Radiation Measurement Results of 148 Items in May

When samples include natural radionuclides we can't deny the possibility of their radiation value counted together in our results.

The list below only shows the measurement results of the samples brought in.

Radioactive contamination level may differ according to sampling points even within the same address.

★Gamma-ray

Measuring instrument		Feature	Guide to lower limit※
NaI Scintillation Spectrometer			
Product of ATOMTEX AT1320A 	Product of BERTHOLD LB2045 	・Gamma-ray spectrometer with NaI scintillation detector.	Food (Sample 1kg) Lower limit 1.0Bq/Kg Soil (Sample 1kg) Lower limit 2.5Bq/Kg Material (Sample 1kg) Lower limit 1.0Bq/Kg Water (Sample 20L) Lower kimit 0.02Bq/L
Germanium Semiconductor detector			
ORTEC GEM30-70 		・Radioactivity measurement series. Quantitative analysis based on "Gamma-ray spectrometry with germanium semiconductor detector." ・Relative efficiency 35％	Food (Sample 2kg) Lower limit 0.04Bq/Kg Soil (Sample 1kg) Lower limit 0.06Bq/Kg Material (Sample 1kg) Lower limit 0.06Bq/Kg Water (Sample 20L) Lower limit 0.001Bq/L

※The lower limit varies depending on the sample weight and measurement time.

Measuring instrument:Germanium Semiconductor detector (Bq/kg raw:Weight of raw sample Bq/kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measurement Result		Uncertainty		Total Amount of Cesium	Minimum Limit of Detection	
Sweet potato	Ibaraki Pref.	Apr-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.3 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.2 Bq/kg raw
Onion	Saga Pref.	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.3 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.2 Bq/kg raw
Spring onion	Taira, shimokabeya Iwaki	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.7 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.6 Bq/kg raw
Small onion(pulp)	Chiba Pref.	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	2.0 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.7 Bq/kg raw
Cucumber	Iwaki city	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.6 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.5 Bq/kg raw
Sunny lettuce	Taira, shimokabeya, Iwaki	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	2.2 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.8 Bq/kg raw
Spinach	Iwaki city	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.8 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.5 Bq/kg raw
Spinach	Iritono, Tono, Iwaki	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.9 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.6 Bq/kg raw
Japanese mustard spinach	Taira, shimokabeya, Iwaki	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	2.1 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.7 Bq/kg raw
Japanese mustard spinach	Tabito, Iwaki	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.4 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.3 Bq/kg raw
Japanese mustard spinach	Ibaraki Pref.	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.6 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.5 Bq/kg raw
Garland chrysanthemum	Ibaraki Pref.	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	2.4 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	2.0 Bq/kg raw
Canola flower	Iritono, Tono, Iwaki	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	2.9 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	2.2 Bq/kg raw
Wasabi Leaves	Fukushima Pref.	May-20	Cs137	— Bq/kg raw	± —	Bq/kg raw	Under Minimum Limit of Detection	Cs137	2.0 Bq/kg raw
			Cs134	— Bq/kg raw	± —	Bq/kg raw		Cs134	1.5 Bq/kg raw

※"—" used in Measurement Result and Uncertainty shows that the value is below the detection limit.

But it does not necessary mean 0(zero)Bq/kg.

Mothers' Radiation Lab Fukushima

★Gamma-ray

(Bq/kg raw:Weight of raw sample Bq/kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measurement Result		Uncertainty		Total Amount of Cesium	Minimum Limit of Detection	
Chinese chive	Fukushima Pref.	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	2.1 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.6 Bq/kg raw
Dried daikon	kashima,Minamisoma,Fukushima	Jan-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	2.2 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.7 Bq/kg raw
Bamboo shoot (raw)	Hashiriguma, Kashima,Iwaki	May-20	Cs137	21.9 Bq/kg raw	± 4.5 Bq/kg raw		21.9	Cs137	1.6 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.5 Bq/kg raw
Bamboo shoot (raw)	Miyagi Pref.	May-20	Cs137	31.4 Bq/kg raw	± 6.3 Bq/kg raw		31.4	Cs137	1.9 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.8 Bq/kg raw
Bamboo shoot (bark)	Miyagi Pref.	May-20	Cs137	45.4 Bq/kg raw	± 9.1 Bq/kg raw		45.4	Cs137	3.3 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	3.2 Bq/kg raw
Bamboo shoot(raw)	Ibaraki Pref.	Apr-20	Cs137	5.7 Bq/kg raw	± 1.5 Bq/kg raw		5.7	Cs137	1.6 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.5 Bq/kg raw
Bamboo shoot(raw)	Fukuoka Pref.	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	1.7 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.6 Bq/kg raw
Bamboo shoot(bark)	Fukuoka Pref.	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	2.7 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	2.5 Bq/kg raw
Ostrich ferm	kashima,Minamisoma,Fukushima	May-20	Cs137	6.2 Bq/kg raw	± 2.2 Bq/kg raw		6.2	Cs137	2.8 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	2.2 Bq/kg raw
Ostrich ferm	Iwaki City	Apr-20	Cs137	5.5 Bq/kg raw	± 2.6 Bq/kg raw		5.5	Cs137	3.2 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	2.4 Bq/kg raw
Dried bracken	Tono,Iwaki	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	3.0 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	2.3 Bq/kg raw
Dried bracken	Ibaraki.Pref	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	1.5 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.2 Bq/kg raw
Dried bracken	Yamagata.Pref	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	3.2 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	2.5 Bq/kg raw
Japanese parsley	Iwaki City	Apr-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	2.7 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	2.1 Bq/kg raw
Japanese parsley	Ibaraki Pref.	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	2.4 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	2.0 Bq/kg raw
Butterbur	kashima,Minamisoma,Fukushima	Apr-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	4.0 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	3.8 Bq/kg raw
Mountain udo	Iwaki City	Apr-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	1.8 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.7 Bq/kg raw
Mountain udo	Iwaki City	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	2.4 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.9 Bq/kg raw
Plum(pulp・seed)	kashima,Minamisoma,Fukushima	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	1.7 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.6 Bq/kg raw
Plum(pulp・seed)	Kitaibaraki, Ibaraki	Jun-19	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	1.1 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.0 Bq/kg raw
Banana	Philippines	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	1.2 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.0 Bq/kg raw
Cherry	Onahamasuwa, Iwaki	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	2.1 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.6 Bq/kg raw
Pork	Japan (production)	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	1.5 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.2 Bq/kg raw
Chicken	Date,Fukushima	Apr-20	Cs137	— Bq/kg raw	± — Bq/kg raw		Under Minimum Limit of Detection	Cs137	1.5 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw			Cs134	1.4 Bq/kg raw

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But it does not necessary mean 0(zero)Bq/kg.

