



Nataliia Riabinina

CONSIDERATION OF OBSTACLES TO THE DEVELOPMENT OF THE DAIRY INDUSTRY OF UKRAINE ON THE WAY TO EUROPEAN INTEGRATION

The object of research is the key tasks of the European integration processes of the dairy industry of Ukraine and obstacles to their implementation. In the course of the study, the author used general scientific and special methods, in particular: the method of system analysis and the method of generalization; methods of analysis and synthesis; statistical and tabular methods; and the method of comparison.

The paper examines the main tasks of the European integration processes of the dairy industry of Ukraine, which take into account the general concept of development of the European economy: food security; safety and quality of dairy products; maintenance of healthy livestock; openness and transparency of market organization and reporting; Environmental issue. The study highlights the obstacles to the development of the dairy industry of Ukraine on the way to joining the EU, and the plan of priority actions of the state for 2023–2024. The main obstacle to the development of Ukraine is the occupation of the territory, which hinders socio-economic development and increases macroeconomic risks. Widespread migration and the growth of counterfeiting and the shadow market do not contribute to positive assessments of the fulfillment of the conditions for Ukraine's accession to the EU. We are witnessing decisive steps on the part of the state to improve the quality of dairy products and resolve issues related to the establishment of logistics links between Ukraine and the EU countries. This study needs to be discussed and further studied.

The country desperately needs to build up stable and mutually beneficial economic relations between the EU and Ukraine in the dairy industry. Despite the loss of Ukrainian territory, disruption of logistical links, migration and lack of qualified personnel, reduction in the number of dairy cows, decrease in the production of raw milk, changes in the production process, Ukraine has great chances to become one of the main suppliers of dairy products to European markets.

Keywords: dairy industry, European integration processes, obstacles to development, agricultural enterprises, households.

Received date: 21.05.2024

Accepted date: 22.07.2024

Published date: 29.07.2024

© The Author(s) 2024

This is an open access article under the Creative Commons CC BY license

How to cite

Riabinina, N. (2024). Consideration of obstacles to the development of the dairy industry of Ukraine on the way to European integration. *Technology Audit and Production Reserves*, 4 (4 (78)), 31–37. <https://doi.org/10.15587/2706-5448.2024.309012>

1. Introduction

December 13, 2023 is a significant date for Ukraine – the adoption of a decision on negotiations on the country's accession to the European Union. The desire for compliance of the Ukrainian economy with European norms and standards, the reformatting of institutions, interaction and mutual understanding of the parties are the basis for establishing integration progress.

The agro-industrial sector of Ukraine, including the dairy industry, is a powerful lever for the country's development. Producers of milk and finished dairy products face serious challenges that hinder development. The lack of regulation of the fixed price for the sale and purchase of raw milk of different quality complicates the formation of a consignment at stable prices. A decrease in the norms of selection of breeding stock and the quality of feed, medicines and

veterinary care affects the number of livestock and the quality of dairy raw materials. The difficulty of obtaining preferential lending, the cost of maintaining a large herd and complications in the interaction of all participants in the production of finished products become obstacles to the effective and rapid development of the dairy industry on the way to European integration.

The topic of the dairy industry is relevant and therefore discussed by the scientific economic community. Continuous supply of milk to processing enterprises and stable filling of dairy production with raw milk is the key to the integration development of the dairy industry. The multi-vector nature of research on the dairy industry by world scientists allows for an in-depth analysis of the prospects for the development of European integration processes. In [1], the levers for improving the efficiency of the production of raw milk and dairy products were investigated. Authors of [2] worked to

define a strategy for dairy farmers in four European countries before and after the abolition of the milk quota. In [3], studies on energy efficiency consumption in the dairy industry in four European countries were conducted. In work [4], the competitiveness of export dairy products of the European Union countries in markets within and in world markets outside the EU was analyzed using the identified index of comparative advantages. In [5], the preferences and priorities of milk in consumers were investigated. Authors of [6] observed the dynamics of a decrease in milk consumption by different segments of the population in the world.

In scientific works [7, 8], theoretical, methodological and practical aspects of supply formation in the milk market and production risk management systems of dairy processing enterprise were investigated.

