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Revival of the resource potential of cattle breeding as a factor in the development of competitiveness of enterprises of the dairy product subcomplex of the agro-industrial complex of Ukraine

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Abstract. Permanent crises in the Ukrainian economy, the devaluation of the hryvnia, the decline in incomes of the population and its purchasing power, increased competition on the world market, and the constant increase in world prices for food and non-food products created new realities of functioning of enterprises of the dairy sub-complex of the agro-industrial complex of Ukraine and led to its transformation. Therefore, the study of the reasons for the existence of these trends is very relevant. *The purpose of the study* is to assess the current state of the sub-complex and the development of practical recommendations for improving the efficiency of its functioning. The performed study was based on the use of methods: qualitative analysis and synthesis, economic-statistical analysis, comparisons, analytical and logical generalisations, etc. At the beginning of 2021, the total number of cattle in Ukraine was 2.874 million heads and over the past 10 years decreased by 1.952 million heads, including cows by 0.958 million heads. Milk production remains small-scale. In 2020, 9.263 million tonnes of milk were produced (17.66% less than in 2010). A substantial reduction in the volume of milk supplies for processing led to a reduction in the number of processing enterprises in 2020 by 69.14% compared to 1990. The main factors of transformation of the dairy sub-complex in Ukraine include: reduction of the number of cows, insufficient quantity of high-quality dairy raw product and their non-compliance with the regulations and standards of the European Union, low technological level of milk production, insufficient control over the quality of raw product, lack of modern equipment, high capital and labour intensity of production processes, rising prices for energy and other resources, reduced consumption of dairy products due to low purchasing power, increased competition in the world and internal markets of dairy products, etc. The conducted research should help to solve and highlight the main functional

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problems of milk processing enterprises that operate in the agro-industrial complex of Ukraine, the results of the above-mentioned studies can be useful and relevant for the revival of dairy cattle breeding in the post-war period

Keywords: dairy cattle breeding, dairy industry, dairy raw product, milk processing, dairy products market

Relevance

Milk and dairy products are valuable food products, the world consumption of which is constantly growing both in connection with the overall growth of the world's population and the increase in their consumption in some countries (China, Vietnam, etc.), which is associated with an increase in the standard of living of the population of these countries. According to a study by IFCN experts, the growth of global milk production in 2019 was mainly due to India, Oceania, Africa, and the Middle East [1]. However, this increase was 1.4% and was substantially lower than the long-term average (2.3%).

In 1990, Ukraine ranked 6th in the world in the world ranking of milk-producing countries, with milk production volumes of 24.5 million tonnes. In 2020, the country ranked 22nd in the world ranking (among 123 countries – the main milk producers, producing 98% of the total world production) [2]. It is the reasons for the development of these trends in its functioning and the current state of affairs in the dairy product subcomplex of the agro-industrial complex of Ukraine that requires additional research.

Analysis of recent research and publications

A comprehensive study, assessment, and analysis of the state of enterprises of the dairy subcomplex of the agro-industrial complex of Ukraine and the prospects for their development is considered in the papers of many researchers.

Among them are the papers of N. Belinska, P. Berezivskyi, V. Boyko, I. Evsieieva, M. Ilchuk, T. Mostenska, N. Oliadnichuk, M. Parkhomets, V. Radko, P. Sabluk, N. Shiian, I. Fedulova, and many others. These researchers investigated important issues related to the development of the feed base, breeding work, conditions for keeping dairy herds, optimising the organisational and economic mechanism of functioning of sub-complex enterprises, and ensuring the growth of their competitiveness. However, dynamic changes in the global and internal markets and the introduction of modern innovative technologies, equipment, and products require constant identification and clarification of trends in the development of sub-complex enterprises to develop effective tools for managing their functioning and developing competitiveness.

The purpose of the study is to assess the current state of the dairy sub-complex of the agro-industrial complex of Ukraine, trends in functioning, and factors of its transformation, development of practical recommendations for stabilising and improving the efficiency of its activities and competitiveness.

Materials and Methods

The study was based on the use of methods: qualitative analysis and synthesis, economic-statistical analysis, comparison, analytical and logical generalisation, etc.

