

PRODUCTION OF MEAT AND PROCESSED PRODUCTS
IN THE EAST KAZAKHSTAN REGION

ШЫҒЫС ҚАЗАҚСТАН ОБЛЫСЫНДА ЕТ ЖӘНЕ ОНЫ ҚАЙТА ӨНДЕУ
ӨНІМДЕРІН ӨНДІРУ

ПРОИЗВОДСТВО МЯСА И ПРОДУКТОВ ЕГО ПЕРЕРАБОТКИ
В ВОСТОЧНО-КАЗАХСТАНСКОЙ ОБЛАСТИ

SH. ZHAILAUBAYEVA*

C.E.Sc., Associate Professor

ZH. KAZHIYEVA

C.E.Sc., Associate Professor

Shakarim University, Semey, Kazakhstan

**corresponding author e-mail: zhaylaubaeva.shynar@mail.ru*

Ш.Д. ЖАЙЛАУБАЕВА*

э.ғ.к., доцент

Ж.Х. КАЖИЕВА

э.ғ.к., доцент

Шәкәрім атындағы университеті, Семей, Қазақстан

**автордың электрондық поштасы: zhaylaubaeva.shynar@mail.ru*

Ш.Д. ЖАЙЛАУБАЕВА*

к.э.н., доцент

Ж.Х. КАЖИЕВА

к.э.н., доцент

Университет им.Шакарима, Семей, Казахстан

**электронная почта автор: zhaylaubaeva.shynar@mail.ru*

Abstract. The goal is to analyze the current state of meat production and processed products in the East Kazakhstan region, to determine the factors that restrain its growth. *Methods* – statistical and economic, computational and constructive, balance, monographic. *Results* – the main indicators of the livestock production development and meat industry in the region in recent years have been analyzed. In particular, the population number of livestock and poultry in all farm categories is considered; sale of meat of all types in slaughter weight, as well as in various economies, production of by-products, sausages, semi-finished products, canned meat, meat and vegetable products. On the basis of the analysis, the reasons for the decrease in the rate of intensification of meat industry were revealed, the main of which are the low efficiency of raising animals, unsatisfactory state of fodder base. The influence of the situation on the world meat market on the development of this sector within the country and the region is noted. The COVID-19 pandemic and the epidemic in livestock farms made it necessary to introduce measures, which positively affected production indicators. *Conclusions* – it is necessary to develop a set of measures aimed to stabilize the meat and meat products market by providing subsidies and unsecured loans at low interest rates; increasing the availability of trading places for agricultural goods; improving the taxation system; creation of large agricultural enterprises with a closed production cycle and a high level of processing; the increase in the rate of their modernization and renewal of fixed assets; organization of training centers for agricultural producers based on the research institutes, and universities.

Аңдатпа. *Мақсаты* – Шығыс Қазақстан облысында ет және оны қайта өңдеу өнімдері өндірісінің қазіргі жай-күйіне талдау жасау, оның өсуін тежейтін факторларды айқындау. *Әдістері* – статистикалық-экономикалық, есептік-құрылымдық, баланстық, монографиялық. *Нәтижелері* – соңғы жылдары өңірдің мал шаруашылығы мен ет өнеркәсібін дамытудың негізгі көрсеткіштері талданған. Атап айтқанда, шаруашылықтың барлық санаттарындағы мал мен құс саны қаралған; сойыс салмағында барлық түрдегі етті сату, сондай-ақ

In general, the assessment of the state of production of meat and its processed products in the East Kazakhstan region showed that in recent years the pace of its development has significantly decreased. This factor was facilitated by various reasons, especially small-scale production, a low percentage of the profitability of raising livestock for meat, an unsatisfactory condition of the feed base, etc. The situation in the world meat market is also important, which is also reflected in the meat industry of both the country and the region.

Material and methods of research. The analysis of the modern development of livestock and meat industry of East Kazakhstan region was carried out on the basis of statistical data of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, the Department of Statistics of East Kazakhstan region, and other scientific works.

The use of various research methods made it possible to consider the main points related to the production of meat and meat products in the East Kazakhstan region.

So, in particular, the statistical-economic method was used in the processing of statistical data. The monographic method was applied in the analytical processing of the data obtained, that is in the analysis of economic activity of the level of development of agricultural production using a system of economic indicators. The balance method was used in the analysis to identify the relationship between economic indicators. This method allows you to link material, labor, financial resources and their use, to identify the proportions and relationships between them in the production process.

