ISSN 0441-2516
NIRS-RSD-137

RADIOACTIVITY SURVEY DATA in Japan

Part 2
= Dietary Materials =

NUMBER 137
October 2002

National Institute of Radiological Sciences
Chiba, Japan

Radioactivity Survey Data in Japan Number 137

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Contents

Editted by National Institute of Radiological Sciences, under the supervision of Ministry of Education, Culture, Sports, Science and Technology of Japanese Government.

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 montyly 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 manth.

Strontium and cesium carrier solutions were added to the sample.

(2) Airborne dust

Airborne dust was collected by 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, 100 ℓ 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 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 dephes, 0-5cm and 5-20cm.

The soil lumps were crushed by hands and dried in a drying oven regulated 105 ℃ . 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 1 ℓ of sea water, and then stored in 20 ℓ 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 staions for the demermination of chlorinity.

(6) Sea sediments

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

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 ℃

(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 transterred to a porcelain dish and then ashed at 450 ℃ 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 47 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 ashing in a stainless steel pan or a procelain 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. Sellfish

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) Airborne dust	quarterly	>3000m^3 /month
(3) Service waterand freshwater		
1. Service water (source water)	semiyearly	100 ℓ
2. Servicewater (tap water)	semiyearly	100 ℓ
3. Freshwater	yearly (fishing season)	100 ℓ
(4) Soil		
1. 0 ~ 5cm	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 domestic program	quarterly (February,May,August and November)	3 ℓ
	semiyearly (February and August)	3 ℓ

Sample	Frequency of sampling	Quantity of sample
3. Consumng districts	semiyearly (February and August)	3 ℓ
4. Powdered milk	semiyearly (January and Jun)	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

The dried sample was decompased with nitric acid and dissolved in hydrochlovic acid 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.

(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, 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 hyfrochloric acid the precipitate was dissolved in 2.5M sodium hydroxide solution. The soluion was adjusted to pH8.2 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 cesiumn 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 pecipitate. 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 ℃ 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.
Stable calcium and strontium were determined by ICP-AES and potassium were determined by flame emission spectrometry.

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 stontium-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. 2000 to Mar. 2001)

-continued from No. 135 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, 2000							
Kochi, KOCHI	13.4	526	1920	0.04 ± 0.011	0.077 ± 0.021	0.02 ± 0.0058	0.011 ± 0.003
Saga-machi, KOCHI	12.2	454	1520	0.047 ± 0.013	0.1 ± 0.029	0.019 ± 0.0058	0.013 ± 0.0038
Nagasaki, NAGASAKI	15.4	777	2020	0.022 ± 0.0096	0.029 ± 0.012	0.022 ± 0.0058	0.011 ± 0.0029
Matsuura, NAGASAKI	12.6	489	1700	0.029 ± 0.0091	0.06 ± 0.019	0.021 ± 0.0056	0.012 ± 0.0033
Nov, 2000							
Iwaizumi-machi, IWATE	13.2	550	1850	0.076 ± 0.011	0.14 ± 0.02	0.092 ± 0.0093	0.05 ± 0.005
Ishinomaki, MIYAGI	19.1	670	2560	0.054 ± 0.0097	0.081 ± 0.015	0.036 ± 0.0064	0.014 ± 0.0025
Onagawa-machi, MIYAGI	17.4	761	2660	0.057 ± 0.01	0.075 ± 0.013	0.023 ± 0.0059	0.0088 ± 0.0022
Yamagata, YAMAGATA	13.8	407	1710	0.044 ± 0.0091	0.11 ± 0.022	0.022 ± 0.0054	0.013 ± 0.0031
Sagae, YAMAGATA	9.1	258	1210	0.059 ± 0.011	0.23 ± 0.041	0.1 ± 0.009	0.083 ± 0.0079
Fukushima, FUKUSHIMA	13.1	632	1680	0.044 ± 0.0094	0.07 ± 0.015	0.023 ± 0.0055	0.014 ± 0.0033
Okuma-machi, FUKUSHIMA	12.9	637	1700	0.062 ± 0.0095	0.097 ± 0.015	0.023 ± 0.0052	0.013 ± 0.0031
Utsunomiya, TOCHIGI	10.7	383	1570	0.034 ± 0.0085	0.089 ± 0.022	0.023 ± 0.0055	0.015 ± 0.0035
minamikawachi-machi, TOCHIGI	16.2	932	2330	0.052 ± 0.0096	0.056 ± 0.01	0.03 ± 0.0062	0.013 ± 0.0027
Urawa, SAITAMA	22.3	679	2790	0.084 ± 0.012	0.12 ± 0.017	0.056 ± 0.0074	0.02 ± 0.0027
Kumagaya, SAITAMA	18.6	756	2790	0.066 ± 0.012	0.087 ± 0.015	0.029 ± 0.0057	0.01 ± 0.002
Chiba, CHIBA	13.6	363	1630	0.022 ± 0.0076	0.061 ± 0.021	0.02 ± 0.0053	0.012 ± 0.0033
Chikura-machi, CHIBA	19.1	589	2490	0.052 ± 0.0099	0.088 ± 0.017	0.026 ± 0.0062	0.011 ± 0.0025
Hiratsuka, KANAGAWA	15.6	672	2670	0.042 ± 0.0093	0.062 ± 0.014	0.028 ± 0.006	0.011 ± 0.0023
Toyama, TOYAMA	13.3	421	1570	0.046 ± 0.01	0.11 ± 0.024	0.011 ± 0.0043	0.007 ± 0.0028
Takaoka, TOYAMA	11.6	462	1490	0.041 ± 0.0095	0.089 ± 0.021	0.007 ± 0.0039	0.0047 ± 0.0026
Fukui, FUKUI	13.5	441	2160	0.038 ± 0.0078	0.087 ± 0.018	0.02 ± 0.0049	0.0091 ± 0.0023

