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## ВЕСТНИК

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## **THE DEVELOPMENT OF ORGANIZATION STANDARDS ON SHEEP MILK**

**Abstract.** In this article the results of researches on formation of the normative document of the organization standards on the raw material – sheep milk with the use of such methods of standardization as a General scientific systematization, classification and coding, and special parametric and advanced standardization are given. The algorithm of formation of the sections of the organization standard on the basis of requirements of legislative and normative documents of the Republic of Kazakhstan and the Customs Union standards development of technical conditions for milk and dairy products is proposed. The proposed method allows developing a regulatory document intended for the purposes of identification and acknowledgment of conformity sheep milk, both for direct consumption and as raw material for the production of various by-products.

**Keywords:** standardization, methods of standardization, organization standard, products, sheep milk, quality indicators, safety indicators, sensory indicators, physical and chemical indicators, requirements, technical regulations of the Customs Union, national standard, international standard, structural elements, classification, coding.

**Introduction.** The concept of "Organization standard" was introduced in Kazakhstan in 2004, due to the Law of the Republic of Kazakhstan "On technical regulation". According to the terminology adopted by the Law: "The organization standard is a standard adopted by the organization" [1]. If at the time of adoption of the Law, concept of "organization" was applicable to entities operating in the territory of the republic, and it was the basis of the term as a prefix to the "standard". This means that the "organization standard" can develop and approve any interested legal entity falling which has the status of "organization" and having the right to use in accordance with the civil legislation of the Republic of Kazakhstan (Article 3 of the Law) including: state agency, educational institution, research institutes, scientific and production association, producer and consumer of products, the public association in relation to the objects of technical regulation (products, processes).

Thus, in the terms of market economy, any interested party may have its standard regulating its relations with the subjects of the market and the state: including the manufacturer or supplier; the consumer and the manufacturer; the government and the producer.

For example, a manufacturer, due to the new technologies, plans to manufacture products with higher quality and safety, which in turn requires stricter quality standards for used raw materials; a consumer is not satisfied with the quality of the products; a state purchases products, which quality is not entirely appropriate.

Each of these subjects of state and market shall be entitled to present their demands to the interested entities, as long as they do not contradict safety standards existing in the country. And here, of course, it all depends on what level of quality can offer the producer due to its technological capabilities, and what is the demand for these products on the market. And activity period of "standard of organization" will depend on time of demand on the market [2].

Until 2013 in the Republic of Kazakhstan there were acting state standards ST RK 1.2 -2008 and ST RK 1.5-2008, which established the requirements for the development, construction, presentation, and maintenance of organization standards [3,4]. However, with the amendments and additions made to the Law of Kazakhstan "On technical regulation in 2012 and the drafting of the Law "On Standardization ", which is currently undergoing a process of public discussion and consideration by all actors of the market economy of country, the development, approval, registration, changes, cancellation of registration, notation, publications, organizations applying of standards are determined by the organization [5]. Our review of the regulatory component for this product has revealed the almost complete lack, not only in Kazakhstan but also in the CIS countries due to the fact that only nowadays the works on enhancing the development of this particular direction in order to maintain national production, traditions within single economic space have started [6].

This paper presents the results of development of the main sections of the organization standard of technical conditions for sheep milk, which serves as raw material for production of various products of its processing.

**Materials and methods.** *Materials.* The object of standardization was the results of the organoleptic and physical and chemical composition of sheep milk obtained from sheep breed of South Kazakhstan merino of farms in South Kazakhstan and Almaty regions.

*Methods.* The main methods for the development of the organization standard methods were the general scientific standard methods – systematization, classification and coding, and special methods – parametric and advanced standardization.

*Systematization of objects of standardization* is the scientific sequential classification and the aggregate rankings of specific objects of standardization. Systematization of any object is intended to arrange them in the order which is convenient to use. The main kind of systematization is the classification.

*Classification is the division of multiple objects to classification groups (taxa) according to the similarity or difference of certain characteristics and accepted methods.*

*Feature* is a specific property of the object, which distinguishes it from other forms. At classification, the objects arranged according to the classes, subclasses, types, groups, and other taxa depending on their common features. Each object (object, phenomenon, process) is defined by a set of features that distinguish it from many other objects. It should be understood that the general classification is a method of streamlining any objects, so its application is universal.