In [9], the issue of peculiarities of the functioning and formation of the milk market, trends in its development and interaction between business entities was raised. In [10], the strategic directions of the economy to improve food supply and strengthen food security of the population of Ukraine were substantiated.

The issue of European integration is discussed at international and all-Ukrainian forums, round tables, conferences organized by: European Dairy Association; Food Committee of the European Business Association; Union of Dairy Enterprises of Ukraine; Association of Milk Producers, etc.

The aim of research is to identify the key tasks of the European integration processes of the dairy industry of Ukraine and identify obstacles to their implementation.

2. Materials and Methods

The method of system analysis and synthesis was used to identify the key tasks of the European integration processes of the dairy industry of Ukraine, and the method of generalization identified obstacles to the implementation of these key tasks. Statistical and tabular methods cover information on obstacles to the development of the dairy industry and the plan of priority actions of the state for 2023–2024, quantitative indicators of the number of cows and active enterprises of the dairy industry of Ukraine.

3. Results and Discussion

In 2023, Ukraine has begun a new stage of long-term work on the path to European integration. The state plans to take real effective steps to implement and overcome obstacles to joining the EU. One of the priority areas for the development of the Ukrainian economy is the reformatting of agriculture to new European standards. A key stage in the implementation of EU requirements for 2024 is the adoption of the Strategy for the Development of Agriculture and Rural Areas for the period up to 2030 (Fig. 1).



Fig. 1. Strategy for the development of the agro-industrial sector of Ukraine (developed by the author based on the data [11, 12])

The strategic goals of the development of the agro-industrial sector of Ukraine are focused on:

- development of an inclusive policy for the development of the agro-industrial sector (the ability and interaction of the branches of government, business, and society to take action);
- guaranteeing and compliance with the quality and safety of food products in accordance with European standards (food safety, quality of raw materials and food products, etc.);
- ensuring the stability and sustainability of the agro-industrial sector, maintaining the profitability of producers and increasing competitiveness;
- careful and targeted use of agricultural land (land reform, biodiversity, demining);
- adaptation to climatic conditions (climate change);
- modernization and innovation of production processes of the agro-industrial sector (production of raw materials, processing, food production, digitalization, scientific and technological development, new technologies, etc.);
- creation of the necessary conditions for the development of agricultural areas.

Ways to implement the strategic goals of the development of the agro-industrial sector:

- interaction and mutual understanding of unity «government-business-society»;
- consistency and efficiency of identification, formation and implementation of approaches to European integration processes;
- attraction and use of all resources to achieve goals;
- public awareness and monitoring of the process of implementation of strategic goals [11, 12].

Taking into account the requirements for the Ukrainian economy in terms of European standards, the Ministry of Agrarian Policy and Food of Ukraine has identified 11 strategic goals for 2024, namely:

- food security;
- ensuring stimulating and advisory agricultural policy;

- providing market players with high-quality infrastructure;
- digital development of the agrarian sector of the economy and protection in the information systems of the Ministry of Agrarian Policy and Food of Ukraine;
- ensuring the production and export of safe and healthy agricultural and food products;
- balancing the production of high- and low-margin products to increase the profitability of the sector;
- stimulating the production of high value-added products to meet domestic needs;
- ensuring Ukraine's representation in international organizations; ensuring the sustainable use of aquatic bioresources;
- effective transparent management and regulation in the field of land relations; financial stability of agricultural producers [13].

On the basis of the general strategic goals of the development of the agro-industrial sector, it is possible to allocate the key tasks of the European integration processes of the dairy industry of Ukraine, in particular:

- *Food security* is the protection of food resources and the interests of the state, business, and society from internal and external threats. The correct food policy of the state gives confidence in providing both the domestic market with food products and the supply of high-quality Ukrainian goods on international economic platforms [14].
- *Safety and quality of dairy products*. In 2023, the European Commission highlighted positive actions towards strengthening legislation on the quality of raw milk and dairy products, strengthening sanitary and veterinary measures, involving control systems of all trade chains (TRACES) and increasing the role of the State Service of Ukraine on Food Safety and Consumer Protection. For 2024, 81 acts and documents have been prepared and submitted for consideration, 75 acts and documents are being worked on or are being finalized. It is planned to prepare 242 regulations and documents

in the direction of improving and controlling the quality of dairy products.

