

Livestock products of households in ensuring food security in Kazakhstan

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Abstract. Currently, the agro–industrial complex (AIC) of the Republic of Kazakhstan has all the advantages and opportunities to become a new driver of economic development. The article examines the state of households of the population provides statistical data on the main indicators of the dynamics and structure of livestock products and the productivity of livestock and poultry for all categories of farms in the Republic of Kazakhstan. The paper shows the role of production of household farms in comparison with other categories of farms. In recent years, households (formerly personal subsidiary farms) play an important role in the country's agriculture and make a significant contribution to ensuring the food security of the state. Further development of farms of the rural population is directly related, in particular, to the improvement of the living standards of rural residents, and in general to the development of rural areas. The aim of the study is to develop theoretical and practical recommendations for the further growth of the main indicators of livestock production by households and their significant impact in ensuring the country's food security. In this regard, it is necessary to consider trends in the production of livestock products by all categories of farms, and in particular the contribution of households to the process of trends in the production of livestock products by households in the context of ensuring food security in our state.

1 Introduction

Currently, the agro–industrial complex (AIC) of the Republic of Kazakhstan has all the advantages and opportunities to become a new driver of economic development. The development of the agricultural sector in Kazakhstan is of particular importance in the light of the projected three–fold decrease in the growth in the volume of world food production [1]. In this regard, Kazakhstan needs to more effectively use the country's potential to further increase the volume of agricultural production.

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In this regard, Kazakhstan needs to more effectively use the country's potential to further increase the volume of agricultural production. The diverse climatic conditions of the regions of Kazakhstan make it possible to grow almost all crops of the temperate heat zone and develop almost all types of animal husbandry.

It should be noted that the positive trends in the production of livestock products in ensuring food security in Kazakhstan are very closely related to the strengthening of the process of resource conservation in agricultural sectors, and in crop production and in animal husbandry equally [2].

When considering the existing trends in the production of livestock products by households in the context of ensuring food security in Kazakhstan, a complex of general and specific research methods was used, such as: abstract, monographic, statistical, empirical. The theoretical research methods were used: synthesis, scientific abstraction and comparison.

2 Literature review

Many modern researchers have addressed the problems of growing livestock production in the agro-industrial complex of Kazakhstan and their importance in ensuring food security of our country and important processes for supporting agricultural sectors.

Thus, the well-known Kazakhstani macroeconomist A. Yessentugelov emphasizes: "... Support to the agro-industrial complex is to ensure the employment of a large army of villagers and workers of processing enterprises, support the agricultural industry so that it continues to stably produce grain, meat and other products, without which it would be impossible to ensure food security, this is to ensure the work of processing enterprises ... " [3, p.71]. It should be noted here that the modern agrarian policy of Kazakhstan is aimed at providing further support to agricultural sectors, which makes the agro-industrial complex even more attractive for investment activities [21-25].

To clarify the circumstances and processes of supporting the agricultural industry in Kazakhstan, let us dwell on the opinions of some well-known scientists who have studied these problems. Thus, the prominent scientist-economist [\[G. Seitkasimov\]](#) noted: "... The emerging trends in the world food market set before Kazakhstan the task of increasing the competitiveness of the agro-industrial complex in order to expand the country's export potential. The government has begun to actively implement regional investment projects in the agro-industrial sector, focused on the creation of export production. The main goal is to take a leading position in the Central Asian region as the main supplier of food products ... " [4, p. 27].

Kazakh scientist economist G.A. Orynbekova is of the following opinion that "... At present, the agro-industrial complex of Kazakhstan provides work for about 30% of the total employed population. At the same time, the demand for agricultural products is least affected by negative economic trends. Long-term forecast of price increases opens up new opportunities for the effective development of the agro-industrial complex, defined as one of our priority areas in the diversification of the domestic economy ... " [5, p. 267].

3 Results

An important place in the livestock industries in Kazakhstan is played by the production of meat and meat products, as one of the priority areas for ensuring the country's food security. Based on the data in Table 1, it can be seen that, to a large extent, the increase in gross livestock production in 2015–2019, and has a positive trend, which was influenced by the huge investment subsidies allocated in these years to the agricultural sector, in

particular: 55 % for animal husbandry (37.6 billion KZT), for crop production 35 % (23.2 billion KZT), for the processing of livestock and crop production 10% (7 billion KZT).

Next, consider the number of livestock and poultry, which is presented in table 1.

Table 1. Dynamics of livestock production and productivity livestock and birds by households in the Republic of Kazakhstan, (live weight), tons [7].

