
Studying Effectiveness of the European and Eurasian Economic Union Food Safety Legislation

M.T. Nurgaliyeva¹, Zh.A. Iskakova¹, L.A. Mamayeva¹, V.S. Zhamurova¹,
Attevon Wright², A.K. Smagulov¹

Abstract:

The article provides a comparative analysis of the legislation on food safety in the European Union (EU) and in the Eurasian Economic Union (EAEC).

Participation of national producers in global trade is limited by the different national requirements and regulations relevant to the exports and imports of food products. A new technical regulation system is being developed within the framework of the EAEC, with the aim of regulatory harmonization with international requirements.

In this respect, a comparison of the requirements of EU food legislation and the EAEC to food safety is of particular interest.

Within EAEC the work has been actually completed with the participation of Kazakhstan on unification of technical regulation system particularly in the food industry with other countries of the Russian Federation and Belarus.

Keywords: *food industry, food safety, technical regulations, food legislation, directive, HACCP system (HACCP), the criteria, the legal framework.*

JEL Classification: *O13, P24, L66*

Introduction

¹ RSE Kazakh National Agrarian University, Kazakhstan, 050010, Almaty, Abay Street, 8

² University of Eastern Finland, Finland, FI-70210, Kuopio, Yliopistonranta 1,

Currently, activities have been implemented on harmonization of requirements for food quality and safety in accordance with the recommendations of the Codex Alimentarius (Codex Alimentarius) approved by WHO and FAO (Business Development Committee of KAZCORP, 2012; The concept of the development of management systems in the Republic of Kazakhstan until 2015, 2008; FAO / WHO, 1983; Frank, Mashevskaya, and Ermolina, 2016). State regulation on the safety of food raw materials and food products in the Republic of Kazakhstan is based on the laws of the Republic of Kazakhstan:

- Law of the Republic of Kazakhstan "On Technical Regulation";
- Law of the Republic of Kazakhstan "On food safety";
- Law of the Republic of Kazakhstan "On Protection of Consumers' Rights;
- Code of the Republic of Kazakhstan "On people's health and the health care system."

Materials and methods

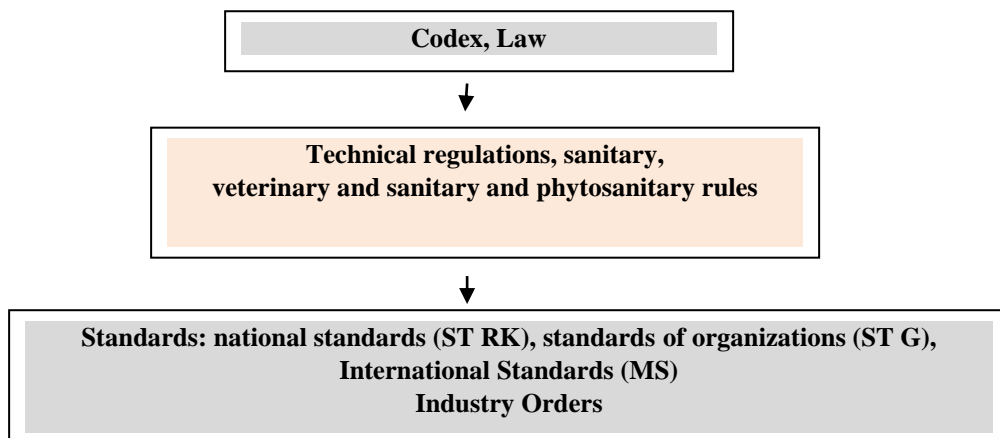
Quality and safety requirements regulated by government and non-government organisations divided into several parts. These state and international requirements. Regulations and State standards are as a material for this article, and methods using for this work are: collecting and analyzing the statistical- bibliographical data.

The following requirements are thus currently in place:

Requirements for the quality of food, its packaging, labeling, controlling methods (analysis), assessment procedures and verification of food quality and safety in compliance with established regulations, approved by the authorized state institutional bodies. Requirements for energy value, food safety and biologically active additives, (with the exemption of - food raw materials of animal origin), as well as the manufacture, storage, transportation, sale (trade) of food and the provision of catering services established by the state (interstate) standards and sanitary rules and norms. Requirements for quality and safety in the procurement, storage, transportation, processing and sale of raw food of animal origin are established by the state (interstate) standards, and veterinary and sanitary rules.

1 *Requirements* for the quality and safety of food raw materials of vegetable origin are established by the sanitary rules and phytosanitary regulations (Figure 1). (Guidance: "International standards on food safety," JSC "National Agency for Export and Investment "KAZNEX INVEST", 2011).

Figure 1. *State regulation on the safety of food raw materials and food products in the Republic of Kazakhstan*



In 2000, the EU issued a White Paper, which was a major framework document initiate a new legal framework covering the food and feed safety including the risk assessment and control measures (for example, establishment of the European Food Safety Authority or EFSA) (Strategies to ensure food safety, 2013; Federal office of consumer protection and food safety, 2013). The more recent legislative documents discussed below represent the implementation of the principles outlined in the White Paper.