*Coding* is assigning a unique identifier (code) to the object or group of objects, allowing them to replace the name by several symbols. Code is a sign or set of signs assigned to objects in accordance with the coding method. The code mark is characterized by an alphabet code, discharge, structure, the length and the reference number.

Another type of the systematization is identification.

*Identification is a unique name, number, sign, symbol or code assigned to the object, which allows distinguishing it from the many other objects.*

*Identification of products* is the establishment of the identity of the product features according to its essential characteristics. Set of information for identification of the object (product) usually includes the name, symbol, or code number and designation of normative or technical document which defines the features of identification object. Furthermore, there may be indicated additional properties and characteristics.

The order of work on the classification and coding of information used for tasks implementation at different levels is regulated by a set of state standards under the title "Common System of classification and coding of technical, economic and social information" (ESCC TESI).

*Parametric standardization aims at selection and definition of the reasonable nomenclature and numerical values of the parameters.*

*Product parameter* is a quantitative characteristics of its properties. The most important parameters are the characteristics that define the purpose of the product and the conditions of its use. A set of parameter values is called a *parametric range*.

*Advancing standardization.* This method *aims at setting rules to the objects of standardization, which, according to forecasts, will be optimal in the future.*

Advancing standardization, depending on the scope of work and objects of standardization, will appear through the development of specific standards and systems that establish the basic prospective requirements to the development of new products, methods of their control, and to the design and development of products in the future. The most important condition of advanced standardization is the presence of the leading time of production of new products of high quality with respect to the time of production of the final product. The principles of advanced standardization apply at all stages of the product life cycle. Advancing standardization is carried out simultaneously with implementation of scientific research. The scientific and technical bases of advanced standardization are: achieving applied scientific research, discoveries and inventions to be implemented; methods of optimization of parameters of objects of standardization; methods of forecasting of technological progress and the growth of the national economy demands and population of the country. Advancing standards should be developed on the perspective products, which batch production has not yet begun or are in the initial stage.

**Results of research and discussion.** Recommended structural elements of the standard organization are the following:

- title page,
- application area,
- normative references,
- performance requirements for safety and quality products,
- safety and environmental requirements,
- control methods,
- labeling,
- packing,
- transportation and storage,
- manufacturer's warranty.

**Title page.** The development of the organization standard begins with the design of the title page. The title page must include information about the name and designation of the standard, category and type of developing standard, product code on classification of products by activity and ISO, the information about the novelty of the standard, the validity of the standard, full information about the holder of the original standard, vultures approval of head of company and specialists responsible for the development of the standard, the city's name and the year the development of a normative document.

Practical experience on the development of organization standards showed that developers have more difficulties during determination of product code by classification of products by activity and ISO.

Classification of products by activity is a product classifier according to economic activity. In Kazakhstan, the qualifier " Civil Code of the Republic of Kazakhstan 04 - 2008 Classification of products by economic activity" is approved by Order of the Committee for Technical Regulation and Metrology of the Ministry of Industry and Trade of the Republic of Kazakhstan dated December 22, 2008 № 646-od and operates in the Republic of Kazakhstan for the selection of products code in the development of normative documents for these products [7]. The objects of this classifier are all kinds of transportable and non-transportable goods and services related to a specific type of activity provided for the general classification of economic activities (GCEA).

This document determines the principle of formation of codes for goods and services based on their industrial origin and offers the possibility of their amendments and (or) expansion at the national level, depending on the needs of the economy.

Codes of this classifier comprise codes of interrelated classifiers: economic activities (GCEA – 4 digits) and the product (adding another 2 digits) in the same six-digit code of combined, except for classes of mixed agriculture, fisheries and aquaculture, furniture, construction, retail trade . In accordance with this principle, every product or service is classified by the type of activity that is characteristic of their production.

Formula of code structure:

XX.XX.XX,

where XX – branch; XX.X – group; XX.XX – class; XX.XX.X – type; XX.XX.XX – subtype.

Example of the classifier for sheep milk.