- *Maintaining a healthy livestock*. Ukrainian legislation is working rather slowly in the direction of approving the norms for keeping cattle. Consideration of this issue is planned until 2026. In EU countries, the norms are clearly defined and carefully controlled.

- *Openness and transparency of market organization and reporting*. The launch of the State Agrarian Register (SAR) on the basis of openness and relevance of data, the introduction of electronic accounting reporting and relationships with regulatory authorities have begun the path to the implementation of actions for Ukraine's accession to the EU.

- *Environmental issue*. The topic of environmental pollution and conservation of natural resources in the world and the EU is relevant. The issue of disposal of perishable food products and the construction and restoration of wastewater treatment plants should be under control at the state level.

The State Service for Food Safety is proposed to improve and expand its powers to implement the rules for keeping cattle, control over sanitary and veterinary examinations and complete the registration and identification of livestock in Ukraine [15].

The reduction of livestock leads to a shortage of raw milk, a decrease in the purchase price for raw milk and an increase in the cost of production puts the dairy industry in a strict framework. Inflationary processes of a number of dairy products, changes in logistical links, an increase in exports of milk and dairy products hinder the development of the dairy sector. One of the significant obstacles is the war on the territory of Ukraine, which every year takes not only the lives of Ukrainians, but also causes invaluable losses in the socio-economic sphere of the state. Obstacles to the development of the dairy industry become significant and the task of the state is: timely response to eliminate problems; effectiveness of the implementation of the right decisions; implementation of the Priority Action Plan for 2023–2024 (Table 1).

Table 1

Obstacles to the development of the dairy industry and the Government's Priority Action Plan for 2023–2024

Obstacles to development	Government's priority actions for 2023–2024	Performers	Task and result	Notes
1	2	3	4	5
1. Occupation of the territory. Socio-economic crisis. Decrease in rural population				
Military operations. Reduction of meadow areas for food supply. Mining. Environmental risks. Decrease in rural population. Socio-demographic problem. Relocation of production to safe areas	<i>Step 510</i> . Amendments to the Code of Ukraine on Administrative Offenses regarding liability for violation of the requirements of the legislation on the protection of geographical indications for food and alcoholic beverages	Ministry of Agrarian Policy and Food of Ukraine	Protection of dairy industry entities, producers of agro-industrial products from unfair competition; filling the dairy industry with high-quality competitive agro-industrial products; strengthening the image of Ukrainian domestic producers and agro-industrial products in the domestic and foreign markets	In 2023, the country lost 39 processing enterprises of dairy industry
2. Reduction of livestock				
Reduction or absence of subsidies and assistance from the state. Violation of standards, cultivation technologies and balance of the diet of livestock (use of low-quality feed). Diseases and the spread of the pandemic. Death, normative non-compliance with culling, forced slaughter and injury to livestock	<i>Step 227</i> . Development of a draft law on amendments to the Law of Ukraine «On Veterinary Medicine». Preferential lending Program «Affordable Loans 5–7–9 %»	Ministry of Agrarian Policy	Ensuring systematic and comprehensive control over the protection of health and the provision of animal feed and the circulation and use of veterinary drugs, taking into account international standards, veterinary care. The approximate investment amount for the start is up to 30000 Euro. Diia Program; subsidy for the growth of cows	In 2023, the population experienced a decrease in livestock by –12 % (–0.89 million heads), (4.51 million tons of milk)

