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**ANALYSIS OF THE  
BALANCE OF  
PRODUCTION AND  
CONSUMPTION OF  
FRUIT AND BERRY  
PRODUCTS IN  
UKRAINE**

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*In the article was analyzed the current state and trends of development of the production and consumption of fruit and berry products in Ukraine. The article identifies problematic aspects of the activities of business entities in the modern economic realities, outlines possible ways of leveling or minimizing the impact of existing problems, and determines the prospects for the further development of agricultural enterprises and households. It was established that Ukraine has a significant natural resource, material, technical and human potential for increasing the volume of production of fruit and berry products to meet the consumer needs of the population for high-quality products on the domestic and foreign food markets. In particular, the conducted analytical studies indicate an increase in the production of fruit and berry products in general and per person, which is due to an increase in the yield of fruit and berry crops with a significant reduction in the*

*fruit-bearing areas of perennial plantations, an increase in export-import operations. It was determined that the lion's share in the volume of production of fruit and berry products in Ukraine is provided by the households, which for a long time have made a significant contribution to meeting the consumer needs of the population and remain significant players in the food market. It is substantiated that the further increase in the volume of production of fruit and berry products is connected with the development of small and medium-sized agribusiness, which is flexible enough and able to quickly respond to the challenges of the current situation in Ukraine. In order to ensure competitive advantages, create prerequisites for the further progressive development of the horticulture industry and balance the volumes of production and consumption of fruit and berry products, it is proposed to intensify activities related to the use of resource-saving production technologies, to improve the varietal composition of fruit and berry crops, to create and expand opportunities for the processing, freezing and storage of products in the places of their cultivation, to search for additional sales channels for fruit and berry products for the maximum realization of the export potential of Ukraine.*

**Key words:** production, consumption, market, export, import, fruits, berries, fruit and berry products, fruit and berry crops.

**Tabl.: 1. Fig.: 7. Ref.: 14.**

## **АНАЛІЗ ЗБАЛАНСОВАНOSTI ОБСЯГІВ ВИРОБНИЦТВА ТА СПОЖИВАННЯ ПЛОДОВО-ЯГІДНОЇ ПРОДУКЦІЇ В УКРАЇНІ**

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*У статті проаналізовано сучасний стан та тенденції розвитку виробництва плодово-ягідної продукції в Україні, виокремлено проблемні аспекти діяльності суб'єктів господарювання в нинішніх економічних реаліях, окреслено можливі шляхи нівелювання або мінімізації впливу наявних проблем та визначено перспективи подальшого розвитку сільськогосподарських підприємств і господарств населення. Установлено, що Україна має значний природноресурсний, матеріально-технічний та людський потенціал нарощування обсягів виробництва плодово-ягідної продукції для задоволення споживчих потреб населення у високоякісній продукції на внутрішньому та зовнішньому ринках продовольства. Зокрема, проведені аналітичні дослідження вказують на зростання виробництва плодово-ягідної продукції загалом та в розрахунку на одну особу, що відбувається шляхом збільшення урожайності плодово-ягідних культур при значному скороченні родючих площ багаторічних насаджень; зростання експортних-імпортних операцій. Визначено, що лівову частку в обсягах виробництва плодово-ягідної продукції в Україні забезпечують господарства населення, які вже тривалий період здійснюють значний внесок у задоволення споживчих потреб населення та залишаються вагомими гравцями на продовольчому ринку. Обґрунтовано, що подальше нарощування обсягів виробництва плодово-ягідної продукції пов'язане з розвитком малого та середнього агробізнесу, який є достатньо гнучким та здатен оперативно реагувати на виклики нинішньої ситуації в Україні. Для забезпечення конкурентних переваг, створення передумов для подальшого поступального розвитку галузі садівництва та збалансування обсягів виробництва і споживання плодово-ягідної продукції*

запропоновано активізувати діяльність щодо застосування ресурсощадних технологій виробництва продукції, поліпшувати сортовий склад насаджень плодово-ягідних культур, створювати та розширювати можливості для перероблення, заморожування та зберігання продукції в місцях її вирощування, здійснювати пошук додаткових каналів збуту плодово-ягідної продукції для максимальної реалізації експортного потенціалу України.

**Ключові слова:** виробництво, споживання, ринок, експорт, імпорт, плоди, ягоди, плодово-ягідна продукція, плодово-ягідні культури.

**Табл.: 1. Рис.: 7. Літ.: 14.**

**Formulation of the problem.** Cultivation of fruit and berry crops is one of the most profitable types of agricultural production, providing a significant profit from a relatively small area of agricultural land. High yields of fruit and berry crops are ensured, mainly due, to favorable natural and climatic conditions, selection of high-yielding varieties and the use of advanced growing technologies. The production of fruit and berry products is one of the export-oriented areas of agriculture. Thus, in 2021, the volume of production of fruit and berry products was one of the largest in all the years of independence of our country, and its export amounted to more than 368 million dollars. [10]. However, the russian armed aggression against Ukraine caused significant damage to the horticulture industry, in particular due to the occupation of large areas of our country, interruptions in the supply of fuel and lubricants, lack of labor force during peak periods of scheduled works, disruption of logistics chains for export of products, etc., there is a threat of a decrease in the quantity and quality of the fruit and berry harvest. All this, together with the other negative factors (decrease in the area of fruitful perennial plantations, reduction of the share of young gardens in the structure of the area of perennial plantations, difficulty in accessing financial and credit resources) creates additional challenges for the ensuring the efficiency of business entities and households, which causes the necessitates in carrying out a detailed analysis and finding ways to level or minimize the effect of negative factors on the activity of producers of fruit and berry products. disruption of logistics chains for the export of products, etc., there is a threat of a decrease in the quantity and quality of the fruit harvest.