Section C Manufacturing production

Branch 10 Food products

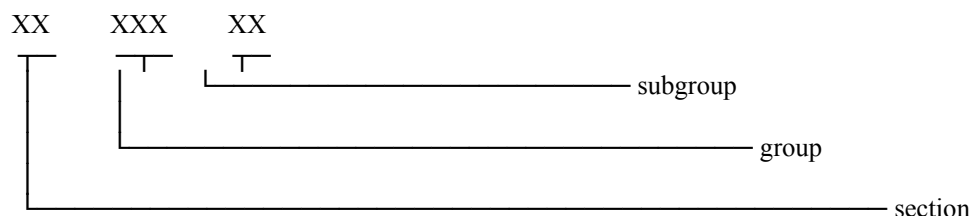
Group 10.5 Dairy Products

Type 10.51 Dairy products and cheeses

Subtype 10.51.5 Other dairy products

Thus, the classification of products by activity for raw sheep milk is written on the title page of organization standard as the Classification of products by economic activity 10.51.5.

ISO Code is the International Classification for Standards, which is a means of classification according to different sectors, for example, electric engineering or self-contained paper industry. The Republic of Kazakhstan has National Standard ST RK 5.0-2005 State system of technical regulation of the Republic of Kazakhstan. Classification system and coding of technical and economic information. Main provisions [8], which has been harmonized with the International Classification of Standards (ISO) and the Interstate classifier of standards. CSC TEI establishes codes and names of classification groups used to classify and index the classification of objects. In some cases, to ensure the accuracy of indexing and facilitate the search, the classification groups contain explanations and links to other codes of the classification groups with asterisks (\*). Classifier is a three-level hierarchical classification with a digital alphabet code of classification groups of all levels of the hierarchical division and has the following structure:



Subject areas of standardization are classified in the first stage (section), with further division in the second and third stages of the classification (group, subgroup).

Section is identified by two-digit numerical code; code of group consists of subject area code and three-digit numeric code of groups, separated by a full point; subgroup code consists of code of groups and their own two-digit code, separated by the full point, for example, for sheep milk:

67 Food technology

67.100 Milk and dairy products

67.100.01 Milk and dairy products in general

67.100.99 Other dairy products

If the distribution area of the standard fully corresponds to the content of group that is divided into subgroups, it is classified in the group, not in groups.

In order to maintain continuity with the international and interstate classifiers, technical and economic information has the following features:

- sections, groups and subgroups are separated by full point to code notations;

- standards, classified according to the TEI, in some cases, can be incorporated into two or more groups or subgroups.

It is not recommended to assign more than four codes to a single document.

When there is need to integrate national features of the economy of the Republic of Kazakhstan, further division (after the 7th digit of code) of subgroups without changing the codes and names of these subgroups in the process of TEI can be done.

Thus, the ISO for sheep milk may be written as ISO 67.100.99, as this product for batch production is a new one.

The name of the standard should be as short as possible, clearly defining the object of standardization in such a way that this standard could be distinguished from these other standards without a detailed analysis of the contents and provide an unambiguous classification standards in accordance with the MK (ISO / INFKO ISO) 001 for the convenience of including of information about the standard in the index (catalog) standards.



Acronyms, Roman numerals, mathematical symbols, Greek letters (except in cases where letters, numeric and alphanumeric acronyms are part of the symbol legend of production, unit values, universally accepted abbreviations, codes and so on) are not allowed in the name of the standard. The title must contain individual elements (no more than three), each of them must be as short as possible and from the general to the special.

Heading of the standard of homogeneous products group forms taking into account the name of the classification groups of products classifier by economic activity of the Civil Code of RK 04 [7].

We should introduce additional definitions in the standard heading for a more complete characterization of the standardization object; they can indicate the characteristics of the object as belonging to a particular group of products. The subtitle of the standard indicates a short content established by the standard (standardization aspect).

Standard names mentioned on the title page and the first page of the standard, are shown in bold.

Example of title for sheep milk: "Sheep milk. Technical conditions".

Validity period is generated from the date of production; the recommended period of validity is 5 years.

Information on the holder of the original standard: Name of organization, legal address (phone/fax).

Position the head of the organization (the original holder), approved by the organization.

