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ECONOMIC IMPACT OF THE PANDEMIC ON THE MEAT HUB IN KAZAKHSTAN

Abstract: the meat industry is one of the socially significant branches of the agro-industrial complex. The need for the development of the meat industry of the agro-industrial complex is explained by the growth of consumer demand for meat and meat products, the average degree of investment activity and relatively high rates of dependence on imports.

The specifics of the development of the food and processing industry and, in particular, the meat industry, as well as the development of modern fundamental and applied research in the field of food raw materials and food products are closely and organically linked to the need to provide high-quality and safe food to the population of the country at this level of development of the agricultural sector in need of constant support from the state, and increasing effective demand, in order to ensure food security in Kazakhstan.

The subject of the study. The analysis of indicators on the volume of livestock processing, meat and meat products production from 2017 to November 2020 was carried out and the main directions of the industry development for the future until 2025 were determined.

The purpose and objectives of the study. Study of trends in the development of the meat industry of the agro-industrial complex, taking into account the general directions of "meat science" and related branches of the food and processing industry of the agro-industrial complex.

The need to increase the production capacity of enterprises for slaughtering, primary processing of livestock and the production of meat products through the construction of modern high-tech specialized and combined enterprises (meat slaughterhouses, meat processing plants) and the reconstruction of existing ones is justified.

The scientific novelty of the work consists in providing comprehensive mechanization and automation of production processes to increase productivity, and labor safety and compliance with strict veterinary and sanitary requirements that meet international quality and safety standards (increasing labor productivity by 10% due to comprehensive mechanization and automation of production processes and reducing the share of heavy manual labor).

Key words: meat industry of the agro-industrial complex, cattle, meat, meat products, sausage products, semi-finished products, canned food.

Introduction. The food and processing industry forms the main share of the entire food market of the country, includes 32 industries, unites more than 43 thousand enterprises with more than 1.3 million employees and occupies a leading position in the structure of industrial production.

Nutrition is the most important lever that ensures the health, efficiency, and creativity of the nation. The formation of state and public policies in the field of healthy nutrition is a vital task, since nutrition that is not adequate to the physiological needs of the body today poses a threat to the national security of the country. The quality of nutrition in

general and its individual components, in particular, directly affects the state of human health. Nutrition underlies or is essential in the occurrence, development and course of about 80% of all known pathological conditions.

Methods. The paper uses the methods of modeling and comparative analysis. To solve individual tasks, the methods of the «tree» of goals and expert assessments were used. The information and empirical base of the research is the normative legal acts of the regional and municipal levels; official data of the republican and regional authorities; methodological, scientific, educational

and reference literature, materials of the Internet, as well as research conducted by the authors.

The methodological study is a general method of scientific knowledge-analysis and synthesis, Content-media analysis of sociography, a system-comparative method that allows us to determine the genesis, sequence and functioning of the stages of the development of a meat hub within the framework of the pandemic, the attractiveness and effectiveness of adapting foreign experience in the management of a meat hub in Kazakhstan.

Results and discussion. Among the diseases, the main role in the origin of which is played by the nutrition factor, 61% are cardiovascular diseases, 5% - malignant neoplasms, 32% - type II diabetes mellitus (insulin-dependent). Nutrition is essential in the occurrence and development of diseases of the gastrointestinal tract, liver and biliary tract, endocrine pathologies, diseases of the musculoskeletal system, caries.

The costs of treating these diseases and compensating for the loss of disability also lead to a significant decrease in the country's gross domestic product.

Thus, according to WHO estimates, the approximate loss of national income caused by heart disease, stroke and diabetes in 2022 in Kazakhstan may amount to 66.4 billion international dollars (the international dollar is a hypothetical currency that is used as a means of transferring and comparing the costs of one country with the costs of another) [1].

With this in mind, the meat industry of the agro-industrial complex as the most important part of the food industry needs special attention in terms of assessing its long-term effectiveness, since it is a socially significant industry that produces food.