Results

As a result of the changes that have taken place in the country over three decades, in 2020 the overall structure of agricultural production has changed: horticulture production – 79.1%, livestock

production – 20.9% (Fig. 1). Therewith, the structure of agricultural production in agricultural enterprises changed even more and in 2020 amounted to 83.8% and 16.2%, respectively [3].

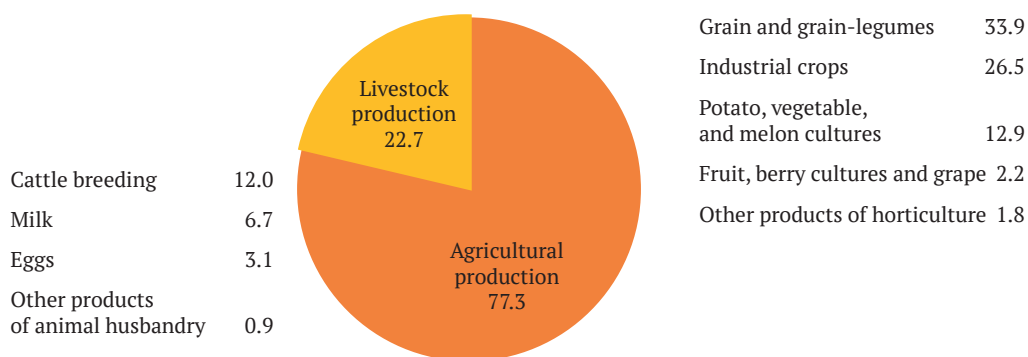


Figure 1. Structure of agricultural products in 2020, % (Statistical Yearbook of Ukraine for 2020)

The results of the conducted research indicate that the root cause of the current state of affairs in the Ukrainian animal husbandry and dairy product subcomplex of the agro-industrial complex is the existing trends in dairy cattle breeding, namely, the reduction in the number of cows and milk production. This was due to a decrease in the number of all types of animals, including cattle. Thus, according to the results of the study, at the beginning of 2021, the total number of cattle in Ukraine amounted to 2.874 million heads, which is 7.1% less than at the beginning of 2020 (Table 1). Therewith,

the number of cattle in agricultural enterprises decreased to 1.008 million heads, and the number of dairy cows decreased to 423.9 thousand heads, which is 2.6% less than at the beginning of 2020 [4]. The results of the study show that today Ukraine has the smallest number of cattle in the last 120 years. All this ensured the invariability of the negative trend towards a decrease in the number of dairy farms, on average, by 4.3% per year and a decrease in milk production by an average of 2.3% per year, in contrast to the existing positive trend of growth in milk production in the world [5].

Table 1. Dynamics of cattle and cow productivity in Ukraine (at the end of the year) [6]

Years	1990	2010	2015*	2016*	2017*	2018*	2019*	2020*	2020/ 2010 pp. %
Cattle, thousand heads:	24 623	4826	3884	3750	3683	3531	3092	2874	59.55
Including cows, thousand heads	8 378	2631	2167	2109	2018	1919	1788	1673	63.6

Table 1. Continued

Years	1990	2010	2015*	2016*	2017*	2018*	2019*	2020*	2020/ 2010 pp. %
Including in households, thousand heads	2 186	2042.1	1733.5	1662	1551	1551.2	1451.6	1349.9	66.1
Per cow, kg of product of all categories	2863	4082	4644	4735	4820	4922	4976	5129	125.6
Average annual milk yield kg of milk per cow in agricultural enterprises	2941	3975	5352	5643	6025	6190	6101	6634	166.9

Note: * – excluding the temporarily occupied territory of Crimea, Sevastopol, and parts of the temporarily occupied territories in Donetsk and Luhansk regions

Therewith, households at the beginning of 2021 reduced the number of cattle to 1.865 million heads, including the number of dairy cows to 1.249 million heads, or by 6.4% compared to the number at the beginning of 2020 [7]. That is, the reduction in the number of cattle and cows in households has a higher rate than in agricultural enterprises engaged in cattle breeding. Notably, quantitative indicators of the number of cattle and cows in private farms of the population raise some doubts due to the fact that, for various reasons, the identification of livestock in them is still not completed, although the state should have ensured its implementation before 2015.