Mothers' Radiation Lab Fukushima

★Gamma-ray

(Bq/kg raw:Weight of raw sample Bq/kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measurement Result		Uncertainty	Total Amount of Cesium	Minimum Limit of Detection	
Black Bass	Soma.Fukushima	May-20	Cs137	106.0 Bq/kg raw	± 21.0 Bq/kg raw	113.2	Cs137	2.3 Bq/kg raw
			Cs134	7.2 Bq/kg raw	± 2.0 Bq/kg raw		Cs134	2.1 Bq/kg raw
Ami shrimp	Miyagi Pref.	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	3.4 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	2.6 Bq/kg raw
Abalone	Ena,Iwaki	May-20	Cs137	2.1 Bq/kg raw	± 1.5 Bq/kg raw	2.1	Cs137	2.0 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.6 Bq/kg raw
Sea Cucumber	Ena,Iwaki	May-20	Cs137	14.5 Bq/kg raw	± 2.6 Bq/kg raw	14.5	Cs137	1.4 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.1 Bq/kg raw
Dried green seaweed	Soma.Fukushima	Apr-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	2.6 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	2.0 Bq/kg raw
Noodles made from konjac	Maebashi.Gunma	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.4 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.0 Bq/kg raw
Chinese noodles	Japan (production)	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.3 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.3 Bq/kg raw
Child Hamburg steak	Moka.Tochigi	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.6 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.2 Bq/kg raw
Rice miso (Domestic soybean)	Nagano Pref.	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	0.9 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	0.9 Bq/kg raw
Miso	Aidu.Fukushima	Apr-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.4 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.3 Bq/kg raw
Black sesame	Hyogo Pref.	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.8 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.5 Bq/kg raw
Soybeans	Hiroshima Pref.	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.8 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.4 Bq/kg raw
Soy milk (HokkaidoSoybeans)	Tokyo	Apr-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.2 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.2 Bq/kg raw
Wiener	Tamura. Fukushima	Apr-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.4 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.3 Bq/kg raw
Fish paste products	Japan (production)	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.7 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.6 Bq/kg raw
Fish paste products	Onagawa.Oshika .Miyagi	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.5 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.3 Bq/kg raw
Yogurt	Fukushima Pref.	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.2 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.1 Bq/kg raw
Yogurt	Motomiya. Fukushima	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.3 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.3 Bq/kg raw
Bran	Gifu Pref.	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.2 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.0 Bq/kg raw
Wood vinegar	Iwaki City	Apr-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	1.2 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.1 Bq/kg raw
White clover	Onahama.Iwaki	May-20	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	16.5 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	12.5 Bq/kg raw
Cow dung	Iwaki City	Apr-20	Cs137	17.3 Bq/kg raw	± 3.7 Bq/kg raw	17.3	Cs137	1.7 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	1.6 Bq/kg raw
Soil①(surface)	Chuoudai,Iwaki	Apr-20	Cs137	399.0 Bq/kg dry	± 44.5 Bq/kg dry	423.3	Cs137	2.3 Bq/kg raw
			Cs134	24.3 Bq/kg dry	± 4.9 Bq/kg dry		Cs134	3.2 Bq/kg raw
Soil②(deep)	Chuoudai,Iwaki	Apr-20	Cs137	217.0 Bq/kg dry	± 24.1 Bq/kg dry	232.2	Cs137	2.0 Bq/kg raw
			Cs134	15.2 Bq/kg dry	± 3.0 Bq/kg dry		Cs134	2.5 Bq/kg raw

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But it does not necessary mean 0(zero)Bq/kg.