Continuation of Table 1

1	2	3	4	5
3. Falsification of raw milk and dairy products				
Insufficiency or absence of a prevention and control program. Inconsistency between quality and standards, product range. Loss of consumer confidence	<i>Step 226.</i> Development of a draft law on amendments to the Law of Ukraine «On State Control over Compliance with Legislation on Food Products, Feed, Animal By-products, Animal Health and Welfare». <i>Step 446.</i> Development of a draft law on biocidal products. Development of a draft law on financing programs for the promotion of domestic dairy products to domestic and foreign markets. (Bill No. 9162-9163 (commodity checkoff program model (USA)))	Ministry of Agrarian Policy and Food of Ukraine. MOH Tax Service of the Ministry of Agrarian Policy Ukraine	Ensuring state control over compliance by operators and subjects of the dairy industry with the legislation on food, health and animal feed, as well as the legislation on animal by-products when imported into the customs territory of Ukraine. Bringing the national control system in the dairy industry in line with EU law. Ensuring the protection of human and animal health from harmful organisms contained in biocidal products. Preservation of the environment from biocides. Adaptation of national legislation to the requirements of international law and EU law on pesticides and biocides. Introduction of a contribution rate (0.5 %) from importers and processing enterprises. Protection and fight against falsification, promotion of high-quality dairy products	For 2023, the share of the shadow market of the dairy industry is 20 %, counterfeit – 10 %
4. Shadow sector				
Insufficiency or absence of programs to encourage the population and legalize profits Economic and financial risks. Distribution and pricing policy Decrease in overall liquidity	<i>Step 212.</i> Promotion of Ukrainian products of plant and animal origin to new markets. Development of a draft law on reducing the VAT rate for dairy products and amendments to the financing of dairy industry programs	State Service of Ukraine on Food Safety and Consumer Protection	Increase in export markets for Ukrainian products in terms of expanding the range of goods. Increase in revenues to the state budget. Reduction of shadow production and legalization of dairy products. (Draft Law No. 9161 «On VAT Reduction»). Reduction of the rate on domestic dairy products and dairy imports is planned to 10 %	In 2023, an increase of +20 % of unaccounted milk (more than 1 million tons of milk) was recorded
5. Complication of logistics directions and rise in the cost of transportation services. Blocking of borders by European farmers				
Military actions: closure of ports, damage and danger of road transport. Lack of vehicles. Low border capacity, complexity of transit clearance. Technical and technological risks Loss of products during delivery. Reduction or loss of subsidies from the EU state. International Economic Risks	<i>Step 64.</i> Development of a draft law on amendments to the Law of Ukraine «On Road Transport» to bring it in line with European standards. <i>Step 469.</i> Development of a draft law on ensuring the regulation of the circulation of special food products, dietary supplements and other food additives. <i>Step 213.</i> Ensuring electronic interoperability with the European Commission's online platform for certification and trade with the European Union (TRACES)	Ministry of Infrastructure. Ministry of Health State Service of Ukraine on Food Safety and Consumer Protection	Introduction and implementation of the procedure for the implementation of the provisions of the Agreement «On the International Transport of Perishable Food Products and Increasing the Level of Competitiveness of Domestic International Carriers». Ensuring state control over the quality and safety of special food products, dietary supplements and other food additives in accordance with EU law. Introduce the issuance of five forms of certificates for the export of products of animal origin to the EU	–
6. Macroeconomic Risks and Management Decisions				
Lack of funds, equity or loss of solvency, investment income and bankruptcy. Financial and investment risks. Inconsistency of the classification level of personnel Lack of funding for operating expenses and wages. Deferred payment for exported dairy products, insurance/ letters of credit	<i>Step 184.</i> Development of a draft law on the regulation of certain issues of trade in agricultural products, food products and pet food	Ministry of Economy	Settlement of relationships, problems of mutual settlements and terms of settlement between suppliers and retail chains in trade in agricultural products, food products and pet food. Free Online School «How to Become a Farmer?» (practical recommendations for milk producers) Portal Diia: partial reimbursement of the cost of livestock facilities, animals	–
7. Quality of dairy products				
Certification of compliance of dairy products with the standards and requirements of EU countries	Amendments to Order No. 118 «On Approval of Requirements for Safety and Quality of Milk and Dairy Products»	Ministry of Agrarian Policy and Food of Ukraine	Number of microorganisms 9 thousand units/cm ³ ; ≤300 – 01.01.2023; ≤100 – 01.01.2024. Number of somatic cells (thousand/cm ³): ≤400 – 01.01.2024 Portal action: issuance of a veterinary and sanitary passport for an animal; issuance of a certificate of breeding (genetic) resources	–

Note: created by the author based on the data [13, 16, 17]

The main obstacle to the growth of the dairy industry is:

- occupation of the territory, socio-economic crisis, reduction of rural population (military operations, reduction of meadow areas for fodder supply, mining, environmental risks, migration, socio-demographic crisis, relocation of production to safe areas);
- reduction of livestock (reduction or absence of subsidies and assistance from the state, violation of standards, cultivation technologies and balance of the livestock diet (use of low-quality feed), diseases and spread of the pandemic, death of cattle, normative non-compliance with culling, forced slaughter and injury of livestock);
- falsification [18] (insufficiency or absence of a prevention and control program, inconsistency of quality and standards, product range, loss of consumer confidence);
- shadow market (insufficiency or absence of programs to encourage the population and legalize profits, economic and financial risks, distribution and pricing policy, decrease in overall liquidity);
- complication of logistics directions and rise in the cost of transportation services, blocking of borders by European farmers (hostilities and the danger of road transportation, technical, technological and economic risks, loss of products during delivery);

- macroeconomic risks and management decisions (lack of funds, equity or loss of solvency, financial and investment risks, deferred payment for exported dairy products, insurance/letters of credit);
- quality of dairy products (certification of compliance of dairy products with the standards and requirements of EU countries). As of 2024, Ukrainian dairy industry has more than 55 enterprises that actively cooperate with European partners and have the appropriate certificates (euro number) for free trade.

The development of the dairy industry depends on filling and providing production with raw milk. One of the main obstacles to the integration processes of the dairy industry is the reduction in the number of cattle, especially dairy cows, and the low profitability of production, as a result, leads to the disinterest of producers and agricultural managers in further development.

From 2006 to 2023, the Ukrainian number of cows decreased by almost three times, from 3635.1 thousand tons. heads to 1352.8 thousand heads. The dairy industry suffered the greatest losses at the beginning of 2022, when agricultural enterprises in the war zone had to transport cattle to a dangerous area (Table 2).

Table 2

Number of cows in Ukraine and the EU from 2006 to 2023 (thousand heads)

Country	2006	2008	2010	2012	2014	2016	2018	2020	2022	2023	Growth dynamics
<i>EU</i>	<i>22383</i>	<i>22469</i>	<i>21421</i>	<i>21210</i>	<i>21353</i>	<i>21343</i>	<i>20730</i>	<i>20235</i>	<i>19785</i>	<i>19447</i>	↓
Germany	4054	4229	4182	4190	4296	4218	4101	3921	3810	3713	↓
France	3799	3857	3718	3644	3661	3637	3554	3406	3231	3165	↓
Poland	2637	2697	2529	2346	2248	2130	2214	2126	2037	2069	↓
Italy	1824	1843	1746	1857	e1831	e1822	1693	1638	1631	1574	↓
Netherlands	1443	1587	1518	1541	1610	1794	1552	1569	1570	1546	↑
Ireland	1023	1024	1007	060	1128	1295	1369	1456	1510	1511	↑
<i>Ukraine</i>	<i>3635.1</i>	<i>3095.9</i>	<i>2736.5</i>	<i>2582.2</i>	<i>2508.8</i>	<i>2166.6</i>	<i>2017.8</i>	<i>1788.5</i>	<i>1544</i>	<i>1352.8</i>	↓
Romania	1639	1483	1179	1163	1188	1193	1158	1122	1076	1067	↓
Spain	942	888	845	827	845	834	817	811	810	786	↓
Denmark	555	566	573	579	547	565	570	565	556	547	↓
Austria	527	530	533	523	538	540	533	525	551	543	↑
Belgium	532	518	518	504	519	531	529	538	544	534	↑
Czechia	417	400	375	367	372	367	359	357	357	358	↓
Sweden	385	366	349	346	344	326	313	304	298	289	↓
Hungary	268	263	239	255	255	244	239	247	278	266	↓
Finland	298	288	284	280	283	275	264	256	243	236	↓
Portugal	270	265	243	237	234	239	235	233	222	219	↓
Lithuania	399	395	360	331	314	286	256	233	224	213	↓
Bulgaria	350	315	314	294	302	279	244	242	213	201	↓
Latvia	182	170	164	165	166	154	144	136	128	119	↓
Slovakia	185	174	159	150	143	133	128	122	117	114	↓
Slovenia	113	113	109	111	108	108	103	99	93	100	↓
Estonia	109	100	97	97	96	86	85	84	84	83	↓
Greece	168	154	144	132	135	106	95	90	81	79	↓
Croatia	232	213	207	181	159	147	136	110	79	71	↓
Cyprus	24	24	23	24	25	28	32	39	38	39	↑
Malta	7	7	6	6	7	7	6	6	6	6	↓
Luxembourg	–	–	–	–	–	–	–	–	–	–	–