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)
Nagano, NAGANO	19.1	638	2600	0.061 ± 0.01	0.096 ± 0.016	0.033 ± 0.0058	0.013 ± 0.0022
Toyono-machi, NAGANO	14.8	670	2310	0.048 ± 0.009	0.072 ± 0.013	0.038 ± 0.0066	0.017 ± 0.0029
Shizuoka, SHIZUOKA	14	686	2130	0.043 ± 0.0094	0.063 ± 0.014	0.092 ± 0.0092	0.043 ± 0.0043
Hamaoka-machi, SHIZUOKA	12.1	330	1800	0.033 ± 0.0083	0.1 ± 0.025	0.025 ± 0.0057	0.014 ± 0.0032
Nagoya, AICHI	15.6	573	2370	0.044 ± 0.0091	0.077 ± 0.016	0.078 ± 0.0085	0.033 ± 0.0036
Shinshiro, AICHI	12.7	552	1980	0.093 ± 0.012	0.17 ± 0.022	0.027 ± 0.0056	0.014 ± 0.0028
Hamasaka-machi, HYOGO	13.7	531	1700	0.024 ± 0.0085	0.046 ± 0.016	0.031 ± 0.0058	0.018 ± 0.0034
Kashihara, NARA	12.9	751	1770	0.039 ± 0.0085	0.052 ± 0.011	0.032 ± 0.0059	0.018 ± 0.0033
Gojo, NARA	14.8	993	1810	0.04 ± 0.008	0.041 ± 0.008	0.021 ± 0.0049	0.012 ± 0.0027
Wakayama, WAKAYAMA	14	439	1780	0.036 ± 0.0083	0.082 ± 0.019	0.014 ± 0.0053	0.0076 ± 0.003
Shingu, WAKAYAMA	10.6	264	1380	0.043 ± 0.0094	0.16 ± 0.036	0.032 ± 0.0064	0.023 ± 0.0046
Okayama, OKAYAMA	15	587	2180	0.056 ± 0.012	0.096 ± 0.021	0.04 ± 0.0075	0.018 ± 0.0034
Kamisaibara-mura, OKAYAMA	14.7	606	1500	0.061 ± 0.012	0.1 ± 0.02	0.027 ± 0.0061	0.018 ± 0.0041
Matsuyama, EHIME	10.5	443	1440	0.022 ± 0.0075	0.05 ± 0.017	0.017 ± 0.0052	0.012 ± 0.0036
Ikata-machi, EHIME	8.9	406	1660	0.013 ± 0.0068	0.032 ± 0.017	0.014 ± 0.0051	0.0085 ± 0.0031
Dazaifu, FUKUOKA	12.8	597	1660	0.035 ± 0.0083	0.059 ± 0.014	0.038 ± 0.0066	0.023 ± 0.0039
Fukuoka, FUKUOKA	12.4	383	1390	0.047 ± 0.0096	0.12 ± 0.025	0.014 ± 0.0048	0.01 ± 0.0034
Saga, SAGA	14.9	634	2040	0.025 ± 0.0077	0.039 ± 0.012	0.011 ± 0.005	0.0056 ± 0.0025
Karatsu, SAGA	17.9	771	2320	0.031 ± 0.0093	0.04 ± 0.012	0.029 ± 0.0062	0.012 ± 0.0027
Oita, OITA	14.7	434	1880	0.067 ± 0.011	0.15 ± 0.025	0.029 ± 0.0059	0.016 ± 0.0032
Saeki, OITA	11.6	316	1170	0.025 ± 0.008	0.078 ± 0.025	0.017 ± 0.0049	0.014 ± 0.0042
Sendai, KAGOSHIMA	15.1	488	1810	0.052 ± 0.01	0.11 ± 0.021	0.045 ± 0.0066	0.025 ± 0.0037
Okuchi, KAGOSHIMA	16.8	468	1770	0.056 ± 0.011	0.12 ± 0.022	0.052 ± 0.0071	0.029 ± 0.004
Dec, 2000							
Sapporo, HOKKAIDO	18.2	686	2320	0.052 ± 0.01	0.076 ± 0.015	0.036 ± 0.0064	0.016 ± 0.0028
Iwanai-machi, HOKKAIDO	14.5	566	2180	0.05 ± 0.01	0.088 ± 0.018	0.035 ± 0.0063	0.016 ± 0.0029
Aomori, AOMORI	22.2	1040	3000	0.11 ± 0.013	0.1 ± 0.012	0.087 ± 0.0092	0.029 ± 0.0031
Ajigasawa-machi, AOMORI	16.2	592	1690	0.076 ± 0.012	0.13 ± 0.02	0.02 ± 0.0052	0.012 ± 0.0031

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)
Morioka, IWATE	16.4	465	2330	0.035 ± 0.0095	0.075 ± 0.02	0.023 ± 0.0057	0.0097 ± 0.0024
Akita, AKITA	13.8	584	2030	0.066 ± 0.012	0.11 ± 0.02	0.037 ± 0.0063	0.018 ± 0.0031
Yokote, AKITA	11.7	446	1400	0.033 ± 0.0078	0.075 ± 0.017	0.035 ± 0.0058	0.025 ± 0.0041
Mito, IBARAKI	16.2	580	2220	0.069 ± 0.01	0.12 ± 0.018	0.059 ± 0.0077	0.027 ± 0.0035
Tokai-mura, IBARAKI	20.5	816	2890	0.058 ± 0.01	0.071 ± 0.013	0.06 ± 0.008	0.021 ± 0.0028
Maebashi, GUNMA	14.2	599	1970	0.073 ± 0.011	0.12 ± 0.018	0.037 ± 0.0062	0.019 ± 0.0031
Nakanojo-machi, GUNMA	15.5	646	1940	0.044 ± 0.0094	0.067 ± 0.015	0.054 ± 0.0073	0.028 ± 0.0037
Shinjuku, TOKYO	10.2	260	1010	0.032 ± 0.0085	0.12 ± 0.033	0.019 ± 0.0047	0.019 ± 0.0046
Hachijo-machi, TOKYO	9.1	354	1320	0.043 ± 0.0089	0.12 ± 0.025	0.026 ± 0.0051	0.019 ± 0.0038
Yokohama, KANAGAWA	14.5	475	2090	0.029 ± 0.0084	0.061 ± 0.018	0.019 ± 0.0054	0.009 ± 0.0026
Nishikawa-machi, NIIGATA	23.5	674	3080	0.06 ± 0.01	0.089 ± 0.016	0.029 ± 0.0059	0.0095 ± 0.0019
Kashiwazaki, NIIGATA	11.9	465	1440	0.055 ± 0.011	0.12 ± 0.023	0.028 ± 0.0056	0.019 ± 0.0039
Kanazawa, ISHIKAWA	13.8	433	2060	0.047 ± 0.01	0.11 ± 0.024	0.026 ± 0.0058	0.012 ± 0.0028
Torigoe-mura, ISHIKAWA	17.4	655	3200	0.073 ± 0.012	0.11 ± 0.019	0.041 ± 0.0069	0.013 ± 0.0022
Tsuruga, FUKUI	14.6	569	1840	0.051 ± 0.0084	0.09 ± 0.015	0.033 ± 0.0056	0.018 ± 0.0031
Kofu, YAMANASHI	14.7	591	2040	0.034 ± 0.0083	0.057 ± 0.014	0.024 ± 0.0055	0.012 ± 0.0027
Ichinomiya-machi, YAMANASHI	16.6	749	2120	0.038 ± 0.0088	0.051 ± 0.012	0.035 ± 0.0063	0.016 ± 0.003
Gifu, GIFU	11.8	530	1770	0.038 ± 0.0074	0.072 ± 0.014	0.023 ± 0.0048	0.013 ± 0.0027
Takayama, GIFU	15.5	678	2250	0.048 ± 0.0086	0.07 ± 0.013	0.026 ± 0.0054	0.012 ± 0.0024
Tsu, MIE	15.8	538	1960	0.034 ± 0.0087	0.062 ± 0.016	0.029 ± 0.0061	0.015 ± 0.0031
Owase, MIE	14.2	430	1810	0.035 ± 0.0085	0.082 ± 0.02	0.043 ± 0.0068	0.024 ± 0.0037
Otsu, SHIGA	14.2	595	1710	0.038 ± 0.0088	0.064 ± 0.015	0.025 ± 0.0052	0.014 ± 0.0031
Imazu-machi, SHIGA	13.3	536	1690	0.056 ± 0.01	0.1 ± 0.019	0.031 ± 0.0058	0.018 ± 0.0034
Kyoto, KYOTO	12.9	471	1490	0.02 ± 0.0072	0.043 ± 0.015	0.021 ± 0.0053	0.014 ± 0.0036
Maizuru, KYOTO	13.1	669	1910	0.047 ± 0.0081	0.071 ± 0.012	0.015 ± 0.0043	0.0079 ± 0.0022
Osaka, OSAKA	13.9	513	2310	0.054 ± 0.0092	0.1 ± 0.018	0.032 ± 0.0058	0.014 ± 0.0025
Izumiotsu, OSAKA	11.8	336	1770	0.032 ± 0.0081	0.096 ± 0.024	0.015 ± 0.0049	0.0087 ± 0.0028
Kakogawa, HYOGO	15.2	693	2120	0.026 ± 0.0083	0.038 ± 0.012	0.017 ± 0.0049	0.0082 ± 0.0023