**Analysis of recent research and publications.** Trends, perspectives and multifaceted problems of the development of domestic agricultural producers, analysis and assessment of financial and economic indicators of their activity have been widely covered in the scientific works of many economists, in particular N. Vasylchenko [1], L. Galat [2], I. Honcharuk [3; 4], G. Kaletnik [5], S. Kaminska [14], Yu. Kernasyuk [6], I. Kolokolchikova [7], S. Lutkovska [3], P. Makarenko [7], N. Pravdyuk [11], I. Salo [13], G. Simakhinoi [14], G. Shevchuk [4] and others. Thus, in the scientific work of G. Kaletnik and G. Pchelyanska, the role and place of fruit and berry production in the formation of food security of the state is determined, the main indicators that determine food security at the household, regional and state levels are considered [5, p. 31-33]. The author of the article, N. Pravdyuk, searches for ways to solve the problems of horticulture enterprises in modern economic realities, outlines the prospects for the development of the fruit and berry market, analyzes the costs of producing fruit and berry products and their profitability [11, p. 105-112].

I. Kolokolchykova and P. Makarenko indicate the importance of conducting an analysis of the market for fruit and berry products, as it makes it possible to provide a timely assessment not only of the development of the market and the work of agricultural enterprises, but also to identify influencing factors at the micro and macro levels [7, p. 35-39]. A detailed analysis of the domestic market of frozen fruits and berries was carried out in the work of G. Simakhina and S. Kaminska [14, p. 68-70]. Economists state that Ukraine had a strong potential for the development of the market of frozen fruit and berry products due to the presence of a stable raw material base, the advantages of low-temperature technologies over the other methods of preserving plant raw materials, the growth of the population's nutrition culture and the priority of healthy food.

I. Salo analyzes the level of consumer supply of the population with fruit and berry products and production needs according to the areas of product use, determines the peculiarities of structural and geographical changes in export-import supplies of fruits and berries, substantiates the feasibility of increasing the financial support of agricultural enterprises [13, p. 17-22]. I. Honcharuk and G. Shevchuk do not ignore the question of the competitiveness of the production of fruit and berry products, carry out an assessment of the current state of marketing of enterprises in the industry [4, p. 52-54]. L. Galat defines the current trends in the development of the world market of fruit and berry products, outlines the location, development prospects and export opportunities of the domestic horticulture industry [2].

The attention of scientists-economists (I. Honcharuk, S. Kovalchuk, Ya. Tsytsyura, S. Lutkovska and N. Vasylychenko) is drawn to various aspects of organic production of fruit and berry products, in particular, scientists are investigating the theoretical, methodological and methodical approaches, legal foundations of the development of domestic organic production, modern trends and market conditions of organic production of agricultural products are analyzed to ensure green growth of agricultural production, ways of solving problematic aspects of functioning and development of the market of organic fruit and berry products are proposed [1; 3].

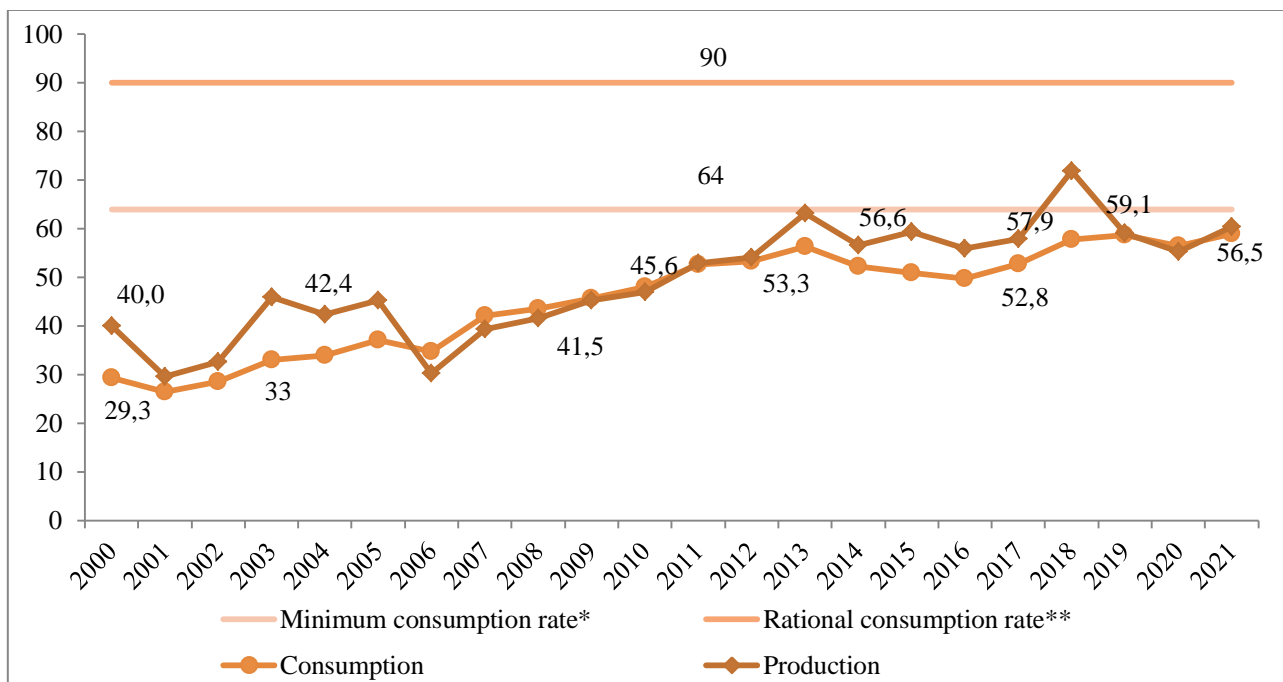
Based on the above, we note that the economists conducted a systematic and comprehensive analysis of the domestic market of fruit and berry products, provided an economic assessment of the activities of enterprises in the industry, and determined the role and place of the production of fruit and berry products in ensuring the food security of the state. However, the research of the current problems of sustainable and balanced development of fruit and berry production, in particular, the justification of the directions of the progressive development of the industry in the modern, extremely difficult conditions of conducting agrarian business, in connection with the state of war and the occupation of the part of the territory of Ukraine, increasing its competitiveness and the presence of domestic commodity producers in the world food market require more detailed consideration, systematization and generalization.