The problems of the meat industry were considered through the prism of an abstract-logical research method that deserves special attention in the process of the development of science. It consists of a set of scientific techniques such as induction and deduction, analysis and synthesis, analogy, comparison, modeling, forecasting, and so on.

Results and their discussion. Meat, as a food product, is central to the human diet due to its unique composition and nutritional properties.

The current situation in the country, the degree of availability of essential food products to the population and the ability of domestic producers to compete in the world market for meat and meat products depends to a large extent on the development of livestock production. The latter is favored by the existing traditions of meat cattle breeding and extensive pasture. At all times it was cattle that was the measure of all the benefits for the Kazakhs.

In the East Kazakhstan region animal husbandry is one of the leading industries. Its role in both structure and as a whole in the reproduction process of the region's economy is basic [1].

In recent years this sector has seen growth dynamics in terms of key indicators.

So, the data in table 1 show that the number of cattle, pigs, horses, camels in the period from 2016-2020 tended to increase by 20.6%, 6.4%, 37.4%, 20.0%, respectively. At the same time from 2016 to 2018 there is a decrease in the number of sheep and goats, but since 2019 there has been a slight increase by 0.5% and in 2020 amounted to 1.6 million heads. As for poultry, from 2016-2018 an increase was recorded in its number by 130 thousand heads. However in the period from 2019-2020 it decreased by 16.6% [2]. At the same time the main areas of cattle breeding are the Ayagoz, Urzhar, Tarbagatai districts, where about 35.0% of the total cattle livestock is located.

Another important indicator is the production of livestock and poultry in slaughter weight (figure 1) [3].

So, in general during the period under review production in slaughter weight increased by 13.9%, mainly due to an increase in the volume of cattle (24.9%) and horses (62.0%).

Table 1 - The number of livestock and poultry in all categories of farms in the East Kazakhstan region, thousand heads

Year	Cattle	Sheep and goats	Pigs	Horses	Camels	Poultry
2016	868.2	1 928.2	62.8	309.9	0.5	3 777.6
2017	895.4	1 663.5	67.3	322.7	0.6	3 872.1
2018	952.7	1 598.7	67.8	362.4	0.6	3 907.6
2019	1 004.4	1 611.6	65.3	394.5	0.6	3 877.8
2020	1 047.0	1 619.0	66.8	425.8	0.6	3 235.1
2020/2016	120.6	84.0	106.4	137.4	120.0	85.6

Note: compiled by the authors based on the data of the Bureau of National Statistics of the ASPR of the RK