Analysis of the data in Table 1 allows concluding that over the past 10 years alone, the number of cattle in the country has decreased by 1.952 million heads, including cows by 0.958 million heads, which indicates the persistence of a negative trend in the development of meat and dairy cattle breeding and in the volume of milk production and supply to processing enterprises (Table 2).

The reduction in the number of cows, despite their increasing productivity in farms of all categories (by an average of 2% per year), led to a decrease in the production of high-quality dairy raw product (Table 1 and 2). Thus, according to the results of the conducted research,

Ukraine produced 9.263 million tonnes of milk in 2020 (7.1% less than in 2019). Of these, 2.761 million tonnes (1.2% more) – in agricultural enterprises and 6.502 million tonnes (6.3% less) – in households [8].

All this led to a 2.2% reduction in factual milk consumption per capita, which in 2020 was only 53.13% of the scientifically based consumption standards for milk and dairy products. Despite the preservation of livestock in agricultural enterprises, successful seasonal laying of feed and high purchase prices for milk, according to the results of three quarters of 2021, milk production in Ukraine continued to decline by 6.1% compared to the corresponding period in 2020. Although agricultural enterprises are improving the quality of milk, fat, and protein content, there is still no substantial increase in milk volume, which would compensate for the reduction in milk production in households. This is hindered by the focus of agricultural enterprises on crop production, the lack of external investment, global inflation, currency volatility, the land market factor, etc.

All this has led to a reduction in the consumption of milk and dairy products per capita. Thus, if in 1990 the average consumption of one person was 373 kg/year of dairy products (calculated in terms of milk), then in 2010 this figure decreased to 206 kg/year, and in 2020 the

average consumption of one person was only 201.5 kg/year (Table 2).

Most milk in 2020 was produced in the Poltava – 734.2 thousand tonnes (3.2% less than in 2019), Vinnytsia – (728.4 thousand

tonnes; 4.6% less), and Khmelnytskyi (651.5 thousand tonnes; 2.5% more) regions. The lowest volumes of milk production in 2020 were in the Luhansk, Donetsk, and Zaporizhia regions [9].

Table 2. Dynamics of milk production and processing volumes in Ukraine [10]

Indicators	2010	2015*	2016*	2017*	2018*	2019*	2020*	2020 to 2010, %
Milk produced, thousand tonnes	11249	10615	10382	10281	10064	9963	9 263	82.34
Milk delivered to processing enterprises, in total, thousand tonnes:	4793	4251	4183	4348	4179	3868	3299	68.8
Including from enterprises, thousand tonnes	2193	2744	2512	2689	2720	2750	2566	117.12
Including from the population, thousand tonnes	2544	1346	1198	1239	1089	870	733	28.8
Marketability level, %	42.6	40.0	40.2	42.3	41.2	38.8	35.61	83.6
Milk consumption per capita, kg/year	206.4	209.9	209.5	200.0	197.7	200.5	201.9	97.8

Note: * - The data are provided without considering the temporarily occupied territory of the Autonomous Republic of Crimea and the city of Sevastopol, and without considering the temporarily occupied territories in Donetsk and Luhansk regions

The results of the analysis of the dynamics of milk production volumes allow concluding that there has been a transformation of the raw product base of the milk processing industry not only in terms of volumes but also the quality of milk received by processing enterprises (Table 2 and 3). 10 years ago the ratio of the volume of milk delivered by different categories of producers for processing to the enterprises of the milk processing industry was about 50:50, in 2020 the share of households in the total volume of milk transferred to processing enterprises was only 22.8%. That is, there was a sharp reduction in the volume of supplies for processing low-quality, but cheap, milk from farms, which agricultural

enterprises are not able to compensate for by increasing the supply of high-quality product.