The achieved level of competitiveness, as well as the prospects for its development in the context of global competition, have a direct impact on the standard of living of the population, the cost of the consumer basket, the conditions and quality of labor reproduction in the national economy.

In this regard, it is necessary to take into account the following positions when assessing and forecasting trends in the development of the industry in the future:

- the supplier of raw materials for the meat industry is agriculture, that is, one of the sectors of the economy that largely depends on natural and climatic conditions and the epizootic situation;

- the meat industry produces consumer goods, namely food products.

This puts producers in a rigid dependence on solvent demand of the population; – the meat industry, is a supplier of raw materials to other industries and stimulate the development of related

industries, such as food additives, pharmaceuticals, packaging, etc.

The share of the meat industry in Kazakhstan's GDP accounted for 1.2%, and the total gross production, food processing industry, where it leads – 15% [2].

In this regard, the main goal of the development of the forecast of the development of the meat industry of the agro-industrial complex of the Republic of Kazakhstan is to increase the level of providing the country's population with meat and meat products of domestic production in accordance with physiological or rational consumption standards based on the effective functioning of the enterprises of the industry.

Rational consumption norms are a diet presented in the form of a set of products in sizes and ratios that meet modern scientific principles of optimal nutrition, taking into account the established structure and traditions of nutrition of the majority of the population. Food availability has two dimensions: economic and physical.

The economic availability of food is an opportunity to purchase food products at established prices in volumes and assortment that are not less than the established rational consumption standards provided by the appropriate level of income of the population [3].

Physical accessibility is the level of development of the commodity distribution infrastructure, in which in all localities of the country it is possible for the population to purchase food products or organize food in volumes and assortment that are not less than the established rational norms of food consumption. The main reasons for the future growth of consumption volumes are considered to be the increase in the population of the planet and the economic development of the regions of Kazakhstan.

The meat industry is one of the most important branches of the national economy, providing the population of Kazakhstan with basic food products, which is associated with the national feature of nutrition – meat and meat products are the main product. Kazakhstan's accession to the WTO in 2015 is of great importance in this context [4].

This circumstance has increased competition between external and domestic producers of meat products. In this regard, it is important to clearly identify the main problems faced by domestic producers of meat and meat products in the competition for holding positions in the market, which largely determine the cost of production and export volumes, as well as to identify the main trends in the development of the industry.

Starting in 2000, after overcoming the decline in production, the meat processing industry began

to steadily increase its output. The increase in the number of livestock directly affects the output of agricultural products.

According to the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan, the number of cattle at the beginning of 2020 was 6,247.2 thousand heads, pigs 831.1 thousand heads, sheep and goats – 17,947.2 thousand heads, horses - 2,113. 2 thousand heads, camels-172.5 thousand heads, birds of all kinds-37.8 million heads.

As of January 1, 2021, the number of cattle in all categories of farms increased by 1.02% compared to the beginning of 2020 and amounted to 6247.2 thousand heads, horses – by 2.1% and 2,113.2 thousand heads, camels – by 1.2% and 172.5 thousand heads, poultry - 6.2% and 37.8 million heads, respectively [5].

The number of sheep and goats at the beginning of 2020 decreased by 0.4% compared to the beginning of 2019 and amounted to 17,947.2 thousand heads, and pigs, respectively, by 6.4% (831.1 thousand heads). In recent years, there has also been a steady increase in the production of meat and food by-products. The increase in production volumes was facilitated not only by the growth of livestock raw materials (an increase in the number of livestock), more comprehensive use of raw materials, but also by an increase in the standard of living of the population, which directly causes demand for meat products. Particularly noteworthy is the link between agriculture and processing as an important area of industrial relations.

The current economic environment, especially taking into account low oil prices, creates new opportunities for rebalancing the economy of Kazakhstan [6], as other foreign trade goods, such as agricultural products, also become cheaper on international markets. The livestock industry receives 48.1% of subsidies. The analysis of the livestock industry shows that animal husbandry shows a more stable growth in comparison with the grain yield, but it has a direct link and dependence on crop production.