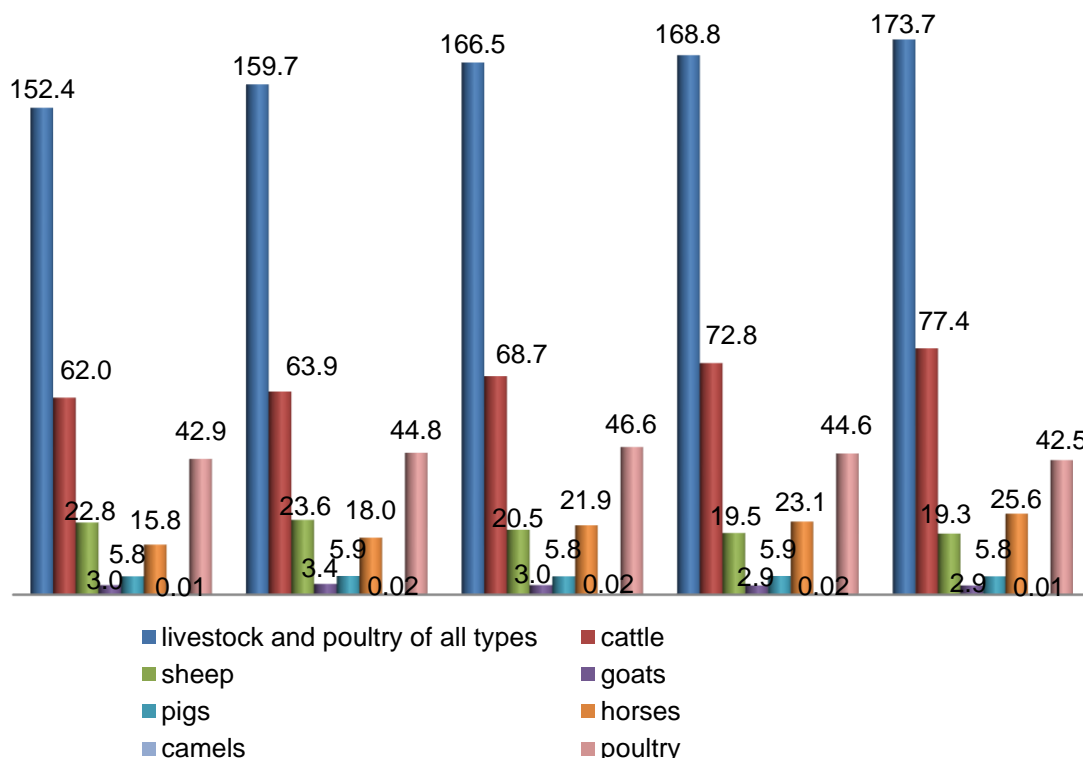


Figure 1 - Slaughtered in the farm or sold for the slaughter of all types of livestock and poultry in slaughter weight in the East Kazakhstan region, thousand tons

In the structure of supplies of livestock and poultry for slaughter by farms of different categories for the reviewed period, the main increase was provided by individual entrepre-

neurs and peasant or farm enterprises (34.6%), as well as households (10.2%). Supplies from agricultural enterprises remained practically unchanged (figure 2).

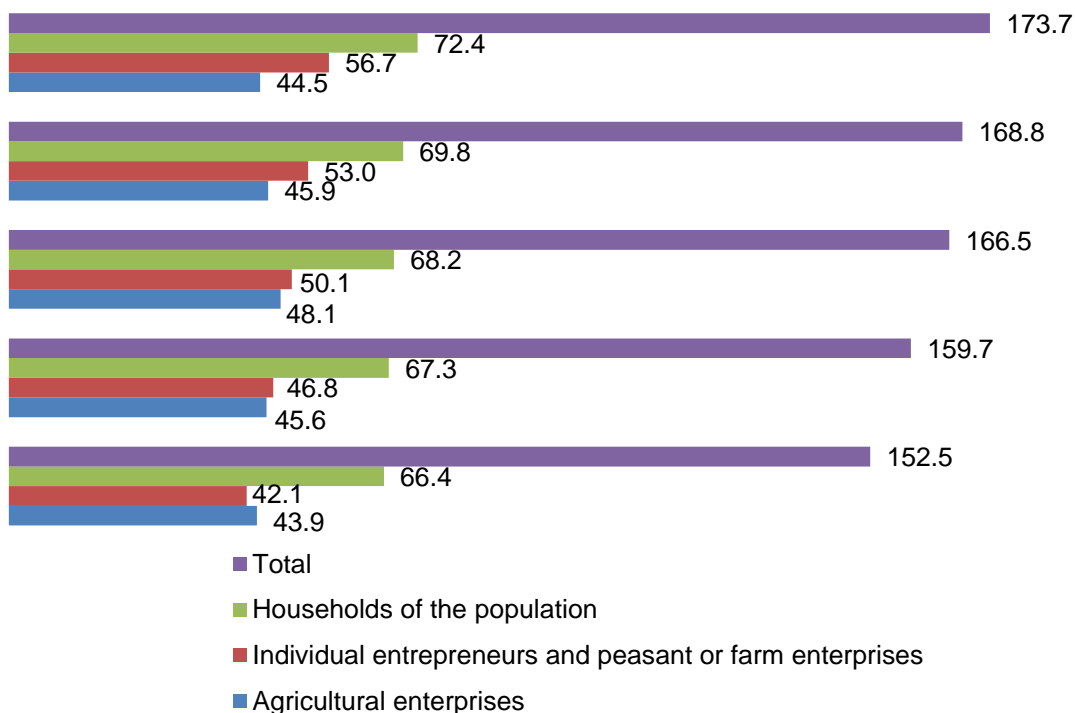


Figure 2 - Slaughtered in the farm or sold for the slaughter of all types of livestock and poultry in slaughter weight in various categories of farms, thousand tons

It is necessary to say about the dynamics of the growth of the share of households in the production of total meat during the period under review. This phenomenon leads to such negative consequences as low productivity of livestock and poultry, high cost of production, and a decline in its competitiveness [4]. Government bodies cannot have total control over all farms at once. All of the above leads to small-scale production [5].