**Formulation of the goals of the article.** The purpose of the research is to conduct an analysis of the state and dynamics of production and consumption of fruit and berry products in Ukraine, to determine the factor conditioning, interdependence

and balance of these indicators to ensure the sustainable development of the industry.

**Presentation of the main research material.** The production of fruits and berries is one of the highly marginal types of agricultural activity and makes a significant contribution to ensuring the country's food security. Ukraine, having a powerful natural resource potential, is able to satisfy the needs of consumers for high-quality products on the domestic and foreign food markets, since fruit and berry products are a mandatory component of a balanced diet.

According to the official statistics, during 2000-2021 in Ukraine there was a tendency towards a gradual increase in the level of actual consumption of fruit and berry products per person. During this period, the rate of consumption per person increased from 29.3 to 59.0 kg or by 76.6% (Fig. 1).



**Fig. 1. Dynamics of actual levels of consumption and production of fruits, berries and grapes in Ukraine in 2000-2021, kg per person**

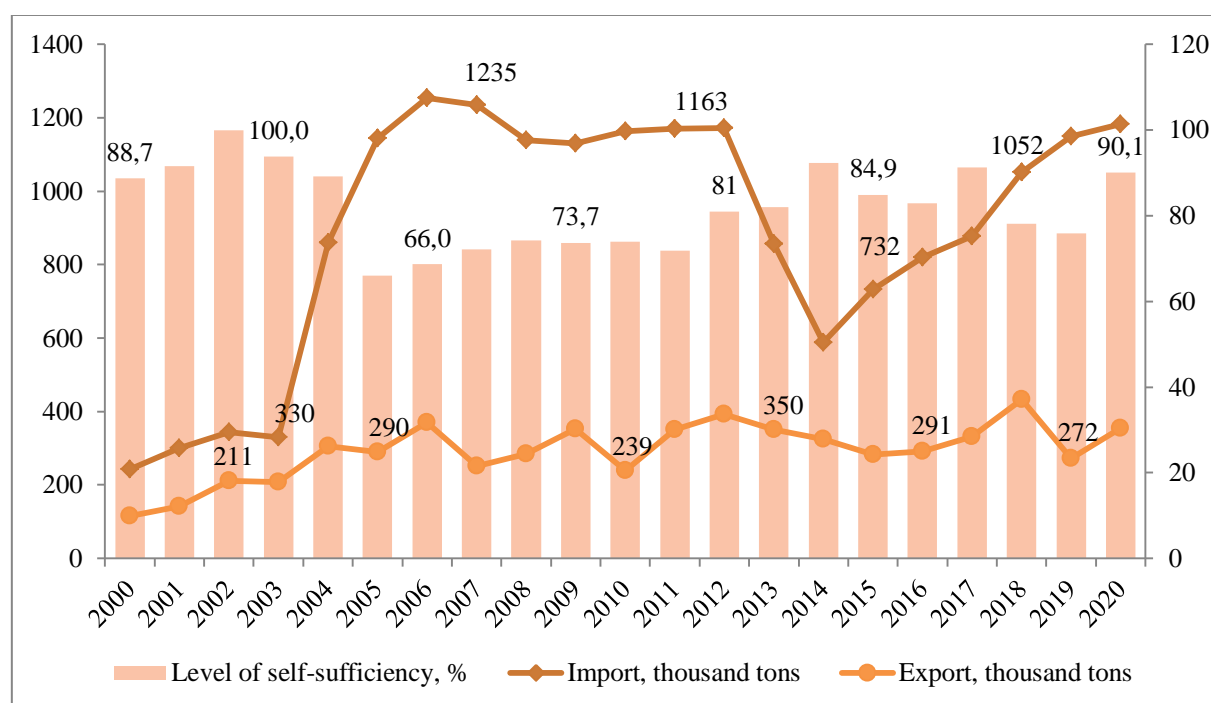
\* On approval of sets of food products, sets of non-food products and sets of services for the main social and demographic groups of the population: Decree of the Cabinet of Ministers of Ukraine dated 11.10.2016 № 780 [12].

\*\* According to the terminology of the Ministry of Health of Ukraine «Estimated set of basic food raw materials and food products of provision on average per capita of the population of Ukraine for 2005-2015».

Source: created by the authors based on the data [9; 12]

The lowest level of consumption of fruit and berry products was observed in 2001 and amounted to 26.4 kg per person, which is more than 2 times less compared to 2021. The analytical calculations show that during almost the entire period under study, the volume of production of fruit and berry products provided internal needs for its consumption. The exceptions were 2006-2010 and 2020-2021, when consumption per person exceeded the level of domestic production. The deficit of fruit and berry products was partly covered by the imported products. The actual level of consumption of fruits, berries and grapes per person in 1995-2021 did not reach the minimum (64 kg) and rational (90 kg) norms. In addition, the minimum and rational level of consumption per person during 1995-2021.

