

## REVIEW OF FOOD TREATED WITH IONIZING RADIATION AS A MEANS OF ITS PRESERVATION

Aleksandra Angeleska<sup>1</sup>, Radmila Crceva Nikolovska<sup>1</sup>, Elizabeta Dimitrieska Stojkovic<sup>1</sup>,  
Katerina Blagoevska<sup>1</sup>, Risto Uzunov<sup>1</sup>, Boško Boškovski<sup>2</sup>, Slobodan Bogoevski<sup>2</sup>

<sup>1</sup>Faculty of Veterinary Medicine, Food Institute, University "Ss. Cyril and Methodius" – Skopje,  
[mizasandra@fvm.ukim.edu.mk](mailto:mizasandra@fvm.ukim.edu.mk)

<sup>2</sup>Faculty of Technology and Metallurgy, University "Ss Cyril and Methodius" - Skopje

### **Abstract**

*Food irradiation is a process of exposing food to ionizing radiation in order to ensure its safety and preservation. Usually the process is applied to fresh or frozen products without affecting the nutritional value of the treated food. This type of radiation has its advantages and disadvantages, and when it comes to the benefits, the process implies destruction of microorganisms in food and extending its shelf life. The only disadvantage of food treated with ionizing radiation is that this process is very expensive i.e. it requires sophisticated machines. In addition, there is often a negative perception by consumers themselves that it is a matter of irradiated food. Consumers can recognize food treated in this way, whereby food irradiation is recognized by FAO/ a designation of the WHO according to Radura, an international symbol for irradiated food. The scientific records of food irradiation confirm that irradiated food is not radioactive considering that there is no contact of food and radiation sources, however, it is still necessary to follow the very process and the appropriate procedure to make sure that the radiation dose is not exceeded. Research confirms that properly irradiated food with this method will not affect consumer safety. The method of food irradiation as an efficient technology has been approved in more than 60 countries and there has been a significant growth of production and trade.*

**Key words:** Food irradiation, consumer health and perception, review.