European legislation regarding food safety is divided into three main component parts:

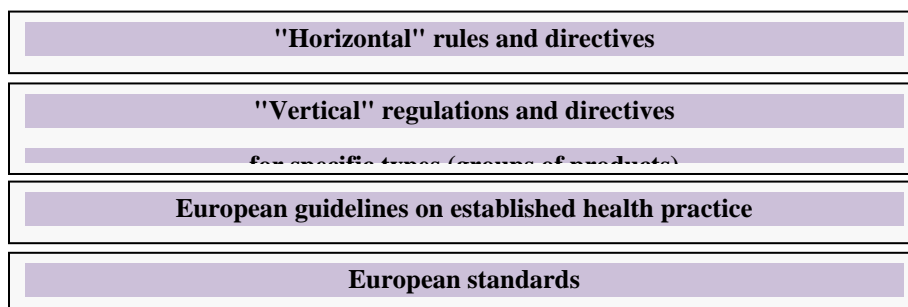
- legislation on food safety, hygiene of the products, additives, materials, new types of food products, and control, i.e. the system of "horizontal directive";
- laws, related to labeling;
- laws that establish requirements for the quality of food products, i.e. the system including "vertical directives"

Definition of general principles by "horizontal legislation" in the food sector has guided the formation of the "vertical" legislation dealing with specific questions "Horizontal" and "vertical" policy documents thus from a hierarchial legislative structure. (Kostyleva, Aronov and Kovalchuk 2012; Bashmakov, Popov, Zhedyayevskii, Chikichev and Voyakin, 2015)

"Horizontal" legislation establishes common aspects for all foods (additives, labeling, hygiene, HACCP, etc.) and in many cases governs the basic requirements observed by all participants in the production chain.

"Vertical" legislation sets requirements for specific products e.g. meat, fish, cocoa, sugar, honey, chocolate, etc (Figure 2).

Figure 2. Structure of food law of the EU



In the EU countries, according to Art. 189 of the Agreement on functioning of the European Union, five types of legislative measures, which are adopted by the European parliament together with the EU Council, or the Commission of the EU are listed:

1. Regulations;
2. Directives;
3. Decisions;
4. Recommendations;
5. Opinions (Table 1, Figure 3).

Table 1. System of law sources of the EU

System of law sources of the EU		
<i>Normative acts</i>	<i>Individual acts</i>	<i>Recommendatory acts</i>
Regulation	Decisions	Recommendations and opinions
Mandatory directly applicable	Tool enforcement, mandatory for those to whom it's addressed focused on specific narrow questions	Lack of obligation, voluntariness of execution of the instructions (wishes) which are contained in them
Directive		
Mandatory, free form and method of administration		

Regulations are legislative acts having the force of law directly applicable in all countries of the EU Member States, and taking precedence over national legislation. The basic document of the European Union in the sphere of food safety is the regulation No. 178/2002. The main purpose of regulation No. 178/2002 is to ensure the free turnover of safe food and feed in the European Union, health and welfare of citizens.

"Hygiene Package" is a collection of regulations of the European Union, defining the general hygiene requirements for food products being produced or imported in the EU, which is based on effective elements of safety and risk management system, based on the implementation of HACCP principles at all stages of the production

and food supply chain. The most important documents included in this package are:

- Regulation No. 852/2004 of the European Parliament and of the Council on the hygiene of foodstuffs;
- Regulation No. 853/2004 of the European Parliament and of the Council on specific hygiene rules for products of animal origin;
- Regulation No. 854/2004 of the European Parliament and of the Council on the special rules of the organization of official controls on products of animal origin;
- Regulation No. 882/2004 of the European Parliament and of the Council on the special rules to verify compliance with the legislation on food and feed for animals, on protection of the health and welfare of animals.

These regulations are designed to ensure the compliance with Regulation No. 178/2002. They cover almost all food safety issues along the entire chain of production and sales, providing the necessary regulatory control, which allows building a transparent food safety system on the principle of "from farm to fork".

Directives have a general nature defining the requirements for food safety. Directives are binding on all Member States. However, they are implemented according to practices defined in national legislation, without detailed and uniform approach typical for Regulations.

Recommendations and opinions are applied directly, but are focused on more specific issues (The legislation of the European Union and the Republic of Belarus in the field of food safety, 2013; Guryevich 2013).