A steady increase in the import of fruit and berry products has been observed since 2004, reaching its maximum of 1,254,000 tons in 2007. In 2021, almost 33.7% of the consumption of fruits, berries and grapes was provided by the foreign markets. Although the export of fruit and berry products during 2000-2021 had a pronounced upward trend, its level was significantly inferior to the volume of import supplies, and in some periods (2006-2013, 2020-2021) the import of fruit and berry products was 3-4 times higher than export. However, it is worth noting that the demand for fruits, berries and grapes is growing in foreign markets as well, therefore the export of domestic fruit and berry products is also gradually increasing, and the horticulture industry was and remains one of the most attractive export directions for the development of agrarian business. During 2000-2021, the volume of exports of domestic fruit and berry products increased in natural terms from 31.0 to 355.0 thousand tons or almost 11.5 times, while imports during the same period increased only 3.8 times – from 309.0 to 1183.0 thousand tons (Fig. 2).



**Fig. 2. Dynamics of export, import and level of self-sufficiency in fruit and berry products in Ukraine in 2000-2021**

*Source: created by the authors based on the data [9]*

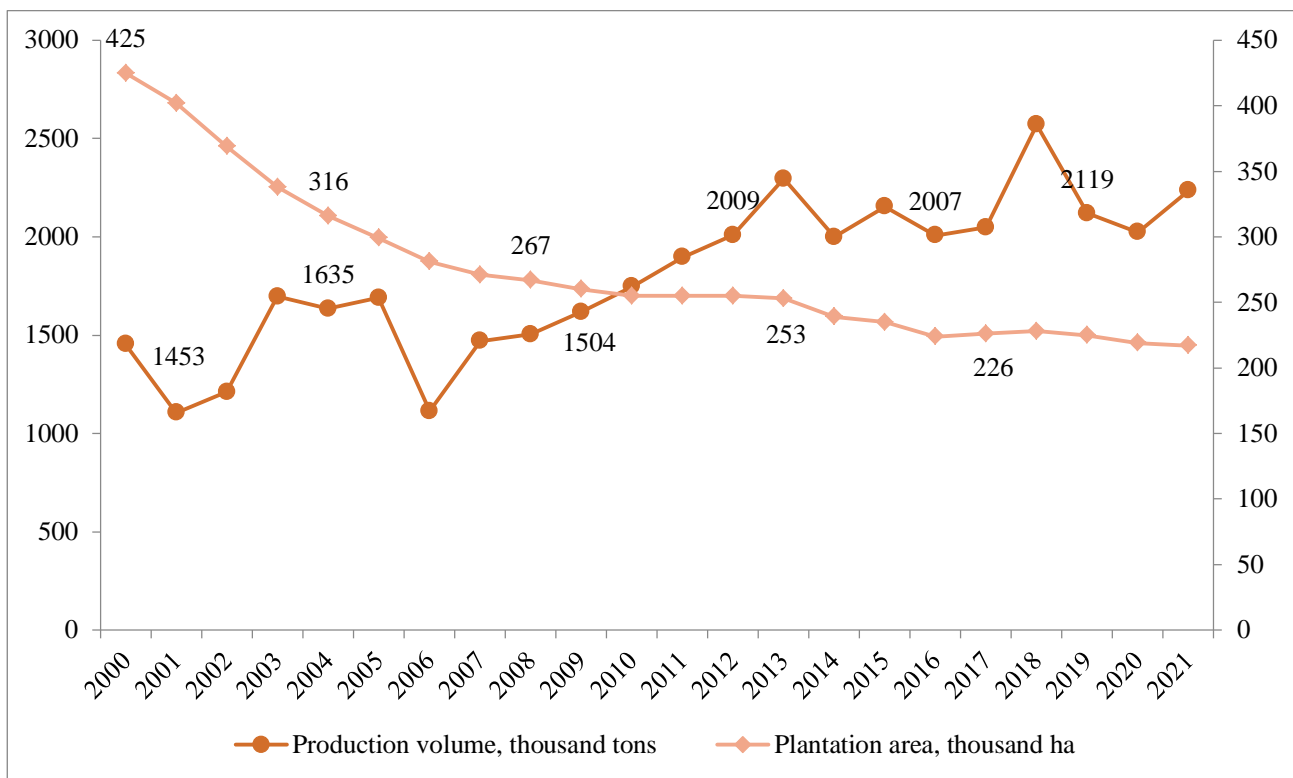
COVID-19 had a significant impact on the volume of export operations during 2020-2021. Due to the introduction of quarantine restrictions, the possibilities for concluding new contracts with buyers were significantly decreased, the holding of international exhibitions, which served as the main platform for the demonstration of product samples, was canceled, logistics became more difficult, time and costs for transportation increased, product sales channels were reduced, sanitary and epidemiological requirements became stricter etc. All this affected the decrease in export deliveries in 2020 and 2021 compared to the previous years. In addition, some manufacturers refused to export due to the fact that they were completely satisfied with the price situation in the domestic market and considered it impractical to

engage in export deliveries,

In January-August 2022, despite the large-scale russian military aggression against Ukraine, the domestic export of horticultural products increased compared to the same figure in 2021 and amounted to 206.0 million dollars, which is 14.0% higher than the corresponding period of the last year. The largest export revenue was obtained from the sale of frozen berries and fruits – 123.0 million dollars (+21.0%), apples and pears – 14.0 million dollars (+188.0%) and berry crops – 11.0 million dollars (+32.0%) [10].