Notably, the quality and safety of milk delivered for processing by agricultural enterprises are steadily growing. According to the results of the analysis, there was an increase in the share of milk of the extra and first grade categories (Table 3). Thus, the share of extra grade raw product in the total volume of milk received for processing increased from 27.2% in 2019 to 34.6% in 2020. However, the share of top grade milk decreased, respectively, from 35.9% to 34.2% and first grade – from 32.3% to 30.4 %. The share of the second grade sharply decreased from 3.7% to 0.6% [11].

Table 3. Dynamics of the structure of milk quality received for processing from agricultural enterprises, % of the total volume [12]

Year	Extra	Top grade	First grade	Second grade	Non-grade
2010	4.4	31.3	59.3	4.1	0.9
2015*	10.3	35.2	49.6	4.7	0.2
2016*	15.4	38.8	44.46	6.74	0.3
2017*	16.4	36.7	37.9	8.7	0.3
2018*	21.6	38.1	32.9	7.1	0.3
2019*	27.2	35.9	32.3	3.7	0.2
2020*	34.6	34.2	30.4	0.6	0.2
2020 to 2010, %	7.46 times	109.26	51.26	14.6	22.2

*– The data are provided without considering the temporarily occupied territory of the Autonomous Republic of Crimea and the city of Sevastopol, and without considering the temporarily occupied territories in Donetsk and Luhansk regions

Notably, there was a rise in quality in households, but only on paper. The share of second-grade milk delivered by the population for processing decreased from 83.2% to 18.4%, while first-grade milk, on the contrary, increased from 12% to 79.9% without almost any noticeable changes in the technology of milk production, storage, and delivery [7]. That is, milk processing enterprises in the conditions of a shortage of raw product could not refuse to accept milk for processing from households and, thus, are trying to fulfil the requirements

of new legislative acts on the quality and safety of milk by mixing milk of the population and agricultural enterprises.

This is confirmed by the fact that in Ukraine, sanitary quality control of milk is conducted only in 14.8% of households engaged in milk production (Statistical collection Livestock of Ukraine, 2020). Therewith, milk quality control occurs only in 8.4% of households that cultivate 0.5 hectares of land or less, 17.1% of households with a land area of 0.51 – 1 hectares and 28.3% of households with a land area of more than 1 hectares.

Table 4. Dynamics of the number and production capacity of milk processing enterprises in Ukraine [7]

	1990	2000	2007	2010	2014*	2019*	2025 (forecast)	2019 to 1990, %
Number of enterprises	643	447	354	287	252	192	157	29.86
Total production capacity, million tonnes	18.6	13.9	13.46	12.7	12.0	9.8	8.1	52.69
Average capacity, thousand tonnes	28.9	31.1	38.02	44.2	47.6	51.04	51.6	176.6

Note: *– The data are provided without considering the temporarily occupied territory of the Autonomous Republic of Crimea and the city of Sevastopol, and without considering the temporarily occupied territories in Donetsk and Luhansk regions

The results of the conducted research show that if the existing negative trends in the dynamics of milk production and supply volumes for processing continue, 1-2 large milk processing enterprises will disappear annually in Ukraine. This is confirmed by the results of the analysis of changes in the number and level of processing capacities of milk processing enterprises (Table 4). The results of the analysis demonstrate that if at the end of 1990 there were 643 processing enterprises operating in the country, then in 2020 there were only 192 (of which 178 were functioning) or 29.86% compared to 1990 [13] although, mostly old low-capacity enterprises were closed. The result of this process was an increase in almost twice the average production capacity of milk processing enterprises. However, even these capacities, due to the lack of raw product, are used on average, by 30-40%.

The conducted analysis of production indicators of the main types of dairy products (Table 5) indicates that until 2014 there were positive trends in the production of milk, fresh cheese, and fermented milk, fermented milk

products, and since 2014 there has been a decrease in production for all types of products. Among the main groups of dairy products, the largest market share is accounted for by whole milk, which accounts for approximately 84.0% in quantitative terms, cheese (with a market share of approximately 8.0%) and butter (with a market share of 5.0%).

