

Special questions on use of GMO products in Ukraine

Proskura Ganna

Assistant Professor, The Constitutional and Administrative Law Department at the Law Institute in National Aviation University



Abstract. *The article analyzes the problematic legal framework for the use of GMOs in product handling. The approaches of different countries are analyzed, analyzed by the national legislation in this area. The proposal for the introduction of a normative legal act regulating the obligatory labeling of GMO products is provided.*

Key words: *genetically modified organisms, legal regulation, international acts, laws of Ukraine.*

Problem statement

The issue of free access to ecological information in Ukraine has been one of the most crucial issues and it is still among the most significant ones. For many years it has been the ruling issue in scientific studies of top scholars.

Preservation of the environment and maintenance of stable development have been defined as a leading task by the Constitution of Ukraine. Providing effective access to ecological information is a connecting link, a sophisticated category that, at first, has to be defined on the levels of philosophical approaches.

The issue of the use and labeling of GMO products at the present stage has become especially important, since ensuring ecological and food safety is one of the priority directions of ensuring sustainable development. In Ukraine, the system of use and labeling of GMO products is only on the first stages of establishing.

Currently it is imperfect and ineffective. However, one should point out the tendency of reforming Ukrainian legislation in the context of Ukraine's European integration.

Genetically modified organisms (GMOs) or transgenes are organisms created by the introduction of foreign genes into DNA of plants, animals, or microorganisms [1].

GMOs have become widespread in the biotechnology industry for the production of medicines, such as insulin, interferon. In the 90s of the twentieth century intensive work was done on the creation of transgenic plants.

Among them: corn, soybean, rape, cotton [1], [2]. The main use is to obtain plants with increased resistance to diseases, pests or natural conditions. The direction of obtaining fruit with improved storage capacity is widespread [2]. The largest areas are occupied by transgenic soybeans (61%), maize (23%), cotton (11%) and rape (5%) [3]. Use genetic engineering in modern biology and medicine is also important. It has become one of the main instruments of both science and production [3].

Therefore, since 80's the use of GMOs has become one of the priority directions of genetic engineering. In modern society GMO products are used for medical, food, industrial and household purposes.

However, only later the question of the influence of GMOs on the organism of a living being, in particular - the person and the state of the environment has appeared. To date, this issue remains highly researched and one of the most controversial in the world.

Analysis of recent research. Legal aspects of the use of GMOs were investigated by V.I. Andreytsev, G.I. Balyuk, M. M. Brynchuk, S.I. Bougera, M.O. Grigorova, T.O. Zaychuk, T.O. Kovalenko, O.O. Krasovskii, L.L. Savchenko, M.O. Shulga and other scientists.

Setting objectives. Thus, the purpose of the article is to analyze the legislative database in the field of use and labeling of products containing GMOs in Ukraine on the examples of the countries of the world.

Presenting the main material. In our view, it is worth highlighting the basic concepts of using GMOs: a positive concept, a negative concept and a neutral concept.

The positive concept is based on the fact that the cultivation and use of GMOs is supported at the state and local levels. This point of view is formed on the basis of the strategy of human survival, and the damage that GMO can cause to the human body is considered as a charge for the ability to feed a large population [3]. It is believed that such products provide economic benefits, the ability to provide more food to more people.

Among the priorities of GMO use are: control of weeds; herbicide resistant varieties of agricultural crops; resistance to herbicides; fighting against viral diseases of agricultural plants; improvement of qualitative characteristics of crops; obtaining heterozygous hybrids of agricultural plants; economic benefits, etc. [1]. This is the point of view of the USA, Brazil, Argentina, which currently actively use GMO products in the food and industrial sectors.

The opposite view (negative concept) is based on the harm that can be caused to the human body by consuming GMO products, environmental impact, as well as ethical and religious issues. Among the main shortcomings of GMOs are: the impact of GMOs on ecosystems; the appearance of superbugs; migration and further introgression of the transgene into wild populations [1]; risks to the consumer's of GMO products health, etc.

In January 2000, the Biosafety Protocol, known as the Cartagena Protocol, was approved. The document came into force in 2003 after it was ratified by 50 countries of the world [1]. Since 2004, GMOs in children's food products intended for children under 4 years old have been completely prohibited in the EU countries [1]. This has become an important step in ensuring environmental safety in the use of GMO products.

