

GMOs policy and research in Tajikistan

Firuza Yu. Nasyrova, Samariddin S. Barotov, Farzona A. Abdukholiqova

Institute of Botany, Plant Physiology and Genetics of the National Academy of Sciences of Tajikistan, Dushanbe, Tajikistan



The policy of the Republic of Tajikistan in the field of biosafety, regarding the issue of handling and use of living genetically modified organisms (LMOs or GMOs) is aimed at compliance with international legal acts, agreements and obligations to ratified Conventions. Tajikistan ratified the Convention on Biological Diversity in 1997 and the Cartagena Protocol on Biological Safety in 2004. After ratifying the protocol, the country has prepared three National Reports in accordance with the requirements of international agreements. Earlier in Tajikistan, the Law of the Republic of Tajikistan "On Biological Safety" (2005) was adopted. "The Law regulates the development, testing, production, import, export and release on the market and into the environment of GMOs, is aimed at reducing the risk of adverse effects of GMO on human health, biological diversity, ecological balance and the state of the environment". Currently, this Law has been renamed into the Law "On Genetically Modified Organisms" and is under discussion, approval and adoption by the Parliament of the Republic of Tajikistan.

Among the urgent problems that the Republic of Tajikistan is currently facing, considering the prospects for the coming years, is the problem of food security, including issues related to ensuring food safety. Taking into account the importance of conducting research in the field of biological and food safety, scientifically based risk assessment of biological agents (including GMOs) and toxins, chemical contaminants in food products and crops by the Decree of the Presidium of the Academy of Sciences of the Republic of Tajikistan No. 108 dated 30.11.2015 the Laboratory of Biological Safety was established at the Institute of Botany, Plant Physiology and Genetics of Tajikistan National Academy of Science, the main tasks of which are the development and application of modern methods of analysis for the detection of biological agents and toxins, chemical contaminants in food products and crops, and analysis of GMO products.

It should be noted that at present there is no official information related to the production, use, distribution, sale, import and export of GMOs, as well as the registration of incoming GMO food products in Tajikistan. An analysis of the market for agricultural products in the capital city of Dushanbe showed that a number of GMO food products and genetically modified seed material are still imported from abroad in the form of technical and humanitarian assistance as well as international trade. In this regard, food safety activities should include risk assessment based on scientific evidence. Its emphasis should be on both process control and end product safety so that potentially unsafe foods can be identified early. GMO food can be considered safe if the risks associated with it are at an acceptable and acceptable level. It should be noted that an effective system for monitoring food products, including products containing GMOs, their compliance with quality standards is important for protecting the health and safety of the country's population.

Keywords: GMO; biosafety; ecological studies; Tajikistan.

AUTHORS' INFO

Firuz Yu. Nasyrova, Dr. Sci., Professor; Institute of Botany, Plant Physiology and Genetics of the National Academy of Sciences of Tajikistan, Dushanbe, Tajikistan; ORCID: 0000-0003-3870-1446; e-mail: firuza_nasyrova@mail.ru

Samariddin S. Barotov, Researcher; Institute of Botany, Plant Physiology and Genetics of the National Academy of Sciences of Tajikistan, Dushanbe, Tajikistan; ORCID: 0000-0002-1357-4228; e-mail: barotov.ikai@mail.ru

Farzona A. Abdukholiqova, PhD student; Institute of Botany, Plant Physiology and Genetics of the National Academy of Sciences of Tajikistan, Dushanbe, Tajikistan; e-mail: farzona_1297@mail.ru