The results of the analysis allow concluding that 80 of the most powerful milk processing enterprises today produce 75-85% of Ukrainian dairy products from whole milk. The owners of these enterprises value their reputation and therefore invest substantial funds in the modernisation of production, in innovative technologies to improve the quality of dairy products, monitor, and promptly respond to changes in market conditions, constantly improve and expand the range to optimise the production process, increase production volumes and profit of enterprises. They are also prompted to do this by the problem of adapting milk and dairy producers in Ukraine to European requirements, which became particularly acute after the annexation of Crimea and the loss of the Russian market.

Table 5. Production of dairy products in Ukraine [14]

Indicator	Years									Growth rate from 2020 to 2010, %
	2010	2012	2014	2015	2016	2017	2018	2019	2020	
Processed milk liquid, thousand tonnes	822.3	911.6	1116.5	965.6	926.2	954.1	997.9	969	982.3	19.5
Butter, thousand tonnes	92.3	88.6	114	100.9	101	102.3	105.1	91.6	87.5	-5.3
Powdered milk and cream, thousand tonnes	68.7	63.1	66.7	60.9	58.8	45.3	37.4	34.5	35.3	-48.4
Fresh unfermented cheese and fermented milk cheese, thousand tonnes	78.5	79	74.7	67	69.6	68.7	72.8	64.1	81.4	3.7

Table 5. Continued

Indicator	Years									Growth rate from 2020 to 2010, %
	2010	2012	2014	2015	2016	2017	2018	2019	2020	
Hard cheeses, thousand tonnes thousand tonnes	207	168	130	122.6	113.1	105.6	96.3	86.1	85.2	-58.3
Fermented milk products, thousand tonnes	497	489	473	426.1	420.2	410.2	405.2	415.3	443.2	-10.9

The main areas of technological innovations in the milk processing industry are the use of energy-saving and low-waste technologies, low-temperature processing to preserve the health benefits of milk, nanotechnology, technology for extending the shelf life, etc. In addition, current trends in the dairy market in recent years are relevant areas for improving the range of dairy products: healthy nutrition; increasing demand for lactose-free milk; active development of the vegetable milk sector, which does not contain cholesterol, lactose and casein.

This encourages enterprises of the dairy sub-complex of the agro-industrial complex to

increase production volumes of products that are attractive segments for export to the EU, CIS, Asia, and Africa (Fig. 2).

Today, Ukrainian dairy products are exported to 104 countries around the world. 145 enterprises are engaged in export. The main types of exported dairy products in 2020 were: butter (\$49 million and 9th place in the world in terms of product exports), milk and cream dry or condensed (\$45 million 19th place), cheeses (\$24 million and 25th place), whey (\$10 million and 10th place), milk and cream non-concentrated (\$12 million and 26th place), etc. [15].

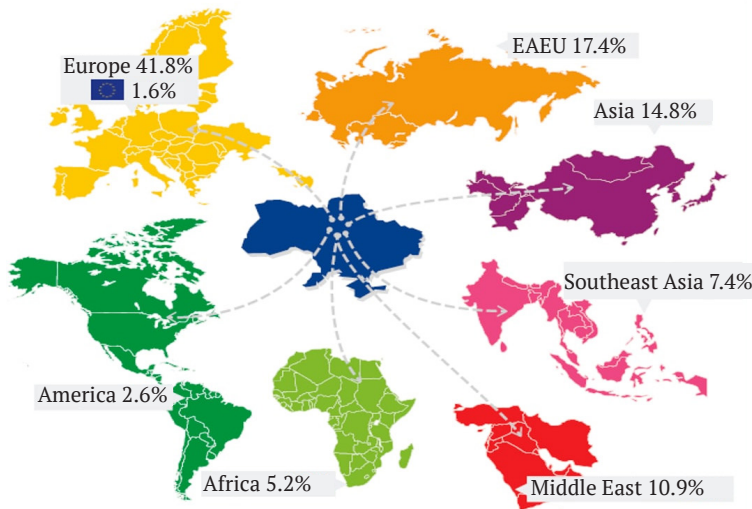


Figure 2. Geography of dairy exports in 2020 [8]

However, due to the reasons mentioned above and the high requirements of importers regarding the quality and safety of products, the volume of Ukrainian exports of dairy products tends to decrease (Fig. 3).