Mothers' Radiation Lab Fukushima

★Gamma-ray

(Bq/kg raw:Weight of raw sample Bq/kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measurement Result			Uncertainty			Total Amount of Cesium	Minimum Limit of Detection		
Soil①(surface)	Chuoudai,Iwaki	Apr-20	Cs137	364.0	Bq/kg dry	±	39.2	Bq/kg dry	387.8	Cs137	2.4	Bq/kg dry
			Cs134	23.8	Bq/kg dry	±	3.7	Bq/kg dry		Cs134	3.5	Bq/kg dry
Soil②(deep)	Chuoudai,Iwaki	Apr-20	Cs137	121.0	Bq/kg dry	±	13.7	Bq/kg dry	127.3	Cs137	2.0	Bq/kg dry
			Cs134	6.3	Bq/kg dry	±	1.6	Bq/kg dry		Cs134	3.1	Bq/kg dry
Soil(in the park)	Shonandai, Onahama,Iwaki	May-20	Cs137	1400.0	Bq/kg dry	±	153.0	Bq/kg dry	1475.3	Cs137	3.4	Bq/kg dry
			Cs134	75.3	Bq/kg dry	±	12.2	Bq/kg dry		Cs134	3.8	Bq/kg dry
Soil(in the park)	Shonandai, Onahama,Iwaki	May-20	Cs137	595.0	Bq/kg dry	±	65.6	Bq/kg dry	634.3	Cs137	4.3	Bq/kg dry
			Cs134	39.3	Bq/kg dry	±	7.0	Bq/kg dry		Cs134	5.6	Bq/kg dry
Soil (in the park)under the horizontal bar	Shonandai, Onahama,Iwaki	May-20	Cs137	525.0	Bq/kg dry	±	57.8	Bq/kg dry	556.5	Cs137	4.5	Bq/kg dry
			Cs134	31.5	Bq/kg dry	±	5.4	Bq/kg dry		Cs134	6.1	Bq/kg dry
Soil(in the park)	Shonandai, Onahama,Iwaki	May-20	Cs137	497.0	Bq/kg dry	±	54.1	Bq/kg dry	526.4	Cs137	2.5	Bq/kg dry
			Cs134	29.4	Bq/kg dry	±	4.9	Bq/kg dry		Cs134	3.4	Bq/kg dry
Soil(in the park)	Shonandai, Onahama,Iwaki	May-20	Cs137	310.0	Bq/kg dry	±	34.1	Bq/kg dry	326.6	Cs137	4.1	Bq/kg dry
			Cs134	16.6	Bq/kg dry	±	3.1	Bq/kg dry		Cs134	5.4	Bq/kg dry
Soil(in the park)	Shonandai, Onahama,Iwaki	May-20	Cs137	228.0	Bq/kg dry	±	24.9	Bq/kg dry	243.4	Cs137	3.5	Bq/kg dry
			Cs134	15.4	Bq/kg dry	±	2.7	Bq/kg dry		Cs134	5.1	Bq/kg dry
Soil (in the park) under the slide	Shonandai, Onahama,Iwaki	May-20	Cs137	202.0	Bq/kg dry	±	22.9	Bq/kg dry	219.2	Cs137	2.2	Bq/kg dry
			Cs134	17.2	Bq/kg dry	±	3.3	Bq/kg dry		Cs134	3.3	Bq/kg dry
Soil (in the park) under the swing	Shonandai, Onahama,Iwaki	May-20	Cs137	138.0	Bq/kg dry	±	15.3	Bq/kg dry	146.8	Cs137	1.7	Bq/kg dry
			Cs134	8.8	Bq/kg dry	±	1.8	Bq/kg dry		Cs134	2.6	Bq/kg dry
Soil(in the park) Sandbox	Shonandai, Onahama,Iwaki	May-20	Cs137	43.1	Bq/kg dry	±	5.0	Bq/kg dry	46.4	Cs137	2.6	Bq/kg dry
			Cs134	3.3	Bq/kg dry	±	0.8	Bq/kg dry		Cs134	3.3	Bq/kg dry
Soil(in the park)	Minatogaoka, Onahama,Iwaki	May-20	Cs137	323.0	Bq/kg dry	±	35.8	Bq/kg dry	346.5	Cs137	2.9	Bq/kg dry
			Cs134	23.5	Bq/kg dry	±	4.5	Bq/kg dry		Cs134	3.5	Bq/kg dry
Soil(in the park)under the horizontal bar	Minatogaoka, Onahama,Iwaki	May-20	Cs137	264.0	Bq/kg dry	±	28.9	Bq/kg dry	280.4	Cs137	2.0	Bq/kg dry
			Cs134	16.4	Bq/kg dry	±	2.9	Bq/kg dry		Cs134	2.8	Bq/kg dry
Soil(in the park)	Minatogaoka, Onahama,Iwaki	May-20	Cs137	240.0	Bq/kg dry	±	27.8	Bq/kg dry	254.0	Cs137	3.0	Bq/kg dry
			Cs134	14.0	Bq/kg dry	±	3.3	Bq/kg dry		Cs134	4.0	Bq/kg dry
Soil(in the park)	Minatogaoka, Onahama,Iwaki	May-20	Cs137	238.0	Bq/kg dry	±	25.8	Bq/kg dry	252.1	Cs137	2.2	Bq/kg dry
			Cs134	14.1	Bq/kg dry	±	2.4	Bq/kg dry		Cs134	2.7	Bq/kg dry
Soil(in the park)	Minatogaoka, Onahama,Iwaki	May-20	Cs137	177.0	Bq/kg dry	±	19.7	Bq/kg dry	187.4	Cs137	2.9	Bq/kg dry
			Cs134	10.4	Bq/kg dry	±	1.9	Bq/kg dry		Cs134	4.0	Bq/kg dry
Soil (in the park) under the swing	Minatogaoka, Onahama,Iwaki	May-20	Cs137	153.0	Bq/kg dry	±	18.1	Bq/kg dry	161.0	Cs137	3.4	Bq/kg dry
			Cs134	8.0	Bq/kg dry	±	2.6	Bq/kg dry		Cs134	4.8	Bq/kg dry
Soil (in the park) Jungle Jim	Minatogaoka, Onahama,Iwaki	May-20	Cs137	139.0	Bq/kg dry	±	17.2	Bq/kg dry	151.4	Cs137	3.4	Bq/kg dry
			Cs134	12.4	Bq/kg dry	±	2.7	Bq/kg dry		Cs134	5.0	Bq/kg dry
Soil(in the park)	Minatogaoka, Onahama,Iwaki	May-20	Cs137	88.9	Bq/kg dry	±	9.8	Bq/kg dry	94.9	Cs137	2.0	Bq/kg dry
			Cs134	6.0	Bq/kg dry	±	1.2	Bq/kg dry		Cs134	2.5	Bq/kg dry
Soil(in the park) Sandbox	Minatogaoka, Onahama,Iwaki	May-20	Cs137	76.1	Bq/kg dry	±	8.4	Bq/kg dry	81.6	Cs137	2.7	Bq/kg dry
			Cs134	5.5	Bq/kg dry	±	1.1	Bq/kg dry		Cs134	3.5	Bq/kg dry
Soil (in the park) under the slide	Minatogaoka, Onahama,Iwaki	May-20	Cs137	—	Bq/kg dry	±	—	Bq/kg dry	Under Minimum Limit of Detection	Cs137	2.8	Bq/kg dry
			Cs134	—	Bq/kg dry	±	—	Bq/kg dry		Cs134	3.0	Bq/kg dry
Soil (in the park) under the monkey bar	Suimatsu, Onahama,Iwaki	Apr-20	Cs137	1410.0	Bq/kg dry	±	151.0	Bq/kg dry	1506.3	Cs137	6.6	Bq/kg dry
			Cs134	96.3	Bq/kg dry	±	12.9	Bq/kg dry		Cs134	7.8	Bq/kg dry
Soil(in the park)	Suimatsu, Onahama,Iwaki	Apr-20	Cs137	1210.0	Bq/kg dry	±	133.0	Bq/kg dry	1282.8	Cs137	3.2	Bq/kg dry
			Cs134	72.8	Bq/kg dry	±	12.8	Bq/kg dry		Cs134	3.9	Bq/kg dry
Soil(in the park)	Suimatsu, Onahama,Iwaki	Apr-20	Cs137	972.0	Bq/kg dry	±	104.0	Bq/kg dry	1034.4	Cs137	3.2	Bq/kg dry
			Cs134	62.4	Bq/kg dry	±	8.4	Bq/kg dry		Cs134	3.5	Bq/kg dry

※"—" used in Measurement Result and Uncertainty shows that the value is below the detection limit.

But it does not necessary mean 0(zero)Bq/kg.