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)
Matsue, SHIMANE	18	740	2900	0.073 ± 0.012	0.099 ± 0.016	0.037 ± 0.0066	0.013 ± 0.0023
Kashima-machi, SHIMANE	20.7	842	2770	0.048 ± 0.0095	0.056 ± 0.011	0.023 ± 0.0057	0.0082 ± 0.0021
Hiroshima, HIROSHIMA	10.8	419	1540	0.039 ± 0.0086	0.094 ± 0.021	0.024 ± 0.0051	0.015 ± 0.0033
Miyoshi, HIROSHIMA	10.9	382	1520	0.035 ± 0.0087	0.092 ± 0.023	0.021 ± 0.0051	0.014 ± 0.0034
Yamaguchi, YAMAGUCHI	13.5	392	1810	0.026 ± 0.0071	0.067 ± 0.018	0.019 ± 0.0051	0.01 ± 0.0028
Mine, YAMAGUCHI	17.1	681	1840	0.031 ± 0.0076	0.046 ± 0.011	0.034 ± 0.0062	0.018 ± 0.0033
Tokushima, TOKUSHIMA	14.9	492	2310	0.057 ± 0.0096	0.12 ± 0.019	0.022 ± 0.0053	0.0094 ± 0.0023
Kamiita-machi, TOKUSHIMA	12	356	1830	0.037 ± 0.0087	0.11 ± 0.024	0.017 ± 0.0051	0.0093 ± 0.0028
Takamatsu, KAGAWA	14.2	492	1520	0.037 ± 0.0088	0.076 ± 0.018	0.017 ± 0.0046	0.011 ± 0.003
Marugame, KAGAWA	18.2	575	1970	0.06 ± 0.01	0.1 ± 0.018	0.035 ± 0.006	0.018 ± 0.003
Kumamoto, KUMAMOTO	13.2	286	2290	0.02 ± 0.009	0.069 ± 0.031	0.035 ± 0.0065	0.015 ± 0.0028
Tomiai-machi, KUMAMOTO	18.3	595	2290	0.024 ± 0.0096	0.04 ± 0.016	0.034 ± 0.0066	0.015 ± 0.0029
Miyazaki, MIYAZAKI	13	424	1900	0.026 ± 0.0079	0.06 ± 0.019	0.022 ± 0.005	0.012 ± 0.0026
Takachiho-machi, MIYAZAKI	15.3	578	2060	0.051 ± 0.0097	0.089 ± 0.017	0.052 ± 0.007	0.025 ± 0.0034
Feb, 2001							
Itoman, OKINAWA	15.3	948	2200	0.026 ± 0.0077	0.027 ± 0.0081	0.031 ± 0.0061	0.014 ± 0.0028

(2)-1 Strontium-90 and Cesium-137 in Rice(producing districts)
(form Oct. 2000 to Mar. 2001)

-continued from No. 135 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, 2000							
Mito, IBARAKI	0.495	0.035	0.738	0.0053 ± 0.0055	0.15 ± 0.16	0.045 ± 0.0065	0.061 ± 0.0088
Maki-machi, NIIGATA	0.612	0.039	0.747	0.021 ± 0.0055	0.54 ± 0.14	0.009 ± 0.004	0.012 ± 0.0054
Kosugi-machi, TOYAMA	0.451	0.038	0.879	0.0082 ± 0.0059	0.21 ± 0.16	0.017 ± 0.0053	0.019 ± 0.006
Toyosina-machi, NAGANO	0.458	0.035	0.742	0.0049 ± 0.0051	0.14 ± 0.15	0.012 ± 0.0041	0.016 ± 0.0056
Shiga-machi, SHIGA	0.468	0.041	1.09	0.0007 ± 0.0049	0.02 ± 0.12	0.018 ± 0.0053	0.017 ± 0.0049
Kashihara, NARA	0.652	0.037	0.932	0 ± 0.0039	0 ± 0.11	0.0019 ± 0.0034	0.002 ± 0.0036
Yamaguchi, YAMAGUCHI	0.508	0.038	0.894	0.002 ± 0.0056	0.06 ± 0.15	0.013 ± 0.0044	0.015 ± 0.0049
Miki-machi, KAGAWA	0.421	0.036	0.741	0.0075 ± 0.0059	0.21 ± 0.17	0.0008 ± 0.0039	0.0011 ± 0.0053
Koshi-machi, KUMAMOTO	0.598	0.031	0.563	0.0041 ± 0.0068	0.13 ± 0.22	0 ± 0.0036	0 ± 0.0064
Nov, 2000							
Ishikari, HOKKAIDO	0.491	0.029	0.707	0.0068 ± 0.0055	0.23 ± 0.19	0.0032 ± 0.0032	0.0045 ± 0.0045
Takizawa-mura, IWATE	0.623	0.037	0.891	0 ± 0.005	0 ± 0.13	0.053 ± 0.0071	0.059 ± 0.008
Ishinomaki, MIYAGI	0.514	0.04	0.864	0.0086 ± 0.004	0.21 ± 0.1	0.0007 ± 0.0029	0.0008 ± 0.0034
Fukushima, FUKUSHIMA	0.658	0.037	0.649	0 ± 0.0048	0 ± 0.13	0.022 ± 0.0055	0.035 ± 0.0085
Kasai, HYOGO	0.455	0.039	0.664	0.017 ± 0.008	0.45 ± 0.21	0.0012 ± 0.0034	0.0018 ± 0.0051
Kanzaki-machi, SAGA	0.465	0.035	0.735	0 ± 0.0048	0 ± 0.14	0.004 ± 0.0042	0.0054 ± 0.0057
Usa, OITA	0.501	0.029	0.777	0.0018 ± 0.0053	0.06 ± 0.18	0.0004 ± 0.0032	0.0005 ± 0.0041
Dec, 2000							
Utsunomiya, TOCHIGI	0.528	0.036	0.57	0.0007 ± 0.0054	0.02 ± 0.15	0.018 ± 0.0052	0.031 ± 0.0091
Maebashi, GUNMA	0.541	0.039	0.752	0.0019 ± 0.0052	0.05 ± 0.13	0.0016 ± 0.0038	0.0021 ± 0.0051
Takane-machi, YAMANASHI	0.651	0.036	0.866	0 ± 0.0043	0 ± 0.12	0.014 ± 0.0051	0.016 ± 0.0059
Chikushino, FUKUOKA	0.509	0.042	0.728	0.0022 ± 0.0043	0.05 ± 0.1	0.069 ± 0.0077	0.095 ± 0.011

Location	Component			90Sr			137Cs	
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)		(Bq/gCa)	(Bq/kgwet)	(Bq/gK)
Jan, 2001								
Ishii-machi, TOKUSHIMA	0.437	0.037	0.795	0.0069	± 0.0058	0.19 ± 0.16	0.0046 ± 0.004	0.0058 ± 0.0051

(2)-2 Strontium-90 and Cesium-137 in Rice(consuming districts)
(form Oct. 2000 to Mar. 2001)

-continued from No. 135 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, 2000							
Shinjuku, TOKYO	0.632	0.042	0.708	0 ± 0.0048	0 ± 0.12	0.0042 ± 0.0039	0.0059 ± 0.0055
Niigata, NIIGATA	0.471	0.041	0.608	0.011 ± 0.0049	0.28 ± 0.12	0.009 ± 0.004	0.015 ± 0.0066
Kyoto, KYOTO	0.506	0.036	0.789	0 ± 0.0042	0 ± 0.12	0.028 ± 0.006	0.036 ± 0.0076
Hiroshima, HIROSHIMA	0.401	0.038	0.654	0.011 ± 0.0071	0.3 ± 0.19	0.014 ± 0.0047	0.021 ± 0.0071
Matsuyama, EHIME	0.53	0.04	1.02	0.0024 ± 0.0045	0.06 ± 0.11	0.0014 ± 0.0033	0.0014 ± 0.0032
Yonagusuku-machi, OKINAWA	0.449	0.038	0.772	0.0046 ± 0.0046	0.12 ± 0.12	0.016 ± 0.0046	0.02 ± 0.006
Nov, 2000							
Sapporo, HOKKAIDO	0.543	0.035	0.885	0.0077 ± 0.0062	0.22 ± 0.18	0 ± 0.0038	0 ± 0.0043
Akita, AKITA	0.522	0.035	0.616	0.006 ± 0.0058	0.17 ± 0.17	0.02 ± 0.0052	0.032 ± 0.0085
Yamagata, YAMAGATA	0.59	0.042	0.679	0.2 ± 0.0058	0.47 ± 0.14	0.012 ± 0.0053	0.018 ± 0.0078
Urawa, SAITAMA	0.463	0.034	0.713	0.015 ± 0.0051	0.45 ± 0.15	0.025 ± 0.0056	0.035 ± 0.0078
Yokohama, KANAGAWA	0.498	0.037	0.762	0.0084 ± 0.0064	0.23 ± 0.17	0.0055 ± 0.0042	0.0072 ± 0.0056
Fukui, FUKUI	0.46	0.034	0.754	0.0015 ± 0.006	0.04 ± 0.18	0.006 ± 0.0041	0.0079 ± 0.0055
Shizuoka, SHIZUOKA	0.572	0.03	0.692	0 ± 0.0049	0 ± 0.16	0 ± 0.0035	0 ± 0.0051
Osaka, OSAKA	0.489	0.041	1.04	0.0053 ± 0.0053	0.13 ± 0.13	0.019 ± 0.0051	0.018 ± 0.0049
Kobe, HYOGO	0.555	0.038	0.944	0.0066 ± 0.0064	0.18 ± 0.17	0.036 ± 0.006	0.038 ± 0.0064
Shingu, WAKAYAMA	0.459	0.032	0.725	0 ± 0.0051	0 ± 0.16	0.022 ± 0.0055	0.03 ± 0.0075
Kagoshima, KAGOSHIMA	0.425	0.039	0.786	0.011 ± 0.0059	0.29 ± 0.15	0.22 ± 0.013	0.28 ± 0.017
Dec, 2000							
Nagoya, AICHI	0.604	0.04	1.06	0.0068 ± 0.0048	0.17 ± 0.12	0 ± 0.0032	0 ± 0.0031
Tottori, TOTTORI	0.447	0.036	0.8	0.0047 ± 0.055	0.13 ± 0.15	0.074 ± 0.0085	0.093 ± 0.011
Matsue, SHIMANE	0.515	0.036	0.757	0.019 ± 0.0062	0.52 ± 0.17	0.045 ± 0.0064	0.059 ± 0.0084