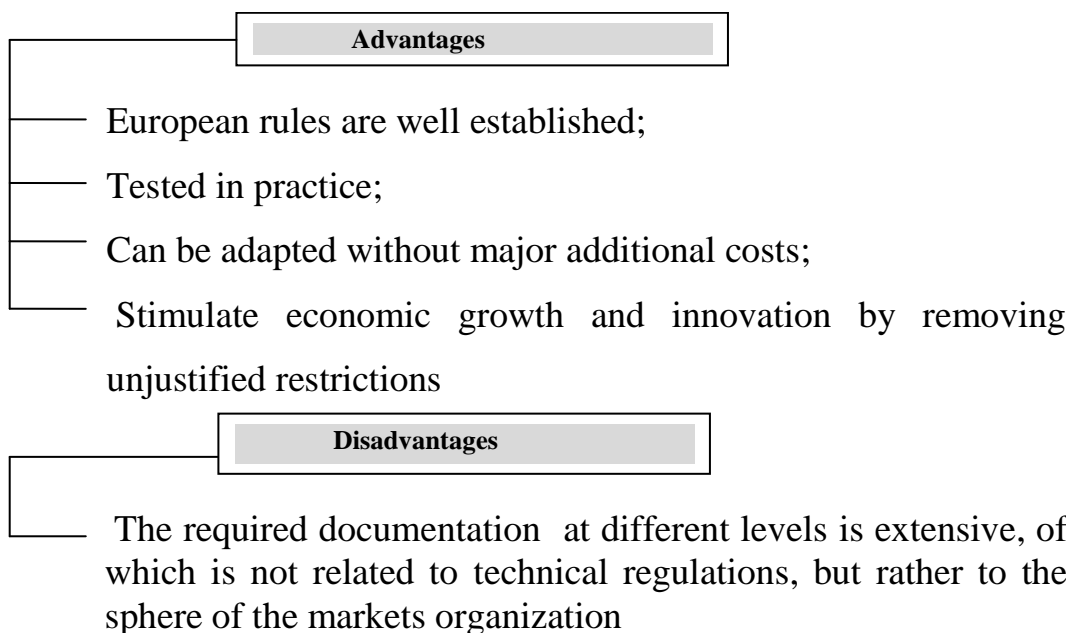
Technical regulation systems in the EU are based on the function of national competent authorities defined by the national food legislation, the standards of Codex Alimentarius (CCFAC) (FAO / WHO) for certain types of food providing the starting point.

However, the EU safety requirements are often much stricter than the standards of the Codex Alimentarius, and the list of hazardous substances, the content of which is being regulated, is much more extensive.

Results

At the EU level, food legislation includes more than 200 regulations, directives, laws and fundamental judicial decisions, ranging from regulations on maximum permissible concentrations of pesticide residues up to the consumers' rights to information. All the rules cover the three main objectives of the food law: the protection of human health, ensuring of safe food for market, consumer protection against fraud, and proper public information.

Figure 3. EU Food Law



Creating the EAEC Kazakhstan, together with the Republic of Belarus and the Russian Federation entered a new stage of improving the legal framework in the field of technical regulations and standards of food quality and safety.

With this aim, the legal base in the sphere of technical regulations is being created for the elimination of technical barriers to trade within the common customs territory, based on currently generally accepted international approaches ensuring the safety and quality of products, forming a unified standards in the field of sanitary, veterinary and phytosanitary measures, and expanding the geographical base of food production.

EAEC food control system is based on ensuring food safety by the way of assessing (conformity assessment) of the final product. In this system, the final product is considered to be safe if it satisfies specific technical standards EAEC or is recognized by voluntary standards and / or rules and regulations of Member states.

Eurasian Economic Union is primarily focused on internal trade between the Member states accepting customs policy and the rules for the release of goods in its customs territory. In this system, there is a certain amount of general and sectoral technical regulations, which make up the basis of food control in the EAEC (Figure 4).

A single legal basis of the EAEC is supported by national laws, regulations and standards of the Member states. Therefore, in order to satisfy the requirements of the EAEC, the conformity of technical regulations and the laws of the EAEC Member states must be taken into account.

Technical Regulations of the EAEC is the main legal instrument that establishes mandatory requirements for product and process of the life-cycle, being developed and used in accordance with the law. (Clarification of the technical regulations requirements of the Customs Union, 2015; Lovkis and Morgunov 2013).

Technical regulations of the EAEC are developed on the basis of the Regulations and Directives of the European Union, international and European standards. The aim is the conformity with modern requirements which are applied in the global market, allowing the production of competitive products, - and creating export opportunities for both in the EAEC, in the EU and in global markets.

The scheme and conformity assessment procedures are established in each technical regulation. More than 3000 standards are applied to perform the approved technical regulations of the EAEC, establishing more than 40000 requirements for products and test methods.

Normative - legal base of the EAEC combines "horizontal" regulations with "vertical" ones.

Technical regulation of food products in the EAEC envisages the development for both "horizontal" technical regulations being applied to all food products (safety regulations of food products, food additives, flavorings and processing aids) and "vertical" (regulations for certain types of food products - milk, meat, fish, oil and fat products, juices, cereals, alcoholic beverages, etc.).

"Horizontal" regulation "On Food Safety" is the fundamental document that specifies basic terms and general requirements applicable to all food products at the stages of its life cycle. Regulation is applied to ensure a minimum level of product safety as well.

