishinasuno-machi, TOCHIGI	0.76	1.2	1.69	0.023 ± 0.0068	0.019 ± 0.0056	0.032 ± 0.0077	0.019 ± 0.0046
Fujimi-mura, GUNMA	0.73	1.09	1.48	0.038 ± 0.0085	0.035 ± 0.0078	0.016 ± 0.0049	0.011 ± 0.0033
Yachimata, CHIBA	0.75	1.11	1.58	0.036 ± 0.0078	0.032 ± 0.007	0.01 ± 0.0062	0.0065 ± 0.0039
Tonami, TOYAMA	0.73	1.08	1.46	0.027 ± 0.0072	0.025 ± 0.0067	0.031 ± 0.0062	0.022 ± 0.0042
Oshimizu-machi, ISHIKAWA	0.74	1.23	1.43	0.026 ± 0.0074	0.021 ± 0.006	0.014 ± 0.0048	0.0095 ± 0.0033
Kasamatsu-machi, GIFU	0.64	0.99	1.15	0.03 ± 0.0076	0.03 ± 0.0076	0.0033 ± 0.0037	0.0029 ± 0.0032
Ouchiyama-mura, MIE	0.74	1.13	1.44	0.035 ± 0.0081	0.031 ± 0.0072	0.0016 ± 0.0033	0.0011 ± 0.0023
Hino-machi, SHIGA	0.75	1.16	1.5	0.024 ± 0.0068	0.02 ± 0.0058	0.01 ± 0.004	0.0068 ± 0.0026
Mihara-machi, HYOGO	0.73	1.13	1.44	0.0043 ± 0.007	0.0038 ± 0.0061	0.0079 ± 0.0044	0.0055 ± 0.0031
Ouda-machi, NARA	0.74	1.56	1.98	0.012 ± 0.0068	0.008 ± 0.0043	0 ± 0.0051	0 ± 0.0026
Kamiita-machi, TOKUSHIMA	0.72	1.4	1.41	0.011 ± 0.0067	0.008 ± 0.0048	0.019 ± 0.0066	0.013 ± 0.0046
Takase-machi, KAGAWA	0.72	1.12	1.48	0.028 ± 0.0079	0.025 ± 0.0071	0.015 ± 0.0064	0.0099 ± 0.0044
kawauchi-machi, EHIME	0.7	1.15	1.38	0.019 ± 0.0075	0.017 ± 0.0065	0.0055 ± 0.0055	0.0039 ± 0.0039

Location	Component			90Sr				137Cs			
	Ash(%)	Ca(g/kg)	K(g/kg)	(Bq/kgwet)		(Bq/g Ca)		(Bq/kgwet)		(Bq/g K)	
Koshi-machi, KUMAMOTO	0.73	1.13	1.57	0.034	± 0.01	0.03	± 0.0089	0.0083	± 0.0066	0.0053	± 0.0042
Kuju-machi, OITA	0.75	1.11	1.6	0.02	± 0.0069	0.018	± 0.0062	0.026	± 0.0068	0.016	± 0.0042
Takahara-machi, MIYAZAKI	0.72	1.12	1.51	0.03	± 0.0078	0.027	± 0.0069	0.033	± 0.006	0.022	± 0.004
Mar, 2000											
Takane-machi, YAMANASHI	0.73	1.14	1.46	0.029	± 0.0077	0.026	± 0.0068	0.011	± 0.005	0.0072	± 0.0035

(3)-2 Strontium-90 and Cesium-137 in Milk(producing districts for WHO proguram)
(form Oct.1999 to Mar.2000)

-continued from No. 131 for this publication-

Table (3)-2 : Strontium-90 and Cesium-137 in Milk(producing districts for WHO proguram)