Location	Component			90Sr		137Cs	
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/gK)
Seto-machi, OKAYAMA	0.538	0.038	0.667	0.0059 ± 0.0063	0.15 ± 0.17	0.0098 ± 0.0045	0.015 ± 0.0068
Kasuga, FUKUOKA	0.6	0.038	0.732	0 ± 0.0048	0 ± 0.13	0.0089 ± 0.0046	0.012 ± 0.0062
Jan, 2001							
Hirosaki, AOMORI	0.461	0.035	0.917	0.0078 ± 0.006	0.22 ± 0.17	0.0096 ± 0.0047	0.011 ± 0.0051
Kochi, KOCHI	0.517	0.033	0.781	0.011 ± 0.0054	0.34 ± 0.16	0.0082 ± 0.0038	0.01 ± 0.0049
Mar, 2001							
Nagasaki, NAGASAKI	0.447	0.037	0.814	0.0083 ± 0.006	0.22 ± 0.16	0.0041 ± 0.0042	0.005 ± 0.00551

(3)-1 Strontium-90 and Cesium-137 in Milk(producing districts for domestic proguram)
(form Oct. 2000 to Mar. 2001)

-continued from No. 135 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, 2000							
Nishinasuno-machi, TOCHIGI	0.68	1.04	1.41	0.029 ± 0.0072	0.028 ± 0.0069	0.049 ± 0.0065	0.035 ± 0.0046
Yamato-machi, SAGA	0.72	1.12	1.47	0.016 ± 0.0064	0.014 ± 0.0058	0.0092 ± 0.0043	0.0063 ± 0.0029
Nov, 2000							
Hokudainojo, HOKKAIDO	0.71	1.19	1.5	0.04 ± 0.0081	0.034 ± 0.0068	0.05 ± 0.0067	0.033 ± 0.0045
Fujimi-mura, GUNMA	0.75	1.17	1.6	0.028 ± 0.0073	0.024 ± 0.0063	0.0082 ± 0.0042	0.0051 ± 0.0026
Hachijo-machi, TOKYO	0.71	1.03	1.43	0.045 ± 0.0087	0.044 ± 0.0084	0.04 ± 0.0064	0.028 ± 0.0045
Iwamuro-mura, NIIGATA	0.76	1.25	1.49	0.037 ± 0.0082	0.029 ± 0.0066	0.013 ± 0.0047	0.0089 ± 0.0032
Katsuyama, FUKUI	0.72	1.14	1.49	0.0085 ± 0.0055	0.0074 ± 0.0048	0.0066 ± 0.0037	0.0045 ± 0.0025
Habukino, OSAKA	0.73	1.11	1.35	0.02 ± 0.0066	0.018 ± 0.0059	0.012 ± 0.0044	0.0087 ± 0.0032
Matsue, SHIMANE	0.75	1.14	1.51	0.015 ± 0.0062	0.013 ± 0.0055	0.0007 ± 0.0036	0.0005 ± 0.0024
Chiyoda-machi, HIROSHIMA	0.75	1.08	1.46	0.03 ± 0.0072	0.028 ± 0.0066	0.015 ± 0.0045	0.01 ± 0.0031
Kochi, KOCHI	0.74	1.11	1.55	0.03 ± 0.0074	0.027 ± 0.0067	0.0022 ± 0.0035	0.0014 ± 0.0022
Yasu-machi, FUKUOKA	0.71	1.11	1.45	0.021 ± 0.0065	0.019 ± 0.0059	0.0031 ± 0.0031	0.0022 ± 0.022
Kajiki-machi, KAGOSHIMA	0.74	1.15	1.53	0.012 ± 0.0061	0.01 ± 0.0053	0.014 ± 0.0049	0.009 ± 0.0032
Jan, 2001							
Habukino, OSAKA	0.76	1.22	1.38	0.035 ± 0.0082	0.029 ± 0.0067	0.026 ± 0.0054	0.019 ± 0.0039
Feb, 2001							
Hokudainojo, HOKKAIDO	0.7	1.21	1.4	0.035 ± 0.0086	0.029 ± 0.0071	0.034 ± 0.0061	0.024 ± 0.0044
Aomori, AOMORI	0.71	1.11	1.48	0.046 ± 0.0087	0.041 ± 0.0078	0.069 ± 0.0078	0.046 ± 0.0052
Takizawa-mura, IWATE	0.72	1.15	1.53	0.0078 ± 0.0058	0.0068 ± 0.005	0.079 ± 0.0083	0.052 ± 0.0054
Mito, IBARAKI	0.73	1.12	1.44	0.02 ± 0.0063	0.018 ± 0.0056	0.0004 ± 0.0037	0.0003 ± 0.0026