Thus, the export of dairy products in 2020 is only 29.0% of its volume in 2011. Moreover, in 2020, Ukraine became a net importer of dairy products both in value terms and in physical volumes. Exports of Ukrainian dairy products currently account for only 0.8% of world exports.

Therefore, considering the competitiveness of milk processing enterprises and their products in the world and internal markets, to make a high-quality dairy product, several components are needed: high-quality raw product, modern equipment, and qualified personnel. Admittedly, for enterprises to use the product quality and safety system as the basis for organising production and are certified according to international quality management and control standards ISO 9000, 14000, 22000, and HACCP.

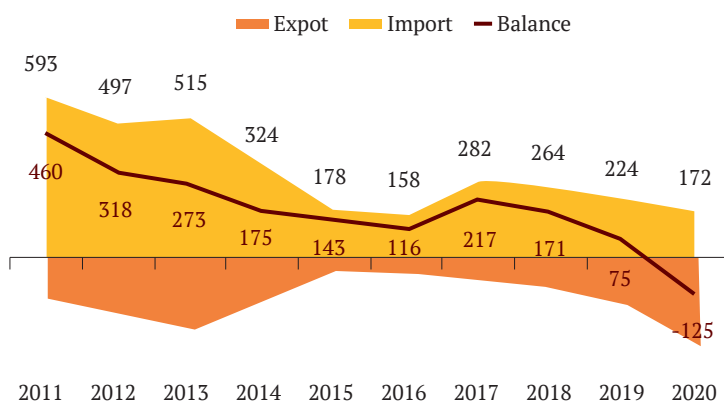


Figure 3. Dynamics of dairy export volumes, \$ million [8]

Based on this, it would be economically feasible for a processor who would like to export its products profitably to have one modern plant with a processing capacity of at least 500 thousand tonnes of milk per year. However, the creation of such an enterprise in Ukraine requires a powerful raw product zone in which 5-6 modern commercial dairy farms will function with a population of 10 thousand cows each and with a capacity of 10 tonnes of milk per cow per year.

The results of the study allow identifying abnormally hot weather and loss of feed among the factors that directly or indirectly affected

the reduction in milk production during 2020. In this regard, there was a substantial increase in prices (December 2020 to December 2019) for feed wheat by 57%, feed corn – 82%, sunflower meal – 126%, soybean meal – 74% [11]. In dairy cattle breeding, the problem of an insufficient amount of feed to meet the requirements of feeding technology also remains, because to have high productivity of animals, it is necessary to use balanced feeding rations. In the opinion of the study, the increase in feed prices will continue, because the global trend of rising prices for agricultural products continues. From

this, it can be concluded that a further rise in the price of grain will lead to an increase in the price of mixed feed, and therefore the production of meat and milk will remain low-profitable or even, for many farms, may become

unprofitable. Therefore, agricultural enterprises should focus their efforts both on increasing the number of livestock and on the real introduction of innovative technologies and reengineering of production and business processes.

Table 6. Dynamics of average purchase prices for milk for agricultural enterprises and profitability of its production

Years	2000	2005	2010	2012	2014	2016	2018	2019	2020
Price, UAH/tonne	630	1127	2938	2662	3588	5461.8	7602.4	8198.2	11.64
Profitability, %	-6.1	12.2	18.0	2.3	11.1	18.6	16.1	20.6	20.4

The profitability of milk production depends on the cost of its production and the level of the purchase price, which depends on the volume of supply, indicators of milk quality and safety, the availability of cold logistics, etc.

It is the increase in feed prices that directly affects the cost of production of livestock products and leads to an increase in prices for it. Thus, milk prices in 2020 were: extra – 12.15 UAH/kg, top – 11.7 UAH/kg, first – 11.08 UAH/kg. The mean price is 11.64 UAH/kg. The range of price fluctuations for medium and large batches of extra grade milk by region was: North and Centre – 11.7-12.45 UAH/kg; South – 11.7-12.45 UAH/kg; East – 11.6-12.4 UAH/kg; West – 11.6-12.35 UAH/kg [7].