Types of products	2015	2016	2017	2018	2019
Slaughtered on the farm or sold for slaughter of livestock and birds (live weight), tons	1 076 617.1	1073 362.3	1074 097.0	1093 709.5	1114 230.0
Including:					
Cattle	585 995.4	584 440.8	583 361.8	597 048.9	614 288.0
Sheeps	211 959.5	212 517.1	211 091.8	211 465.2	210 766.7
Goats	35 372.2	34 216.7	32 660.8	31 919.1	31 341.6
Pigs	81 958.6	76 496.4	73 010.7	73 029.9	73 310.5
Horses	143 523.0	147 265.5	155 877.0	162 291.1	166 649.9
Bird	9 358.7	9 384.2	8 764.7	8 504.3	8 221.4
Camels	8 238.0	8 896.2	9 188.0	9 286.6	9 526.6
Marals	2.4	–	–	–	–
Other animals	211.6	145.4	142.4	164.3	125.4

Source: Statistical data of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan [Electronic resource]. – <http://stat.gov.kz> (date of the application: 22.01.2021) [7].

Consider the institutional dynamics of livestock production and the productivity of livestock and poultry by categories of farms in the Republic of Kazakhstan for 2015–2019 (in live and slaughter weights), which are presented in Tables 1 and 2, respectively.

Considering the volume of livestock products produced for all categories of farms (in live weight), we observe that most of the products are produced in households, then in households [20-24].

According to operational data, in 2018 and 2019, a positive trend in the growth of gross livestock production continues, due to an increase in the number of the main types of productive livestock and poultry in the livestock industries [7, 14].

In agriculture, the indicators of production of certain types of livestock production in Kazakhstan play an important role, the dynamics of which is presented in Table 2.

Table 2. Dynamics of livestock production and productivity livestock and birds by households in the Republic of Kazakhstan, (slaughter weight), tons [7].

Types of products	2015	2016	2017	2018	2019
Slaughtered on the farm or sold for slaughter of livestock and birds (slaughter weight), tons	576 315.6	573 915.9	573 235.7	583 234.7	590 374.6
Including:					
Cattle	310 573.6	309 967.6	308 998.8	315 962.9	321 048.2
Sheeps	105 698.4	105 946.5	105 205.7	105 408.8	105 391.9
Goats	17 495.9	16 892.0	16 112.7	15 812.2	15 597.9
Pigs	57 193.3	53 517.1	51 171.3	51 092.7	51 305.0
Horses	74 264.1	76 202.6	80 631.5	83 923.7	86 108.4
Bird	6 658.5	6 639.2	6 200.7	6 057.7	5 835.1
Camels	4 325.9	4 678.2	4 843.9	4 894.6	5 025.5
Marals	1.1	–	–	–	–

Other animals	105.9	72.7	71.2	82.2	62.7
Source: Statistical data of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan [Electronic resource]. – http://stat.gov.kz (date of the application: 22.01.2021) [7]					

The population of the country, through their personal economy, makes a significant contribution to the production of meat and meat products. Next, we will consider the dynamics of livestock production and the productivity of livestock and poultry by households in the Republic of Kazakhstan for 2015–2019, (in live weight), which is presented in Table 3. As can be seen from the data in Table 3, there are positive trends in livestock production and livestock productivity and poultry farms of the population in our country.

Table 3. The structure of livestock products and productivity of livestock and poultry for all categories of farms in the Republic of Kazakhstan (live weight), in % [7].

Farm categories	2015	2016	2017	2018	2019
For all categories of farms: slaughtered on the farm or sold for slaughter of livestock and poultry (live weight)	100	100	100	100	100
including:					
Agricultural enterprises	17.4	18.1	19.6	20.6	22.6
Individual entrepreneurs and peasant or farm households	17.4	18.9	20.4	21.0	21.0
Households of the population	65.2	63.0	60.0	58.4	56.4
Source: Statistical data of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan [Electronic resource]. – http://stat.gov.kz (date of the application: 22.01.2021) [7]					

The available statistics allow us to note a positive transformation of the methods of farming in animal husbandry from backyard to farming. At the same time, in terms of quality indicators, farms demonstrate low efficiency) [7-15].

Thus, in the structure of the gross output of the industry, there is a high share of household products, as a result, a significant part of agricultural products produced in Kazakhstan is still sold in the form of raw materials, without processing, and finished products for certain types have weak competitiveness.

In agriculture, the indicators of production of certain types of livestock production of the economy of the population of Kazakhstan play an important role, the dynamics of which is presented in Table 4.