Location	Component			90Sr				137Cs			
	Ash(%)	Ca(g/kg)	K(g/kg)	(Bq/kgwet)		(Bq/g Ca)		(Bq/kgwet)		(Bq/g K)	
Nov, 1999											
Hokudainojo, HOKKAIDO	0.72	1.21	1.5	0.043	± 0.0096	0.035	± 0.0079	0.028	± 0.0061	0.018	± 0.0041
Hachijo-machi, TOKYO	0.74	1.09	1.43	0.04	± 0.008	0.036	± 0.0074	0.014	± 0.0067	0.0099	± 0.0047
Iwamuro-mura, NIIGATA	0.77	1.15	1.5	0.022	± 0.0072	0.019	± 0.0063	0.016	± 0.0061	0.011	± 0.0041
Katsuyama, FUKUI	0.75	1.14	1.59	0.016	± 0.0063	0.014	± 0.0055	0.016	± 0.0052	0.01	± 0.0032
Shijonawate, OSAKA	0.73	1.16	1.29	0.02	± 0.0076	0.017	± 0.0065	0.012	± 0.006	0.009	± 0.0047
Matsue, SHIMANE	0.73	1.17	1.41	0.023	± 0.0072	0.02	± 0.0062	0.009	± 0.0051	0.0064	± 0.0036
Chiyoda-machi, HIROSHIMA	0.72	1.14	1.52	0.017	± 0.007	0.015	± 0.0061	0.017	± 0.0056	0.011	± 0.0037
Kochi, KOCHI	0.73	1.15	1.62	0.022	± 0.0081	0.019	± 0.007	0.0062	± 0.0046	0.0038	± 0.0028
Yasu-machi, FUKUOKA	0.73	1.14	1.51	0.019	± 0.0073	0.016	± 0.0064	0.011	± 0.0045	0.0075	± 0.003
Kajiki-machi, KAGOSHIMA	0.75	1.16	1.59	0.032	± 0.0077	0.028	± 0.0066	0.017	± 0.0053	0.011	± 0.0033
Jan, 2000											
Shijonawate, OSAKA	0.72	1.11	1.35	0.043	± 0.009	0.038	± 0.0081	0.0096	± 0.0062	0.0071	± 0.0046
Feb, 2000											
Hokudainojo, HOKKAIDO	0.71	1.17	1.44	0.039	± 0.0088	0.033	± 0.0075	0.04	± 0.0066	0.028	± 0.0046
Hachijo-machi, TOKYO	0.75	1.19	1.36	0.041	± 0.0081	0.034	± 0.0068	0.0034	± 0.0058	0.0025	± 0.0043
Iwamuro-mura, NIIGATA	0.76	1.17	1.39	0.02	± 0.0075	0.017	± 0.0064	0.0059	± 0.0047	0.0042	± 0.0034
Katsuyama, FUKUI	0.72	1.13	1.43	0.013	± 0.0063	0.012	± 0.0056	0.015	± 0.0051	0.011	± 0.0035
Matsue, SHIMANE	0.76	1.18	1.46	0.035	± 0.0082	0.03	± 0.007	0.0071	± 0.0038	0.0048	± 0.0026
Chiyoda-machi, HIROSHIMA	0.71	1.11	1.49	0.019	± 0.0068	0.017	± 0.0061	0	± 0.0061	0	± 0.0041
Kochi, KOCHI	0.73	1.13	1.4	0.048	± 0.01	0.042	± 0.0092	0.0055	± 0.0042	0.0039	± 0.003
Yasu-machi, FUKUOKA	0.72	1.14	1.45	0.011	± 0.0073	0.01	± 0.0064	0.0037	± 0.0062	0.0026	± 0.0043

Location	Component			90Sr				137Cs			
	Ash(%)	Ca(g/kg)	K(g/kg)	(Bq/kgwet)		(Bq/g Ca)		(Bq/kgwet)		(Bq/g K)	
Kajiki-machi, KAGOSHIMA	0.75	1.17	1.58	0.019	± 0.0068	0.016	± 0.0058	0.012	± 0.0063	0.0077	± 0.004

(3)-3 Strontium-90 and Cesium-137 in Milk(consuming districts)
(form Oct.1999 to Mar.2000)

-continued from No. 131 for this publication-

Table (3)-3 : Strontium-90 and Cesium-137 in Milk(consuming districts)

Location	Component			90Sr				137Cs			
	Ash(%)	Ca(g/kg)	K(g/kg)	(Bq/kgwet)		(Bq/g Ca)		(Bq/kgwet)		(Bq/g K)	
Oct, 1999											
Kyoto, KYOTO	0.71	1.11	1.41	0.034	± 0.0079	0.03	± 0.0071	0.012	± 0.0058	0.0082	± 0.0041
Dec, 1999											
Akita, AKITA	0.69	1.1	1.36	0.023	± 0.0077	0.021	± 0.007	0.019	± 0.0064	0.014	± 0.0047
Shingu, WAKAYAMA	0.65	0.99	1.32	0.033	± 0.0075	0.033	± 0.0076	0.0034	± 0.0035	0.0026	± 0.0026
Jan, 2000											
Nagano, NAGANO	0.7	1.09	1.47	0.019	± 0.0066	0.017	± 0.0061	0.0061	± 0.0045	0.0042	± 0.0031
Osaka, OSAKA	0.69	1.06	1.4	0.019	± 0.0068	0.018	± 0.0064	0.0074	± 0.0057	0.0053	± 0.0041
Feb, 2000											
Sapporo, HOKKAIDO	0.71	1.14	1.42	0.032	± 0.0088	0.028	± 0.0078	0.036	± 0.0064	0.025	± 0.0045
Yamagata, YAMAGATA	0.7	1.07	1.47	0.024	± 0.007	0.022	± 0.0065	0.012	± 0.0069	0.0085	± 0.0047
Fukushima, FUKUSHIMA	0.74	1.15	1.45	0.0039	± 0.0059	0.0034	± 0.0052	0.015	± 0.005	0.01	± 0.0035
Urawa, SAITAMA	0.74	1.13	1.48	0.023	± 0.0073	0.02	± 0.0065	0.018	± 0.0063	0.012	± 0.0042
Shinjuku, TOKYO	0.73	1.24	1.56	0.019	± 0.0069	0.015	± 0.0055	0.014	± 0.0072	0.009	± 0.0046
Yokohama, KANAGAWA	0.74	1.12	1.43	0.012	± 0.0071	0.011	± 0.0063	0.016	± 0.0052	0.011	± 0.0036
Niigata, NIIGATA	0.74	1.14	1.46	0.03	± 0.0074	0.026	± 0.0064	0.0063	± 0.004	0.0043	± 0.0027
Shizuoka, SHIZUOKA	0.7	1.08	1.43	0.028	± 0.008	0.026	± 0.0074	0.017	± 0.0052	0.012	± 0.0036
Nagoya, AICHI	0.7	1.08	1.44	0.024	± 0.0082	0.022	± 0.0075	0.0054	± 0.0043	0.0038	± 0.003
Yonago, TOTTORI	0.72	1.14	1.45	0.018	± 0.0063	0.015	± 0.0055	0.017	± 0.0051	0.012	± 0.0035
Matsue, SHIMANE	0.74	1.14	1.45	0.023	± 0.0076	0.02	± 0.0066	0.008	± 0.0042	0.0055	± 0.0029
Okayama, OKAYAMA	0.73	1.12	1.51	0.011	± 0.0061	0.01	± 0.0054	0.0097	± 0.0044	0.0064	± 0.003
Hiroshima, HIROSHIMA	0.72	1.12	1.52	0.03	± 0.0082	0.027	± 0.0073	0.014	± 0.0072	0.0094	± 0.0047