Note: the source is based on [19, 20]

Despite the gradual reduction in the number of cattle (–0.5 %), including cows, according to the forecasts of the European Commission, the supply of milk in the EU in 2024 will increase (+0.4 %). The projected decline in inflation and the stabilization of average prices for raw milk and inputs can contribute to the level of margins for dairy farmers and the prospects for balanced economic development. In 2023, the number of cows in the European Union gradually decreased (–1.7 % compared to the previous 2022), although this did not affect the overall quantitative indicators of milk yield from dairy cows (+1.8 % compared to the previous 2022). Favorable weather conditions in the EU, which became the key to the provision and availability of fodder for animals, increased the quality standards of raw milk (fat +0.7 %, protein +0.6 %). In 2024, a downward trend in the number of cows is expected (–0.5 % compared to the previous 2023), but an increase in milk yield (+0.9 % compared to the previous 2023), and under favorable conditions, it is planned to increase the amount of raw milk production (+0.4 % compared to the previous 2023) [21].

Reductions in the production of raw milk in the European Union within the framework of the Green Deal program give the dairy industry of Ukraine the opportunity to increase production volumes and offer European consumers new high-quality dairy products. But since the beginning of 2023, there has been an increase in exported butter and imported cheeses from the EU to Ukraine. This is a wake-up call for a thorough attitude to competition and European integration.

The countries of the European Union also face problems in the dairy industry. Deteriorating weather conditions (drought, water restrictions), lack of skilled labor, low purchase price from the population for raw milk, reduced production margins negatively affect the development of the agro-industrial sector. In 2023, the global dairy industry had favorable conditions for increasing the production of raw milk and dairy products: milk production – 944 million tons (+0.9 % compared to the previous 2022). The total volume of dairy products in the world is 85 million tons (+0.5 % compared to the previous 2022), Tables 3, 4.

According to the Ministry of Agrarian Policy and Food of Ukraine for 2022, compared to 2021, there was a decrease in: industrial production of milk and dairy products –5.3 %; private sector –15.3 %. For 2023, the situation has stabilized due to business relocation and increased demand for raw materials, and the production of raw milk increased by +7 %. In some regions: Chernivtsi +25 %, Ternopil +21.5 %, Cherkasy +8.5 %, Vinnytsia +8.4 %, etc.

Fulfillment of the main tasks of the European integration processes of the dairy industry of Ukraine, which take into account the general concept of the development of the European economy on time. The country needs to go through the reformatting of the entire agro-industrial sector and establish production processes within the framework of European standards. By the end of 2024, it is planned to adopt the Law on the State Agrarian Register and adopt the Strategy for the Development of Agriculture and Rural Areas for the period up to 2030. Therefore, the discussion of the strategic goals for the development of the agro-industrial sector is extremely important for our country. Overcoming obstacles to the development of the agro-industrial sector is a priority task of the state.

The dairy industry of Ukraine is considered to be more stable and adapted to the implementation of European standards, but there are a number of problems. Dairy producers propose specific changes to the Tax and Criminal Codes, the adoption of the Law «On Trade», the Law «On Special Conditions of Dairy Cattle Breeding», the draft Law «On Packaging for Waste» and the abolition of the outdated Law «On Milk and Dairy Products». In the course of the study, a number of obstacles to the development of the dairy industry on the way to European integration were identified, the consideration of which will help step by step:

- to identify and develop an extended plan for the implementation of requirements for adaptation to EU standards and regulations;
- to revise the norms of departmental areas and individual divisions;
- to develop and implement the «Basic Strategies for the Development of the Dairy Industry of Ukraine».