The level of self-sufficiency in fruit and berry products, calculated as the ratio of product production to internal use (taking into account the processing of fruits and berries into wine, the use of fruit and berry products for feed and their losses during the storage), during 2000-2021 was in the range of 66.0-105.9% with an upward trend over the last ten years. In 2021, the level of self-sufficiency in fruit and berry products was 90.1%, which is 1.4 and 16.1% more compared to 2001 and 2011, respectively.

Based on the results of the analysis, it was established that during 2000-2021, there was a tendency to increase the volume of production of fruit and berry products with a permanent decrease in the area of fruit and berry plantations (Fig. 3).



**Fig. 3. Dynamics of production volumes of fruit and berry products and the area of fruit and berry crops in Ukraine in 2000-2021**

*Source: created by the authors based on the data [9]*

Analysis of the dynamics of production of fruit and berry products indicates a rather high volatility of production volumes and their dependence on weather and climate conditions. The production volume of fruit and berry products increased from 1,453,000 to 2,235,000 tons or by 53.8% in 2000-2021, which indicates a significant increase in productivity for all types of fruit and berry crops. So, if in 2000, 1 ha of

plantations yielded an average of 23.0 tons of harvest, in 2006 – 45.0 tons, then in 2021 – 117.3 tons. In 2022, the yield of fruits and berries is also high, but problems with sales channels, which arose due to large-scale russian military aggression against Ukraine, led to the complication, increase in price and limitation of logistics routes and, ultimately, a decrease in purchase prices for fruit and berry products in manufacturers.

Data from official statistics show that during the last three decades, the area planted with fruit and berry crops in Ukraine has decreased almost two times: from 425,000 ha in 2000 to 217,000 ha in 2021. Today, among the perennial plantings of fruit and berry crops in their fruit-bearing age, the largest areas are grain crops (apple, pear), stone crops (plum, cherry, cherry) and berry crops (strawberries and strawberries, raspberries and blackberries, currants).

During 2000-2021, there was a pronounced tendency to decrease the area of plantings of grain and stone crops, while the area of plantings of berry crops remained almost unchanged: 20.2 thousand hectares in 2000 and 19.9 thousand hectares in 2021 The area of apple tree plantations in the fruit-bearing age decreased almost three times (from 227.6 to 84.4 thousand hectares), plums, apricots and cherries – almost two times (from 26.7 to 17.9 thousand hectares; from 11.6 to 7.4 thousand ha; from 16.9 to 10.3 thousand ha, respectively), peaches – six times (from 13.8 to 2.6 thousand ha) (Table 1).

*Table 1*

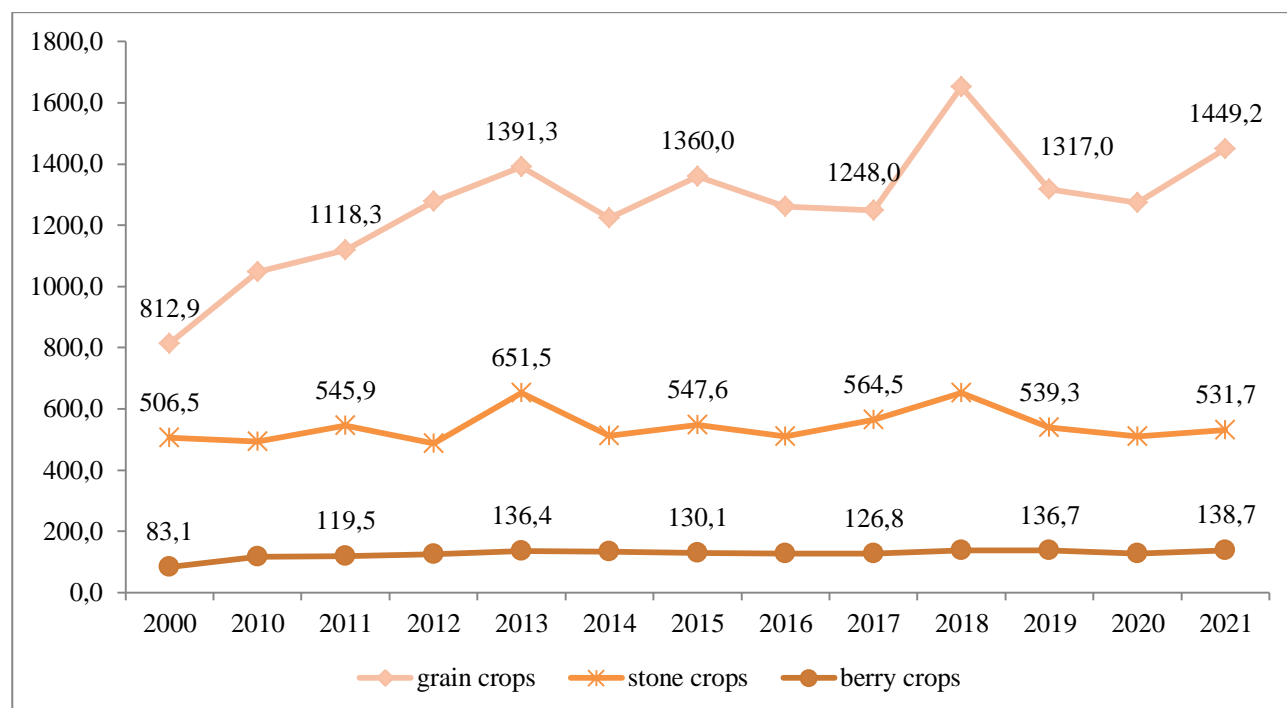
**Dynamics of planting area, production volumes, yield of fruit and berry crops and consumption of fruit and berry products in Ukraine, 2010-2021**