Location	Component			90Sr				137Cs			
	Ash(%)	Ca(g/kg)	K(g/kg)	(Bq/kgwet)		(Bq/g Ca)		(Bq/kgwet)		(Bq/g K)	
Yamaguchi, YAMAGUCHI	0.71	1.12	1.45	0.028	± 0.0078	0.025	± 0.0069	0.0026	± 0.0055	0.0018	± 0.0038
kawauchi-machi, EHIME	0.71	1.13	1.42	0.013	± 0.007	0.011	± 0.0062	0.0091	± 0.0058	0.0064	± 0.0041
Kochi, KOCHI	0.74	1.15	1.54	0.02	± 0.0074	0.017	± 0.0065	0.015	± 0.0067	0.0099	± 0.0043
Chikushino, FUKUOKA	0.72	1.13	1.41	0.015	± 0.008	0.013	± 0.0071	0.022	± 0.0075	0.015	± 0.0053
Nagasaki, NAGASAKI	0.7	1.1	1.33	0.027	± 0.0088	0.025	± 0.008	0.018	± 0.0054	0.013	± 0.004
Kagoshima, KAGOSHIMA	0.74	1.14	1.56	0.013	± 0.0071	0.012	± 0.0062	0.021	± 0.0073	0.013	± 0.0047
Yonagusuku-machi, OKINAWA	0.72	1.13	1.42	0.022	± 0.0075	0.02	± 0.0066	0.0053	± 0.0041	0.0037	± 0.0029
Mar, 2000											
Fukui, FUKUI	0.73	1.14	1.44	0.017	± 0.007	0.015	± 0.0061	0.015	± 0.0052	0.011	± 0.0036
Nagano, NAGANO	0.66	0.95	1.26	0.025	± 0.008	0.026	± 0.0083	0.0051	± 0.0039	0.004	± 0.0031

(3)-4 Strontium-90 and Cesium-137 in Milk(powdered milk)
(form Oct.1999 to Mar.2000)

-continued from No. 131 for this publication-

Table (3)-4 : Strontium-90 and Cesium-137 in Milk(powdered milk)

Location	Component			90Sr		137Cs	
	(%)	(g／kg)	(g／kg)	(Bq／kg)	(Bq／g Ca)	(Bq／Kg)	(Bq／g K)
Jan, 2000							
Sample C, サンプルC	7.74	12.5	15.8	0.57 ± 0.035	0.046 ± 0.0028	1.3 ± 0.04	0.085 ± 0.0026
Sample A, サンプルA	7.79	12.1	16.3	0.29 ± 0.026	0.024 ± 0.0022	0.24 ± 0.018	0.015 ± 0.0011
Sample B, サンプルB	2.5	3.48	5.85	0.027 ± 0.0073	0.0078 ± 0.0021	0.039 ± 0.0064	0.0067 ± 0.0011
Sample D, サンプルD	2.41	3.88	5.06	0.025 ± 0.0071	0.0064 ± 0.0018	0.028 ± 0.0058	0.0056 ± 0.0011
Sample F, サンプルF	2.34	3.35	5.27	0.04 ± 0.0085	0.012 ± 0.0026	0.14 ± 0.011	0.026 ± 0.0021
Sample E, サンプルE	2.49	4.21	5.25	0.094 ± 0.013	0.022 ± 0.0032	0.14 ± 0.011	0.026 ± 0.0021

(4)-1 Strontium-90 and Cesium-137 in Vegetables(producing districts)
(form Oct.1999 to Mar.2000)