Animal husbandry of the region is closely interconnected with the meat industry of the region. It is important not only to produce agricultural products but also to carry out their proper processing. At the same time the products manufactured in the agro-industrial complex must be of high quality. So, in the State Program for the Development of the

Agro-Industrial Complex of the Republic of Kazakhstan for 2017-2021 the goal is: "Ensuring the production of competitive products of the agro-industrial complex that is in demand in the markets" [6].

At the present stage of development the meat industry of the Eastern region of the country is the base in the field of material production, and the full nutrition of the population with such products as meat and meat products depends on its development. In 2020 the total volume of industrial production (goods, services) in the East Kazakhstan region amounted to 2.4 trillion tenge, of which processing and canning of meat and the production of meat products – 29.9 billion tenge.

The main results of meat and meat production are shown in table 2.

Table 2 - Main results for the production of meat and meat products of the East Kazakhstan region
tons

Year	2016	2017	2018	2019	2020	2020 в % к	
						2016	2019
Meat and edible offal	43 804	45 726	47 345	44 482	42 604	97.3	95.8
Meat of cattle, pigs, sheep, goats, horses and equine animals, fresh or chilled	1 723	1 499	1 072	276	548	31.8	198.5
Poultry meat, fresh or chilled	16 232	15 221	19 672	19 825	20 088	123.7	101.3
Total:	61 759	62 446	68 089	64 583	63 240	102.4	97.2
sausages and similar products made of meat, meat offal or animal blood	5 358	7 146	-	8 268	9 170	171.1	110.9
semi-finished products made from meat (including poultry meat), meat offal or animal blood	-	-	3 322	2 180	1 861	-	85.4
meat and vegetable preserves, tons	441	236	107	97	-	-	-
Canned meat, tons	936	709	524	397	531	56.7	133.7
Total:	6 735	8 091	3 953	10 942	11 562	105.7	171.7

Note: compiled by the authors based on the data of the Bureau of National Statistics of the ASPR of the RK

So, in 2020 63.2 thousand tons of livestock and poultry meat and edible by-products were produced, which amounted to 102.4% compared to 2016. However, over the past two years there has been a decrease in these indicators by 2.8%.

As for ready-to-eat meat products 9 170 tons of sausages were produced in 2020, which is 71.1% higher than in 2016. In this issue the positive dynamics of the growth of its production can be observed. Today sausages are very popular among the main population of the region and its share in the human diet is quite large.

The next category of meat products are meat semi-products of natural or chopped meat without heat treatment. The use of these products reduces the costs of labor and time of the population for the preparation of home meals. Today large manufacturers offer consumers a wide range of these products (over

300 items). These are large-sized, small-sized, portioned, dumplings, minced meat, etc.

It should be pointed out that the growth in the production of this category of meat products in recent years has begun to decline. In particular, 1.9 thousand tons of products were produced in 2020, which is 1.5 thousand tons less than in 2018.

One of the indicators of the development of the meat industry is canning, which has a long history. The beginning of preserving meat in hermetic containers was laid in 1 795 by Frenchman N. Apper [7]. Since then the canning industry has turned from semi-handicraft into a developed branch of the meat industry.

Currently canned meat and meat and vegetable preserves are produced in this industry. The first ones are characterized by high nutritional value, a fairly long shelf life (3-5 years), ease of transportation, as well as a wide as-

sortment. The latter, depending on the type of raw materials used, are divided into leguminous, meat-pasta, and meat-vegetable. Made from all kinds of meat or minced meat with the addition of appropriate vegetable products, they are intended for first and second dishes and are ready for direct consumption.

In the period from 2016-2019 there is a decrease in the production of canned meat and cereal by 344 tons, and canned meat by 539 tons in the region. However, according to the latter, since 2019 it has been increasing by 33.7% and in 2020 it amounted to 531 tons.

Thus, the above analysis of the state of meat production and processed products in the East Kazakhstan region showed that in recent years the pace of its development has significantly decreased. Various reasons contributed to this factor, and primarily the problems of cattle breeding.

Today cattle breeding in the region is one of the most complex industries. Despite some positive dynamics, raising livestock for meat is still ineffective. According to experts, in order to ensure sustainably expanded reproduction it is necessary to achieve 25.0% profitability. However, the actual figures are far from that. Another problem is the unsatisfactory condition of the food supply, which affects the productivity of animals [8].