**Application area.** The section of "Range of application" indicates purpose of the standard and scope of its distribution (standardization object), and concretizes the scope of the standard, if necessary. When you specify the purpose and the dissemination of standards the following phrasing is used: "This Standard establishes..." or "This Organization Standard is applicable to ... and establishes...".

The standard which specifies the general technical conditions or technical specifications, purpose of standards is not indicated, instead there will be mentioned the object of standardization and its brief entry in the standard text, specifying (if necessary) the distribution area of the standard.

The information on the rights for the publication and dissemination of the standard is written in the structural element of "Range of application" in the last paragraph. The element of "Range of application" is placed on the first page of each standard, after the title page and make out in the form of section 1 (numbered unit), highlighting the title in bold.

Example: *This organization standard applies to the sheep milk (hereinafter – milk), obtained through implementation of various manufacturing operations and used for direct consumption or as raw material for the production of other products.*

*The standard establishes comprehensive requirements for milk, including classification, technical requirements, procedure for receiving, testing, packaging, labeling, transportation and storage.*

*The requirements to the safety indicators of production are given in paragraph (number of items), section (section number), product quality – (number of items), the marking – (number of items), packaging – (number of items).*

*The present organization standard may be distributed only with permission of (name of the original holder).*

*The organization standard is suitable for the purposes of milk identification.*

**Normative references.** Structural element "Normative references" contains a list of regulations with obligatory references in the text of the standard and that set the regulations; without its compliance the standard norms can not be implemented.

At the end of this section we should give a note, in accordance with ST RK 1.51 [9], or as follows: "When using this Standard it is advisable to check the effect of the reference standards and classifiers for annually published information indicator "Normative documents on standardization "as of the current year and the corresponding monthly published information indicator, published in the current year. If the reference document is replaced (changed), when using this standard it should be guided by the replaced (changed) document. If the reference document is canceled without replacement, the terms, in which reference is given, are applied to the extent not affecting the reference "[4].

The list of normative references includes the full name and designation of normative documents in the order of registration numbers (if available) in the following sequence:

- Legislative acts, technical regulations\*;
- State standards and classifiers of technical and economic information;

- Inter-state standards and classifiers of technical and economic information;
- CMEA standards in force in the territory of the Republic of Kazakhstan;
- International, regional standards and classifiers of technical and economic information, national standards of foreign countries that are allowed for use on the territory of the Republic of Kazakhstan;
- Departmental regulations (standardization recommendations, sanitary, veterinary, construction, fire, environmental, transport regulations, radiation safety standards, etc.)\*\*;
- Standards of organizations (for developing standards of organizations) \*\*\*.

\* *Technical regulations, if more than one, are arranged in alphabetical order.*

\*\* *The documents are arranged in alphabetical order of the index of categories within the category in ascending order of the registration numbers.*

\*\*\* *Links to standards of organizations in accordance with the ST RK 1.51.*

Currently, with the Technical regulations of the Customs Union on food security and food products in terms of their labeling, as well as the Technical regulations of the Republic of Kazakhstan "Requirements to the security of milk and dairy products " in the field of fire safety and labor protection, normative references in terms of the technical regulations on sheep milk are formed as follows:

*For the application of this organization standard, the following reference regulations are required:*

1. Technical regulation of the Customs Union TR CU 021/2011 "On security of food products", approved by the Decision of the Customs Union Commission dated December 9, 2011 № 880.

2. Technical regulation of the Customs Union TR CU 022/2011 Technical Regulations of the Customs Union "Food products in terms of its labeling", approved by the Decision of the Customs Union Commission dated December 9, 2011 № 880.

3. Technical regulation of the Customs Union TR CU 033/2013 "On security of milk and dairy products" approved by Commission Decision of the Customs Union.

4. Technical regulation "Requirements to safety of milk and dairy products", approved by the Government of the Republic of Kazakhstan dated March 11, 2008 N 230.

5. Technical regulation "Requirements for packaging, marking, labeling and their correct application", approved by the Government of the Republic of Kazakhstan dated March 21, 2008 № 277.

6. Technical regulation of the Customs Union CU TR 05/2011 "On security of package" approved by the Decision of the Customs Union Commission dated August 16, 2011 № 769.