Indicators	Years							Deviation 2021 from 2000	
	2000	2010	2015	2018	2019	2020	2021	Absolute furios (+;-)	Relative From- Wearable (%)
1. Area of plantations of fruit and berry crops at fruit-bearing age, thousand hectares, including:	378.0	223.2	206.0	200.0	195.5	191.0	190.5	-187.5	-49.6
- grain crops	248.1	119.9	111.2	105.1	101.0	98.2	97.3	-150.8	-60.8
- stone crops	94.1	69.6	62.4	61.1	60.3	59.8	59.9	-34.2	-36.3
- berry crops	20.2	19.9	19.8	20.2	19.8	19.9	19.9	-0.3	-1.5
2. Yield of fruit and berry crops, tons /ha including:	3.8	7.8	10.5	12.9	10.8	10.6	11.7	7.9	207,9
- grain crops	3.3	8.7	12.2	15.7	13.0	13.0	14.9	11.6	351,5
- stone crops	5.4	7.1	8.8	10.7	8.9	8.5	8.9	3.5	64.8
- berry crops	4.1	5.9	6.6	6.9	6.9	6.4	7.0	2.9	70,7
3. Volume of fruit and berry production production, thousand tons, including:	1452.6	1746.5	2152.8	2571.3	2118.9	2023.9	2235.1	782.5	53.9
- grain crops	812.9	1048.5	1360.0	1653.0	1317.0	1272.8	1449.2	636.3	78.3
- stone crops	506.5	492.9	547.6	652.9	539.3	510.5	531.7	25.2	5.0
- berry crops	83.1	117.6	130.1	138.3	136.7	127.2	138.7	55.6	66.9
4. Consumption of fruit and berry products, thousand tons	1439.1	2203.2	2178.9	2444.6	2469.0	2356.9	2440.4	1001.3	69.6

Source: created by the authors based on the data [9]



During 2000-2021, production grew by all types of fruit and berry crops, in particular production of grain crops – by 78.3%, stone crops – by 5.0%, berry crops – by 66.9% (Fig. 4). Over the past 20 years, the best growth dynamics was shown by the production of apples, which increased from 648.2 to 1278.9 thousand tons or by 97.3%, plums – from 123.0 to 188.3 thousand tons or by 53.1%, cherries – from 155.3 to 193.7 thousand tons or by 24.7%, strawberries and strawberries – from 32.1 to 62.3 thousand tons or by 94.1%, raspberries and blackberries – from 19.7 to 36.3 thousand tons or by 84.3%.



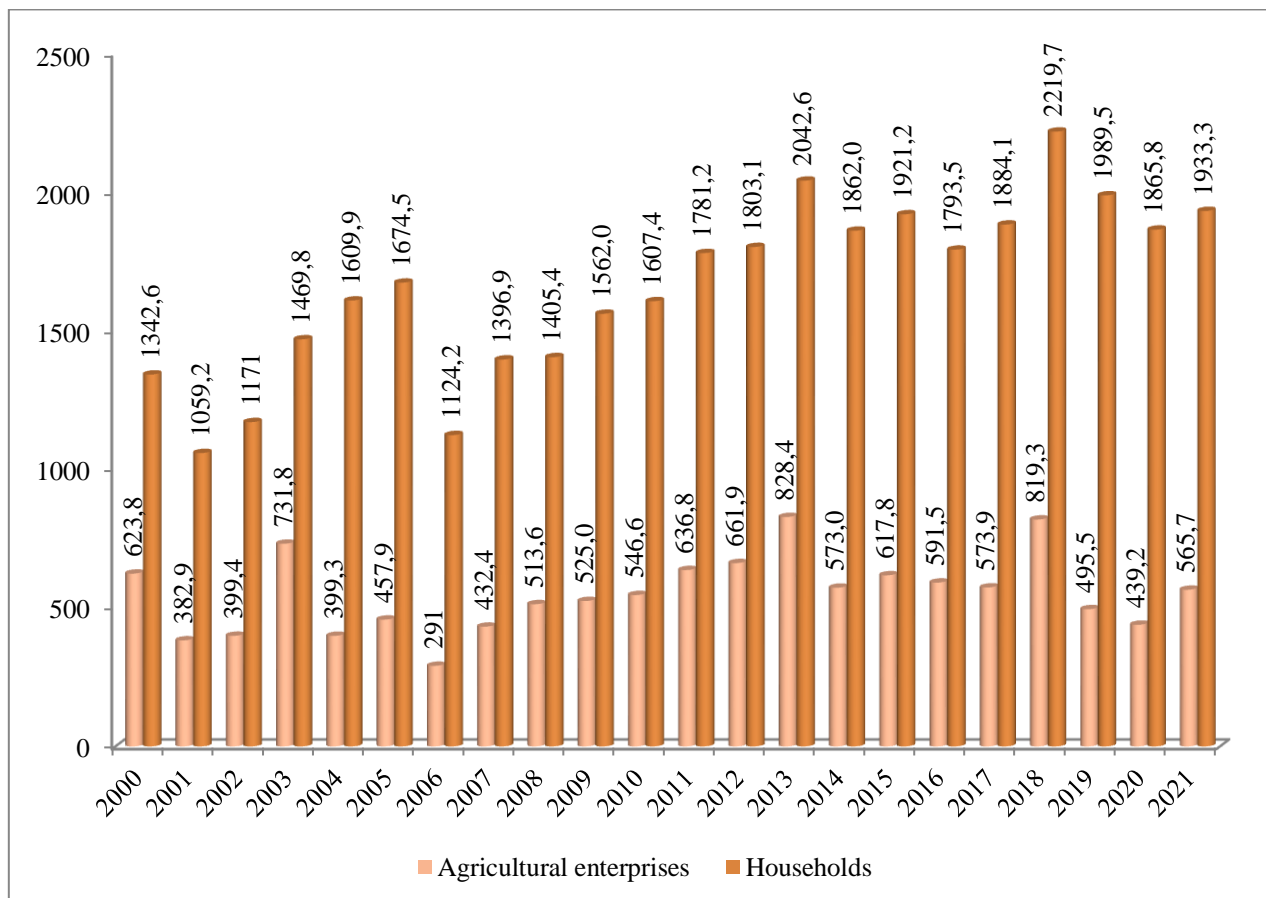
**Fig. 4. Dynamics of the production of the main types of fruit and berry crops in Ukraine in 2000-2021, thousand tons**