-continued from No. 131 for this publication-

Table (4)-1 : Strontium-90 and Cesium-137 in Vegetables(producing districts)

Location	Component			90Sr		137Cs	
	Ash(%)	(g/kg)	(g/kg)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/kgK)
Oct, 1999							
Tamayama-mura, IWATE	0.608	0.289	2.47	0.093 ± 0.014	0.32 ± 0.047	0.014 ± 0.0058	0.0057 ± 0.0023
Saku, NAGANO	0.58	0.249	2.01	0.075 ± 0.012	0.3 ± 0.048	0.0032 ± 0.0065	0.0016 ± 0.0032
Takamatsu, KAGAWA	0.732	0.178	3.39	0.017 ± 0.0083	0.096 ± 0.047	0 ± 0.0039	0 ± 0.0012
Mutsu, AOMORI	0.536	0.36	2.1	0.23 ± 0.019	0.63 ± 0.053	0.037 ± 0.008	0.018 ± 0.0038
Tamayama-mura, IWATE	0.574	0.432	2.17	0.14 ± 0.015	0.34 ± 0.034	0.033 ± 0.0071	0.015 ± 0.0033
Toyama, TOYAMA	1.34	0.756	4.53	0.22 ± 0.018	0.29 ± 0.024	0.0058 ± 0.0065	0.0013 ± 0.0014
Saku, NAGANO	1.9	0.604	8.26	0.059 ± 0.011	0.097 ± 0.019	0.0081 ± 0.0066	0.00098 ± 0.0008
Takamatsu, KAGAWA	1.61	0.544	6.63	0.013 ± 0.0071	0.025 ± 0.013	0.0023 ± 0.006	0.00035 ± 0.0009
Nov, 1999							
Sannohe-machi, AOMORI	0.521	0.211	2.09	0.12 ± 0.016	0.59 ± 0.074	0.0017 ± 0.0063	0.0008 ± 0.003
Fukushima, FUKUSHIMA	0.583	0.277	2.08	0.049 ± 0.0087	0.18 ± 0.031	0.0026 ± 0.0048	0.0013 ± 0.0023
Mito, IBARAKI	0.562	0.265	2.21	0.071 ± 0.011	0.27 ± 0.041	0 ± 0.0053	0 ± 0.0024
Maebashi, GUNMA	0.483	0.265	1.76	0.031 ± 0.0077	0.12 ± 0.029	0.017 ± 0.0048	0.0099 ± 0.0027
Chiba, CHIBA	0.561	0.342	2.27	0.22 ± 0.017	0.65 ± 0.051	0.013 ± 0.0058	0.0056 ± 0.0026
Kosugi-machi, TOYAMA	0.375	0.175	1.21	0.013 ± 0.0068	0.076 ± 0.039	0 ± 0.0059	0 ± 0.0049
Fukui, FUKUI	0.481	0.202	1.89	0.056 ± 0.0097	0.28 ± 0.048	0.0057 ± 0.0052	0.003 ± 0.0027
Gifu, GIFU	0.601	0.136	1.06	0.024 ± 0.008	0.18 ± 0.059	0.023 ± 0.0056	0.022 ± 0.0053
Hamamatsu, SHIZUOKA	0.596	0.159	2.51	0.031 ± 0.0086	0.2 ± 0.054	0.0033 ± 0.0054	0.0013 ± 0.0022
Gotenba, SHIZUOKA	0.565	0.312	2.19	0.12 ± 0.017	0.39 ± 0.054	0.042 ± 0.0084	0.019 ± 0.0038
Meiwa-machi, MIE	0.725	0.229	3.16	0.046 ± 0.0095	0.2 ± 0.041	0.0053 ± 0.0051	0.0017 ± 0.0016
Adogawa-machi, SHIGA	0.465	0.162	1.81	0.15 ± 0.015	0.9 ± 0.095	0 ± 0.0046	0 ± 0.0026
Kashihara, NARA	0.589	0.229	2.44	0.028 ± 0.0084	0.12 ± 0.037	0 ± 0.0036	0 ± 0.0015