The results of the analysis show that in Ukraine, prices for extra and top grade milk are higher than in some EU countries. This leads to the fact that Ukrainian dairy products have a low level of competitiveness in foreign markets and opens up the possibility of importing dairy products from EU countries (Fig.3).

Ukraine has a huge potential in dairy production, and the sustainable development of this industry is possible, but only if there are cheap and long-term loans, appropriate

professional education, and a stable national policy regarding the conditions of functioning of the dairy sub-complex of the agro-industrial complex. Notably, in 2018, the state programme for feeding young cattle in private farms was launched, by resolution of the Cabinet of Ministers of Ukraine No. 107 of February 7, 2018, “On approval of the procedure for using funds provided for in the state budget to support the livestock industry”. This resolution provided budget assistance to households on an irrevocable basis for raising young animals up to 13 months of age in the amount of 2500 UAH/head. However, already in 2019, the population began to be massively denied subsidies, and in 2020 they were completely cancelled.

Substantial amounts of investment are needed for the development and stable functioning of dairy cattle breeding and the milk processing industry. Thus, to increase the number of cows to 2.1 million heads by 2030, milk production – to 11 million tonnes and process 9 million tonnes, it is necessary to invest UAH 9-11 billion annually in the industry. The state should take an active part in this, taking the EU model as an example, where up to 50% of producers' expenses for the construction of new

farms are compensated by the state. With the restoration of the Ministry of Agrarian Policy, it is necessary to develop a strategy for the development of dairy cattle breeding and milk processing industry, which would include state support for breeding work and genetic renewal of the herd, state involvement in the investment of new buildings, reconstruction and modernisation of existing dairy complexes, the development of cooperation of various forms, farming, infrastructure development for cold logistics, etc. However, regarding the real involvement of the state in supporting the agro-industrial complex and, in particular, dairy cattle breeding, by cancelling the special VAT regime for agricultural producers in 2017, the government undertook to allocate at least 1% of the volume of agricultural GDP to programmes of state support for the agro-industrial complex until 2021 – that is, about UAH 7 billion. However, not a single year since the adoption of this decision, the total amount of state support did not correspond to the declared amount, and only UAH 4.5 billion is planned for 2021.

As for the issues of increasing the production of high-quality and safe milk and its supply for processing, the future lies in the concentration of production due to vertical and horizontal integration for large enterprises and cooperation for farms and households. Cooperation between milk producers and processors is necessary to survive and be present on the world market, which will ensure the settlement of price relations between the parties and not lose the volume of milk production. This can be facilitated by the new Law of Ukraine “On agricultural cooperation”, which comes into force on 15.11.2020. By combining into one of 4 types of cooperatives (service, production, processing, or multi-functional which can operate with

or without profit), they can ensure the stability of production volumes, quality, and safety of milk and get the opportunity to work with large processors. This is confirmed by the results of investigating the experience of Poland, where about 200 thousand family farms with an average number of 10 cows function. Thus, with a total number of cows of about 2 million heads and an average productivity of 6.5 tonnes/year, the country produces 13.5 - 14.6 million tonnes of milk per year and ranks 6th in Europe and 13th in the world [11]. The price of Polish raw milk is 9-11% lower than the European average and 5% lower than the global average. In such conditions, the export of Polish milk and dairy products is characterised by a high level of competitiveness in foreign markets, including the internal market of Ukraine.

Conclusions and Prospects

The main factors of transformation of the dairy sub-complex in Ukraine include: reduction of the number of cows, insufficient quantity of the high-quality dairy raw product and their non-compliance with EU regulations and standards, low technological level of milk production, insufficient control over the quality of raw product, lack of modern equipment, high capital and labour intensity of production processes, rising prices for energy and other resources, reduced consumption of dairy products due to low purchasing power, increased competition in the global and internal markets of dairy products, etc.