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★Gamma-ray

(Bq/kg raw:Weight of raw sample Bq/kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measurement Result			Uncertainty			Total Amount of Cesium	Minimum Limit of Detection		
Soil(in the park)	Suimatsu, Onahama, Iwaki	Apr-20	Cs137	809.0	Bq/kg dry	±	88.4	Bq/kg dry	854.4	Cs137	2.8	Bq/kg dry
			Cs134	45.4	Bq/kg dry	±	7.3	Bq/kg dry		Cs134	3.3	Bq/kg dry
Soil(in the park)	Suimatsu, Onahama, Iwaki	Apr-20	Cs137	730.0	Bq/kg dry	±	79.2	Bq/kg dry	781.0	Cs137	4.8	Bq/kg dry
			Cs134	51.0	Bq/kg dry	±	7.1	Bq/kg dry		Cs134	6.0	Bq/kg dry
Soil(in the park)under the horizontal bar	Suimatsu, Onahama, Iwaki	Apr-20	Cs137	710.0	Bq/kg dry	±	72.3	Bq/kg dry	743.2	Cs137	3.2	Bq/kg dry
			Cs134	33.2	Bq/kg dry	±	4.3	Bq/kg dry		Cs134	4.1	Bq/kg dry
Soil (in the park) under the swing	Suimatsu, Onahama, Iwaki	Apr-20	Cs137	116.0	Bq/kg dry	±	14.8	Bq/kg dry	125.7	Cs137	2.7	Bq/kg dry
			Cs134	9.7	Bq/kg dry	±	3.3	Bq/kg dry		Cs134	2.7	Bq/kg dry
Soil(in the park)	Rokutanda, Onahama, Iwaki	May-20	Cs137	1180.0	Bq/kg dry	±	129.0	Bq/kg dry	1245.0	Cs137	3.1	Bq/kg dry
			Cs134	65.0	Bq/kg dry	±	10.6	Bq/kg dry		Cs134	3.7	Bq/kg dry
Soil(in the park)	Rokutanda, Onahama, Iwaki	May-20	Cs137	781.0	Bq/kg dry	±	84.5	Bq/kg dry	832.0	Cs137	4.6	Bq/kg dry
			Cs134	51.0	Bq/kg dry	±	7.3	Bq/kg dry		Cs134	5.3	Bq/kg dry
Soil(in the park)	Rokutanda, Onahama, Iwaki	May-20	Cs137	562.0	Bq/kg dry	±	60.5	Bq/kg dry	598.3	Cs137	2.5	Bq/kg dry
			Cs134	36.3	Bq/kg dry	±	5.1	Bq/kg dry		Cs134	3.0	Bq/kg dry
Soil(in the park)	Rokutanda, Onahama, Iwaki	May-20	Cs137	388.0	Bq/kg dry	±	42.8	Bq/kg dry	412.4	Cs137	2.4	Bq/kg dry
			Cs134	24.4	Bq/kg dry	±	4.5	Bq/kg dry		Cs134	3.0	Bq/kg dry
Soil(in the park)	Rokutanda, Onahama, Iwaki	May-20	Cs137	337.0	Bq/kg dry	±	38.8	Bq/kg dry	355.9	Cs137	3.7	Bq/kg dry
			Cs134	18.9	Bq/kg dry	±	4.5	Bq/kg dry		Cs134	4.9	Bq/kg dry
Soil(in the park)	Oohara, Onahama, Iwaki	May-20	Cs137	791.0	Bq/kg dry	±	84.9	Bq/kg dry	841.9	Cs137	4.6	Bq/kg dry
			Cs134	50.9	Bq/kg dry	±	7.1	Bq/kg dry		Cs134	5.4	Bq/kg dry
Soil(in the park)	Oohara, Onahama, Iwaki	May-20	Cs137	656.0	Bq/kg dry	±	71.1	Bq/kg dry	697.5	Cs137	4.8	Bq/kg dry
			Cs134	41.5	Bq/kg dry	±	6.6	Bq/kg dry		Cs134	6.4	Bq/kg dry
Soil (in the park) under the swing	Oohara, Onahama, Iwaki	May-20	Cs137	438.0	Bq/kg dry	±	47.3	Bq/kg dry	466.2	Cs137	4.1	Bq/kg dry
			Cs134	28.2	Bq/kg dry	±	4.5	Bq/kg dry		Cs134	5.7	Bq/kg dry
Soil(in the park)	Oohara, Onahama, Iwaki	May-20	Cs137	321.0	Bq/kg dry	±	34.9	Bq/kg dry	340.7	Cs137	3.8	Bq/kg dry
			Cs134	19.7	Bq/kg dry	±	3.4	Bq/kg dry		Cs134	4.5	Bq/kg dry
Soil(in the park)	Oohara, Onahama, Iwaki	May-20	Cs137	81.8	Bq/kg dry	±	8.7	Bq/kg dry	85.7	Cs137	2.4	Bq/kg dry
			Cs134	3.9	Bq/kg dry	±	1.1	Bq/kg dry		Cs134	3.6	Bq/kg dry
Soil(in the park)	Oohara, Onahama, Iwaki	May-20	Cs137	56.7	Bq/kg dry	±	7.8	Bq/kg dry	56.7	Cs137	3.2	Bq/kg dry
			Cs134	—	Bq/kg dry	±	—	Bq/kg dry		Cs134	5.1	Bq/kg dry
Soil (in the park) under the slide	Oohara, Onahama, Iwaki	May-20	Cs137	38.3	Bq/kg dry	±	4.8	Bq/kg dry	38.3	Cs137	2.5	Bq/kg dry
			Cs134	—	Bq/kg dry	±	—	Bq/kg dry		Cs134	2.7	Bq/kg dry
Soil(in the park)	Touroubara, Onahama, Iwaki	May-20	Cs137	494.0	Bq/kg dry	±	50.2	Bq/kg dry	513.9	Cs137	2.2	Bq/kg dry
			Cs134	19.9	Bq/kg dry	±	2.7	Bq/kg dry		Cs134	2.7	Bq/kg dry
Soil(in the park)	Touroubara, Onahama, Iwaki	May-20	Cs137	396.0	Bq/kg dry	±	43.9	Bq/kg dry	422.7	Cs137	3.4	Bq/kg dry
			Cs134	26.7	Bq/kg dry	±	4.8	Bq/kg dry		Cs134	4.6	Bq/kg dry
Soil(in the park)	Touroubara, Onahama, Iwaki	May-20	Cs137	331.0	Bq/kg dry	±	36.4	Bq/kg dry	349.2	Cs137	2.3	Bq/kg dry
			Cs134	18.2	Bq/kg dry	±	3.3	Bq/kg dry		Cs134	3.0	Bq/kg dry
Soil(in the park)	Touroubara, Onahama, Iwaki	May-20	Cs137	301.0	Bq/kg dry	±	33.3	Bq/kg dry	322.0	Cs137	2.1	Bq/kg dry
			Cs134	21.0	Bq/kg dry	±	4.0	Bq/kg dry		Cs134	3.0	Bq/kg dry
Soil(in the park)	Touroubara, Onahama, Iwaki	May-20	Cs137	71.0	Bq/kg dry	±	8.6	Bq/kg dry	71.0	Cs137	3.7	Bq/kg dry
			Cs134	—	Bq/kg dry	±	—	Bq/kg dry		Cs134	5.7	Bq/kg dry
Soil(in the park)	Touroubara, Onahama, Iwaki	May-20	Cs137	65.7	Bq/kg dry	±	7.8	Bq/kg dry	65.7	Cs137	3.9	Bq/kg dry
			Cs134	—	Bq/kg dry	±	—	Bq/kg dry		Cs134	3.3	Bq/kg dry
Soil(in the park)	Touroubara, Onahama, Iwaki	May-20	Cs137	607.0	Bq/kg dry	±	66.6	Bq/kg dry	644.0	Cs137	5.2	Bq/kg dry
			Cs134	37.0	Bq/kg dry	±	6.4	Bq/kg dry		Cs134	6.0	Bq/kg dry
Soil(in the park)	Touroubara, Onahama, Iwaki	May-20	Cs137	248.0	Bq/kg dry	±	27.5	Bq/kg dry	265.8	Cs137	4.3	Bq/kg dry
			Cs134	17.8	Bq/kg dry	±	3.6	Bq/kg dry		Cs134	5.4	Bq/kg dry

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But it does not necessary mean 0(zero)Bq/kg.