Location	Component			90Sr		137Cs	
	Ash(%)	(g/kg)	(g/kg)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/kgK)
Hiroshima, HIROSHIMA	0.484	0.16	1.94	0.005 ± 0.0052	0.031 ± 0.033	0.0012 ± 0.0039	0.0006 ± 0.002
Shime-machi, FUKUOKA	0.49	0.232	2.01	0.017 ± 0.0069	0.073 ± 0.03	0.0048 ± 0.0041	0.0024 ± 0.0021
Sannohe-machi, AOMORI	0.527	0.272	2.14	0.002 ± 0.0053	0.007 ± 0.02	0 ± 0.005	0 ± 0.0023
Fukushima, FUKUSHIMA	1.93	0.95	7.53	0.11 ± 0.013	0.12 ± 0.014	0.0093 ± 0.0062	0.0012 ± 0.00083
Mito, IBARAKI	1.39	0.875	5.47	0.11 ± 0.014	0.12 ± 0.016	0.022 ± 0.0072	0.004 ± 0.0013
Maebashi, GUNMA	1.8	0.597	7.56	0.039 ± 0.0085	0.066 ± 0.014	0.036 ± 0.0065	0.0048 ± 0.00085
Chiba, CHIBA	1.58	0.911	6.22	0.038 ± 0.0091	0.042 ± 0.01	0.0084 ± 0.0067	0.0014 ± 0.0011
Fukui, FUKUI	2.28	0.654	9.26	0.024 ± 0.008	0.036 ± 0.012	0.0089 ± 0.0065	0.00096 ± 0.0007
Gifu, GIFU	1.9	0.431	7.01	0.044 ± 0.0087	0.1 ± 0.02	0.012 ± 0.0049	0.0017 ± 0.00071
Gotenba, SHIZUOKA	1.63	0.929	5.93	0.2 ± 0.018	0.21 ± 0.02	0.2 ± 0.014	0.034 ± 0.0024
Kusu-machi, MIE	1.62	1.06	5.54	0.029 ± 0.009	0.027 ± 0.0085	0.013 ± 0.0061	0.0024 ± 0.0011
Kashihara, NARA	1.44	0.477	5.87	0.027 ± 0.0084	0.057 ± 0.018	0 ± 0.0033	0 ± 0.00056
Kurayoshi, TOTTORI	1.48	0.612	6.37	0.062 ± 0.011	0.1 ± 0.018	0.014 ± 0.0066	0.0022 ± 0.001
Hiroshima, HIROSHIMA	1.69	0.47	6.87	0.033 ± 0.0089	0.07 ± 0.019	0 ± 0.0036	0 ± 0.00053
Matsuyama, EHIME	1.59	0.508	6.94	0.019 ± 0.0078	0.037 ± 0.015	0 ± 0.0051	0 ± 0.00074
Shime-machi, FUKUOKA	1.72	1.15	6.66	0.027 ± 0.0075	0.024 ± 0.0065	0.017 ± 0.005	0.0026 ± 0.00075
Matsumoto-machi, KAGOSHIMA	1.49	0.939	2.61	0.1 ± 0.013	0.11 ± 0.014	0.31 ± 0.018	0.12 ± 0.007
Dec, 1999							
Utsunomiya, TOCHIGI	0.392	0.205	1.48	0.09 ± 0.012	0.44 ± 0.06	0.005 ± 0.0038	0.0034 ± 0.0025
Takane-machi, YAMANASHI	0.508	0.237	2.19	0.092 ± 0.013	0.39 ± 0.053	0 ± 0.0052	0 ± 0.0024
Kasai, HYOGO	0.485	0.167	2.04	0.047 ± 0.0096	0.28 ± 0.057	0.007 ± 0.0044	0.0034 ± 0.0022
Kokufu-machi, TOTTORI	0.487	0.252	2.16	0.23 ± 0.019	0.9 ± 0.076	0 ± 0.0052	0 ± 0.0024
Kubokawa-machi, KOCHI	0.481	0.172	1.95	0.039 ± 0.0081	0.23 ± 0.047	0.013 ± 0.006	0.0067 ± 0.0031
Takanabe-machi, MIYAZAKI	0.55	0.181	2.46	0.13 ± 0.014	0.69 ± 0.076	0.0032 ± 0.0051	0.0013 ± 0.0021
Kaimon-machi, KAGOSHIMA	0.553	0.264	1.74	0.031 ± 0.0083	0.12 ± 0.032	0.019 ± 0.0065	0.011 ± 0.0038
Utsunomiya, TOCHIGI	0.575	0.443	2.21	0.19 ± 0.017	0.44 ± 0.038	0.016 ± 0.0049	0.0074 ± 0.0022
Takane-machi, YAMANASHI	2.02	0.6	8.99	0.036 ± 0.0092	0.06 ± 0.015	0.0023 ± 0.0065	0.00026 ± 0.00072
Azuchi-machi, SHIGA	1.69	0.448	6.95	0.048 ± 0.01	0.11 ± 0.023	0.0033 ± 0.0064	0.00047 ± 0.00093