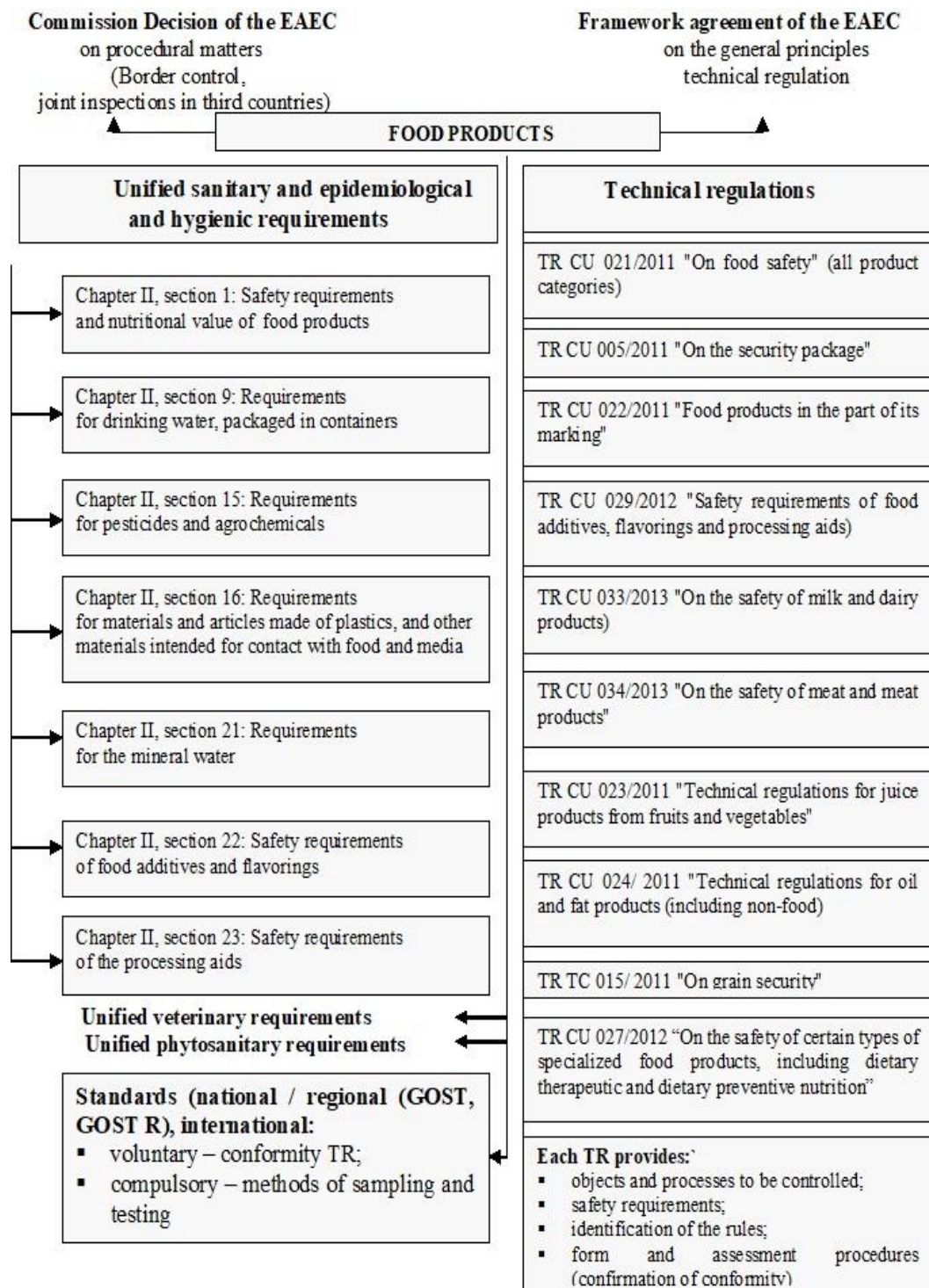
"Vertical" regulations on food safety set out the requirements for performance and nutritional value to certain types of food.

In its turn, more specific requirements for a particular product are described in the relevant regulations of the Customs Union, such as:

- TR CU 015/2011 "On grain security";
- TR CU 023/2011 "Technical regulations for juice products from fruits and vegetables";
- TR CU 024/2011 "Technical regulations for oil and fat products";

- TR CU 027/2012 "On the safety of certain types of specialized food products, including dietary therapeutic and dietary preventive nutrition";

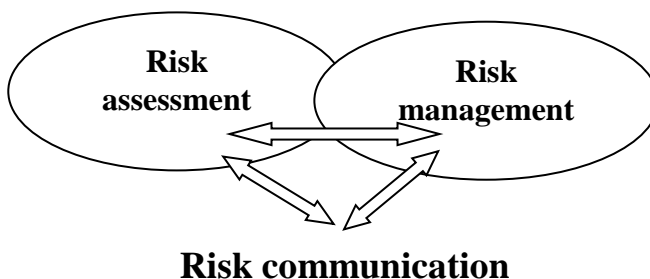
Figure 4. *The structure of the regulatory - legal framework of the EAEC*



- TR CU 029/2012 " Safety requirements of food additive, flavorings and processing aids";
- TR CU 033/2013 "Milk and dairy products";
- TR CU 034/2013 "On the safety of meat and meat products."