7. Technical regulation "General requirements for fire security" (approved by the Government of the Republic of Kazakhstan dated January 16, 2009 № 14).

8. Technical regulation "Requirements for signal colors, markings and signs of security at production facilities" (approved by the Government of the Republic of Kazakhstan dated August 29, 2008 № 803)

Then the national standards of the Republic of Kazakhstan – ST RK are formed, they set requirements for milk and dairy products, which can be used as standards, as a result of their application, the compliance with technical regulations is maintained in a voluntary basis. Example:

ST RK 3.34-2003 State system of certification of the Republic of Kazakhstan. Identification of the food production and agricultural production at its assessment of conformity. General requirements.

ST RK ISO 488-2009 Milk. Determination of fat content. Gerber butyrometer.

ST RK 1010-2008 Food product. Consumer information. General requirements.

ST RK 1014-2000 Product identification. General provisions.

ST RK 1324-2010 Consumer's milk. General technical specifications.

ST RK 1508-2006 Radiation monitoring. The selection of milk samples and milk products. General requirements.

ST RK 1732-2007 Milk and dairy products. Sensory method of determining quality indicators.

ST RK 1733-2007 Milk and dairy products. General technical specifications.

ST RK 1734-2007 Milk and dairy products. Acceptance rules and test methods.

ST RK 1735-2007 Milk and dairy products. Packing, marking, transportation and storage.

ST RK 2019-2010 Milk and products of milk processing. Terms and definitions.

ST RK 2064-2010 Milk and dairy products. Determination of calcium, sodium, potassium and magnesium. Spectrometric method of atomic absorption.

ST RK ISO 12081-2010 Milk and dairy products. Determination of calcium content. Titrimetric method.

ST RK ISO 14156-2009 Milk and dairy products. Methods of extraction of lipid and fat-soluble compounds.

ST RK ISO 14673-1-2009 Milk and dairy products. Determination of nitrate and nitrite content. Part 1: Method of determination by cadmium reduction and spectrometry.

ST RK ISO 14673-2-2009 Milk and dairy products. Determination of nitrate and nitrite content. Part 2: Method of determination by analysis of the individual parts of flow (Common method).

ST RK ISO 14673-3-2009 Milk and dairy products. Determination of nitrate and nitrite content. Part 3: Method of determination by cadmium reduction and analysis of fluid injection with in-line dialysis. (Common method).

ST RK ISO 14891-2009 Milk and dairy products. Determination of nitrogen content. The most common method of combustion in accordance with the method of Dumas.

ST RK ISO 18329-2009 Milk and dairy products. Determination of furosine content. Method of ion-pair reversed HPLC.

ST RK GOST R 52842-2009 Milk and dairy products. Methods of immunologic or bacterial receptor analysis for the determination of residues of antibacterial compounds.

Standards are formed depending on the requirements on security and quality indicators that will be incorporated in the standard organization.

Next the standards containing rules and methods of researches (tests) and measurements, including the rules of sampling, usually interstate standards – GOSTs will be formed.

**Requirements for the organoleptic, physical and chemical parameters to the sheep milk.** The standard organization for sheep milk contains a section "Requirements for the organoleptic and physical and chemical parameters. This section is necessary for identification of products and must comply with TR CU 033/2013 "On the security of milk and dairy products" Appendix № 5 to the technical regulations, which show indicators of identification of raw milk of other kinds of farm animals, including sheep [10]. The results of our research regarding obtaining data on organoleptic, physical and chemical, microbiological, mycological, toxicological and radiological characteristics of the samples of sheep milk obtained from South Kazakhstan merino sheep breed in farms of Almaty region and South Kazakhstan region and carried out in test laboratories of the South Kazakhstan oblast branch of RSE "Republican veterinary laboratory" of the Committee of veterinary control and supervision of the Ministry of agriculture of the Republic of Kazakhstan allows to set requirements for the safety indicator and in terms of the milk quality [11]. Below is an example of the formation of this section:

### **3 Requirements**

*3.1 The milk is produced in accordance with the requirements of this Organization Standard, according to the technological instructions, in compliance with duly approved sanitary requirements and norms.*

#### **3.2 Features**

*3.2.1 According to the organoleptic indicators, the milk must comply with following characteristics:*

- taste and smell: typical of sheep milk, without foreign odors and flavors;*
- odor: white with a slight yellowish tint.*

*3.2.2 According to the physical and chemical indicators, adjunct should meet the standards set forth in Table.*

In this section we should provide subsections, for example, 3.3, 3.4, etc, which include labeling requirements for packaging. Our studies on the development of consumer criteria for assessing the quality of marking of sheep milk and its products [12] enables to form the requirements of this section in accordance with the Technical regulations of the Customs Union on food products in terms of their labeling TR CU 022/2011 and ST RK 1735-2007 [13, 14].