Experiments were conducted on rats, resulting in diverse deviations in organisms of animals that consumed GMOs [4], [5], [6]. Nowadays it is believed that consumption of GMO products leads to growth of tumors, infertility, allergies and asma, genetic diseases, etc.

It is worth pointing out that so far there has been no systematic study of the effects of GMOs on living organisms.

The neutral concept is based on a loyal attitude towards the use of GMOs. In our opinion, the main feature of this concept is the possibility of a consumer to decide whether to use GMO or not. At the legislative level, only the labeling of GMO products is regulated. The main obligation of the state is to provide information about the risks and benefits that include the consumption of GMO products.

The EU has widespread legislation that obliges manufacturers to mark products containing GMOs. For about 10 years the labeling obligation has been in effect in Germany, Austria, France, Italy and Slovenia. Since 2016 such a law has been tried to be introduced in Hungary [6]. For example, let us consider Poland's experience in marking products without GMOs. There is a law in the project according to which all products that are sold in Poland and do not contain GMOs have proper labels [6]. The bill does not foresee the creation of a single sign for marking foods without GMO content - every producer can solve this issue on its own, using the instructions given in the law. In our opinion, Ukraine should introduce such a legislative act; however, we believe that there should be a single system of marking, analysis and a system of laboratories for the research of products being marked.

We consider that on legislative level, Ukraine can be attributed as a transition country, that is, currently there is a complicated process of drafting legislation, in particular, the draft law on obligatory labeling of products with GMOs.

In Ukraine, the issues are regulated by the Constitution of Ukraine, the Laws of Ukraine: "On Basic Principles and Requirements for the Safety and Quality of Food Products", "On Seeds and Planting Material", "On Protection of Rights to Plant Varieties", "On the State Biosafety System in the Establishment, testing, transportation and use of genetically modified organisms ", " On consumers' rights protection ", " On the main principles (strategy) of the state environmental policy of Ukraine for the period up to 2020 ", the Code of Ukraine on administrative violations and other norms motivated by legal acts. In general, Ukrainian legislation is unclear, contradictory in the use of GMO products. We believe that it is possible to distinguish in the legislation of Ukraine signs of a negative concept and a neutral concept regarding the use of GMO products.

The Association Agreement between Ukraine, on one hand, and the European Union, the European Atomic Energy Community and their Member States, on the other hand (hereinafter - the Agreement) gave impetus to the development of Ukrainian legislation in the direction of adaptation to the legislation of the EM, that is, the transition to a negative concepts.

The agreement defines in Art. 361 that cooperation aims at preserving, protecting, improving and recreating the quality of the environment, protecting public health, and rational utilization of natural resources and promoting measures at the international level in the following areas: genetically modified organisms, including in rural areas farms, etc.

Art. 361 of the Agreement provides increasing the effectiveness of environmental control in the process of decentralization by ensuring the gradual approximation of Ukrainian legislation in line with the EU directives through the organization of monitoring and control of land status; control of GMO use.

That is, we can conclude that, taking the course on European integration, Ukraine undertakes to cooperate and comply with EU policy on ecologically significant issues, and in this case, in the sphere of GMO use.

In 2002, Ukraine joined the Cartagena Protocol. The protocol declares the rules for the processing and use of all living modified organisms that may adversely affect human health [1]. Obviously, this has become an important step for Ukrainian legislation, but there is no effective implementation and practice of today's protocol in Ukraine.

According to Art. 15-1 of the Law "On the State Biosafety System while Creating, Testing, Transport and Use of Genetically Modified Organisms" with the purpose of exercising state control over the circulation of GMOs and products obtained by using GMOs, central executive authorities responsible for the implementation of this Law, create in the relevant areas a network of test laboratories to determine the content of GMOs in products.

The provisions of the network of test laboratories for the determination of the content of GMOs in products shall be approved by the Cabinet of Ministers of Ukraine.

Scientific and methodological coordination of the activity of test laboratories for the determination of the content of GMOs in products is carried out by the scientific and methodological center on GMO testing issues.