Location	Component			90Sr				137Cs			
	Ash (%)	Ca (g/kg)	K (g/kg)	(Bq/kgwet)		(Bq/g Ca)		(Bq/kgwet)		(Bq/g K)	
Nishinasuno-machi, TOCHIGI	0.69	1.1	1.63	0.06	± 0.0066	0.014	± 0.006	0.02	± 0.0051	0.013	± 0.0032
Yachimata, CHIBA	0.76	1.13	1.68	0.022	± 0.0067	0.019	± 0.0059	0.0098	± 0.0045	0.0058	± 0.0027
Hachijo-machi, TOKYO	0.7	1.03	1.33	0.039	± 0.0082	0.038	± 0.008	0.0077	± 0.04	0.0058	± 0.003
Iwamuro-mura, NIIGATA	0.76	1.17	1.61	0.032	± 0.0075	0.028	± 0.0064	0	± 0.0036	0	± 0.0023
Oshimizu-machi, ISHIKAWA	0.7	1.12	1.53	0.013	± 0.0056	0.011	± 0.005	0.0082	± 0.004	0.0054	± 0.0026
Katsuyama, FUKUI	0.72	1.12	1.48	0.015	± 0.0064	0.014	± 0.0057	0.014	± 0.0042	0.0093	± 0.0028
Kasamatsu-machi, GIFU	0.69	1.03	1.33	0.037	± 0.008	0.036	± 0.0077	0.0016	± 0.0033	0.0012	± 0.0025
Ouchiyama-mura, MIE	0.73	1.14	1.53	0.019	± 0.0062	0.017	± 0.0054	0.0011	± 0.0037	0.0007	± 0.0024
Hino-machi, SHIGA	0.73	1.18	1.51	0.021	± 0.0067	0.018	± 0.0057	0.0084	± 0.0044	0.0055	± 0.0029
Mihara-machi, HYOGO	0.74	1.28	1.26	0.036	± 0.0078	0.028	± 0.0061	0.056	± 0.0072	0.044	± 0.0057
Ouda-machi, NARA	0.73	1.08	1.49	0.024	± 0.0069	0.022	± 0.0063	0.0046	± 0.0041	0.0031	± 0.0027
Matsue, SHIMANE	0.7	1.09	1.41	0.03	± 0.007	0.028	± 0.0065	0.01	± 0.0045	0.0074	± 0.0032
Chiyoda-machi, HIROSHIMA	0.73	1.17	1.46	0.011	± 0.0058	0.0091	± 0.0049	0.0061	± 0.0043	0.0041	± 0.0029
Takase-machi, KAGAWA	0.75	1.18	1.53	0.03	± 0.0077	0.026	± 0.0065	0.0085	± 0.0045	0.0056	± 0.0029
kawauchi-machi, EHIME	0.71	1.1	1.41	0.025	± 0.0067	0.022	± 0.0061	0.009	± 0.0044	0.0064	± 0.0031
Kochi, KOCHI	0.73	1.15	1.49	0.018	± 0.007	0.016	± 0.0061	0.0097	± 0.0045	0.0065	± 0.003
Yasu-machi, FUKUOKA	0.72	1.08	1.52	0.017	± 0.0069	0.016	± 0.0064	0.012	± 0.0046	0.0079	± 0.003
Koshi-machi, KUMAMOTO	0.73	1.14	1.49	0.015	± 0.0068	0.013	± 0.0059	0	± 0.0035	0	± 0.0024
Kuju-machi, OITA	0.74	1.14	1.58	0.0019	± 0.0049	0.0016	± 0.0043	0.027	± 0.0057	0.017	± 0.0036
Takahara-machi, MIYAZAKI	0.75	1.21	1.54	0.014	± 0.0062	0.012	± 0.0051	0.053	± 0.0072	0.034	± 0.0047
Kajiki-machi, KAGOSHIMA	0.74	1.16	1.52	0.027	± 0.0074	0.023	± 0.0063	0.011	± 0.0047	0.0072	± 0.0031
Mar, 2001											
Fujimi-mura, GUNMA	0.76	1.01	1.44	0.021	± 0.0069	0.021	± 0.0068	0.0078	± 0.0042	0.0054	± 0.0029
Takane-machi, YAMANASHI	0.69	1.11	1.42	0.015	± 0.0064	0.014	± 0.0057	0.0077	± 0.0037	0.0054	± 0.0026
Kamiita-machi, TOKUSHIMA	0.73	1.14	1.59	0.022	± 0.0068	0.02	± 0.006	0.0025	± 0.0036	0.0016	± 0.0022

(3)-2 Strontium-90 and Cesium-137 in Milk(consuming districts)
(form Oct. 2000 to Mar. 2001)

-continued from No. 135 for this publication-

Table (3)-2 : 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. 2000											
Kyoto, KYOTO	0.72	1.14	1.46	0.018	± 0.0068	0.016	± 0.006	0.012	± 0.004	0.0079	± 0.0027
Nov. 2000											
Shingu, WAKAYAMA	0.63	0.98	1.37	0.014	± 0.007	0.015	± 0.0071	0.0032	± 0.0036	0.0023	± 0.0026
Dec. 2000											
Akita, AKITA	0.73	1.18	1.51	0.013	± 0.0059	0.011	± 0.05	0.009	± 0.0038	0.006	± 0.0025
Jan. 2001											
Osaka, OSAKA	0.73	1.16	1.46	0.021	± 0.07	0.018	± 0.006	0.012	± 0.0043	0.0085	± 0.0029
Shingu, WAKAYAMA	0.7	1.07	1.41	0.018	± 0.0061	0.017	± 0.0057	0.0024	± 0.0037	0.0017	± 0.0026
Feb. 2001											
Sapporo, HOKKAIDO	0.75	1.29	1.48	0.025	± 0.0077	0.02	± 0.006	0.028	± 0.0059	0.019	± 0.004
Yamagata, YAMAGATA	0.67	1.08	1.38	0.025	± 0.0074	0.023	± 0.0068	0.0081	± 0.0036	0.0059	± 0.0026
Fukushima, FUKUSHIMA	0.74	1.2	1.47	0.015	± 0.0069	0.013	± 0.0057	0.01	± 0.0042	0.007	± 0.0028
Urawa, SAITAMA	0.72	1.16	1.47	0.016	± 0.0069	0.014	± 0.0059	0.0074	± 0.0039	0.005	± 0.0027
Shinjuku, TOKYO	0.7	1.1	1.44	0.02	± 0.0066	0.018	± 0.006	0.015	± 0.0042	0.01	± 0.0029
Yokohama, KANAGAWA	0.74	1.14	1.5	0.016	± 0.0061	0.014	± 0.0054	0.016	± 0.0048	0.011	± 0.0032
Niigata, NIIGATA	0.75	1.17	1.53	0.027	± 0.007	0.023	± 0.006	0.017	± 0.0051	0.011	± 0.0033
Shizuoka, SHIZUOKA	0.73	1.16	1.46	0.026	± 0.0067	0.023	± 0.0058	0.014	± 0.0049	0.0098	± 0.0034
Nagoya, AICHI	0.75	1.14	1.48	0.013	± 0.0062	0.011	± 0.0054	0.0029	± 0.004	0.002	± 0.0027
Yonago, TOTTORI	0.65	1.03	1.33	0.031	± 0.0073	0.03	± 0.007	0.0072	± 0.0044	0.0054	± 0.0033
Okayama, OKAYAMA	0.73	1.11	1.47	0.016	± 0.0061	0.014	± 0.0055	0.0032	± 0.004	0.0022	± 0.0027
Hiroshima, HIROSHIMA	0.69	1.13	1.41	0.026	± 0.0069	0.023	± 0.0061	0.036	± 0.0061	0.026	± 0.0043

Location	Component			90Sr				137Cs			
	Ash(%)	Ca(g/kg)	K(g/kg)	(Bq/kgwet)		(Bq/g Ca)		(Bq/kgwet)		(Bq/g K)	
Yamaguchi, YAMAGUCHI	0.73	1.19	1.47	0.012	± 0.006	0.01	± 0.005	0.015	± 0.005	0.0099	± 0.0034
kawauchi-machi, EHIME	0.7	1.1	1.39	0.021	± 0.0064	0.019	± 0.0059	0.012	± 0.0043	0.0086	± 0.0031
Kochi, KOCHI	0.74	1.13	1.54	0.025	± 0.0069	0.022	± 0.0061	0.0076	± 0.0041	0.005	± 0.0027
Chikushino, FUKUOKA	0.71	1.09	1.48	0.0091	± 0.006	0.0083	± 0.0055	0.0051	± 0.0038	0.0035	± 0.0026
Kagoshima, KAGOSHIMA	0.74	1.13	1.51	0.0087	± 0.0057	0.0078	± 0.005	0.017	± 0.0052	0.011	± 0.0034
Yonagusuku-machi, OKINAWA	0.71	1.11	1.42	0.025	± 0.007	0.023	± 0.0063	0.017	± 0.0047	0.012	± 0.0033
Mar, 2001											
Fukui, FUKUI	0.7	1.1	1.41	0.018	± 0.0059	0.016	± 0.0054	0.0081	± 0.0034	0.0058	± 0.0024
Nagano, NAGANO	0.7	1.11	1.47	0.022	± 0.0064	0.02	± 0.0058	0.024	± 0.0047	0.016	± 0.0032
Matsue, SHIMANE	0.8	1.11	1.43	0.021	± 0.0062	0.019	± 0.0055	0.0042	± 0.0041	0.003	± 0.0028
Nagasaki, NAGASAKI	0.67	1.05	1.39	0.027	± 0.0075	0.026	± 0.0071	0.008	± 0.0043	0.0058	± 0.0031

