

Response to the Reviewer by Zhanat Baigazinov

Reviewer: Dr. Naofumi Akata

Hirosaki University

"GENERAL METHODOLOGY FOR ASSESSMENT OF THE CONTENT OF ARTIFICIAL RADIONUCLIDES IN LIVESTOCK PRODUCTS PRODUCED IN AREAS POLLUTED BY NUCLEAR TESTS"

PhD Thesis

1 Yes, I plan to expand the study to include other types of farm animals to assess the transfer of radionuclides into their tissues and products. This year, I received a grant from the Ministry of Higher Education and Science of the Republic of Kazakhstan for three years to carry out this project. Moreover, I intend to create a mobile observatory "Shagan" on the territory of the Semipalatinsk test site. This will allow for an in-depth study of the parameters of the transfer of various forms of radionuclides, including organically bound tritium (OBT), as well as long-term monitoring of the radiological situation and the impact of radionuclides on agricultural products.

2. Yes, I am considering the possibility of studying the content of organically bound tritium (OBT) in livestock products, since its accounting plays a significant role in assessing radiological safety. Organically bound tritium can accumulate in animal tissues and remain there for a long time, which requires a detailed study to accurately assess the risks of radiation exposure to humans when consuming such products.

3. The prospects for using the results of my research to develop more accurate models for predicting radiation risk in agriculture are very significant. The data obtained on the parameters of radionuclide transfer will help improve models that take into account specific local conditions and environmental features of contaminated areas. This will form the basis for creating more reliable risk models that will not only predict possible consequences for agriculture, but also develop effective strategies for minimizing radiation exposure to the population and the ecology of the region.

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