Location	Component			90Sr		137Cs	
	Ash(%)	(g/kg)	(g/kg)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/kgK)
Kasai, HYOGO	1.51	0.764	6.05	0.048 ± 0.0093	0.063 ± 0.012	0 ± 0.0037	0 ± 0.0006
Kubokawa-machi, KOCHI	1.88	0.854	6.97	0.043 ± 0.0098	0.051 ± 0.011	0.02 ± 0.0069	0.0029 ± 0.00099
Usa, OITA	2.09	0.433	8.05	0.041 ± 0.009	0.094 ± 0.021	0.0036 ± 0.0059	0.00044 ± 0.00074
Jan, 2000							
Yuya-machi, YAMAGUCHI	0.513	0.174	1.73	0.062 ± 0.012	0.35 ± 0.067	0.016 ± 0.007	0.0091 ± 0.004
Ishii-machi, TOKUSHIMA	0.54	0.249	1.89	0.014 ± 0.0065	0.055 ± 0.026	0 ± 0.0046	0 ± 0.0024
Kumatori-machi, OSAKA	0.631	0.251	2.42	0.0092 ± 0.0071	0.036 ± 0.028	0.019 ± 0.0071	0.0079 ± 0.0029
Yuya-machi, YAMAGUCHI	1.56	0.525	5.23	0.11 ± 0.013	0.2 ± 0.025	0.022 ± 0.0069	0.0042 ± 0.0013
Ishii-machi, TOKUSHIMA	1.72	0.654	6.71	0.055 ± 0.01	0.084 ± 0.016	0.0009 ± 0.0062	0.00014 ± 0.00093
Feb, 2000							
Nachikatsuura-machi, WAKAYAMA	0.423	0.231	1.61	0.045 ± 0.0095	0.2 ± 0.041	0.0012 ± 0.0053	0.0007 ± 0.0033
Usa, OITA	0.735	0.197	3.16	0.046 ± 0.01	0.23 ± 0.051	0 ± 0.0053	0 ± 0.0017
Nachikatsuura-machi, WAKAYAMA	0.635	0.39	2.52	0.0071 ± 0.0057	0.018 ± 0.015	0.0019 ± 0.0053	0.0007 ± 0.0021
Mar, 2000							
Kanzaki-machi, SAGA	0.632	0.53	2.34	0.12 ± 0.014	0.22 ± 0.026	0.0065 ± 0.0057	0.0028 ± 0.0024
Kanzaki-machi, SAGA	1.32	0.281	5.66	0.065 ± 0.011	0.23 ± 0.039	0 ± 0.0058	0 ± 0.001

(4)-2 Strontium-90 and Cesium-137 in Vegetables(consuming districts)
(form Oct. 1999 to Mar. 2000)

-continued from No. 131 for this publication-

Table (4)-2 : Strontium-90 and Cesium-137 in Vegetables(consuming districts)

Location	Component			90Sr		137Cs	
	Ash(%)	(g/kg)	(g/kg)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/kgK)
Oct, 1999							
Akita, AKITA	0.489	0.187	2.17	0.026 ± 0.0088	0.14 ± 0.047	0.0035 ± 0.004	0.0016 ± 0.0018
Yamagata, YAMAGATA	0.428	0.147	1.72	0.051 ± 0.0096	0.35 ± 0.065	0.0059 ± 0.0059	0.0035 ± 0.0035
Kyoto, KYOTO	0.476	0.144	2.02	0.027 ± 0.0082	0.19 ± 0.057	0.044 ± 0.0078	0.022 ± 0.0039
Akita, AKITA	0.48	0.425	1.76	0.037 ± 0.0095	0.087 ± 0.022	0 ± 0.0037	0 ± 0.0021
Yamagata, YAMAGATA	1.92	1.47	6.34	0.13 ± 0.014	0.091 ± 0.0096	0.012 ± 0.007	0.0019 ± 0.0011
Kyoto, KYOTO	1.92	0.718	6.86	0.013 ± 0.0073	0.018 ± 0.01	0.005 ± 0.0061	0.00072 ± 0.00089
Nov, 1999							
Shinjuku, TOKYO	0.659	0.279	2.68	0.036 ± 0.0092	0.13 ± 0.033	0 ± 0.0053	0 ± 0.002
Osaka, OSAKA	0.358	0.33	1.07	0.46 ± 0.026	1.4 ± 0.08	0.057 ± 0.0081	0.053 ± 0.0076
Okayama, OKAYAMA	0.484	0.172	2.45	0.029 ± 0.0076	0.17 ± 0.044	0.0015 ± 0.0034	0.0006 ± 0.0014
Shinjuku, TOKYO	1.81	0.71	7.49	0.016 ± 0.008	0.022 ± 0.011	0.013 ± 0.0071	0.0017 ± 0.00095
Osaka, OSAKA	1.49	0.529	5.75	0.027 ± 0.0074	0.052 ± 0.014	0.0055 ± 0.0069	0.001 ± 0.0012
Okayama, OKAYAMA	1.74	0.376	7.11	0.025 ± 0.0082	0.068 ± 0.022	0.0074 ± 0.0043	0.001 ± 0.0006
Matsuyama, EHIME	1.71	0.637	7.49	0.052 ± 0.01	0.082 ± 0.016	0 ± 0.0065	0 ± 0.00087
Yonagusuku-machi, OKINAWA	1.27	0.474	5	0.015 ± 0.0063	0.031 ± 0.013	0.0017 ± 0.0054	0.0003 ± 0.0011
Dec, 1999							
Yonagusuku-machi, OKINAWA	0.759	0.269	2.91	0.037 ± 0.0081	0.14 ± 0.03	0.0079 ± 0.0056	0.0027 ± 0.0019
Jan, 2000							
Yokohama, KANAGAWA	0.42	0.277	1.43	0.0085 ± 0.007	0.031 ± 0.025	0.0004 ± 0.0062	0.0003 ± 0.0043
Nagasaki, NAGASAKI	0.324	0.194	1.15	0.026 ± 0.0061	0.13 ± 0.032	0.01 ± 0.0037	0.0091 ± 0.0032
Yokohama, KANAGAWA	1.35	0.435	4.76	0.02 ± 0.0077	0.046 ± 0.018	0.006 ± 0.0059	0.0013 ± 0.0012
Nagasaki, NAGASAKI	1.75	0.471	6.6	0.021 ± 0.007	0.045 ± 0.015	0.011 ± 0.0064	0.0016 ± 0.00097