Table 3

World indicators of milk and dairy products (million tons, %)

No.	Indicators/years	2021	2022	2023	% till 2022
1	Worldwide milk production	931.1	935.9	944.0	0.9
2	The volume of world trade in dairy products	88.6	84.6	85.0	0.5
3	Supply demand indicator (%)	117.7	177.4	117.4	0

Table 4

World statistics of milk and dairy products production (thousand tons)

Country	Years	Milk and Dairy Products			Import			Export		
		2020–2021	2022	2023	2020–2021	2022	2023	2020–2021	2022	2023
Europe		234531	233207	233140	12526	11942	11945	35218	32568	32861
EU		160028	159934	159613	3324	3389	3231	25580	23194	23499
<i>Ukraine</i>		<i>8989</i>	<i>7320</i>	<i>7040</i>	<i>388</i>	<i>205</i>	<i>288</i>	<i>499</i>	<i>535</i>	<i>459</i>
China		36995	40813	43455	18813	17454	17083	100	100	133
United States		101961	102967	103922	2021	2368	2376	12973	14045	14285

Notes: the source was developed and formed by the author according to [21]. For production, an annual milk cycle is used, which begins in April [22]

The prospects for the development of the dairy industry in Ukraine are realistic and are discussed in wide circles. However, the limited information and statistical and comparative data do not allow for a clear justification of the real state of the industry, sometimes based on indicators of the pre-war period. Clear coverage of the problems of the dairy industry in reality will allow overcoming obstacles and further development.

4. Conclusions

The paper examines the main tasks of the European integration processes of the dairy industry of Ukraine, which take into account the general concept of development of the European economy: food security; safety and quality of dairy products; maintenance of healthy livestock; openness and transparency of market organization and reporting; Environmental issue. The study highlights the obstacles to the development of the dairy industry of Ukraine on the way to joining the EU, and the plan of priority actions of the state for 2023–2024. The main obstacle to the development of Ukraine is the occupation of the territory, which hinders socio-economic development and increases macroeconomic risks. Widespread migration and the growth of counterfeiting and the shadow market do not contribute to positive assessments of the fulfillment of the conditions for Ukraine's accession to the EU. We are witnessing decisive steps on the part of the state to improve the quality of dairy products and resolve issues related to the establishment of logistics links between Ukraine and the EU countries.

Conflict of interest

The author declares that she has no conflict of interest in relation to this research, whether financial, personal, authorship or otherwise, that could affect the research and its results presented in this paper.

Financing

The research was performed without financial support.

Data availability

The manuscript has no associated data.

Use of artificial intelligence

The author confirms she did not use artificial intelligence technologies when creating the presented work.