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★Gamma-ray

(Bq/kg raw:Weight of raw sample Bq/kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measurement Result		Uncertainty	Total Amount of Cesium	Minimum Limit of Detection	
Soil(in the park)	Touroubara, Onahama,Iwaki	May-20	Cs137	215.0 Bq/kg dry	± 22.3 Bq/kg dry	223.7	Cs137	2.6 Bq/kg dry
			Cs134	8.7 Bq/kg dry	± 1.7 Bq/kg dry		Cs134	3.8 Bq/kg dry
Soil (in the park) under the swing	Touroubara, Onahama,Iwaki	May-20	Cs137	202.0 Bq/kg dry	± 20.9 Bq/kg dry	208.5	Cs137	2.4 Bq/kg dry
			Cs134	6.5 Bq/kg dry	± 1.3 Bq/kg dry		Cs134	2.9 Bq/kg dry
Soil(in the park)	Touroubara, Onahama,Iwaki	May-20	Cs137	182.0 Bq/kg dry	± 20.3 Bq/kg dry	194.8	Cs137	3.9 Bq/kg dry
			Cs134	12.8 Bq/kg dry	± 2.6 Bq/kg dry		Cs134	4.9 Bq/kg dry
Soil(in the park)	Touroubara, Onahama,Iwaki	May-20	Cs137	176.0 Bq/kg dry	± 18.5 Bq/kg dry	176.0	Cs137	3.0 Bq/kg dry
			Cs134	— Bq/kg dry	± — Bq/kg dry		Cs134	3.6 Bq/kg dry
Soil(in the park) Sandbox	Touroubara, Onahama,Iwaki	May-20	Cs137	156.0 Bq/kg dry	± 17.2 Bq/kg dry	165.5	Cs137	1.9 Bq/kg dry
			Cs134	9.5 Bq/kg dry	± 1.9 Bq/kg dry		Cs134	2.9 Bq/kg dry
Vacuum cleaner trash (Dyson)	Hanabatake, Onahama,Iwaki	May-20	Cs137	758.0 Bq/kg raw	± 152.0 Bq/kg raw	819.6	Cs137	4.8 Bq/kg raw
			Cs134	61.6 Bq/kg raw	± 12.4 Bq/kg raw		Cs134	4.6 Bq/kg raw
Vacuum cleaner trash (HITATI Cyclon)	Joban.Iwaki	May-20	Cs137	243.0 Bq/kg raw	± 49.0 Bq/kg raw	243.0	Cs137	9.3 Bq/kg raw
			Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	9.0 Bq/kg raw

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★Gamma-ray

Measuring instrument		Feature	Guide to lower limit※
NaI Scintillation Spectrometer			
Product of ATOMTEX AT1320A	Product of BERTHOLD LB2045	・Gamma-ray spectrometer with NaI scintillation detector.	Food (Sample 1kg) Lower limit 1.0Bq/Kg Soil (Sample 1kg) Lower limit 2.5Bq/Kg Material (Sample 1kg) Lower limit 1.0Bq/Kg Water (Sample 20L Lower kimit 0.02Bq/L
Germanium Semiconductor detector			
ORTEC GEM30-70		・Radioactivity measurement series. Quantitative analysis based on "Gamma-ray spectrometry with germanium semiconductor detector." ・Relative efficiency 35%	Food (Sample 2kg) Lower limit 0.04Bq/Kg Soil (Sample 1kg) Lower limit 0.06Bq/Kg Material (Sample 1kg) Lower limit 0.06Bq/Kg Water (Sample 20L Lower limit 0.001Bq/L

※The lower limit varies depending on the sample weight and measurement time.

Measuring instrument:Germanium Semiconductor detector (Bq/kg raw:Weight of raw sample Bq/kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measurement Result			Uncertainty			Total Amount of Cesium	Minimum Limit of Detection		
Rice	Akita	Oct-19	Cs137	—	Bq/kgraw	±	—	Bq/kgraw	Under Minimum Limit of Detection	Cs137	0.04	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.05	Bq/kg raw
Tomato	Yotsukura. Iwaki	Apr-20	Cs137	—	Bq/kgraw	±	—	Bq/kgraw	Under Minimum Limit of Detection	Cs137	0.04	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.04	Bq/kg raw
Bamboo shoot (raw)	Fukuoka	May-20	Cs137	—	Bq/kgraw	±	—	Bq/kgraw	Under Minimum Limit of Detection	Cs137	0.08	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.08	Bq/kg raw
Acanthopanax sciadophylloides	Iitoyo. Nishiokitama. Yamagata	May-20	Cs137	82.2	Bq/kgraw	±	0.7	Bq/kgraw	86.2	Cs137	0.6	Bq/kg raw
			Cs134	4.0	Bq/kgraw	±	0.3	Bq/kgraw		Cs134	0.6	Bq/kg raw
Acanthopanax sciadophylloides	Tadami. Minamiaidu. Fukushima	May-20	Cs137	8.1	Bq/kgraw	±	0.5	Bq/kgraw	8.1	Cs137	0.8	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.8	Bq/kg raw
Soy pulp	Japan (production)	Apr-20	Cs137	—	Bq/kgraw	±	—	Bq/kgraw	Under Minimum Limit of Detection	Cs137	0.3	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.3	Bq/kg raw
Yogurt(drink)	Shiraisi. Miyagi	May-20	Cs137	0.29	Bq/kgraw	±	0.02	Bq/kgraw	0.29	Cs137	0.04	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.04	Bq/kg raw
Yogurt	Motomiya. Fukushima	May-20	Cs137	0.04	Bq/kgraw	±	0.02	Bq/kgraw	0.04	Cs137	0.04	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.03	Bq/kg raw
Yogurt	Fukushima Pref.	May-20	Cs137	—	Bq/kgraw	±	—	Bq/kgraw	Under Minimum Limit of Detection	Cs137	0.2	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.3	Bq/kg raw
Groundwater	Niigata. Niigata	May-20	Cs137	—	Bq/L	±	—	Bq/L	Under Minimum Limit of Detection	Cs137	0.03	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.03	Bq/L
River water	Niigata. Niigata	May-20	Cs137	—	Bq/L	±	—	Bq/L	Under Minimum Limit of Detection	Cs137	0.03	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.04	Bq/L
Tap water	Uchigo.Iwaki	Apr-20	Cs137	—	Bq/L	±	—	Bq/L	Under Minimum Limit of Detection	Cs137	0.001	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Tap water	Onahama-hanabatake, Iwaki	Apr-20	Cs137	—	Bq/L	±	—	Bq/L	Under Minimum Limit of Detection	Cs137	0.001	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Tap water	Negishi,Tono, Iwaki	Apr-20	Cs137	—	Bq/L	±	—	Bq/L	Under Minimum Limit of Detection	Cs137	0.001	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Tap water	Iritono,Tono, Iwaki	May-20	Cs137	0.002	Bq/L	±	0.0005	Bq/L	0.002	Cs137	0.0009	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Tap water	Jyoban.Iwaki	Apr-20	Cs137	0.001	Bq/L	±	0.0004	Bq/L	0.001	Cs137	0.0009	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Sea water	Tomioko Port Fukushima	Apr-20	Cs137	0.019	Bq/L	±	0.0007	Bq/L	0.020	Cs137	0.0009	Bq/L
			Cs134	0.001	Bq/L	±	0.0005	Bq/L		Cs134	0.001	Bq/L

※"_"used in Measurement Result and Uncertainty shows that the value is below the detection limit.
But it does not necessary mean 0(zero)Bq/kg.