(3)-3 Strontium-90 and Cesium-137 in Milk(powdered milk)
(form Oct. 2000 to Mar. 2001 、)

-continued from No. 135 for this publication-

Table (3)-3 : 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. 2001							
Sample A, サンプルA	7.81	12.6	16.4	0.32 ± 0.027	0.026 ± 0.0021	0.69 ± 0.03	0.042 ± 0.0018
Sample B, サンプルB	2.51	3.41	5.97	0.021 ± 0.0064	0.006 ± 0.0019	0.034 ± 0.0067	0.0057 ± 0.0011
Sample D, サンプルD	2.42	3.82	5.42	0.03 ± 0.0073	0.0079 ± 0.0019	0.015 ± 0.0055	0.0027 ± 0.001
Sample E, サンプルE	3.57	6.07	7.1	0.095 ± 0.012	0.016 ± 0.0021	0.16 ± 0.012	0.022 ± 0.0018
Sample F, サンプルF	2.51	3.51	5.75	0.027 ± 0.0072	0.0076 ± 0.002	0.12 ± 0.011	0.021 ± 0.0018
Sample C, サンプルC	7.92	12.6	16.8	0.5 ± 0.035	0.04 ± 0.0028	1.4 ± 0.04	0.085 ± 0.0026

(4)-1 Strontium-90 and Cesium-137 in Vegetables(producing districts)
(form Oct. 2000 to Mar. 2001)

-continued from No. 135 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, 2000							
Tamayama-mura, IWATE	0.559	0.275	2.39	0.096 ± 0.013	0.35 ± 0.048	0.011 ± 0.0056	0.0048 ± 0.0023
Saku, NAGANO	0.562	0.189	2.5	0.049 ± 0.011	0.26 ± 0.057	0 ± 0.0041	0 ± 0.0017
Takamatsu, KAGAWA	0.473	0.243	1.79	0.012 ± 0.0052	0.048 ± 0.021	0.011 ± 0.0039	0.0059 ± 0.0022
Mutsu, AOMORI	0.585	0.357	2.24	0.18 ± 0.018	0.51 ± 0.05	0.012 ± 0.0046	0.0055 ± 0.002
Tamayama-mura, IWATE	0.538	0.458	2.04	0.12 ± 0.013	0.27 ± 0.029	0.0054 ± 0.0045	0.0026 ± 0.0022
Saku, NAGANO	1.59	0.381	7.18	0.022 ± 0.0088	0.059 ± 0.023	0 ± 0.005	0 ± 0.0007
Takamatsu, KAGAWA	1.54	0.545	6.34	0.061 ± 0.0098	0.11 ± 0.018	0 ± 0.0033	0 ± 0.00052
Nov, 2000							
Sannohe-machi, AOMORI	0.498	0.183	2.07	0.093 ± 0.013	0.51 ± 0.07	0.0091 ± 0.0043	0.0044 ± 0.0021
Fukushima, FUKUSHIMA	0.529	0.327	1.83	0.062 ± 0.011	0.19 ± 0.032	0 ± 0.0026	0 ± 0.0014
Mito, IBARAKI	0.606	0.361	2.29	0.095 ± 0.012	0.26 ± 0.033	0.0034 ± 0.0036	0.0015 ± 0.0016
Chiba, CHIBA	0.525	0.356	1.98	0.12 ± 0.013	0.35 ± 0.037	0 ± 0.003	0 ± 0.0015
Fukui, FUKUI	0.517	0.162	2.42	0.056 ± 0.0092	0.35 ± 0.057	0.0041 ± 0.0033	0.0017 ± 0.0014
Gifu, GIFU	0.499	0.235	2.19	0.015 ± 0.0068	0.065 ± 0.029	0.0029 ± 0.0034	0.0013 ± 0.0016
Meiwa-machi, MIE	0.636	0.172	2.84	0.015 ± 0.0064	0.085 ± 0.037	0.0018 ± 0.0034	0.0006 ± 0.0012
Adogawa-machi, SHIGA	0.512	0.167	2.16	0.18 ± 0.015	1.1 ± 0.09	0.0069 ± 0.0038	0.0032 ± 0.0017
Kasai, HYOGO	0.553	0.231	2.31	0.028 ± 0.0073	0.12 ± 0.032	0.008 ± 0.0042	0.0035 ± 0.0018
Shime-machi, FUKUOKA	0.432	0.267	1.63	0.016 ± 0.0073	0.06 ± 0.027	0.013 ± 0.0045	0.0077 ± 0.0028
Koshi-machi, KUMAMOTO	0.659	0.287	2.77	0.076 ± 0.011	0.27 ± 0.039	0.0022 ± 0.0034	0.0012 ± 0.0021
Sannohe-machi, AOMORI	0.441	0.382	1.6	0.025 ± 0.0085	0.0065 ± 0.022	0.0046 ± 0.004	0.0029 ± 0.0025
Fukushima, FUKUSHIMA	1.82	0.624	7.04	0.063 ± 0.011	0.1 ± 0.017	0.0099 ± 0.0046	0.0014 ± 0.00065
Mito, IBARAKI	1.65	0.737	6.53	0.16 ± 0.017	0.21 ± 0.023	0.01 ± 0.0048	0.0015 ± 0.00074

Location	Component			90Sr		137Cs	
	Ash(%)	(g/kg)	(g/kg)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/kgK)
Chiba, CHIBA	1.61	0.683	6.37	0.14 ± 0.015	0.2 ± 0.022	0.002 ± 0.0038	0.00032 ± 0.00059
Fukui, FUKUI	1.95	0.665	7.74	0.051 ± 0.0096	0.077 ± 0.014	0.014 ± 0.0049	0.0018 ± 0.00063
Gifu, GIFU	1.46	0.532	6.47	0.035 ± 0.0085	0.065 ± 0.016	0.0008 ± 0.0035	0.00013 ± 0.00055
Gotenba, SHIZUOKA	1.26	0.548	4.98	0.12 ± 0.015	0.22 ± 0.027	0.065 ± 0.008	0.013 ± 0.0016
Kusu-machi, MIE	1.33	0.419	5.37	0.035 ± 0.01	0.083 ± 0.025	0 ± 0.0041	0 ± 0.00076
Azuchi-machi, SHIGA	1.69	0.779	6.74	0.073 ± 0.011	0.094 ± 0.014	0.0008 ± 0.0038	0.00012 ± 0.00056
Kasai, HYOGO	1.61	0.467	6.37	0.06 ± 0.011	0.13 ± 0.023	0.015 ± 0.0053	0.0024 ± 0.00083
Kurayoshi, TOTTORI	1.42	0.708	5.72	0.1 ± 0.013	0.14 ± 0.018	0.061 ± 0.0078	0.011 ± 0.0014
Matsuyama, EHIME	1.46	0.31	6.19	0.04 ± 0.0088	0.13 ± 0.028	0.013 ± 0.0048	0.002 ± 0.00077
Koshi-machi, KUMAMOTO	1.53	0.387	6.87	0.089 ± 0.013	0.23 ± 0.033	0.0048 ± 0.0039	0.0007 ± 0.00057
Dec, 2000							
Utsunomiya, TOCHIGI	0.483	0.217	1.94	0.15 ± 0.018	0.69 ± 0.081	0.0099 ± 0.0046	0.0051 ± 0.0024
Maebashi, GUNMA	0.528	0.254	1.77	0.035 ± 0.0087	0.14 ± 0.034	0.02 ± 0.0052	0.011 ± 0.0029
Kosugi-machi, TOYAMA	0.29	0.164	1.03	0.015 ± 0.007	0.088 ± 0.043	0 ± 0.0032	0 ± 0.0031
Takane-machi, YAMANASHI	0.541	0.265	2.12	0.022 ± 0.0074	0.084 ± 0.028	0 ± 0.0032	0 ± 0.0015
Kashihara, NARA	0.603	0.259	2.55	0.024 ± 0.007	0.093 ± 0.027	0 ± 0.0026	0 ± 0.001
Kokufu-machi, TOTTORI	0.497	0.226	2.6	0.042 ± 0.0085	0.18 ± 0.038	0.0034 ± 0.0033	0.0013 ± 0.0013
Hiroshima, HIROSHIMA	0.491	0.149	2	0.026 ± 0.0082	0.18 ± 0.055	0.004 ± 0.0042	0.002 ± 0.0021
Kubokawa-machi, KOCHI	0.602	0.188	2.47	0.11 ± 0.014	0.6 ± 0.076	0 ± 0.0048	0 ± 0.002
Kanzaki-machi, SAGA	0.702	0.291	2.99	0.048 ± 0.009	0.17 ± 0.031	0.0014 ± 0.0031	0.0005 ± 0.0011
Usa, OITA	0.663	0.2	2.91	0.054 ± 0.011	0.27 ± 0.053	0 ± 0.0033	0 ± 0.0011
Kaimon-machi, KAGOSHIMA	0.572	0.187	2.48	0.067 ± 0.012	0.36 ± 0.065	0.0098 ± 0.0043	0.004 ± 0.0017
Utsunomiya, TOCHIGI	0.545	0.413	2.31	0.31 ± 0.02	0.75 ± 0.048	0.0076 ± 0.004	0.0033 ± 0.0017
Maebashi, GUNMA	2.19	0.515	8.48	0.055 ± 0.0099	0.11 ± 0.019	0.0046 ± 0.0037	0.00054 ± 0.00044
Toyama, TOYAMA	1.64	0.943	6.39	0.22 ± 0.019	0.24 ± 0.02	0.025 ± 0.0061	0.0039 ± 0.00095
Takane-machi, YAMANASHI	2.11	0.749	9.33	0.044 ± 0.0092	0.058 ± 0.012	0.0046 ± 0.004	0.0005 ± 0.00043
Kashihara, NARA	1.13	0.296	4.78	0.021 ± 0.0086	0.071 ± 0.029	0 ± 0.0029	0 ± 0.00062
Hiroshima, HIROSHIMA	1.92	0.835	7.37	0.059 ± 0.01	0.07 ± 0.012	0.0004 ± 0.0037	0.00006 ± 0.0005