The situation in the global meat market is also reflected in the meat industry of both the country and the region [9]. Thus, the COVID-19 pandemic, an epidemic among animals (mad cow disease, foot-and-mouth disease of cattle, avian influenza, etc.) caused the need to introduce strict quarantine measures, up to a complete embargo on supplies from infected and neighboring areas, the destruction of a large amount of livestock.

For these reasons, some export-oriented countries have reduced the production of goods and given way to competitors. Also consumers of products changed their tastes and preferences regarding meat and meat products depending on the epizootic situation and the threat of infection.

Insufficient production of meat raw materials in turn contributes to the creation of difficulties for the meat industry of the region.

Based on the foregoing, it is necessary to take a set of measures to stabilize the market for meat and its processed products in the East Kazakhstan region, which boil down to the following:

- a provision of subsidies and loans without collateral to agro-industrial enterprises for a long period of time at low interest rates;
- a improving the taxation system;

- a increasing the availability of trading places for products of the AIC;

- a creation of advanced training centers based on research institutes and universities for agricultural producers.

In addition, small-scale production should be excluded through the establishment of large agricultural enterprises with a closed production cycle and a high level of processing, both of primary and auxiliary raw materials [10]. The organization of such formations will ensure higher profitability of production, increase such indicators as profitability and competitiveness of the products of East Kazakhstan region.

Conclusion

1. Despite some positive changes in the production of meat and its processed products in the East Kazakhstan region, there are certain problems in the industry:

- low efficiency of raising livestock for meat;
- the unsatisfactory condition of the food base, which affects the productivity of animals;
- small-scale production (increasing the proportion of households in the total meat production of and reducing the competitiveness of products).

2. The unfavorable situation in the world meat market is also reflected in the meat industry of both the country and the region. Pandemic COVID-19, epidemics among animals have led to the reduction or destruction of livestock.

3. In order to solve these problems, it is necessary to take a set of measures, which is reduced to the following: provision of subsidies and unsecured loans to participants in the AIC for a long period of time at low interest rates; improving the taxation system; increasing the availability of trading places for products of the agricultural and industrial complex; creation of centers for advanced training based on research institutes and universities for agricultural producers; creation of large integrated structures.

References

[1] Кажиева, Ж.Х. Животноводческий под-комплекс Восточно-Казахстанской области: оценка состояния и целевые ориентиры / Ж.Х. Кажиева //Проблемы агрорынка.-2021.- №1.- С.108-114. DOI:10.46666/2021-1-2708-9991.13.

[2] Бюллетень «Основные показатели развития животноводства в Восточно-Казахстанской области». Департамент Бюро национальной статистики Агентства по стратегическому планированию и реформам Республики Казахстан по Восточно-Казахстанской

области [Электронный ресурс].- 2021.– URL: <http://www.stat.gov.kz/> (дата обращения: 04.11.2021).

[3] Статистический сборник «Сельское, лесное и рыбное хозяйство в Республике Казахстан» за 2016-2020гг. Бюро национальной статистики Агентства по стратегическому планированию и реформам Республики Казахстан [Электронный ресурс].- 2020.– URL: <http://www.stat.gov.kz/> (дата обращения: 04.11.2021).

[4] Абашева, О. Обеспечение импортозамещения в регионе для решения проблемы продовольственной безопасности /О. Абашева, С. Сулаев // АПК: экономика, управление.- 2019.- №1.- С.4-14. DOI: 10.33305/191-4.

[5] Акимбекова, Г.У. Приоритетные направления развития агропромышленного комплекса Казахстана / Г.У. Акимбекова, Г.А. Никитина // Проблемы агрорынка.-2020.- № 4. - С.13-23. DOI: 10.46666/2020-4-2708-9991.01.

[6] Государственная программа развития агропромышленного комплекса Республики Казахстан на 2017-2021 гг.-Астана, 2017.-94с.

[7] Первые консервы и их упаковка: эхо в истории и литературе [Электронный ресурс].-2021.- URL: https://article.unipack.ru/57097/Pervye_konservy_i_ih_upakovka_jeho_v_istorii_i_literature/ (дата обращения: 04.11.2021).