It is worth pointing out that Ukraine has insufficient number of laboratories to effectively monitor the use of GMOs, other difficult issues are control over their activities and responsibility for providing false information. Another aspect is that the register of authorized genomes exists in Ukraine, but it is still not filled out. This causes contradictions and conflicts in the legal regulation of GMO products [4]. As analysis of court decisions proves: there are few cases where test results in different laboratories, of the same production on GMO content, destined for import to Ukraine for free circulation, significantly differs - some showed GMOs and set parameters exceed permissible limits, others - did not show at all [7].

Consequently, a complicated legal conflict arose, when in fact it was possible to take control of the use of GMOs in products. The situation is complicated by the lack of a single state body in Ukraine dealing with GMO products content and labeling.

In accordance with the Law of Ukraine "On the State Biosafety System for the Creating, Testing, Transport and Use of Genetically Modified Organisms" of May 30, 2007, control and regulatory powers are divided between five executive authorities. The Cabinet of Ministers is responsible for the development of regulations for the implementation of the Biosafety Law. The Ministry of Education and Science regulates activities in the field of genetic engineering in closed systems, the Ministry of Ecology and Natural Resources regulates GMO testing in open systems. Organizing ecological examinations of GMOs falls within the authority of the Ministry of Ecology and Natural Resources, meanwhile, the Ministry of Health conducts a sanitary and epidemiological examination of GMOs before deciding on their state registration [8], [9]

Consequently, this leads to the need for changes in legislation. In our view, it is advisable to simplify the system of executive authorities dealing with this issue, passing regulation of activities in the field of genetic engineering to the Ministry of Environment and Natural Resources.

On August 22, 2017, the draft law (No. 7210 of October 19, 2017) should bring our legislation in line with Regulation No. 830/2003 of the European Parliament and the Council of the EU, approved at a meeting of the Governmental Committee on Economic, Financial and Legal Policy, Development of Fuel

and Energy complex, infrastructure, defense and law enforcement activities.

According to it, Ukrainian producers will be obliged to label products containing GMOs. That is, with the content of GMOs at 0.9% or more in food, feed and veterinary preparations, at each package, the manufacturer will be obliged to write "This product contains GMOs" or "This product contains genetically modified organisms" [5].

As it was already mentioned, we consider that a unique system of marking with special protection should be developed and approved, which will ensure the counterfeiting and falsification of products from GMOs. The draft law proposes to amend the norms of four laws at once: "On the state system of biosafety during the creation, testing, transportation and use of GMOs"; "On the basic principles and requirements for the safety and quality of food products"; "On Protection of Consumer Rights"; "On Veterinary Medicine". The main changes relate to changes in the order and specification of the requirements for the labeling of GMO products.

An explanatory note to the draft Law of Ukraine "On State Control of Genetically Modified Products in Agriculture and Food Industry" stipulates that the draft law is designed to comply with certain provisions of the Association Agreement. In particular,

Chapter 4 "Sanitary and Phytosanitary Measures" of Section IV "Trade and Trade-related Issues" contains Ukraine's commitment to bring domestic legislation into line with EU legislation in terms of regulating the placing on the market and the circulation of genetically modified food and feed .

Chapter 6 "Environment" of Section V "Economic and Sectoral Cooperation" includes Ukraine's commitment to bring its legislation closer to EU environmental legislation, in particular on issues related to GMO treatment.

The main task of the bill is to: establish an effective system for monitoring the circulation of GMOs in Ukraine and introduce liability for violations of legislation in this area; implementation of the main requirements of the Directive №. 2001/18 / EC, Directive №. 2008/27 / EC, Regulation (EC) No 1829/2003, Regulation (EC) № 1830/2003 and Regulation (EC) No. 1946/2003.

The bill takes into account the requirements of the legislation of the European Union and brings domestic legislation in this area in line with international experience and existing practice in the field of biosafety during the creation, conduct of research, risk assessment, implementation of pre-registration tests, state registration of GMOs, placement of GM products on the market, its marking and circulation control.

