

Cs 137 in Daily Rations of Foods Grown at Rongelap Atoll

2. Cs 137 in daily rations of foods
grown at Rongelap atoll (8/58)

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Sample No.	µc/ Sample	Total Weight of Daily Ration as Received	G R A M S							Misc.
			Coconut Meat (mature, green, sprouting)	Coconut Milk	Fresh Pandanus	Pandanus "Paste" (Partially Dried)	Tacca (Arrow- root)	Bread Fruit		
12	0.0075	584	159	129	61	53	(dry) 31	74	Squash 22 Papaya 55	
8	0.0073	427	132	102	85	see misc. (29)*		222	Rice-Pandanus mixture 88	
1	0.0071	544	93	98		40				
5	0.0055	91				91				
7	0.0049	545	283	108	79	50	(dry) 19		Fish 7	
6	0.0044	584	88		101			395		
14	0.0037	519	238	238	43					
10	0.0025	210			159		(cooked) 17	41	Fish 7	
13	0.0023	159	16		41	14		71		
9	0.0019	342	124	158	60					
2	0.0015	314	202	68		44				
11	0.0015	208	124	26				58		
4	0.0009	165	95		30	33				
Average	0.0039	361	119	71	51	27	5	65	11	

Each sample number represents one daily ration for one adult male in August 1958. No imported foods are included with the exception of the rice in sample number 8.

* see note that about 1/3 of rice-pandanus mixture with total weight of 88 gms consisted of Pandanus.

Cs¹³⁷ in Food Samples Collected at Rongelap
Atoll, August 1958

Comparison with Maximum Permissible Intake

Maximum daily intake found for one person:

$$7 \times 10^{-3} \mu\text{c}$$

MPC in water = $1.5 \times 10^{-3} \mu\text{c/ml}$ (Handbook 52)
Daily intake of water as fluids by standard man = $1.5 \times 10^3 \text{ ml/day}$
(Radiological Health Handbook).

Maximum permissible daily intake taken as

$$(1.5 \times 10^{-3} \mu\text{c/ml}) (1.5 \times 10^3 \text{ ml/day}) = 2.25 \mu\text{c/day}.$$

Maximum daily intake of Cs¹³⁷ for one person is about ~~one~~^{three}
~~three~~^{one} thousandth of the maximum permissible.

$$\frac{0.007 \mu\text{c/day}}{2.25 \mu\text{c/day}} = 0.0031$$

Average daily intake of Cs¹³⁷ for one person (average of 13
daily rations) was found to be:

$$3.9 \times 10^{-3} \mu\text{c}$$

Average daily intake is less than ~~one two~~^{the one} thousandth of the
maximum permissible.

$$\frac{0.0039 \mu\text{c/day}}{2.25 \mu\text{c/day}} = 0.0017$$

Table 2. Distribution of Streptococcus faecalis in the liver collected at Bougainville Island in March 1955

Sample Number	Location of Collection	Non-fat solids d/m/g		Total Solids d/m/g	
		Wet	Dry	Wet	Dry
34	Kabelle Island	200±10	200±10	261±8	261±8
35		285±13	244±20	307±3	140±10
36		276±12	454±20	120±8	280±10
37		605±38	680±44	104±8	247±14
38		420±20	674±33	124±8	210±11
Mean		383	548	121	218
Standard deviation		140	255	52	105

34	Bougainville Island	216±11	202±15	240±10	240±10
35		245±11	251±15	240±10	240±10
36		450±20	450±20	240±10	240±10
37		400±20	380±20	240±10	240±10
38		224±10	242±10	240±10	240±10
Mean		307	304	240	240
Standard deviation		80	134	12	12

31	Eningetok Island	240±10	400±20	240±10	240±10
32		220±10	220±10	240±10	240±10
Mean		230	310	240	240
Standard deviation		50	70	0	0