Although livestock production has shown steady growth for a long time, domestic demand has been the engine of growth. The export of livestock products is still modest. In 2005-77 million dollars (0.31% of exports), in 2015 – 145 million (0.36%). In 2020, the share of food exports increased to 5.9%. Kazakhstan managed to increase exports in a number of commodity groups, while a significant increase occurred in animal husbandry (by 47.8%). The further development of animal husbandry will depend on many factors: a high-quality feed base, the genetic potential of animals and financial support.

One of the most promising industries in Kazakhstan is meat farming. Kazakhstan ranks 17th among exporting countries with a 0.01% share in the world market (2019). According to the results of 2019, more than 60 thousand tons of products were exported. According to the representatives of the Meat Union, this indicator should have been achieved in 2016 under the Sybaga program. The delay of 3 years is due to erroneous data on livestock, revealed after total identification in animal husbandry in 2011-2012. The postscript for the number of cattle amounted to 1.5 million heads. Meat farming faces problems in the form of a shortage of domestic livestock, weak veterinary supervision, unsatisfactory food supply and natural and climatic conditions.

To determine how much meat and dairy farming depends on subsidies and internal structure, let's take a deeper look at this industry. Most of the animal population is in private subsidiary farms (LPH), and a significant amount of meat on the domestic market is provided by dairy breeds. Analysis of the livestock industry by animal species and the ratio of the contribution of various categories of farms: the total number of cattle in 2004 was 4871.0 thousand heads, of which LPH – 4175.8 thousand heads (76.6%); in 2010-6493.0 thousand heads, of which LPH – 5326.4 thousand heads (82.4%); in 2016-6253.8 thousand heads, of which LPH – 3922.0 thousand heads (62.7%); in 2019 – 8205.5 thousand heads, of which LPH – 8335.7 thousand heads (55.7%). In large farms, for the period from 2002 to 2019, it was possible to increase the number of livestock from 7.0 to 9.1%, respectively, to the total number. The best results of the increase in the number of livestock over the same period – from 4.5% to 35% – were achieved by peasant (farm) farms.

In 2018, the Program for the Development of Meat Farming 2018-2027 was adopted, which aimed to facilitate the access of potential farmers to land and preferential loans. During the implementation of the program, another 80 thousand family farms will be created for 100 heads of cattle each. The program will provide jobs for another 400 thousand people until 2027. The program is based on the family farm – an easily scalable business with minimal initial investment, accessible to a wide range of people.

According to the World Bank, approximately 80% of Kazakhstan's meat and dairy production is produced by small producers (both small private and small official producers) and is sold to official and unofficial markets close to production [7]. Such small-scale production is characterized by low productivity, added value and quality standards. However, market prices are attractive enough to

engage in this activity as a business or as a supplement to household income.

The coronavirus pandemic has led to a number of challenges for the economy of Kazakhstan, but at the same time, new opportunities have emerged.

The current crisis situation in the world has shown that agriculture has great prospects, and we do not notice any negative trends in this direction. The market is developing. The main problem is the availability of long-term financing. In this direction, the holding, as a state institution, attracts investors both in international and domestic markets. To some extent, it attracts state funds. Every year, the amount of funding for innovative projects is growing. Last year, almost 85 projects worth almost 240 million euros were put into operation.

In Kazakhstan, the volume of gross agricultural output in 2020 increased by 5.6% and amounted to 6.3 trillion tenge.

Investments in fixed assets of agriculture increased by 15% and amounted to 573.2 billion tenge, in food production - by 13.5%, to 104 billion tenge. Meat production increased by 4.1%, milk production-by 3.2%. For all the main types of products, the security is 80% or more, and for some more than 100%.

Compared to 2019, the supply of sunflower oil, pasta, flour and rice has improved.

In 2020, farmers were supplied with cheaper diesel fuel (at a price of no more than 165 tenge per liter). From February to October, 792 thousand tons of diesel fuel were allocated for sowing and harvesting operations. In agreement with the Ministry of Energy, 47 thousand tons of diesel fuel were additionally supplied for grain drying. As a result, the sowing campaign was carried out efficiently and in the optimal time. The harvested 20.8 million tons of grain allow us to fully meet the domestic needs of the republic, as well as to ship part of it for export.