The annual growth of livestock products and the productivity of livestock and poultry by households in the Republic of Kazakhstan will contribute to ensuring the country's food security and import substitution of certain types of agricultural products (meat and meat products, milk and dairy products, poultry meat, etc.) [2, 6-26].

In general, the food processing industry of the agro-industrial complex of Kazakhstan can now be characterized as a steadily developing sector of the economy, capable of ensuring the country's food security and meeting the needs of the domestic food market.

The country's food security is ensured through the formation and use of regional stabilization funds for food products, by monitoring the level of food security, as well as by excluding the purchase of genetically modified food products, food products containing genetically modified organisms [2, 6-25].

Table 4. The structure of livestock products and productivity of livestock and poultry for all categories of farms in the Republic of Kazakhstan (in carcass weight), in % [7].

Farm categories	2015	2016	2017	2018	2019
For all categories of farms: slaughtered on the farm or sold for slaughter of livestock and poultry (in carcass weight)	100	100	100	100	100
including:					
Agricultural enterprises	22.0	22.8	24.8	25.6	28.1
Individual entrepreneurs and peasant or farm households	16.1	17.4	18.8	19.3	19.2
Households of the population	61.9	59.8	56.4	55.1	52.7
Source: Statistical data of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan [Electronic resource]. – http://stat.gov.kz (date of the application: 22.01.2021) [7]					

The indicators of the sustainability of the food security system are also the level of quality and safety of food. An equally problematic issue is the supply of imported products to the domestic food market, which do not always meet quality requirements, do not meet the shelf life and are unsafe for health. At the same time, it is in great demand due to the low purchasing power of the population. The quality control procedure for food products, some of which are made using genetically modified organisms, also require improvement.

4 Discussion

In different countries of the world, the livestock industry has a different level of functioning and development. In Kazakhstan, the main branches of animal husbandry are: dairy farming, stall breeding of cattle (cattle) for meat, horse breeding, sheep breeding, highly mechanized poultry farming, pig breeding and others. Traditionally, livestock production is a highly productive industry, the products of which often go from their delivery to sales points of the agro–industrial complex to the stage of processing and processing. For Kazakhstan, it was historically characteristic of raising horses and sheep for meat using pasture areas, but in recent decades, the level of raising cattle for meat and meat products has greatly increased [6, p. 56–65].

Further development of food markets can be seen in the context of growth in effective demand of the population, trends in the world market and the possible strengthening of Kazakhstan's positions in the foreign market, including through the countries of cross–border cooperation. There is a possibility of an increase in value added not due to an increase in physical volumes, but due to diversification and shifts in the structure of production [20-26].

In turn, the state program for the development of the agro–industrial complex of the Republic of Kazakhstan for 2017–2021 is aimed at ensuring the production of competitive products in demand in the markets in the agrarian sector of the national economy. The main indicators of this program are: growth in labor productivity in agriculture; growth of gross agricultural production (services); growth in the volume of exports of food products; decrease in the volume of imports of food products and others [8, 22-27].

5 Conclusion

The obtained results of the study of the processes occurring in the agro–industrial complex make it possible to formulate the main directions of increasing the production of livestock

products by the households of the population in ensuring the food security of Kazakhstan. The slaughter of livestock is carried out in specially equipped and designated points, and not in the court areas of the population. But at the same time, the list of the above measures is not entirely sufficient for the further effective management of households in the country, further government support is needed in this important segment of the food market in Kazakhstan.

Thus, in order to stimulate highly efficient household management in the Republic of Kazakhstan in the context of globalization of markets and increased competition, the priority areas, in our opinion, should be:

- ✓ improvement of export–import policy;
- ✓ further improvement of the system of subsidizing investment costs in animal husbandry and processing of agricultural products;
- ✓ strengthening control over the quality of pedigree products in animal husbandry;
- ✓ production, circulation and certification of environmentally friendly (organic) products in accordance with international norms and requirements;
- ✓ development of information systems in rural settlements, which are the main areas of agricultural production.

Thus, the positive dynamics of the main indicators of the development of agriculture in Kazakhstan was achieved mainly through the use of incentive mechanisms and the implementation of state support measures, at the same time, a number of systemic problems remain, the solution of which is indicated within the framework of laws and program documents. Maintaining the achieved growth rates and further development of the agro–industrial complex of Kazakhstan are impossible without strengthening the role of the state and supporting this industry, in turn, without developed agriculture, positive development of the economy of Kazakhstan and its entry into the 30 most developed countries of the world is impossible.

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