These technical regulations establish the compulsory safety requirements for food products and conformity assessment rules under which access to the market of the EAEC is provided. In the EU food legislation is based on the risk analysis system to ensure a high level of protection of human life and health. Under the risk analysis, the process is being associated consisting of three interconnected stages: risk assessment, risk management and risk communication (Figure 5).

Figure 5. Structure of the risk analysis



The EU system is based on an approach based on risk assessment and the principle of "from farm to fork", where the risks are determined, reduced and controlled by means of preventive methods, and the role of the regulatory system is based on verification of the effectiveness of official controls. In the approaches of the food quality, adjustable specific quality parameters defined by technical regulations of the EAEC and regional and national standards (GOST) are applied to all food and agricultural products in the EAEC. The main objective of these regulations is to ensure food safety, - with a clear definition, management and implementation of a harmonized set of technical specifications for each product being manufactured in the EAEC.

In the EU, on the contrary, the quality parameters are determined by market conditions and industry in order to satisfy consumer needs. The characteristics of food (related to food quality) are controlled only in some cases of the EU (as in the case of dietary products, food supplements and infant foods, where for example certain minimum nutritional qualifications have to be met). Thus, the safety of food products in the EU is separated from its quality and regulated in more detail. In general, there are two main approaches regarding the quality of food products have the following main features:

- *the EU*: increasing product variety, minimized protection of the market and much higher competition;

- **the EAEC**: much higher uniformity of products, a high degree of market protection and the need of keeping a high level of standardization.

In the presence of horizontal labeling requirements in the EAEC specific additional requirements are established to large groups of food products in vertical technical regulations, and in some cases, in the national legislation performed in the Member States. The EU, by contrast, relies mainly on horizontal regulations establishing requirements for the labeling, similar to all food products, except for certain specified products separately defined. Regulation No. 1169/2011 of the EU is applied to all products sold to the final consumer, including food service outlets (except fairs). The EAEC labeling requirements are not applied to foods produced in catering establishments.

Requirements to the text content of labeling are the same in the EU and the EAEC, as its main aim is to provide specific information to the consumer. Both Unions require information on the content of the product, the amount of ingredients, adopted name, methods of usage and preparation, on specific potential threats to health (such as allergens), on the nutritional value of and contact information for each product. Stringent food safety control is established both in the EAEC and the EU. Both Unions provide high level of security, but different fundamental approaches are used, and therefore different regulatory frameworks, regulating methods, control procedures systems are used as well. Criteria to food safety in the EAEC are based in the final product testing for compliance with numerous regulatory requirements.

Safety criteria are applied to all foods and include many potential hazards, both high and low risk of occurrence, moreover agents in food products that are not dangerous themselves, but may indicate the possibility of danger, are controlled. Although HACCP principles are part of the mandatory requirements in the EAEC, they as yet are very to a limited extent integrated in conformity assessment activities.

An European approach to the criteria of food safety, on the contrary, focuses mainly on the prevention of risk by applying the principles of HACCP and requirements for testing is limited only to the hazards that are significant for certain types of products or production processes.

Technical regulations of the EAEC establish the broad criteria for food safety, and the manufacturer must ensure that their products are produced to meet these criteria. In the European Union food market operator defines additional safety criteria by his own apart from those being established in the legal acts, as well as develops control measures for these criteria under a program based on the HACCP principles. Moreover, according to some criteria of food products safety, in particular for microbiological parameters, the authorities which are responsible for food safety have the right to conduct tests for compliance with additional criteria, if there are reasonable doubts about the safety of the products.

There is a combination of vertical and horizontal approaches in the EAEC, regarding microbiological requirements for foodstuffs:

- General requirements established for all foods in a horizontal technical regulation EAEC 021/2011 "On food safety";
- Additional requirements in vertical technical regulations for certain types of food products.

They are presented in the combined form in the Uniform sanitary and epidemiological and hygienic requirements for products controlled by sanitary-and-epidemiologic supervision (control). Microbiological requirements of the EAEC are focused on testing of the ready product primarily until its supply and turnover in the market. The EU approach is purely horizontal: all microbiological criteria for all food defined in the EU regulation No. 2073/2005 on microbiological criteria for foodstuffs. This regulation is closely related to the application of HACCP principles and the relevant legislation.

The EU law, in contrast to the EAEC, establishes microbiological criteria for hygiene process for intermediate products in order to verify the effectiveness of technologies and production processes, as well as the safety criteria of ready products already released into circulation in the market during its expiration date, i.e. by the scheme "from farm to fork" (Table 2).