(5) Strontium-90 and Cesium-137 in Sea Fish
(form Oct. 1999 to Mar. 2000)
-continued from No. 131 for this publication-

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

Location	Component			90Sr				137Cs			
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)		(Bq/gCa)		(Bq/kgwet)		(Bq/gK)	
(Branchiostegus sp)											
Nov, 1999											
Nagasaki, NAGASAKI	1.07	0.593	2.91	0.0027	± 0.0054	0.0046	± 0.009	0.096	± 0.0095	0.033	± 0.0033
(Chelidonichthys spinosus)											
Feb, 2000											
Odawara, KANAGAWA	1.5	0.23	4.71	0.0065	± 0.0062	0.028	± 0.027	0.13	± 0.012	0.028	± 0.0025
(Hexagrammos otakii)											
Nov, 1999											
Soma, FUKUSHIMA	1.4	0.681	3.96	0	± 0.0052	0	± 0.0077	0.14	± 0.011	0.035	± 0.0028
(Limanda herzensteini)											
Nov, 1999											
Mutsu, AOMORI	1.25	0.419	3.5	0	± 0.005	0	± 0.012	0.12	± 0.01	0.034	± 0.003
Niigata, NIIGATA	1.61	1.23	3.94	0.019	± 0.0067	0.015	± 0.0054	0.076	± 0.0088	0.019	± 0.0022
Mikuni-machi, FUKUI	1.05	0.616	3.02	0	± 0.0048	0	± 0.0078	0.1	± 0.01	0.034	± 0.0032
Aji-machi, KAGAWA	2.96	6.42	2.9	0.013	± 0.0056	0.002	± 0.00088	0.061	± 0.0081	0.021	± 0.0028
Feb, 2000											
Otake, HIROSHIMA	2.9	6.11	3.23	0.014	± 0.0059	0.0023	± 0.00096	0.062	± 0.009	0.019	± 0.0028
(Mugil cephalus)											
Dec, 1999											

Location	Component			90Sr				137Cs			
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)		(Bq/gCa)		(Bq/kgwet)		(Bq/gK)	
Ushimado-machi, OKAYAMA	1.41	0.584	4.12	0.0086	± 0.0056	0.015	± 0.0096	0.08	± 0.009	0.02	± 0.0022
(Pterocaesio diagramma)											
Nov, 1999											
Yonagusuku-machi, OKINAWA	4.18	10.4	3.47	0.011	± 0.0064	0.0011	± 0.00061	0.11	± 0.01	0.032	± 0.003
(Sardinops melanostictus)											
Feb, 2000											
Nagano, NAGANO	2.5	3.76	2.44	0	± 0.0048	0	± 0.0013	0.068	± 0.0095	0.028	± 0.0039
(Scomber australasicus)											
Feb, 2000											
Chikura-machi, CHIBA	1.36	0.253	3.9	0	± 0.0055	0	± 0.022	0.15	± 0.011	0.039	± 0.0029
(Scomber japonicus)											
Jan, 2000											
Oki-abjacent seas, TOTTORI	1.09	0.23	2.86	0	± 0.0044	0	± 0.019	0.087	± 0.0091	0.031	± 0.0032
(Scomber sp)											
Nov, 1999											
Kyoto, KYOTO	1.17	0.196	2.69	0.005	± 0.0079	0.026	± 0.04	0.11	± 0.011	0.04	± 0.0042
Osaka, OSAKA	1.17	0.122	3.01	0.0024	± 0.0065	0.019	± 0.054	0.11	± 0.01	0.038	± 0.0033
(Sebastes inermis)											
Mar, 2000											
Yamaguchi-bay, YAMAGUCH	4.81	13.8	2.86	0.015	± 0.0067	0.0011	± 0.00049	0.13	± 0.013	0.044	± 0.0046
(Spratelloides gracilis)											
Nov, 1999											
Akune, KAGOSHIMA	2.88	6	2.83	0.0054	± 0.0048	0.0009	± 0.00079	0.13	± 0.011	0.046	± 0.0039
(Trachurus sp)											