Source: created by the authors based on the data [9]

The increase in production volumes for most types of fruit and berry products occurred due to the outpacing growth rates of the yield of fruit and berry crops over the rate of decrease in the area of land plots under perennial fruit and berry plantations. Thus, in general, the yield of grain crops increased from 3.3 to 14.9 t/ha in 2000-2021 (apples – from 2.9 to 15.2 t/ha or by 431.6%, pears – from 8.2 to 13.5 t/ha or by 63.9%), stone crops – from 5.4 to 8.9 t/ha, berry crops – from 4.1 to 7.0 t/ha. A sharp increase in the productivity of fruit and berry crops is the result of intensification of production, improvement of technology, breeding and cultivation of new high-yielding varieties of fruit and berry crops.

The results of the research show that the main supply of fruit and berry products on the domestic market is provided by private peasant farms. For example, in 2021, out of 2,499,000 tons of fruit and berry products produced, 1,933,300 tons were produced by households, which was 77.4%, and in some years (2004, 2019 and 2020) the specific weight households in the production of berries, fruits and grapes exceeded 80.0%. At the same time, the share of agricultural enterprises in the production of fruits, berries and grapes in 2000-2021 was in the range of 19.1-33.2%

and had a tendency to decrease in recent years. Thus, if in 2000 agricultural enterprises provided 31.7% of the production of fruits, berries and grapes, then in 2021 their specific weight in the structure of production decreased to 22.6% (Fig. 5).

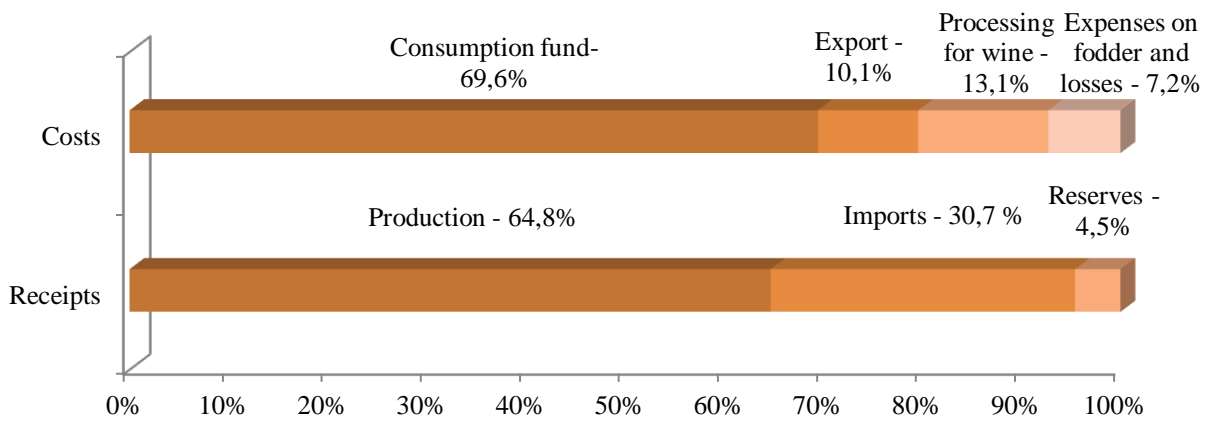


**Fig. 5. Dynamics of production of fruits, berries and grapes by agricultural enterprises and households in Ukraine in 2000-2021, thousand tons**

*Source: created by the authors based on the data [9]*

Thus, it is worth noting that despite all the difficulties (lack of state support, limited resource provision, imperfection of infrastructural support for entrepreneurship in the countryside, decrease in the number of economically active population, etc.) for a long time, households continue to make a significant contribution to ensuring the consumer needs of the population and remain significant players in the domestic food market.

The total volume of consumption of fruit and berry products and the volume of consumption per person are growing. In 2000, the volume of fruits, berries and grapes consumed by the population (without taking into account the products used for processing into wine, spent on fodder and losses) was 1439.1 thousand tons, per person – 29.3 kg, then as in 2021, 2440.4 thousand tons and 59.0 kg, respectively. The analysis of the balance of fruits, berries and grapes shows that in 2021, about 65.0% of all fruit and berry production was provided by own production, and more than 30.0% was imported. Analysis of the use of fruit and berry products shows that the lion's share is included in the consumption fund (70.0%), about 10.0% of the products are exported, 13.0% is processed into wine, and 7.0% is used for feed and losses during storage (Fig. 6).