References

- Rotz, C. A., Beegle, D., Bernard, J. K., Leytem, A., Feyereisen, G., Hagevoort, R. et al. (2024). Fifty years of environmental progress for United States dairy farms. *Journal of Dairy Science*, 107 (6), 3651–3668. <https://doi.org/10.3168/jds.2023-24185>
- Klopčič, M., Kuipers, A., Malak-Rawlikowska, A., Stalgiene, A., Ule, A., Erjavec, K. (2019). Dairy farmers' strategies in four European countries before and after abolition of the milk quota. *Land Use Policy*, 88, 104169. <https://doi.org/10.1016/j.landusepol.2019.104169>
- Ramirez, C., Patel, M., Blok, K. (2006). From fluid milk to milk powder: Energy use and energy efficiency in the European dairy industry. *Energy*, 31 (12), 1984–2004. <https://doi.org/10.1016/j.energy.2005.10.014>
- Bojnec, Š., Fertő, I. (2014). Export competitiveness of dairy products on global markets: The case of the European Union countries. *Journal of Dairy Science*, 97 (10), 6151–6163. <https://doi.org/10.3168/jds.2013-7711>
- Merlino, V. M., Mosca, O., Blanc, S., Sparacino, A., Massaglia, S., Borra, D. et al. (2023). The role of socio-demographic variables and buying habits in determining milk purchasers' preferences and choices. *Frontiers in Nutrition*, 10. <https://doi.org/10.3389/fnut.2023.1072208>
- Castellini, G., Barello, S., Bosio, A. C. (2023). Milk Quality Conceptualization: A Systematic Review of Consumers', Farmers', and Processing Experts' Views. *Foods*, 12 (17), 3215. <https://doi.org/10.3390/foods12173215>
- Shust, O., Svydnous, I., Ibatullin, M., Sira, Y., Artimonova, I. (2023). Organizational and economic fundamentals of the functioning of dairy cattle breeding under the conditions of the martial law in Ukraine. *Food Resources*, 11 (20), 265–273. <https://doi.org/10.31073/foodresources2023-20-26>
- Svydnous, I., Ibatullin, M., Syra, Y. (2022). Organizational approaches to the management of production risks at milk processing enterprises. *Food Resources*, 10 (19), 243–253. <https://doi.org/10.31073/foodresources2022-19-27>
- Svydnous, I., Ibatullin, M., Salo, I., Radko, V., Semysal, A. (2022). Organizational and economic bases of milk market functioning. *Food Resources*, 10 (18), 276–286. <https://doi.org/10.31073/foodresources2022-18-27>
- Kovalenko, O., Boki, O. (2023). Strategic directions of food supply for the population in the context of post-war renewal of Ukraine. *Food Resources*, 11 (21), 213–222. <https://doi.org/10.31073/foodresources2023-21-21>
- Pro zatverdzhennia planu priorytetnykh dii Uriadu na 2024 rik* (2024). Rozporiadzhennia Kabinetu Ministriv Ukrainy No. 137-r. 16.02.2024. Available at: <https://zakon.rada.gov.ua/laws/show/137-2024-%D1%80#Text>
- Pro shkvalennia Planu Ukrainy* (2024). Rozporiadzhennia Kabinetu Ministriv Ukrainy No. 244-r. 18.03.2024. Available at: <https://zakon.rada.gov.ua/laws/show/244-2024-%D1%80#Text>
- Pro zatverdzhennia planu priorytetnykh dii Uriadu na 2023 rik* (2023). Rozporiadzhennia Kabinetu Ministriv Ukrainy No. 221-r. 14.03.2023. Available at: <https://www.kmu.gov.ua/npas/prozatverdzhennia-planu-priorytetnykh-dii-uriadu-na-2023-rik-221r-140323>
- Riabinina, N. O. (2024). Prodovolcha bezpeka Ukrainy. Suchasni peretvorennia mizhnarodnoho biznesu. *Materialy VII Vseukrainskoi naukovopraktychnoi konferentsii*. Kharkiv: KhNU imeni V. N. Karazina, 233.
- Kontrol, ekolohichna bezpeka ta standarty YeS: Ukraina vprovadzhue dozvilnu systemu dlia operatsii z obroblennia vidkhodiv* (2023). Ministerstvo zakhystu dokillia ta pryrodnykh resursiv Ukrainy. Available at: <https://www.kmu.gov.ua/news/kontrol-ekolohichna-bezpeka-ta-standarty-ies-ukraina-vprovadzhue-dozvilnu-systemu-dlia-operatsii-z-obroblennia-vidkhodiv>
- Silke gospodarstvo*. Portal Diia. Available at: <https://guide.diia.gov.ua/thematic-area/silke-hospodarstvo>
- Spilka molochnykh pidpriemstv Ukrainy*. Zakonodavstvo. Available at: <https://uadairy.com/zakonodavstvo/>
- Shcho take falsyfikat?* (2020). Available at: <https://novapragarada.gov.ua/news/1581060316/>
- EU yield of dairy cows* (2022). Milk Market Observatory. Available at: https://agriculture.ec.europa.eu/document/download/eb95217e-854e-433f-a9d0-5e03b527fcb_en?filename=eu-milk-yield-herds_en.pdf
- State Statistics Service of Ukraine*. Statistical information. Available at: <https://www.ukrstat.gov.ua/>
- Food Outlook – Biannual report on global food markets* (2023). Food Outlook. Rome: FAO. <https://doi.org/10.4060/cc3020en>
- Bulletin of the IDF N° 390/2004 – Methods for Calculating Milk Equivalents – Characteristics of Sheep and Goat Milks – Test Kits for Milk from Species Other than Cows*. Available at: <https://shop.fil-idf.org/products/methods-for-calculating-milk-equivalents-characteristics-of-sheep-and-goat-milks-test-kits-for-milk-from-species-other-than-cows>

Nataliia Riabinina, PhD, Department of Economic Research, Institute of Food Resources of the National Academy of Agrarian Sciences of Ukraine, Kyiv, Ukraine, e-mail: noriabinina@gmail.com, ORCID: <https://orcid.org/0000-0001-8378-4485>