Section "Control methods" are formed in accordance with section 3.2.2 and Table.

Sections "Transportation and storage" set requirements to ensure the conservation of production during its transportation and storage, including safety and environmental protection, indicate modes of transport (road, rail, water, air, pipeline, etc.) and vehicles (covered or open wagons, insulated and refrigerated bodyworks and cars, tanks, bilges or decks of ships, and so on), methods of fastening and covering

Indicators of physical and chemical adjuncts

№	Name of indicators, measurement units	Normative documents to the test methods	Ration of indicator values
1	Purity level on etalon, not lower that group	GOST 8218-89	1
2	Density at least in kg/m <sup>3</sup>	GOST 3625-84	1,034-1,038
3	Acidity, T <sup>0</sup>	GOST 3624-92	23-24
4	Toxic elements mg/kg, not more than: lead, cadmium	ST RK GOST P 51301-05 ST RK GOST P 51301-05	0,1 0,03
5	Radionuclides B0q/kg, not more than: cesium – 137 strontium – 90	GOST R 54016-2010 GOST R 54017-2010	100 25
6	Pesticides mg/kg, not more than: HCCH (α, β, γ-isomers) DDT and its metabolites	ST RK 2011-2010 MHC SSR MR 2142-80	0,05 0,05
7	Mycotoxins mg/kg, not more than: aflatoxin M1	MR 4.05.018.97 GOST 30711-2001	0,00005
8	Microbiological indicators: QMA&OAMO CFU no more Pathogens including Salmonella in 25g Somatic cells in cm <sup>3</sup> (g) not more	GOST 10444.15-94 GOST R 52814-2007 GOST 31659-12 GOST 23453-90	5x10 <sup>4</sup>  Not allowed 1x10 <sup>6</sup>
9	Antibiotics: Laevomycetin Tetracycline group Penicillin Streptomycin	MR 10.05.036.99 MR 10.05.036.99 MR 10.05.036.99 MR 10.05.036.99	Not allowed Not allowed Not allowed Not allowed

of products, as well as the requirements for the carriage of goods by specialized transport. If necessary, we can indicate the transport parameters (permissible distance, traffic speed, altitude, etc.), the permissible mechanical stress and climatic conditions during transportation, special requirements associated with the transportation of goods (the need for protection from external influencing factors, the order of placement of transport containers with products in vehicles, rules for handling products after transportation, including the necessity of holding it under certain conditions after transportation at cold temperatures, the procedure for depreservation, and so on). The requirements of storage include conditions of the product storage which ensure its storage ability, including requirements to place of product storage (shed, a covered warehouse, a heated room, and so on) and (or) special conditions of storage (freezer, refrigerator, etc.) to protect the product from the influence of the environment (direct sunlight, moisture, fumes, etc.), the temperature storage mode, and if necessary – terms of represervation of products. In addition, there will be indicated the method of keeping products (on shelves, pillows, etc.), as well as special rules for the storage of perishable, poisonous, flammable, radioactive and other potentially dangerous products.

The section of "Manufacturer's guaranty" indicates that the manufacturer guarantees the compliance of adjunct with the requirements of this organization standard. For products, which consumer properties, in this case sheep milk, may deteriorate with time, there will be set the maximum storage period or expiry date, as appropriate.

**Conclusion.** The proposed algorithm of organization standardization of sheep milk enables producers to develop a normative document for the purposes of identification and verification of conformity of products as soon as possible and in accordance with the requirements of technical regulations of the Republic of Kazakhstan, to reduce the time of the introduction of new products and technologies through the dissemination and use of already developed standard (best) practices and technologies.