Under the «Economy of Simple Things» program, an additional 30 billion tenge was allocated to farmers for sowing at 6% per annum. Concessional lending has become available for sowing grain and some vegetable crops.

Last year, the diversification of the acreage of agricultural crops continued. The emphasis was placed on import substitution and increasing the area of highly profitable crops (oilseeds, grain-fodder, vegetable-melon). According to the results of the sowing campaign, according to the Bureau of National Statistics, in 2020, the sown areas of flax, safflower, wheat, corn and vegetable crops increased.

At the same time, new plants for processing plant products were put into operation in 2020. In

Taldykorgan, Zhetysu Mazhiko Agrocomplex LLP has launched a new rapeseed and sunflower processing plant with a capacity of 500 tons per day, and in the Kyzylorda region, Karabura Ata Farm has launched a rice processing plant with a capacity of 60 tons per day. Two fruit-canning enterprises began to produce products in the Turkestan and Almaty regions. The existing production facilities of Rakhat JSC in Shymkent, which launched a new line for the production of sugar cookies, and Confectioner Fabrikasy SAULE LLP in Zhambyl region were expanded.

In the dairy sector, the Ministry had an ambitious goal of putting 25 dairy farms into operation each year. To increase the interest of Kazakhstan's cattle breeders in dairy farming and increase the share of dairy cattle, the Ministry of Agriculture has amended the Rules for subsidizing the development of livestock breeding, increasing the productivity and quality of livestock products.

The subsidy rates for the purchase of imported breeding stock increased from 225 to 400 thousand tenge per head, domestic-from 150 to 200 thousand tenge per head. For reducing the cost of milk, the subsidy rate for one kilogram of produced products now varies from 20 to 45 tenge. Previously, the farmer could count on the support of 10-35 tenge per kilogram of milk. It also introduced a 25% cost recovery for the purchase of machinery and equipment and construction and installation work. According to the results of 2020, 48 industrial and family dairy farms with a total population of 16.2 thousand heads of cattle and a production capacity of up to 93 thousand tons of milk per year were put into operation. The Ministry of Agriculture recalled that «KazAgro» offers preferential financing for the construction of industrial dairy farms with a remuneration rate of 6% and a period of up to 10 years.

In order to increase its own production and reduce the share of imports of poultry products, 8 poultry farms in the meat sector with a total capacity of almost 95 thousand tons of poultry meat per year were put into operation in 2020. These projects are expected to reach full capacity in the first half of 2021.

For the development of animal husbandry, the collateral policy for crediting the purchase of livestock has been optimized. The terms of consideration of applications for lending to farms and feedlots have been reduced. Now it is possible to purchase cattle at a liquidity ratio of 1:1. At the same time, subsidies cover 15% of the pledge, and the remaining 85% is provided by the purchased livestock. The standards for conducting selective and breeding work with breeding stock of sheep have been increased from 2500 to 4000 tenge, with

commodity stock-from 1500 to 2500 tenge. Increased standards for the purchase of domestic breeding stock (from 8 to 15 thousand rubles. tenge) and imported sheep (up to 150 thousand tenge per head), as well as a 10 tenge subsidy for milk production, " the press service reported.

To provide the population with food, a pilot project has been launched to develop a cooperative chain in the village «from field to counter» in Almaty, Zhambyl and Turkestan regions. In addition, to support the agro-industrial complex during the pandemic, the state partially changed the taxation of farms. Under the program of concessional lending «Economy of simple things», 300 billion tenge was allocated to support processing and 300 billion tenge to support production in the agro-industrial complex (including 30 billion tenge for spring field and harvesting operations).

In 2021, the volume of production of livestock products will be increased: meat in live weight - from 1.9 to 2.1 million tons, milk-from 5.8 to 5.9 million tons, eggs-from 5.5 to 5.6 billion pieces.