Location	Component			90Sr				137Cs			
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)		(Bq/gCa)		(Bq/kgwet)		(Bq/gK)	
Nov, 1999											
Miyake-mura, TOKYO	1.45	1.65	2.8	0.0085	± 0.0057	0.0051	± 0.0035	0.13	± 0.012	0.047	± 0.0043
Shizuoka, SHIZUOKA	3.19	7.58	3.04	0.015	± 0.0059	0.002	± 0.00077	0.13	± 0.012	0.043	± 0.0041
Feb, 2000											
Shingu, WAKAYAMA	1.81	1.53	3.28	0	± 0.0052	0	± 0.0034	0.13	± 0.011	0.041	± 0.0034

Sea Fish

Japanese name	English name	Scientific name
Ainame	Fat greenling	Hexagrammos otakii
Aji	Horse mackerel	Trachurus sp
Amadai	Tilefish	Branchiostegus sp
Bora	Gray mullet	Mugil cephalus
Gomasaba	Spotted chub mackerel	Scomber australasicus
Hobo	Bluefin searobin	Chelidonichthys spinosus
Kibinago	Blue sprat	Spratelloides gracilis
Magarei	Brown sole	Limanda herzensteini
Maiwashi	Japanese pilchard	Sardinops melanostictus
Masaba	Pacific mackerel	Scomber japonicus
Mebaru	Black rockfish	Sebastes inermis
Saba	Mackerel	Scomber sp
Takasago	Golden banded fusilier	Pterocaesio diagramma

(6) Strontium-90 and Cesium-137 in Freshwater Fish
(form Oct. 1999 to Mar. 2000)

-continued from No. 131 for this publication-

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

Location	Component			90Sr		137Cs	
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/gK)
(Carassius auratus)							
Nov, 1999							
Niigata, NIIGATA	1.2	0.798	3.3	0.06 ± 0.011	0.075 ± 0.013	0.15 ± 0.011	0.046 ± 0.0035
Dec, 1999							
Mikata-machi, FUKUI	1.59	2.51	2.86	0.23 ± 0.018	0.092 ± 0.0072	0.16 ± 0.013	0.055 ± 0.0045
Uji, KYOTO	3.75	10.9	2.38	0.39 ± 0.027	0.035 ± 0.0025	0.0083 ± 0.0067	0.0035 ± 0.0028
(Cyprinus carpio)							
Oct, 1999							
Shobara, HIROSHIMA	0.96	0.193	3.14	0.0078 ± 0.0053	0.041 ± 0.028	0.11 ± 0.01	0.034 ± 0.0032
(Hypomesus nipponensis							
Dec, 1999							
Suwa-lake, NAGANO	3.04	7.6	2.74	0.11 ± 0.014	0.015 ± 0.0018	0.11 ± 0.011	0.039 ± 0.004
(Salmo gairdneri)							
Oct, 1999							
Kumagaya, SAITAMA	1.21	0.156	4.05	0.0052 ± 0.0057	0.033 ± 0.036	0.12 ± 0.011	0.03 ± 0.0026

Freshwater Fish

Japanese name	English name	Scientific name
Funa	Crucian carp	Carassius auratus
Koi	Carp	Cyprinus carpio
Nijimasu	Rainbow trout	Salmo gairdneri
Wakasagi	Japanese smelt	Hypomesus nipponensis

(7) Strontium-90 and Cesium-137 in Shellfish
(form Oct. 1999 to Mar. 2000)

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

Location	Component			90Sr				137Cs			
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)		(Bq/gCa)		(Bq/kgwet)		(Bq/gK)	
(Patinopecten yessoensis)											
Nov, 1999											
Mutsu-bay, AOMORI	1.99	0.33	2.64	0	± 0.0045	0	± 0.014	0.023	± 0.0055	0.0086	± 0.0021
Feb, 2000											
Yamada-machi, IWATE	2.43	0.306	3.4	0	± 0.0052	0	± 0.017	0.035	± 0.0079	0.01	± 0.0023

Shellfish

Japanese name	English name	Scientific name
Hotategai	Yesso scallop	Patinopecten yessoensis

(8) Strontium-90 and Cesium-137 in Seaweeds
(form Oct. 1999 to Mar. 2000)

-continued from No. 131 for this publication-

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

Location	Component			90Sr		137Cs	
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/gK)
(Undaria pinnatifida)							
Feb, 2000							
Minamichita-machi, AICHI	3.14	0.689	9.07	0.022 ± 0.0088	0.032 ± 0.013	0.028 ± 0.0073	0.003 ± 0.00081
Toba, MIE	1.83	0.705	4.9	0.03 ± 0.01	0.042 ± 0.014	0.025 ± 0.0073	0.0052 ± 0.0015
Hiroshima, HIROSHIMA	1.75	0.522	5.29	0.045 ± 0.0095	0.086 ± 0.018	0.012 ± 0.0058	0.0022 ± 0.0011
Shimabara, NAGASAKI	1.99	0.604	6.78	0.013 ± 0.0087	0.022 ± 0.014	0.036 ± 0.0081	0.0053 ± 0.0012

Seaweeds

Japanese name	English name	Scientific name
Wakame	Wakame seaweed	Undaria pinnatifida

＊＊Sampling Locations in Japan＊＊

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