Table 2. *Groups of microorganisms, by which microbiological criteria and their comparison with the EU requirements are installed in the EAEC*

EAEC	the European Union	
Criteria for final products in assessing (conformity assessment before a release into circulation)	The criteria for products being placed in the market (the final products / food safety criteria)	The criteria for the production process (products during the manufacturing process / process hygiene criteria)
Pathogens	+	+
Conditional pathogens	-	+
Indicator microorganisms	+	+
Microorganisms causing spoilage	-	-
Living cells	-	-

Comparing control measures of microbiological safety of food products in EAEC and the EU the most important category or group of microorganisms from the point of view of health hazard are pathogenic microorganisms. Actually, pathogenic microorganisms — are the only group of microorganisms on which comparison is possible, as it is the only general group for norms common both to EAEC and the EU (Table 3).

Table 3. Comparison of pathogenic microorganisms on which in the EU and EAEC microbiological criteria are established

Pathogens, on which microbiological criteria according to technical regulations of EAEC are established	Pathogens, on which microbiological criteria (criterion of safety) according to regulations of the EU are established
Pathogenic microorganisms, including Salmonella	Salmonella Salmonella typhimurium Salmonella enteritidis
Listeria monocytogenes	Listeria monocytogenes
Enterobacter sakazakii	Cronobacter spp. (Enterobacter sakazakii)
Yersinia Spp.	Yersinia Spp.
Staphylococcal enterotoxin	Staphylococcal enterotoxin
Absence	E. coli, producing shiga toxin (STEC) O157, O26, O111, O103, O145 и O104:H4
Absence	Histamine

A special approach to the control as *Listeria monocytogenes* is used in the EU in ready-to-eat foods, separating them into two categories:

- Ready-to-use and capable to support the growth of LM (packed cooked meats, smoked salmon, cream cheese, etc.);
- Ready –to-use and not capable to support the growth of LM (ice cream, products with an expiry date less than 5 days, and others.).

This approach is not used in the EAEC. The main documents regulating safety of the population and environmental protection in Kazakhstan from radioactive pollution are:

- Law RK "About Radiation Safety of the Population".
- Law RK "About Sanitary and Epidemiologic Wellbeing of the Population".
- Law RK "About Use of Atomic Energy".
- Law RK "About a Subsoil and Subsurface Use".
- Ecological code of RK.
- Radiation safety is ensured by observance of requirements of the existing regulations of NRB 99
- Health regulations and norms "Sanitary and hygienic requirements for ensuring radiation safety".

In the EAEC, the requirements for contaminants are set for all foods in the horizontal TR CU 021/2011 "On food safety" with additional requirements established for milk and dairy products, meat and meat products, fat and juice products, grains, specialized products. Moreover, requirements on Contaminants are established in the Uniform sanitary and epidemiological and hygienic requirements for products controlled by sanitary-and-epidemiologic supervision (control).

In the EU, an approach to the monitoring of contaminants is extremely horizontal: all the requirements for contaminants in food are consolidated in a single EU Regulation No. 1881/2006, which establishes the maximum levels of contaminants in food. In the EAEC and in the EU, the most significant difference in contaminants for which figures are set, is considered regarding radionuclides. Control of radionuclides in food products is used much more widely in the EAEC, while the EU monitoring radionuclides are being related to only mushrooms imported from definite third countries.

The Euratom Treaty, established in 1957, contains the primary legislation in which the radionuclide monitoring in the environment is described. The aim of the Treaty is to coordinate the Member States research programmes in the field of nuclear energy. It concentrates on the most important issues related to radioactivity as promoting research, establishing uniform safety standards and facilitating investments.

At the time of the Chernobyl accident, neither standards nor authorities had been established related to radioactive contamination in foodstuff. This accident was the starting point for the development of an integrated food safetyrelated radiological protection system.

The Commission Recommendation (Euratom) No. 473/2000 is the regulatory base of the radionuclide monitoring in foodstuff. It stipulates that not only environmental samples, but also food samples should be monitored, in order to assess the exposure of the population as a whole.

The regulations relevant to radionuclide monitoring in foodstuff are collected in table 4 (Mate, Sobiech-Matura, Altzitzoglou 2015a; Mate, Sobiech-Matura and Altzitzoglou 2015b; Anikina, Gukova, Golodova and Chekalkina, 2016).

Legal framework of the EAEC contains additional requirements and procedures for contaminants, in addition to the need of keeping the maximum permitted levels. EU legislation establishes additional requirements on the contaminants monitoring and reporting at the level of the whole Community.

Table 4. *Regulations related to the radionuclide monitoring in foodstuff*

EU Legislation -environmental monitoring	
Primary legislation	
<i>Euratom Treaty</i>	
2010/C84/01	Consolidated version of the Treaty Establishing the European Atomic Energy Community
Secondary legislation	
<i>Basic Safety Standards</i>	
Council Directive (Euratom)	Laying down basic safety standards for protection against the dangers arising from