This year, additional measures will be taken to create conditions for the development of animal husbandry.

Eight poultry farms with a production capacity of 88 thousand tons of poultry meat will be launched, which will reduce the share of imports from 44% to 39%. It is planned to implement the construction of 25 industrial and 30 family dairy farms with the production of 114 thousand tons of raw milk.

In the meat processing sector, three modern meat processing plants with a total capacity of 45 thousand tons will be put into operation [8].

By improving the mechanisms of subsidizing and lending, they will increase the workload of milk processing enterprises and meat processing enterprises.

It is also planned that the above measures will ensure an increase in the volume of gross livestock production to 2.6 trillion tenge, or 6.4 billion dollars.

In general, despite the ongoing global processes related to the pandemic, there is a dynamic growth in annual funding under the investment subsidy program. So, in 2019, 107.6 billion tenge was allocated from the republican budget for this purpose, in 2020 – 112.3 billion tenge. The increase in the volume of investment

subsidies allowed to increase the number of applications for subsidies from 22.7 thousand in 2019 to 26.2 thousand in 2020, and also had a positive impact on the growth of investment in the industry. For 11 months of this year, the volume of investments in the agricultural sector amounted to 454 billion tenge, which is 4.7% higher than the same period last year, in food production-86.5 billion tenge, or 18.6% more%.

Summary and Conclusion. To achieve these goals, you need to solve the following tasks:

- increasing the production capacity of enterprises for slaughtering, primary processing of livestock [9] and the production of meat products through the construction of modern high-tech specialized and combined enterprises (meat slaughterhouses, meat processing plants) and the reconstruction of existing ones;

- technical re-equipment and reconstruction of enterprises or production units for slaughtering, primary processing of livestock and butchering of carcasses based on the introduction of modern types of equipment at all technological sites, which will reduce the level of depreciation of fixed assets and increase the utilization rate of production capacity for slaughtering livestock [10];

- providing comprehensive mechanization and automation of production processes to increase productivity and labor safety and compliance with strict veterinary and sanitary requirements that meet international quality and safety standards (increasing labor productivity by 10% due to comprehensive mechanization and automation of production processes and reducing the share of heavy manual labor);

- increasing the depth of processing of the main and secondary raw materials of the meat industry due to its rational and integrated use, which will raise the level of environmental safety, provide a modern level of veterinary and sanitary requirements for production, increase the production of marketable products, and also increase the consumption of products from 1 ton of processed raw materials;

- creation of a multi-level logistics system, including centralized wholesale distribution centers, warehouses, refrigerators and freezers, specialized vehicles for servicing enterprises of their regional zone for the purpose of sales, storage, distribution, additional processing and delivery of products to the consumer, which will increase the shelf life of raw meat and reduce transport costs.

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ҚАЗАҚСТАНДАҒЫ ЕТ ХАБЫ ҮШІН ПАНДЕМИЯНЫҢ ЭКОНОМИКАЛЫҚ САЛДАРЫ

Аннотация: ет өнеркәсібі АӨК әлеуметтік маңызды салаларының қатарына кіреді. АӨК ет саласын дамыту қажеттілігі ет және ет өнімдеріне тұтынушылық сұраныстың өсуімен, инвестициялық белсенділіктің орташа деңгейімен және импортқа тәуелділіктің салыстырмалы жоғары көрсеткіштерімен түсіндіріледі.

Азық-түлік және қайта өңдеу өнеркәсібін, атап айтқанда ет саласын дамытудың ерекшелігі, сондай-ақ азық-түлік шикізаты мен тамақ өнімдері саласындағы қазіргі заманғы іргелі және қолданбалы зерттеулерді дамыту мемлекеттің тұрақты қолдауына мұқтаж аграрлық секторды дамытудың және Қазақстанның азық-түлік қауіпсіздігін қамтамасыз ету мақсатында төлемге қабілетті сұранысты арттыру осы деңгейінде халықтың сапалы және қауіпсіз азық-түлікпен қамтамасыз ету қажеттілігімен тығыз және органикалық байланысты.

