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March 10, 1961

Dr. John N. Wolfe, Chief  
Environmental Sciences Branch  
Division of Biology and Medicine  
U. S. Atomic Energy Commission  
Washington 25, D. C.

Dear John:

Enclosed please find two copies each of results of strontium-90 and calcium analyses of Breadfruit and Squash collected at Rongelap Island.

Ralph Palumbo, Frank Lowman and I are leaving Seattle tomorrow enroute to Eniwetok and expect to arrive there on March 14. Art Welander, Stan Gessel and Dick Walker will join us at Eniwetok on the sixteenth or seventeenth.

Letters from Bob Hiatt indicate that all necessary arrangements for the trip have been made.

Sincerely,



Edward E. Held  
Research Associate Professor

2031

EEH:srl  
Enclosures (2)

NMB 7

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Strontium-90 and Calcium in Squash Collected  
at Rongelap Atoll, September 1959

Rongelap Island

| Tissue          | Sample no. | Sr <sup>90</sup><br>d/m/g dry | Ca<br>mg/gm dry | Strontium<br>units |
|-----------------|------------|-------------------------------|-----------------|--------------------|
| Flesh           | 1          | 22.0 ±1.1                     | 8.24            | 1200± 60           |
| Skin            | 1          | 14.7 ±0.39                    | 1.37            | 4820±128           |
|                 | 2          | 15.8 ±0.75                    | 3.04            | 2340±111           |
|                 | 3          | 4.14±0.17                     | 2.09            | 892± 37            |
|                 | Avg.       | 11.54                         | 2.17            | 2684               |
| Seed            | 1          | 1.85±0.14                     | 1.84            | 453± 34            |
|                 | 2          | 3.39±0.15                     | 0.958           | 1590± 71           |
|                 | 3          | 2.11±0.12                     | 1.50            | 630± 36            |
|                 | Avg.       | 2.45                          | 1.43            | 891                |
| Basal leaves    | 1          | 150±1                         | 89.0            | 757± 48            |
|                 | 2          | 83.5 ±4.0                     | 21.4            | 1761± 84           |
|                 | 3          | 87.3 ±3.4                     | 27.2            | 1440± 56           |
|                 | Avg.       | 106.9                         | 45.9            | 1319               |
| Terminal leaves | 1          | 50.2 ±1.7                     | 19.4            | 1160± 39           |
|                 | 2          | 30.2 ±0.1                     | 10.2            | 1330± 42           |
|                 | 3          | 39.3 ±1.0                     | 7.97            | 2220± 57           |
|                 | Avg.       | 39.9                          | 15.92           | 1570               |

Eniaetok Island

|                 |            |      |          |
|-----------------|------------|------|----------|
| Flesh           | 27.5 ±0.68 | 3.18 | 3890± 96 |
| Skin            | 64.4 ±8.6  | 13.9 | 2090     |
| Basal leaves    | 848 ±53    | 109  | 3490±218 |
| Terminal leaves | 283 ±6.5   | 25.4 | 5010±115 |

Note: Errors given are based on the 95% counting error.

Sr<sup>90</sup> and Calcium in Breadfruit (Artocarpus sp.)  
 samples Collected at Rongelap Island, September, 1959.

| Tissue          | Sample no. | Sr <sup>90</sup><br>d/m/g dry | Ca<br>mg/gm dry | Strontium<br>units |
|-----------------|------------|-------------------------------|-----------------|--------------------|
| Edible portion  | 1          | 0.53 ±0.07                    | 0.711           | 340±44             |
|                 | 2          | 2.43 ±0.13                    | 0.845           | 130±69             |
|                 | 3          | 3.00 ±0.24                    | 1.523           | 890±71             |
|                 | Avg.       | 1.98                          | 1.026           | 453                |
| Skin            | 1          | 0.58 ±0.07                    | 1.34            | 190±24             |
|                 | 2          | 2.47 ±0.14                    | 2.25            | 495±28             |
|                 | 3          | 6.63 ±0.40                    | 2.65            | 1130±68            |
|                 | Avg.       | 3.23                          | 2.08            | 605                |
| Basal leaves    | 1          | 28.1 ±0.67                    | 40.1            | 309±7              |
|                 | 2          | 32.6 ±1.2                     | 46.2            | 317±12             |
|                 | 3          | 79.8 ±3.4                     |                 |                    |
|                 | Avg.       | 46.83                         | 43.15           | 313                |
| Terminal leaves | 1          | 12.8 ±0.69                    | 9.08            | 635±34             |
|                 | 2          | 11.9 ±0.48                    | 6.55            | 821±33             |
|                 | 3          | 20.7 ±0.62                    | 12.0            | 776±23             |
|                 | Avg.       | 15.13                         | 8.83            | 744                |
| Seed            | 3          | 1.47 ±0.11                    | 1.08            | 613±46             |

Note: Errors given are based on the 95% counting error.