Negative factors that hinder the development and stable functioning of the subcomplex are also:

- low level of investment attractiveness of the subcomplex due to the long payback period and insufficient level of state support for its functioning and development;

- the need to allocate substantial areas of agricultural land for forage crops, hayfields, and pastures, which is quite problematic for enterprises engaged in animal husbandry in the context of the opening of the land market.

Many issues of stabilising and improving the efficiency of dairy cattle breeding (reproduction and preservation of cows, increasing their productivity, reducing production costs, improving the quality and safety of products, and increasing the profitability of the industry) should be solved at the micro level, that is, in enterprises based on a rational organisation of production in accordance with regional location, specialisation, and their specific features. In the opinion of the study, the priority areas of state regulation and support for increasing milk production are:

- increasing the level of concentration of production and organisation of management of existing enterprises based on specialisation and cooperation, creating integrated agro-industrial formations or corporate organisations on market mutually beneficial terms for all participants in the technological chain: breeding – feed production – cultivation and production of milk – processing – sale of finished products;
- creating a favourable investment climate to improve the material and technical

base of dairy cattle breeding, including by attracting private investment, implementing structural adjustment of the industry as a priority for its development in large specialised agricultural enterprises or integrated agricultural formations;

- development of breeding-genetic work, increasing the role of breeding plants, breeding farms, using the best samples of Ukrainian and foreign gene pools;
- formation of an effective economic mechanism in the field of pricing, financial-credit relations, leasing relations, factoring development opportunities;
- providing a high-quality feed base based on advanced technologies for harvesting and storing feed, ensuring the development of intensive resource-saving technologies aimed at producing high-quality and competitive products.

The problems of functioning of the milk processing sub-complex of the agro-industrial complex can be solved by implementing the concept of state support for animal husbandry for 2021-2023 and the national strategy for the development of the dairy industry 2021-2030, developed by the Ministry of Economy in a dialogue with industry associations.

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Відродження ресурсного потенціалу скотарства як фактор розвитку конкурентоспроможності підприємств молокопродуктового підкомплексу АПК України

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Анотація. Перманентні кризи в українській економіці, знецінення гривні, зниження доходів населення та його купівельної спроможності, посилення конкуренції на світовому ринку, а також постійне підвищення світових цін на продовольчі й непродовольчі товари створили нові реалії функціонування підприємств молокопродуктового підкомплексу АПК України та призвели до його трансформації. Тому дослідження причин існування цих тенденцій є дуже актуальним. Мета дослідження є оцінка сучасного стану підкомплексу та розробка практичних рекомендацій щодо підвищення ефективності його функціонування. Виконані дослідження базувались на застосуванні методів: якісного аналізу та синтезу, економіко-статистичного аналізу, порівнянь, аналітичних та логічних узагальнень тощо. На початок 2021 року загальне поголів'я великої рогатої худоби в Україні становило 2,874 млн голів і за останні 10 років скоротилось на 1,952 млн голів, у тому числі, корів на 0,958 млн голів. Виробництво молока залишається дрібнотоварним. У 2020 році було вироблено 9,263 млн т молока (на 17,66 % менше, ніж у 2010 році). Значне скорочення обсягів постачання молока на переробку призвело до скорочення у 2020 році кількості переробних підприємств на 69,14 % проти 1990 року. До основних чинників трансформації молокопродуктового підкомплексу України належать: зниження поголів'я корів, недостатня кількість якісної молочної сировини та її невідповідність регламентам і стандартам Європейського Союзу, низький технологічний рівень виробництва молока, недостатній контроль за якістю сировини, відсутність сучасного обладнання, висока капітало- і трудомісткість виробничих процесів, зростання цін на енергетичні та інші ресурси, зниження рівня споживання молочних продуктів через низьку купівельну спроможність, зростання конкуренції на світовому та внутрішньому ринках молочної продукції тощо. Проведені дослідження повинні допогти розв'язати і вказати на основні функціональні проблеми молокопереробних підприємств, які функціонують в агропромисловому комплексі України, результати вищезазначених досліджень можуть бути корисними та актуальними для відродження молочного скотарства у післявоєнний період

Ключові слова: молочне скотарство, молочна галузь, молочна сировина, переробка молока, ринок молочної продукції