Location	Component			90Sr		137Cs	
	Ash(%)	(g/kg)	(g/kg)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/kgK)
Kubokawa-machi, KOCHI	1.46	0.374	5.99	0.028 ± 0.0079	0.075 ± 0.021	0.017 ± 0.0049	0.0029 ± 0.00081
Kanzaki-machi, SAGA	1.51	0.479	6.36	0.045 ± 0.0094	0.093 ± 0.02	0.0047 ± 0.0038	0.00073 ± 0.0006
Usa, OITA	1.83	0.346	7.7	0.042 ± 0.0098	0.12 ± 0.028	0 ± 0.003	0 ± 0.00039
Matsumoto-machi, KAGOSHIMA	1.52	1.19	2.85	0.033 ± 0.0088	0.027 ± 0.0074	0.14 ± 0.011	0.049 ± 0.004
Jan, 2001							
Shingu, WAKAYAMA	0.4	0.238	1.45	0.041 ± 0.008	0.17 ± 0.033	0.014 ± 0.0042	0.0096 ± 0.0029
Yuya-machi, YAMAGUCHI	0.494	0.178	1.29	0.058 ± 0.013	0.32 ± 0.071	0 ± 0.0038	0 ± 0.0029
Ishii-machi, TOKUSHIMA	0.572	0.213	1.82	0.1 ± 0.013	0.47 ± 0.059	0 ± 0.0033	0 ± 0.0018
Takanabe-machi, MIYAZAKI	0.507	0.176	1.95	0.098 ± 0.012	0.55 ± 0.067	0.0029 ± 0.003	0.0015 ± 0.0015
Shingu, WAKAYAMA	0.612	0.332	2.56	0.06 ± 0.011	0.18 ± 0.032	0.02 ± 0.0048	0.0079 ± 0.0019
Yuya-machi, YAMAGUCHI	1.94	0.85	6.89	0.16 ± 0.017	0.19 ± 0.02	0.022 ± 0.0057	0.0032 ± 0.00083
Ishii-machi, TOKUSHIMA	2.03	0.717	7.53	0.037 ± 0.0082	0.051 ± 0.0111	0.012 ± 0.0048	0.0016 ± 0.00063
Feb, 2001							
Kumatori-machi, OSAKA	0.663	0.223	2.75	0.021 ± 0.0067	0.094 ± 0.03	0 ± 0.0032	0 ± 0.0012

(4)-2 Strontium-90 and Cesium-137 in Vegetables(consuming districts)
(form Oct. 2000 to Mar. 2001)

-continued from No. 135 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, 2000							
Yamagata, YAMAGATA	0.524	0.167	2.31	0.089 ± 0.012	0.53 ± 0.071	0.012 ± 0.0047	0.0052 ± 0.002
Urawa, SAITAMA	0.56	0.135	2.1	0.14 ± 0.016	1.1 ± 0.12	0.032 ± 0.0061	0.015 ± 0.0029
Kyoto, KYOTO	0.475	0.155	1.65	0.016 ± 0.0076	0.11 ± 0.049	0 ± 0.003	0 ± 0.0018
Yonagusuku-machi, OKINAWA	0.609	0.195	2.68	0.058 ± 0.011	0.3 ± 0.057	0.079 ± 0.0086	0.029 ± 0.0032
Yamagata, YAMAGATA	2.12	0.674	9.05	0.059 ± 0.01	0.087 ± 0.015	0.0017 ± 0.0045	0.00018 ± 0.00049
Urawa, SAITAMA	1.43	0.597	5.66	0.031 ± 0.0081	0.051 ± 0.014	0.011 ± 0.0046	0.002 ± 0.00082
Kyoto, KYOTO	1.18	0.45	4.44	0 ± 0.0061	0 ± 0.014	0 ± 0.0033	0 ± 0.00074
Yonagusuku-machi, OKINAWA	1.71	0.333	7.59	0.037 ± 0.0086	0.11 ± 0.026	0.0089 ± 0.0044	0.0012 ± 0.00058
Nov, 2000							
Akita, AKITA	0.535	0.291	2.16	0.025 ± 0.0075	0.084 ± 0.026	0 ± 0.0036	0 ± 0.0016
Shinjuku, TOKYO	0.491	0.232	1.88	0.015 ± 0.008	0.066 ± 0.035	0.0016 ± 0.0039	0.0009 ± 0.0021
Niigata, NIIGATA	0.431	0.204	1.7	0.0092 ± 0.0059	0.045 ± 0.029	0.0055 ± 0.0035	0.0033 ± 0.0021
Kanazawa, ISHIKAWA	0.497	0.176	2.49	0.0095 ± 0.0076	0.054 ± 0.043	0.0019 ± 0.0035	0.0008 ± 0.0014
Osaka, OSAKA	0.53	0.264	2.06	0.053 ± 0.0095	0.2 ± 0.036	0.0034 ± 0.0036	0.0016 ± 0.0018
Okayama, OKAYAMA	0.4	0.235	1.44	0.23 ± 0.017	0.98 ± 0.073	0.025 ± 0.0049	0.017 ± 0.0034
Akita, AKITA	0.736	0.929	2.32	0.17 ± 0.015	0.18 ± 0.016	0.14 ± 0.011	0.06 ± 0.0047
Shinjuku, TOKYO	1.69	0.602	7.46	0.12 ± 0.015	0.2 ± 0.025	0.0067 ± 0.0045	0.0009 ± 0.00061
Kanazawa, ISHIKAWA	1.62	0.744	6.51	0.0054 ± 0.0076	0.007 ± 0.01	0.0022 ± 0.004	0.00033 ± 0.00061
Osaka, OSAKA	1.8	0.541	7.31	0.098 ± 0.013	0.18 ± 0.023	0.039 ± 0.0067	0.0053 ± 0.00091
Okayama, OKAYAMA	1.75	0.808	7.59	0.037 ± 0.0096	0.045 ± 0.012	0.013 ± 0.0053	0.0018 ± 0.00069
Matsuyama, EHIME	1.5	0.738	5.41	0.0007 ± 0.0051	0.0009 ± 0.0068	0.02 ± 0.0054	0.0038 ± 0.001
Jan, 2001							