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Samples	Sampling Point	Sampling Month	Measurement Result			Uncertainty			Total Amount of Cesium	Minimum Limit of Detection		
Sea water	SomaPort. Fukushima	Apr-20	Cs137	0.004	Bq/L	±	0.0005	Bq/L	0.004	Cs137	0.001	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Ash	Ibusuki. Kagoshima	May-16	Cs137	20.0	Bq/kgraw	±	0.2	Bq/kgraw	20.0	Cs137	0.2	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.8	Bq/kg raw

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★Beta-ray

Measuring instrument		Feature
Liquid Scintillation Counter		
Product of Hidex **HIDEX 300SLL**	Product of PerkinElmer Japan **Quantulus GCT 622**	Equipment for measuring low-energy beta-ray emission nuclides Measuring nuclide Strontium90 Half-life 30 years Organically bound 3H Harf-life 12.3 years Free-water 3H Harf-life 12.3 years All samples are measured in liquid condition after several days of pretreatment.
		

(Bq/Kg raw:Weight of raw sample Bq/Kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measurement Result		Uncertainty		Minimum Limit of Detection	
Yellowtail (flesh)	Off the coast of Fukushima Nuclear Power Plant 2	Oct-18	T (organic)	Under Minimum Limit of Detection Bq/kg dry	± —	Bq/kg dry	1.35	Bq/kg dry
Yellowtail (flesh)	Off the coast of Fukushima Nuclear Power Plant 1	Nov-19	T (organic)	Under Minimum Limit of Detection Bq/kg dry	± —	Bq/kg dry	1.13	Bq/kg dry
Fox jacopever (whole)	Off the coast of Fukushima Nuclear Power Plant 1	Nov-19	T (organic)	Under Minimum Limit of Detection Bq/kg dry	± —	Bq/kg dry	1.48	Bq/kg dry
Cod(flesh)	Off the coast of Iwaki	Aug-19	T (organic)	Under Minimum Limit of Detection Bq/kg dry	± —	Bq/kg dry	1.38	Bq/kg dry
Tuna(flesh)	Miyagi Pref.	Jul-16	Sr90	Under Minimum Limit of Detection Bq/kg dry	± —	Bq/kg dry	0.15	Bq/kg dry
Slime flounder (bone)	Off the coast of Fukushima Nuclear Power Plant 1	Apr-18	Sr90	0.86 Bq/kg dry	± 0.09	Bq/kg dry	0.13	Bq/kg dry
Greenling (whole)	Off the coast of Fukfushima Nuclear Power Plant 1	Apr-18	Sr90	Under Minimum Limit of Detection Bq/kg dry	± —	Bq/kg dry	0.12	Bq/kg dry
Weed	Onahamahanabatake, Iwaki	Jul-18	Sr90	Under Minimum Limit of Detection Bq/kg dry	± —	Bq/kg dry	0.42	Bq/kg dry
Soil(under the rain gutter)	Okuma, Futaba	Oct-18	Sr90	36.73 Bq/kg dry	± 1.35	Bq/kg dry	1.66	Bq/kg dry
Paddy soil (After Decontamination)	Okuma, Futaba	Jul-18	Sr90	6.00 Bq/kg dry	± 1.16	Bq/kg dry	1.69	Bq/kg dry
Sea water (surface)	Tomioka Beach Fukushima Pref.	Oct-19	Sr90	0.0037 Bq/L	± 0.0006	Bq/L	0.0006	Bq/L
Sea water C (lower)	Off the coast of Fukfushima Nuclear Power Plant 1	Nov-19	Sr90	Under Minimum Limit of Detection Bq/L	± —	Bq/L	0.0007	Bq/L

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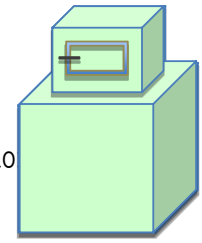
Measurement results by germanium semiconductor detector 15

Dr.Tetsuji Imanaka,Institute of Multiple Nuclear Science,Kyoto University

In order to convey more measurement results to everyone, we have asked Dr. Tetsuji Imanaka of the Institute of Advanced Nuclear Science, Kyoto University, to measure low-dose samples using germanium semiconductor detectors. Measurement samples are not only from Fukushima Prefecture but also come from other prefectures. Please compare data based on measurements from various regions and use them to protect your children from radiation exposure.

★Gamma-ray



Measuring instrument：Germanium Semiconductor detector

・Product of CANBERRA(CA),USA GX3018 Relative efficiency 30% or mo

・Product of ORTEC(OR),USA GMX25－70 Relative efficiency 35%

(Bq/kg raw:Weight of raw sample Bq/kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measuring instrument type	Measurement Result		Uncertainty		Total Amount of Cesium	Minimum Limit of Detection	
Glutinous rice	Shinchi, Soma, Fukushima	Oct-19	OR	Cs137	0.3 Bq/kg raw	± 0.04 Bq/kg raw	0.3	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Spinach	Okoshi,Tamura, Fukushima	Feb-20	CA	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	0.2 Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Qing-geng-cai	Iritono,Tono, Iwaki	Mar-20	CA	Cs137	0.08 Bq/kg raw	± 0.04 Bq/kg raw	0.08	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Japanese mustard spinach	Asahi, Ibaraki	Mar-20	CA	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	0.07 Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Perilla	Ibaraki Pref.	Mar-20	OR	Cs137	0.2 Bq/kg raw	± 0.09 Bq/kg raw	0.2	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Aralia sprout	Yamagata Pref.	Feb-20	CA	Cs137	0.3 Bq/kg raw	± 0.09 Bq/kg raw	0.3	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Butterbur sprout	Tomitsu, Iwaki	Mar-20	CA	Cs137	0.9 Bq/kg raw	± 0.2 Bq/kg raw	0.9	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Butterbur sprout	Iritono,Tono, Iwaki	Mar-20	CA	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	0.4 Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Dried strips of Japanese white radish	Tabito,Iwaki	Jan-20	OR	Cs137	0.7 Bq/kg raw	± 0.2 Bq/kg raw	0.7	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Dried Japanese white radish	Takine,Tamura, Fukushima	Feb-20	CA	Cs137	0.3 Bq/kg raw	± 0.1 Bq/kg raw	0.3	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Kiwi fruit	Iwaki City	Feb-20	CA	Cs137	0.28 Bq/kg raw	± 0.03 Bq/kg raw	0.28	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Soy Milk (Miyagi Pref. soybean)	Taira.Iwaki	Feb-20	CA	Cs137	0.2 Bq/kg raw	± 0.04 Bq/kg raw	0.2	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Kuritake mushroom	Soma.Fukushima	Nov-19	CA	Cs137	30 Bq/kg raw	± 0.8 Bq/kg raw	31.2	Cs137	— Bq/kg raw
				Cs134	1.2 Bq/kg raw	± 0.3 Bq/kg raw		Cs134	— Bq/kg raw
Bacon	Japan (production)	Feb-20	OR	Cs137	0.03 Bq/kg raw	± 0.02 Bq/kg raw	0.03	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Rice miso	Kamiina, Nagano	Feb-20	OR	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	0.07 Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw

※"_"used in Measurement Result and Uncertainty shows that the value is below the detection limit.