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### **ҚОЙ СҮТІНЕ ҰЙЫМ СТАНДАРТЫН ӘЗІРЛЕУ**

**Аннотация.** Мақалада ұйым стандартын (ҰС) бастапқы шикізат үшін – қой сүттерін стандарттаудың жалпы ғылыми әдістерін – жүйелеу, жіктеу және кодтау, сонымен қатар арнайы – параметрлік және озық стандарттауды қолдану арқылы нормативтік құжаттарды қалыптастыру бойынша зерттеу нәтижелері қарастырылған. Сүт және сүт өнімдеріне арналған техникалық шарттар стандартының түрін әзірлеу бойынша Қазақстан Республикасы мен Кеден Одағының заңнамалық және нормативтік құжаттарында қойылған талаптары негізінде ұйым стандарттарының бөлімдерін қалыптастыру алгоритмі ұсынылған. Ұсынылып отырған әдістеме тікелей тұтыну, сонымен қатар оның әр түрлі өңделген өнім өндіру үшін шикізат ретінде де, қой сүтін сәйкестендіру және сәйкестікті растау мақсатында нормативтік құжат әзірлеуге мүмкіндік береді.

**Түйін сөздер:** стандарттау, стандарттау әдістері, ұйым стандарты, өнім, қой сүті, сапа көрсеткіштері, қауіпсіздік көрсеткіштері, органолептикалық көрсеткіштер, физика-химиялық көрсеткіштер, талаптар, Кеден Одағының техникалық регламенті, ұлттық стандарт, мемлекетаралық стандарт, құрылымдық элементтер, жіктеу, кодтау.

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### **РАЗРАБОТКА СТАНДАРТА ОРГАНИЗАЦИИ НА ОВЕЧЬЕ МОЛОКО**

**Аннотация.** На современном этапе развития системы технического регулирования Республики Казахстан, в условиях продолжающихся экономических, социальных и административных реформ появились новые факторы, оказывающие существенное влияние на развитие сферы стандартизации. К настоящему времени достаточно накоплен опыт практики применения установленных норм закона Республики Казахстан «О техническом регулировании», а также иных нормативных правовых актов, регулирующих отношения в

области стандартизации. Определены достоинства и недостатки действующего законодательства в области стандартизации.

Стандартизация позволяет существенно сократить сроки внедрения новой продукции и технологий за счет распространения и применения уже разработанных типовых (наилучших) практик и технологий. Как показывают данные ИСО, стандартизация содействует развитию малого и среднего бизнеса за счет повышения доверия к продукции небольших предприятий, обеспечивает улучшение культуры производства, качества продукции и услуг. Поскольку малые и средние фирмы ограничены в ресурсах, они обращаются к действующему фонду стандартов для организации бизнеса.

Еще одним позитивным фактором, связанным со стандартизацией и влияющим на экономику, является устранение дефектов рынка за счет нормирования в стандартах экологических требований, требований, связанных с охраной труда, маркировкой товаров и т.п. Регламентация этих требований обеспечивает защиту окружающей среды, способствует повышению безопасности граждан, содействует предупреждению действий, вводящих в заблуждение потребителей. В конечном итоге стандартизация в этой сфере направлена на повышение качества жизни.

Для отечественных предприятий наиболее оптимальным как по срокам, так и по экономической эффективности на готовую продукцию является разработка стандарта организации.

В рамках выполняемой диссертационной работы по направлению разработки методики технологического аудита производства сухого порошка из овечьего молока от овец породы южно-казахстанский меринос, одной из задач является разработка проектов стандарта организации на молоко овечьё и получаемого из него сухого порошка. В работе приведены результаты исследований по формированию нормативного документа – стандарта организации (СТО) на исходное сырьё – овечьё молоко с использованием таких методов стандартизации, как общенаучные – систематизация, классификация и кодирование, а также специальные – параметрическая и опережающая стандартизация.

**Ключевые слова:** стандартизация, методы стандартизации, стандарт организации, продукция, молоко овечьё, показатели качества, показатели безопасности, органолептические показатели, физико-химические показатели, требования, технический регламент Таможенного союза, национальный стандарт, межгосударственный стандарт, структурные элементы, классификация, кодирование.

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