IRSTI 69.39.01 UDC 338.439.4:637.5

DOI: 10.46666/2021-4.2708-9991.17 https://www.jpra-kazniiapk.kz

PRODUCTION OF MEAT AND PROCESSED PRODUCTS IN THE EAST KAZAKHSTAN REGION

ШЫҒЫС ҚАЗАҚСТАН ОБЛЫСЫНДА ЕТ ЖӘНЕ ОНЫ ҚАЙТА ӨҢДЕУ ӨНІМДЕРІН ӨНДІРУ

ПРОИЗВОДСТВО МЯСА И ПРОДУКТОВ ЕГО ПЕРЕРАБОТКИ В ВОСТОЧНО-КАЗАХСТАНСКОЙ ОБЛАСТИ

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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

шаруашылық жүргізудің әртүрлі нысандарында субөнімдерді, шұжық өнімдерін, жартылай фабрикаттарды, ет және ет-өсімдік консервілерін шығару. Жүргізілген талдау негізінде ет саласын қарқындату серпінінің төмендеу себептері анықталған, олардың негізгілері мал өсіру тиімділігінің төмендігі, жемшөп базасының қанағаттанғысыз жай-күйі болып табылады. Әлемдік ет нарығындағы жағдайдың ел ішінде және облыста осы сектордың дамуына әсері байқалады. COVID-19 пандемиясы, мал шаруашылығындағы індет өндіріс көрсеткіштеріне оң әсер ететін шаралар қабылдауды қажет етеді. Қортындылар – субсидиялар және төмен пайыздық мөлшерлемелер бойынша кепілсіз кредиттер беру жолымен ет және ет өнімдері нарығын тұрақтандыру жөніндегі іс-шаралар кешенін әзірлеу; аграрлық сектор тауарлары үшін сауда орындарының қолжетімділігін арттыру; салық салу жүйесін жетілдіру; өндірістің тұйық циклі және қайта өңдеудің жоғары деңгейі бар ірі ауыл шаруашылығы кәсіпорындарын құру; оларды жаңғырту және негізгі өндірістік қорларды жаңарту қарқынын ұлғайту; ҒЗИ, ЖОО базасында ауыл шаруашылығы өндірушілері үшін біліктілікті арттыру орталықтарын ұйымдастыру.

Аннотация. *Цель* – дать анализ современного состояния производства мяса и продуктов его переработки в Восточно-Казахстанской области, определить факторы, сдерживающие его рост. Методы – статистико-экономический, расчетно-конструктивный, балансовый, монографический. Результаты - проанализированы основные показатели развития животноводства и мясной промышленности региона за последние годы. В частности, рассмотрены численность скота и птицы во всех категориях хозяйств; реализация мяса всех видов в убойном весе, а также в различных формах хозяйствования, выпуск субпродуктов, колбасных изделий, полуфабрикатов, мясных и мясорастительных консервов. На основе проведенного анализа выявлены причины снижения темпов интенсификации мясной отрасли, основными из которых являются низкая эффективность выращивания животных, неудовлетворительное состояние кормовой базы. Отмечается влияние ситуации на мировом рынке мяса на развитие этого сектора внутри страны и области. Пандемия COVID-19, эпидемия в животноводческих хозяйствах вызвали необходимость введения мер, что позитивно повлияло на производственные показатели. Выводы – необходимы разработка комплекса мероприятий по стабилизации рынка мяса и мясной продукции путем предоставления субсидий и беззалоговых кредитов по низким процентным ставкам; повышение доступности торговых мест для товаров аграрного сектора; совершенствование системы налогообложения; создание крупных сельхозпредприятий с замкнутым циклом производства и высоким уровнем переработки; увеличение темпов их модернизации и обновления основных производственных фондов; организация центров повышения квалификации для сельхозпроизводителей на базе НИИ, ВУЗов.

Key words: agro-industrial complex, region, livestock production industry, agricultural enterprises, livestock, poultry, meat, meat-processing industry, meat products.

Түйінді сөздер: агроөнеркәсіптік кешен, өңір, мал шаруашылығы саласы, ауыл шаруашылығы кәсіпорындары, мал, құс, ет, ет өңдеу өнеркәсібі, ет өнімдері.

Ключевые слова: агропромышленный комплекс, регион, животноводческая отрасль, сельскохозяйственные предприятия, скот, птица, мясо, мясоперерабатывающая промышленность, мясные изделия.

Introduction. Today, providing the residents of Kazakhstan with such types of products as meat and meat products, according to the established norms, is one of the priority directions of the republic's development. The solution to this issue is possible through the development of the meat industry both in the country as a whole and in the regions.

One of the main components of the meat industry of the East Kazakhstan region is animal husbandry, which is basic in the reproduction process of the region's economy. In recent years, the sector has experienced growth in key indicators. In particular, there is

an increase in both the number of livestock, poultry in all farms of the agricultural sector, and its production in slaughter weight.

Animal husbandry is closely interlinked with the meat industry of the region. The 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 production of meat products – 29.9 billion tenge (1.2%).

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

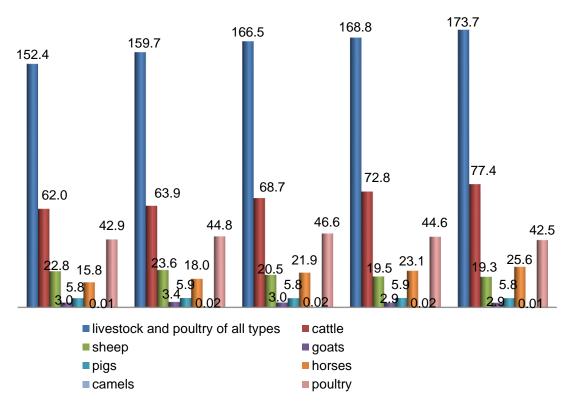


Figure 1 - Slaughtered in the farm or sold for the slaughter of all types of livestock and poultry in slaughter weight in the East Kazakhstan region, thousand tons

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

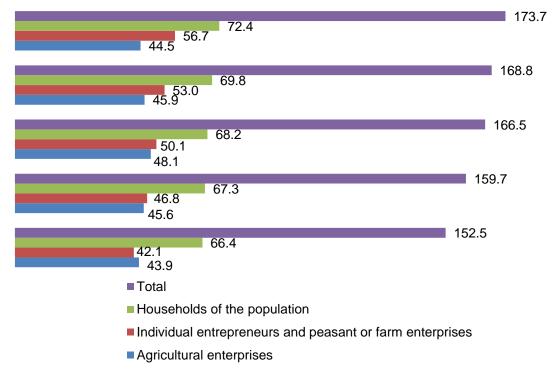


Figure 2 - Slaughtered in the farm or sold for the slaughter of all types of livestock and poultry in slaughter weight in various categories of farms, thousand tons

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

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