But it does not necessary mean 0(zero)Bq/kg.

Mothers' Radiation Lab Fukushima

★Gamma-ray

Measuring instrument		Feature	Guide to lower limit※
NaI Scintillation Spectrometer			
Product of ATOMTEX AT1320A	Product of BERTHOLD LB2045	・Gamma-ray spectrometer with NaI scintillation detector.	Food (Sample 1kg) Lower limit 1.0Bq/Kg Soil (Sample 1kg) Lower limit 2.5Bq/Kg Material (Sample 1kg) Lower limit 1.0Bq/Kg Water (Sample 20L Lower kimit 0.02Bq/L
Germanium Semiconductor detector			
ORTEC GEM30-70		・Radioactivity measurement series. Quantitative analysis based on "Gamma-ray spectrometry with germanium semiconductor detector." ・Relative efficiency 35%	Food (Sample 2kg) Lower limit 0.04Bq/Kg Soil (Sample 1kg) Lower limit 0.06Bq/Kg Material (Sample 1kg) Lower limit 0.06Bq/Kg Water (Sample 20L Lower limit 0.001Bq/L

※The lower limit varies depending on the sample weight and measurement time.

Measuring instrument:Germanium Semiconductor detector (Bq/kg raw:Weight of raw sample Bq/kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measurement Result			Uncertainty			Total Amount of Cesium	Minimum Limit of Detection		
Rice	Akita	Oct-19	Cs137	—	Bq/kgraw	±	—	Bq/kgraw	Under Minimum Limit of Detection	Cs137	0.04	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.05	Bq/kg raw
Tomato	Yotsukura. Iwaki	Apr-20	Cs137	—	Bq/kgraw	±	—	Bq/kgraw	Under Minimum Limit of Detection	Cs137	0.04	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.04	Bq/kg raw
Bamboo shoot (raw)	Fukuoka	May-20	Cs137	—	Bq/kgraw	±	—	Bq/kgraw	Under Minimum Limit of Detection	Cs137	0.08	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.08	Bq/kg raw
Acanthopanax sciadophylloides	Iitoyo. Nishiokitama. Yamagata	May-20	Cs137	82.2	Bq/kgraw	±	0.7	Bq/kgraw	86.2	Cs137	0.6	Bq/kg raw
			Cs134	4.0	Bq/kgraw	±	0.3	Bq/kgraw		Cs134	0.6	Bq/kg raw
Acanthopanax sciadophylloides	Tadami. Minamiaidu. Fukushima	May-20	Cs137	8.1	Bq/kgraw	±	0.5	Bq/kgraw	8.1	Cs137	0.8	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.8	Bq/kg raw
Soy pulp	Japan (production)	Apr-20	Cs137	—	Bq/kgraw	±	—	Bq/kgraw	Under Minimum Limit of Detection	Cs137	0.3	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.3	Bq/kg raw
Yogurt(drink)	Shiraisi. Miyagi	May-20	Cs137	0.29	Bq/kgraw	±	0.02	Bq/kgraw	0.29	Cs137	0.04	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.04	Bq/kg raw
Yogurt	Motomiya. Fukushima	May-20	Cs137	0.04	Bq/kgraw	±	0.02	Bq/kgraw	0.04	Cs137	0.04	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.03	Bq/kg raw
Yogurt	Fukushima Pref.	May-20	Cs137	—	Bq/kgraw	±	—	Bq/kgraw	Under Minimum Limit of Detection	Cs137	0.2	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.3	Bq/kg raw
Groundwater	Niigata. Niigata	May-20	Cs137	—	Bq/L	±	—	Bq/L	Under Minimum Limit of Detection	Cs137	0.03	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.03	Bq/L
River water	Niigata. Niigata	May-20	Cs137	—	Bq/L	±	—	Bq/L	Under Minimum Limit of Detection	Cs137	0.03	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.04	Bq/L
Tap water	Uchigo.Iwaki	Apr-20	Cs137	—	Bq/L	±	—	Bq/L	Under Minimum Limit of Detection	Cs137	0.001	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Tap water	Onahama-hanabatake, Iwaki	Apr-20	Cs137	—	Bq/L	±	—	Bq/L	Under Minimum Limit of Detection	Cs137	0.001	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Tap water	Negishi,Tono, Iwaki	Apr-20	Cs137	—	Bq/L	±	—	Bq/L	Under Minimum Limit of Detection	Cs137	0.001	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Tap water	Iritono,Tono, Iwaki	May-20	Cs137	0.002	Bq/L	±	0.0005	Bq/L	0.002	Cs137	0.0009	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Tap water	Jyoban.Iwaki	Apr-20	Cs137	0.001	Bq/L	±	0.0004	Bq/L	0.001	Cs137	0.0009	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Sea water	Tomioko Port Fukushima	Apr-20	Cs137	0.019	Bq/L	±	0.0007	Bq/L	0.020	Cs137	0.0009	Bq/L
			Cs134	0.001	Bq/L	±	0.0005	Bq/L		Cs134	0.001	Bq/L

※"_"used in Measurement Result and Uncertainty shows that the value is below the detection limit.
But it does not necessary mean 0(zero)Bq/kg.

Mothers' Radiation Lab Fukushima

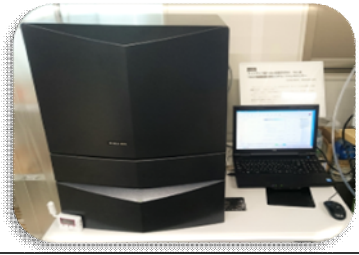
★Gamma-ray

Samples	Sampling Point	Sampling Month	Measurement Result			Uncertainty			Total Amount of Cesium	Minimum Limit of Detection		
Sea water	SomaPort. Fukushima	Apr-20	Cs137	0.004	Bq/L	±	0.0005	Bq/L	0.004	Cs137	0.001	Bq/L
			Cs134	—	Bq/L	±	—	Bq/L		Cs134	0.001	Bq/L
Ash	Ibusuki. Kagoshima	May-16	Cs137	20.0	Bq/kgraw	±	0.2	Bq/kgraw	20.0	Cs137	0.2	Bq/kg raw
			Cs134	—	Bq/kgraw	±	—	Bq/kgraw		Cs134	0.8	Bq/kg raw

※"_"used in Measurement Result and Uncertainty shows that the value is below the detection limit.
But it does not necessary mean 0(zero)Bq/kg.