[8] Мясное животноводство: перспективы отрасли Казахстана [Электронный ресурс].- 2018.- URL: <https://foodindustry.kz/myasnoe-zhivotnovodstvo-perspektivy-otrasli-kazahstana/> (дата обращения: 04.11.2021).

[9] Азретбергенова, Г.Ж. Обеспечение продовольственной безопасности республики Казахстан в условиях COVID-2019 / Г.Ж. Азретбергенова, А.О. Сыздыкова, Б. Бимендеев // Проблемы агрорынка.-2021.- №2. - С.21-30. DOI: 10.46666/2021-2.2708-9991.02.

[10] Ахметова, К.А. Государственное регулирование аграрного сектора Казахстана / К.А. Ахметова, А.Ж. Тержанова, А.А. Ахметова // Проблемы агрорынка.-2020.- №3. - С.60-66. DOI: 10.46666/2020.2708-9991.07.

References

[1] Kazhieva, Zh.H. (2021). Zhivotnovodcheskij podkompleks Vostochno-Kazahstanskoj oblasti: ocenka sostojanija i celevye orientiry [Livestock subcomplex of the East Kazakhstan region: condition assessment and targets]. *Problemy agrorynka-Problems of AgriMarket*, 1, 108-114. DOI: 10.46666/2021-1-2708-9991.13 [in Russian].

[2] Bjulleten' «Osnovnye pokazateli razvitija zhivotnovodstva v Vostochno-Kazahstanskoj oblasti». Departament Bjuro nacional'noj statistiki Agentstva po strategicheskomu planirovaniju i reformam Respubliki Kazahstan po Vostochno-Kazahstanskoj oblasti. [Bulletin "Main indicators

of livestock development in the East Kazakhstan region". Department of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan for the East Kazakhstan region] (2021). Available at: <http://www.stat.gov.kz/> (date of access: 04.11.2021) [in Russian]

[3] Statisticheskij sbornik «Sel'skoe, lesnoe i rybnoe hozjajstvo v Respublike Kazahstan» za 2016-2020gg. Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan [Statistical collection "Agriculture, forestry and fisheries in the Republic of Kazakhstan" for 2016-2020. Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan] (2020). Available at: <http://www.stat.gov.kz/> (date of access: 04.11. 2021) [in Russian].

[4] Abasheva, O., Sulaev S. (2019). Obespechenie importozameshhenija v regione dlja reshenija problemy prodovol'stvennoj bezopasnosti [Ensuring import substitution in the region to solve the problem of food security]. *APK: jekonomika, upravlenie - AIC: economics, management*, 1, 4-14. DOI:10.33305/191-4 [in Russian].

[5] Akimbekova, G.U., Nikitina, G.A. (2020). Prioritetnye napravlenija razvitija agropromyshlennogo kompleksa Kazahstana [Priority directions of agro-industrial complex development of Kazakhstan]. *Problemy agrorynka-Problems of AgriMarket*, 4,13-23, DOI: 10.46666/ 2020-4-2708-9991.01[in Russian].

[6] Gosudarstvennaja programma razvitija agropromyshlennogo kompleksa Respubliki Kazahstan na 2017-2021 gg. [State program for the development of the agro-industrial complex of the Republic of Kazakhstan for 2017-2021]. Astana, 2017, 94 p. [in Russian].

[7] Pervye konservy i ih upakovka: jeho v istorii i literature [The first canned food and its packaging: an echo in history and literature] (2021). Available at: https://article.unipack.ru/57097/Pervye_konservy_i_ih_upakovka_jeho_v_istorii_i_literature (date of access: 04.11.2021) [in Russian].

[8] Myasnoe-zhivotnovodstvo-perspektivy-otrasli-Kazahstana [Meat Animal Husbandry: Prospects of Kazakhstan's Industry] (2018). Available at: <https://foodindustry.kz/myasnoe-zhivotnovodstvo-perspektivy-otrasli-kazahstana/> (date of access: 04.11.2021) [in Russian].

[9] Azretbergenova, G.Zh., Syzdykova, A.O. & Bimendejev, B. (2021). Obespechenie prodovol'stvennoj bezopasnosti respublik Kazahstan v uslovijah COVID-2019 [Ensuring food security of the Republic of Kazakhstan in the conditions of COVID-2019]. *Problemy agrorynka-Problems of AgriMarket*, 2, 21-30. DOI: 10.46666/2021-2.2708-9991.02 [in Russian].