Зерттеу пәні. 2017 жылдан бастап 2020 жылдың қарашасы аралығында мал өңдеу, ет және ет өнімдері өндірісінің көлемі бойынша көрсеткіштерге талдау жүргізілді. 2025 жылға дейінгі перспективада саланы дамытудың негізгі бағыттары айқындалды.

Зерттеудің мақсаты мен міндеттері. «Ет туралы ғылымның» және АӨК тамақ және қайта өңдеу өнеркәсібінің аралас салаларының жалпы бағыттарын ескере отырып, АӨК ет саласының даму үрдістерін зерделеу.

Қазіргі заманғы жоғары технологиялық мамандандырылған және құрамдастырылған кәсіпорындарды (ет тоңазытқыштар, ет комбинаттарын) салу және жұмыс істеп тұрғандарын реконструкциялау есебінен мал сою, малды бастапқы өңдеу және ет өнімдерін өндіру жөніндегі кәсіпорындардың өндірістік қуаттарын ұлғайту қажеттігі негізделген.

Жұмыстың ғылыми жаңалығы өнімділікті және еңбек қауіпсіздігін арттыру үшін өндіріс процестерін кешенді механикаландыруды және автоматтандыруды, сапа мен қауіпсіздіктің халықаралық стандарттарына жауап беретін қатаң ветеринариялық-санитариялық талаптарды сақтауды қамтамасыз етуден тұрады (өндірістік процестерді кешенді механикаландыру мен автоматтандыру және ауыр қол еңбегінің үлесін азайту есебінен еңбек өнімділігін 10%-ға арттыру).

Түйін сөздер: АӨК ет саласы, мал, ет, ет өнімдері, шұжық өнімдері, жартылай фабрикаттар, консервілер.

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ЭКОНОМИЧЕСКИЕ ПОСЛЕДСТВИЯ ПАНДЕМИИ ДЛЯ МЯСНОГО ХАБА В КАЗАХСТАНЕ

Аннотация: мясная промышленность входит в число социально значимых отраслей АПК. Необходимость развития мясной отрасли АПК объясняется ростом потребительского спроса на мясо и мясные продукты, средней степенью инвестиционной активности и сравнительно высокими показателями зависимости от импорта.

Специфика развития пищевой и перерабатывающей промышленности и, в частности, мясной отрасли, а также развитие современных фундаментальных и прикладных исследований в области продовольственного сырья и продуктов питания тесно и органически связаны с необходимостью обеспечить высококачественным и безопасным продовольствием население страны при данном уровне

развития аграрного сектора нуждающегося в постоянной поддержке государства, и повышении платежеспособного спроса, с целью обеспечения продовольственной безопасности Казахстана.

Предмет исследования. Проведен анализ показателей по объемам переработки скота, производства мяса и мясных продуктов с 2017 г. по ноябрь 2020 г. и определены основные направления развития отрасли на перспективу до 2025 г.

Цель и задачи исследования. Изучение тенденций развития мясной отрасли АПК, с учетом общих направлений «науки о мясе» и смежных отраслей пищевой и перерабатывающей промышленности АПК.

Обоснована необходимость в увеличении производственных мощностей предприятий по убою, первичной переработке скота и производству мясных изделий за счет строительства современных высокотехнологичных специализированных и комбинированных предприятий (мясохладобоев, мясокомбинатов) и реконструкции действующих.

Научная новизна работы состоит в обеспечении комплексной механизации и автоматизации процессов производства для увеличения производительности, и безопасности труда и соблюдения жестких ветеринарно-санитарных требований, отвечающих международным стандартам качества и безопасности (повышение производительности труда на 10% за счет комплексной механизации и автоматизации производственных процессов и сокращения доли тяжелого ручного труда).

Ключевые слова: мясная отрасль, АПК, скот, мясо, мясные продукты, колбасные изделия, полуфабрикаты, консервы.

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МАЗМҰНЫ

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