Mothers' Radiation Lab Fukushima

★Beta-ray

Measuring instrument		Feature
Liquid Scintillation Counter		
Product of Hidex **HIDEX 300SLL**	Product of PerkinElmer Japan **Quantulus GCT 6220**	Equipment for measuring low-energy beta-ray emission nuclides Measuring nuclide Strontium90 Half-life 30 years Organic bound Harf-life 12.3 years Free-water tritium Harf-life 12.3 years All samples are measured in liquid condition after several days of pretreatment.
		

(Bq/Kg raw:Weight of raw sample Bq/Kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measurement Result			Uncertainty			Minimum Limit of Detection	
Yellowtail (flesh)	Off the coast of Fukushima Nuclear Power Plant 2	Oct-18	T (organic)	Under Minimum Limit of Detection	Bq/kg dry	±	—	Bq/kg dry	1.35	Bq/kg dry
Yellowtail (flesh)	Off the coast of Fukushima Nuclear Power Plant 1	Nov-19	T (organic)	Under Minimum Limit of Detection	Bq/kg dry	±	—	Bq/kg dry	1.13	Bq/kg dry
Fox jacopever (whole)	Off the coast of Fukushima Nuclear Power Plant 2	Nov-19	T (organic)	Under Minimum Limit of Detection	Bq/kg dry	±	—	Bq/kg dry	1.48	Bq/kg dry
Cod(flesh)	Off the coast of Iwaki	Aug-19	T (organic)	Under Minimum Limit of Detection	Bq/kg dry	±	—	Bq/kg dry	1.38	Bq/kg dry
Tuna(flesh)	Miyagi Pref.	Jul-16	Sr90	Under Minimum Limit of Detection	Bq/kg dry	±	—	Bq/kg dry	0.15	Bq/kg dry
Slime flounder (bone)	Off the coast of Fukushima Nuclear Power Plant 1	Apr-18	Sr90	0.86	Bq/kg dry	±	0.09	Bq/kg dry	0.13	Bq/kg dry
Greenling (whole)	Off the coast of Fukushima Nuclear Power Plant1	Apr-18	Sr90	Under Minimum Limit of Detection	Bq/kg dry	±	—	Bq/kg dry	0.12	Bq/kg dry
Weed	Onahamahanabatake, Iwaki	Jul-18	Sr90	Under Minimum Limit of Detection	Bq/kg dry	±	—	Bq/kg dry	0.42	Bq/kg dry
Soil(under the rain gutter)	Okuma, Futaba	Oct-18	Sr90	36.73	Bq/kg dry	±	1.35	Bq/kg dry	1.66	Bq/kg dry
Paddy soil (After Decontamination	Okuma, Futaba	Jul-18	Sr90	6.00	Bq/kg dry	±	1.16	Bq/kg dry	1.69	Bq/kg dry
Sea water (surface)	Tomioka Beach Fukushima Pref.	Oct-19	Sr90	0.0037	Bq/L	±	0.0006	Bq/L	0.0006	Bq/L
Sea water C (lower)	Off the coast of Fukfushima Nuclear Power Plant 1	Nov-19	Sr90	Under Minimum Limit of Detection	Bq/L	±	—	Bq/L	0.0006	Bq/L

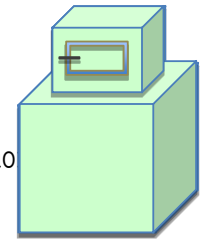
Mothers' Radiation Lab Fukushima

Measurement results by germanium semiconductor detector 15

Dr.Tetsuji Imanaka,Institute of Multiple Nuclear Science,Kyoto University

In order to convey more measurement results to everyone, we have asked Dr. Tetsuji Imanaka of the Institute of Advanced Nuclear Science, Kyoto University, to measure low-dose samples using germanium semiconductor detectors. Measurement samples are not only from Fukushima Prefecture but also come from other prefectures. Please compare data based on measurements from various regions and use them to protect your children from radiation exposure.

★Gamma-ray



Measuring instrument：Germanium Semiconductor detector

・Product of CANBERRA(CA),USA GX3018 Relative efficiency 30% or mo

・Product of ORTEC(OR),USA GMX25－70 Relative efficiency 35%

(Bq/kg raw:Weight of raw sample Bq/kg dry:Weight of dried sample)

Samples	Sampling Point	Sampling Month	Measuring instrument type	Measurement Result		Uncertainty		Total Amount of Cesium	Minimum Limit of Detection	
Glutinous rice	Shinchi, Soma, Fukushima	Oct-19	OR	Cs137	0.3 Bq/kg raw	± 0.04 Bq/kg raw	0.3	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Spinach	Okoshi,Tamura, Fukushima	Feb-20	CA	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	0.2 Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Qing-geng-cai	Iritono,Tono, Iwaki	Mar-20	CA	Cs137	0.08 Bq/kg raw	± 0.04 Bq/kg raw	0.08	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Japanese mustard spinach	Asahi, Ibaraki	Mar-20	CA	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	0.07 Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Perilla	Ibaraki Pref.	Mar-20	OR	Cs137	0.2 Bq/kg raw	± 0.09 Bq/kg raw	0.2	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Aralia sprout	Yamagata Pref.	Feb-20	CA	Cs137	0.3 Bq/kg raw	± 0.09 Bq/kg raw	0.3	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Butterbur sprout	Tomitsu, Iwaki	Mar-20	CA	Cs137	0.9 Bq/kg raw	± 0.2 Bq/kg raw	0.9	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Butterbur sprout	Iritono,Tono, Iwaki	Mar-20	CA	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	0.4 Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Dried strips of Japanese white radish	Tabito,Iwaki	Jan-20	OR	Cs137	0.7 Bq/kg raw	± 0.2 Bq/kg raw	0.7	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Dried Japanese white radish	Takine,Tamura, Fukushima	Feb-20	CA	Cs137	0.3 Bq/kg raw	± 0.1 Bq/kg raw	0.3	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Kiwi fruit	Iwaki City	Feb-20	CA	Cs137	0.28 Bq/kg raw	± 0.03 Bq/kg raw	0.28	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Soy Milk (Miyagi Pref. soybean)	Taira.Iwaki	Feb-20	CA	Cs137	0.2 Bq/kg raw	± 0.04 Bq/kg raw	0.2	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Kuritake mushroom	Soma.Fukushima	Nov-19	CA	Cs137	30 Bq/kg raw	± 0.8 Bq/kg raw	31.2	Cs137	— Bq/kg raw
				Cs134	1.2 Bq/kg raw	± 0.3 Bq/kg raw		Cs134	— Bq/kg raw
Bacon	Japan (production)	Feb-20	OR	Cs137	0.03 Bq/kg raw	± 0.02 Bq/kg raw	0.03	Cs137	— Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw
Rice miso	Kamiina, Nagano	Feb-20	OR	Cs137	— Bq/kg raw	± — Bq/kg raw	Under Minimum Limit of Detection	Cs137	0.07 Bq/kg raw
				Cs134	— Bq/kg raw	± — Bq/kg raw		Cs134	— Bq/kg raw

※"_"used in Measurement Result and Uncertainty shows that the value is below the detection limit.

But it does not necessary mean 0(zero)Bq/kg.

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