~~JAPAN - UNITED STATES~~
~~RADIOBIOLOGICAL CONFERENCE~~

~~Japan Science Council, Ueno, Tokyo~~
Tuesday, November 16

~~FOR IMMEDIATE RELEASE:~~

The second day of the conference was devoted to reports from United States and Japanese scientists specializing in these fields on findings concerning the movement of radioactive fission products in soils, water and plants, and uptake of fission materials by animals, plankton and fish of various species in various environments.

Presiding at the morning session was Dr. Yasuo Miyake of the Japan delegation; at the afternoon session Dr. Walter Claus of the United States delegation.

Opening the morning discussions Dr. Sterling Hendrick of the United States Department of Agriculture addressed the conference in Japanese complimenting the Japan delegation members on having such a good command of English that made their reaction to English papers so swift and certain, and that has speeded the progress of the meeting. Dr. Hendrick was complimented by Dr. Miyake on his fluent and well-phrased Japanese speech.

Dr. Hendrick presented the results of more than 20 research projects carried on in the U.S. to determine the course of radioactive materials resulting from atomic fission when applied in measured amounts to experimental plots and greenhouse plants. Summarizing the conclusions to be rearched from these data Dr. Hendrick stated that the absorption of radiostrontium and radioiodine is important. He observed that "the important thing we have learned is that cation forming fission products do not move about appreciably in the soil; that they act as elements common in the soil with respect to their uptake by plants; and that there is small uptake because the soil is so sufficiently supplied with the common elements which are preferred by the plants."

Dr. Hendrick observed briefly that he had no data on the entrance into plants of fission products which fall upon their leaves and stems; but that the general finding was that these do not enter much if at all into the plant system. He pointed out that any plant material which is prepared such as rice will not be contaminated from this source.

Dr. Shingo Mitsui of Tokyo University responded with published summaries of his findings regarding uptake of fission products when applied to the leaves of plants. His findings indicated some degree of absorption. Both Mitsui and Hendrick agreed that much further study is required in this field to get at the facts.

The second paper of the morning was delivered by Dr. Paul B. Pearson of the U.S. Atomic Energy Commission. Dr. Pearson, with slides, graphs, and tables to illustrate, gave the results of scores of U.S. studies on the uptake of fission materials by farm animals, including cattle, sheep and chickens, and of experimental laboratory animals such as rats and mice. From these studies he presented what is known concerning the course of five radioactive elements -- strontium, iodine, yttrium, ruthenium, and cesium -- through the organs of mammals and fowl, and into their products such as meat, milk and eggs. Dr. Pearson offered no conclusions from the studies, pointing out that more work is going on continually and firm conclusions cannot yet be reached.

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Results of studies on animals were also presented by members of the Japanese Delegation, including Dr. M. Nakaidzumi of Tokyo University and Dr. M. Haeno of Hokkaido University. The recent articles in the Bulletin of the Institute for Chemical Research of Kyoto University presented by Dr. S. Shimizu have drawn attention.

At the afternoon session Dr. Haeno, of the Hokkaido University Department of Agriculture, referring to Dr. Pearson's explanation in the morning session, described his findings on experiments using Ca 45, and asked for comments. It was found that the difference between the two results was due to the difference caused by application of the substance through the mouth in the one case and through injection in the other.

This discussion was followed by a presentation by Dr. Boss of a report on the radioisotope uptake by aquatic plants and animals living in waste effluents of Oakridge National Laboratory. He described the types of elements and distribution of radioactivity in the fish and algae in the artificial lake known as White Oak Lake. It was explained that the contamination of the marine life varied geographically between the influx from the reactor into the lake and the outgoing point, and that there were also seasonal variations, which were recent approaches to the studies. He also gave detailed explanations of the radioactive influence on similar biological life in the Columbia River due to the Hanford Reactor. This was followed by Dr. Miyake, who described the Japanese researches on distribution of contamination of sea water near Bikini.

The Chairman then called for some results of the Japanese researches, and Dr. Hiyama gave an outline of the results obtained by Dr. Nagasawa (National Hygienic Laboratory), the results of the Fisheries Institute of the Tokyo University, and other results of various laboratories in Japan.

In the evening the delegates went to a dinner by the American delegates given at the Sanno Hotel.