Location	Component			90Sr		137Cs	
	Ash(%)	(g/kg)	(g/kg)	(Bq/kgwet)	(Bq/gCa)	(Bq/kgwet)	(Bq/kgK)
Yokohama, KANAGAWA	0.441	0.198	1.86	0.0051 ± 0.0072	0.026 ± 0.036	0.0086 ± 0.0041	0.0046 ± 0.0022
Yokohama, KANAGAWA	1.45	0.657	5.52	0.055 ± 0.011	0.083 ± 0.017	0.011 ± 0.0051	0.0021 ± 0.00093
Mar, 2001							
Nagasaki, NAGASAKI	0.42	0.305	1.3	0.059 ± 0.0094	0.19 ± 0.031	0.0045 ± 0.0033	0.0034 ± 0.0026
Nagasaki, NAGASAKI	1.85	0.905	5.89	0.1 ± 0.013	0.11 ± 0.014	0.0086 ± 0.0043	0.0015 ± 0.00073

(5) Strontium-90 and Cesium-137 in Sea Fish
(form Oct. 2000 to Mar. 2001)

-continued from No. 135 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, 2000							
Nagasaki, NAGASAKI	1.27	0.632	3.74	0.032 ± 0.014	0.051 ± 0.022	0.13 ± 0.017	0.036 ± 0.0045
(Hexagrammos otakii)							
Oct, 2000							
Soma, FUKUSHIMA	1.32	0.995	3.62	0.0071 ± 0.0053	0.0071 ± 0.0053	0.13 ± 0.01	0.035 ± 0.0028
(Limanda herzensteini)							
Nov, 2000							
Mutsu, AOMORI	1.5	0.959	4.19	0 ± 0.0053	0 ± 0.0056	0.11 ± 0.01	0.027 ± 0.0024
Niigata, NIIGATA	1.42	0.809	3.93	0.01 ± 0.006	0.013 ± 0.0074	0.076 ± 0.0088	0.019 ± 0.0022
Echizen-machi, FUKUI	1.28	1.25	2.85	0.0052 ± 0.005	0.0042 ± 0.004	0.079 ± 0.0084	0.028 ± 0.003
Aji-machi, KAGAWA	1.6	1.56	3.66	0.017 ± 0.0062	0.011 ± 0.0039	0.05 ± 0.0073	0.014 ± 0.002
(Mugil cephalus)							
Nov, 2000							
Ushimado-machi, OKAYAMA	1.42	0.844	3.98	0.0078 ± 0.0061	0.0093 ± 0.0072	0.11 ± 0.01	0.027 ± 0.0025
(Sardinops melanostictus)							
Jan, 2001							
Nagano, NAGANO	2.41	3.44	2.15	0.0076 ± 0.006	0.0022 ± 0.0018	0.046 ± 0.0073	0.021 ± 0.0034
(Scomber australasicus)							

Location	Component			90Sr				137Cs			
	(%)	(g/kgwet)	(g/kgwet)	(Bq/kgwet)		(Bq/gCa)		(Bq/kgwet)		(Bq/gK)	
Feb, 2001											
Chikura-machi, CHIBA	1.41	0.219	4.54	0.0075	± 0.0059	0.034	± 0.027	0.13	± 0.011	0.03	± 0.0024
(Scomber japonicus)											
Jan, 2001											
Oki-abjacent seas, TOTTORI	0.68	0.13	1.82	0.0014	± 0.0057	0.01	± 0.044	0.054	± 0.0076	0.03	± 0.0042
(Scomber sp)											
Nov, 2000											
Kyoto, KYOTO	1.29	0.166	3.38	0	± 0.0041	0	± 0.025	0.1	± 0.01	0.031	± 0.0028
Osaka, OSAKA	1.15	0.145	2.53	0.0083	± 0.0058	0.0057	± 0.04	0.091	± 0.009	0.036	± 0.0036
(Spratelloides gracilis)											
Dec, 2000											
Akune, KAGOSHIMA	2.92	6.01	4.06	0.0092	± 0.0062	0.0015	± 0.001	0.14	± 0.011	0.034	± 0.0027
(Trachurus sp)											
Oct, 2000											
Hachijo-machi, TOKYO	1.31	1.65	2.8	0.0099	± 0.0059	0.006	± 0.0036	0.11	± 0.01	0.038	± 0.0035
Nov, 2000											
Shizuoka, SHIZUOKA	3.51	8.06	2.85	0.015	± 0.0065	0.0018	± 0.00081	0.14	± 0.011	0.049	± 0.004
Feb, 2001											
Shingu, WAKAYAMA	1.36	1.07	2.56	0	± 0.005	0	± 0.0047	0.12	± 0.011	0.049	± 0.0042

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
Kibinago	Blue sprat	Spratelloides gracilis
Magarei	Brown sole	Limanda herzensteini
Maiwashi	Japanese pilchard	Sardinops melanostictus
Masaba	Pacific mackerel	Scomber japonicus
Saba	Mackerel	Scomber sp

(6) Strontium-90 and Cesium-137 in Freshwater Fish
(form Oct. 2000 to Mar. 2001)

-continued from No. 135 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, 2000							
Niigata, NIIGATA	1.65	2.39	3.4	0.16 ± 0.015	0.067 ± 0.0064	0.15 ± 0.012	0.045 ± 0.0034
Dec, 2000							
Mikata-machi, FUKUI	1.22	0.719	3.4	0.056 ± 0.01	0.078 ± 0.014	0.14 ± 0.011	0.042 ± 0.0034
Uji, KYOTO	4.37	12.8	2.67	0.6 ± 0.029	0.047 ± 0.0023	0.0098 ± 0.0049	0.0037 ± 0.0018
(Cyprinus carpio)							
Oct, 2000							
Shobara, HIROSHIMA	0.94	0.208	3.04	0.0099 ± 0.0062	0.048 ± 0.03	0.095 ± 0.0093	0.031 ± 0.003
(Hypomesus nipponensis)							
Nov, 2000							
Suwa-lake, NAGANO	2.77	7.17	2.81	0.12 ± 0.013	0.016 ± 0.0019	0.11 ± 0.01	0.04 ± 0.0037
(Salmo gairdneri)							
Oct, 2000							
Kumagaya, SAITAMA	1.24	0.161	4.28	0.0058 ± 0.0056	0.036 ± 0.035	0.19 ± 0.012	0.044 ± 0.0029

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. 2000 to Mar. 2001)

-continued from No. 135 for this publication-

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, 2000											
Mutsu-bay, AOMORI	1.8	0.265	2.45	0	± 0.006	0	± 0.023	0.023	± 0.0057	0.0096	± 0.0023
Feb, 2001											
Yamada-machi, IWATE	2.18	0.346	2.44	0.0061	± 0.0064	0.018	± 0.018	0.019	± 0.0056	0.0076	± 0.0023

Shellfish

Japanese name	English name	Scientific name
Hotategai	Yesso scallop	Patinopecten yessoensis

(8) Strontium-90 and Cesium-137 in Seaweeds
(form Oct. 2000 to Mar. 2001)

-continued from No. 135 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, 2001							
Minamichita-machi, AICHI	2.97	0.7	9.57	0.031 ± 0.0083	0.044 ± 0.012	0.023 ± 0.0058	0.0024 ± 0.0006
Toba, MIE	1.39	0.745	3.6	0.053 ± 0.01	0.072 ± 0.013	0.0097 ± 0.0046	0.0027 ± 0.0013
Hiroshima, HIROSHIMA	3.38	0.717	6.35	0.0096 ± 0.0055	0.013 ± 0.0077	0.026 ± 0.0055	0.0041 ± 0.00086
Mar, 2001							
Shimabara, NAGASAKI	1.86	0.592	4.36	0.01 ± 0.007	0.017 ± 0.012	0.013 ± 0.0052	0.003 ± 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