No 59/2013	exposure to ionizing radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom
	<i>Environmental and foodstuff monitoring</i>
Commission Recommendation (Euratom) No 473/2000	On the application of Article 36 of the Euratom Treaty concerning the monitoring of the levels of radioactivity in the environment for the purpose of assessing the exposure of the population as a whole
EU Legislation in the field of food monitoring	
<i>Maximum permitted levels in foodstuff after emergency exposure</i>	
Council Regulation (Euratom) No 3954/87	Laying down maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident or any other case of radiological emergency.
Commission Regulation (Euratom) No 944/89	Laying down maximum permitted levels of radioactive contamination in minor foodstuffs following a nuclear accident or any other case of radiological emergency.
Council Regulation (Euratom) No 2218/89	Amending Regulation (Euratom) No 3954/87 laying down maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident or any other case of radiological emergency
Council Regulation (EEC) No 2219/89	On the special conditions for exporting foodstuffs and feedingstuffs following a nuclear accident or any other case of radiological emergency
Commission Regulation (Euratom) No 770/90	Laying down maximum permitted levels of radioactive contamination of feedingstuffs following a nuclear accident or any other case of radiological emergency

In the EAEC, the maximum permissible levels of pesticide residues are applied only to food products, established in the general horizontal regulations TR CU 021/2011 "On food safety" and the technical regulations for certain types of products.

In the EU, they are also set for feed, since it is recognized that the separation of many agricultural, such as grain, designed for human beings and animals is not possible in today's agricultural business. Pesticides are also considered as an animal health and welfare issue together with the possibility of pesticides in feed contaminating animal products intended for consumers. There are significant differences between the EAEC and the EU, regarding prohibited substances and the control of their residues in food of animal origin. Table 5 provides a brief overview of the EAEC and the EU regarding substances (antibiotics) which are under the

control in the EAEC for all foodstuffs of animal origin, and some other substances banned in the EU but allowed in the EAEC.

Table 5. Comparison of the rules in respect of pharmacologically active substances in the EU and the EAEC

Pharmacologically active substances	EAEC	EU	Comments
Laevomycetin (Chloramphenicol)	Registered only in Russia	Banned	In the EAEC, it is prohibited in all products at the level of analytical detection (ALM) <0.01 mg / kg in meat and meat products; at ALM <0.00003 in milk and milk products since 01/07/2015 In the EU, the maximum residues level (MRL) is not established because the substance is banned for use in the treatment of animals
The drugs of the tetracycline group	Registered in all Member States	Approved as a therapeutic agent for veterinary purposes, not as a food or feed additive	In the EAEC residual amount must not exceed <0.01 mg / kg In the EU, the MRL for milk and meat production is 0.1 mg / kg
Penicillin and its derivatives	Registered	Approved as a therapeutic agent for veterinary purposes, not as a food or feed additive	In the EAEC residual amount of penicillin is prohibited on ALM <0.004 in milk (TR CU 021/2011); Meat and meat products MRLs are established for each specific derivative of the substance (TR CU 034/2013) In the EU, MRLs in milk and meat are established for each specific derivative of the substance
Grisin	No accurate information on the registration. Presumably not registered in any of the member countries	Banned	This material is not registered in the Member States of the EAEC (or registered under a different trade name), but the content in the EAEC is prohibited substances at the level of <0.05 mg / kg in meat, poultry meat and derived products. In the EU, MRLs are not established as this substance is prohibited
Dapsone,	Registered	Not	All substances except dapsone, is

ronidazole, dimetridazole, nitrofurans (including furazolidone), metronidazole	(except dapsone)	allowed	registered in at least one Member State of the EAEC, established the threshold value for the meat and meat products in the ALM <0.1 mg / kg. In the EU, MRLs are not established as these substances are prohibited
Clotrimazole, anastrozole (Anastrozole)	No accurate information on the registration. Presumably it is registered in none of the Member States	Not allowed	These substances are not registered in the Member States of the EAEC (or registered under a different trade name) Established threshold value (banned residual amount on ALM <0.1 mg / kg) In the EU, MRLs are not established as these substances are not included neither in the lists of allowed nor in the list of banned substances. The absence of substance in the list means that their safety assessment was not carried out
Bacitracin	Registered only in Russia	Banned as a growth promoter; approved as a therapeutic agent with the restrictions regarding milk cows and rabbits	In the EAEC it is forbidden in all kinds of meat, including poultry) and meat products in the ALM <0.02 mg / kg In the EU, MRLs are not established as the use of the substance is strictly limited

The EAEC individual pharmacologically active substances are controlled in all foods of animal origin in the framework of conformity assessment, and a wider group of active substances are controlled in animal raw materials according to information on their use, provided by the manufacturer or importer while importing into the territory of the EAEC or by delivery for processing.

In the EU, all pharmacologically active substances are controlled by the same way regardless of whether the product was produced, whether it is offered for recycling or delivered to the final user.

Discussion

The approach of the EAEC regarding laboratories, sampling and analytical tests is based on the assessment of conformity of the finished product and delivery / registration of conformity declarations; it assigns a major role in the establishment of the relevant laboratory, sampling and testing. The official laboratories mainly

operate in the system of accreditation of the national version of ISO 17025 in the EAEC, but in many cases are not accredited at the international level.