Conclusion

The analysis of the current legislation, the conclusions of the leading scientists allow us to formulate the main provisions of the legal regulation of products of modern biotechnology, which nowadays does not meet the international obligations of Ukraine and the realities of economic activity. Imperfect legal regulation in the area of GMO management also makes it impossible to implement effective state control over the use of genetically modified products in agriculture and food industry and creates preconditions for illegal use of unregistered genetically modified products in Ukraine.

So, it is worth noting that in the world GMOs remain insufficiently properly investigated and the issue of their use remains controversial.

The use of biotechnology in theory can become a source of a new danger to the environment, as well as a method of preserving natural resources, improving and even restoring natural and semi-natural ecosystems [4]. However, the consequences of GMO use can not be foreseen for today.

That is, we conclude that currently the use of GMOs in Ukraine is not sufficiently regulated, namely that there should be an explicit clarification of the distribution in the field of use and testing of GMO products. The issue of labeling GMO products is particularly important, which almost is not controlled in Ukraine now.

First of all, we determine the need to bring Ukraine's legislation in accordance with EU legislation in this area.

Consequently, we can conclude that the formation and further implementation of a comprehensive state policy, harmonized with international law, is a complex and urgent task. It is important to point out the multidisciplinary nature of the task, the lack of a clear, consistent policy and lack of consistency. In general, international obligations, in our opinion, become the driving force behind the development of legislation in this area. Politically, economically and scientifically grounded decisions should be taken for all sectors of the economy, including energy, land use, as well as health,

conservation and restoration of ecosystems. Therefore, we believe that the first step is the systematization and co-ordination of legislation in this area. The second order is to determine the criteria for the effectiveness of its implementation.

Thus, on the basis of the foregoing, we consider it expedient:

1. Adoption of a new legislative act regulating the use of GMO products in Ukraine.
2. Bring the current legislation in the field of use and inspection of GMO products in line with EU legislation.
3. Simplification of the system of state authorities, in the field of use and inspection of GMO products.

References:

1. HMO: doslidzhennia ta vplyv na zhyvi orhanizmy [Elektronnyi resurs] // Rezhym dostupu: http://molokija.com/good_to_know/gmo-doslidzhennya-ta-vplyv-na-zhiviorganizmi
2. Rol henetychnoi inzhenerii v suchasnykh biotekhnolohiiakh i medytsyni [Elektronnyi resurs] // Rezhym dostupu: <https://mozok.click/71-rol-genetichnoyi-nzheneriyi-v-suchasnihbotehnologiyah-medicin.html>
3. Henetychno modyfikovani silskohospodarski kultury: prohres, problemy, perspektyvy .T.M. Dyman, M.V. Kozlovska, R.V. Oblap, O.V. Dubin, O.I. Kravchenko, Kyiv. 2013
4. HMO v ukrainskykh produktakh: My dosi ne znaiemo, shcho yimo [Elektronnyi resurs] // Rezhym dostupu: <https://ua.112.ua/mnenie/hmo-v-ukrainskykh-produktakh-my-dosi-ne-znaiemo-shcho-imo-415285.html>
5. Ukraintsiv zahoduiut yevropeiskymy HMO-produktamy [Elektronnyi resurs] // Rezhym dostupu: <https://news.finance.ua/ua/news/-/413701/ukrayintsiv-zagodyut-yevropejskymy-gmo-produktamy>
6. V Polshchi markuvatymut produkty, shcho ne mistiat HMO [Elektronnyi resurs] // Rezhym dostupu: <http://vsetutpl.com/v-polschi-markuvatymut-produkty-scho-ne-mistyat-gmo>
7. O problemakh HMO: zakonodatelstvo y praktyka [Elektronnyi resurs] // Rezhym dostupu: <http://jurliga.ligazakon.ua/news/2013/9/20/98023.htm>
8. S.Lushpaiev. Pravove rehuliuвання vykorystannia henetychno modyfikovanykh orhanizmiv pid chas vyrobnytstva kharchovykh produktiv [Elektronnyi resurs] // Rezhym dostupu: <http://pgp-journal.kiev.ua/archive/2017/11/19.pdf>
9. Do uvahy vyrobnykiv - Transhenni sorty hrechky [Elektronnyi resurs] // Rezhym dostupu: <http://www.consumerhm.gov.ua/284-do-uvagi-virobnikiv-transgenni-sorti-grechki>