Regulatory framework of the EAEC does not contain detailed instructions on how the laboratories have to work and what competencies they should have. Sampling and testing are governed by a series of vertical standards such as GOST, and national standards of the Member States. As the EAEC does not use an approach based on the risks, there are no all-union monitoring sampling plans based on the risks, and no harmonized detailed sampling methods.

Food control system in the EU is based on the approach built on the risks, and laboratories, sampling and testing play an important role in the overall control of the program. In the EU, standard ISO 17025 is used as the basis of the system for their accreditation that allows you to create a clear system based on international standards. In the legal documents of the EU, requirements for the plans of sampling, sampling techniques, tools, labeling and transport of samples are clearly defined.

The flexibility embedded in the regulatory and legal acts of the EU, allowing countries to use a variety of methods have a number of criteria in order to ensure food safety (International Finance Corporation (IFC) 2121, 2015).

Conclusion

The main objectives of the food control of the EAEC and the EU are protecting the health and well-being of consumers; facilitate international trade and the production of quality products.

These two approaches of food control are different in the way that the EAEC mainly focuses on satisfying the technical requirements or standards of the final product, however in the EU preventive measures and minimizing the risks constitute the basis, associated with each process throughout the food chain. Distribution of technical regulations on food products in the EAEC is a fundamental reason for the significant differences of the food control systems of the EAEC and the EU. In general, the EU regulatory framework on the control of microbiological and chemical hazards in food is based mainly on the risks.

The above mentioned differences suggest that it is necessary to conduct many tests on products for compliance with the criteria of microbiological and chemical safety for the sale of products on the market of the EAEC. The tests will be limited by only those microorganisms or chemicals, which are specified in the applicable technical regulations or the corresponding standards. In general we can say that nowadays the European food legislation is well-formed branch of law, which, however, would not have the desired effect without a developed infrastructure of technical regulation system.

Food legislation of the EAEC countries is at an early stage of creating a unified system, while the legislation of the EU on food safety has apprehended the most effective approaches of the members and other foreign countries and has been developing more flexibly, timely responding the emerging threats and challenges.

References:

- Anikina, I.D., A.V. Gukova, A.A. Golodova and Chekalkina, A.A. 2016. Methodological Aspects of Prioritization of Financial Tools for Stimulation of Innovative Activities. *European Research Studies Journal*, 19(2), 100-112.
- Bashmakov, A.I., V.V. Popov, D.N. Zhedyavskii, D.N. Chikichev and Voyakin, A.E. 2015. Generic Heurorithm of Innovation Management from Generating Ideas to Commercialization. *European Research Studies Journal*, 18(4), 47 -56.
- Business Development Committee of KAZCORP. 2015. Analytical report, Astana 2012 Clarification of the technical regulations requirements of the Customs Union. The official website, <http://www.uppkg.kz/>
- FAO / WHO 1983. The Role of Food Safety in Health and Development, Report of Joint FAO / WHO Expert Committee on Food Safety, Technical Report Series 705 WHO
- Federal office of consumer protection and food safety, http://www.bvl.bund.de/DE/01_Lebensmittel/01_Aufgaben/02_AmtlicheLebensmittelseberwachung/04_Monitoring/lm_monitoring_node.html.
- Frank, E.V., Mashevskaya, E.V. and Ermolina, L.V. 2016. Innovational Mechanism of Implementation of Cluster Initiatives in Business. *European Research Studies*, 19(1), 179 -188
- Guidance: "International standards on food safety," JSC "National Agency for Export and Investment "KAZNEX INVEST". 2011. Astana
- Guryevich V.L. 2013. Presentation of Review of legislation establishing the requirements on food products, the production and its delivery to the EU. BELGISS.
- International Finance Corporation (IFC) 2121. 2015. Comparative analysis of some of the requirements of the EU food law and the Customs Union of Russia, Belarus and Kazakhstan, 126.
- Kostyleva, O., Aronov, I. and Kovalchuk, O. 2012. An overview of food safety in the EU system. *Standards and quality*, 9, 16-19.
- Lovkis, Z.V. and Morgunov, E.M. 2013. Technical regulations of the Customs Union is the key to the competitiveness of domestic products. *Food Industry: Science and technology*, 3(21), 6-10.
- Mate, B., Sobiech-Matura, K. and Altitzoglou, T. 2015a. Radionuclide monitoring in foodstuff: overview of the current implementation in the EU countries. *J. Radioanal Nucl Chem*, 303, 2547-2552.
- Mate, B., Sobiech-Matura, K. and Altitzoglou, T. 2015b. Radioactivity monitoring in food and feed – current status in the EU countries. *Instrument for Reference Materials and Measurements EC-JRC-IRMM (23)*.
- Strategies to ensure food safety. 2013. Federal Ministry of Food, Agriculture and protection of the consumers' rights of the Federal Republic of Germany.
- The concept of the development of management systems in the Republic of Kazakhstan until 2015. 2008. Astana
- The legislation of the European Union and the Republic of Belarus in the field of food safety. 2013. IFC Advisory Program in Europe and Central Asia.