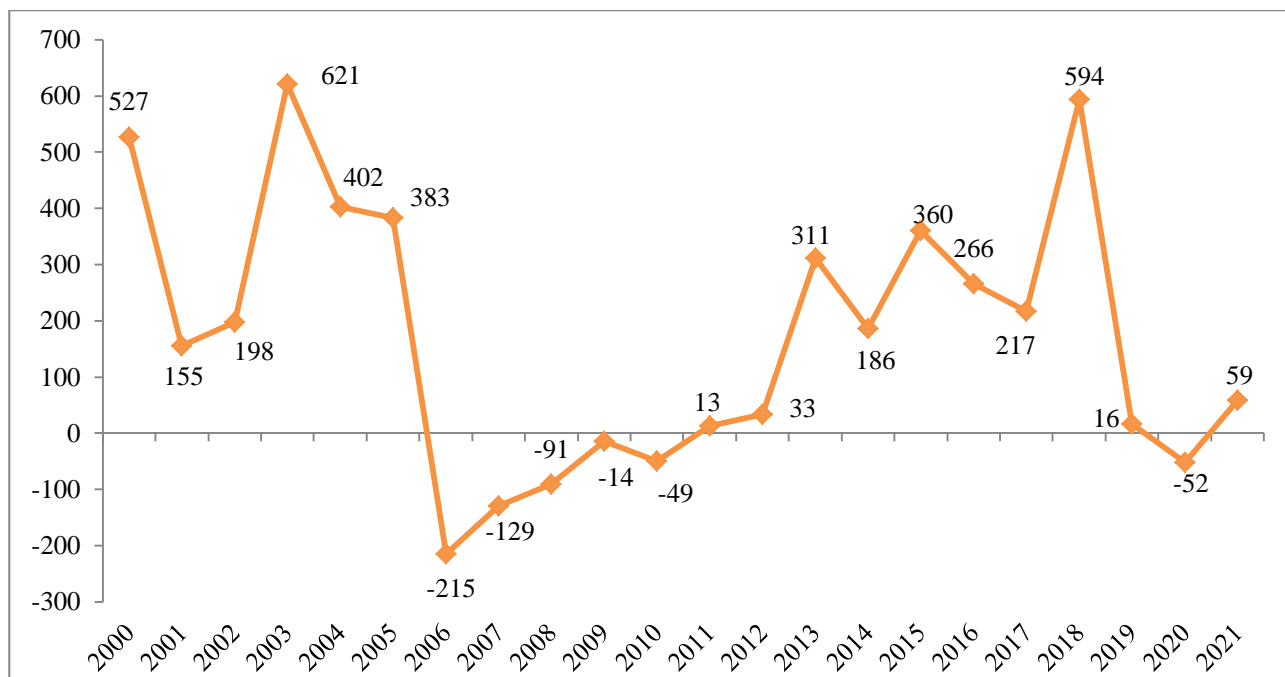
**Fig. 6. The structure of receipts and use of fruits, berries and grapes in Ukraine, 2021**

*Source: created by the authors based on the data [9]*

In 2020-2021, the volume of consumption of fruit and berry products was affected by COVID-19. In connection with the introduction of the quarantine measures, all wholesale and food markets – the main sales channels of medium and small producers – were closed. In addition, as a result of the COVID-19 pandemic and the deterioration of the economic situation, there was a significant decrease in the solvency of consumers. As a result, they were forced to review the articles of expenditure and either partially or completely abandon those products that are not essential goods, which also include fruits and berries. However, despite the complexity of the situation, it is necessary to note the positive points. Thus, for the first time in several years, the number of enterprises engaged in the sale of frozen fruits and berries increased [8].

The analysis of the ratio of production volumes and the fund of consumption of fruit and berry products shows that during almost all years there is a positive balance, that is, an excess of production over consumption of fruits, berries and grapes. Only in 2006-2010 and 2020, the volume of production of fruit and berry products did not meet the needs of the domestic market, which were covered by increasing the volume of imported supplies. The growth of the import component in the structure of consumption of fruits, berries and grapes indicates the presence of significant unused potential of the domestic market, which can be realized by stimulating the development of small and medium-sized agrarian businesses (Fig. 7).

Today, the production of fruit and berry products is one of the most profitable, economically attractive and high-margin types of agribusiness. Personal peasant farms and small farm-type farms, having at their disposal a small amount of agricultural land, a small initial investment capital, basic knowledge of the technology of growing fruit and berry crops and the desire can start a profitable business that will bring a sufficient level of income for many years. However, in the conditions of martial law, the disruption of logistical routes for the supply and sale of products and the reduction of the capacity of the domestic food market, it is necessary to find comprehensive approach to the study of the potential market for the sale of fruit and berry products, to study possible options for solving the problem of proper storage of grown products, to consider the possibility of creating cooperatives for processing and freezing of products and their further export.



**Fig. 7. Balance between production and consumption of fruits, berries and grapes in Ukraine in 2000-2021, thousand tons**

*Source: created by the authors based on the data [9]*

**Conclusions.** The production of fruit and berry products occupies an important place and is an important component in the structure of agricultural production in Ukraine. Despite all the difficulties of the economic situation in the country, domestic producers are increasing the volume of production of fruit and berry products. Over the past few decades, the volume of production of fruit and berry products has increased by almost a half with a sharp reduction in the area of agricultural plantations, which is the result of the breeding and cultivation of new high-yielding varieties of fruit and berry crops. However, despite the gradual growth of production volumes, in some years the capabilities of domestic agricultural producers of fruit and berry products were not enough to cover domestic consumer demand. Analysis of the balance of consumption of fruits, berries and grapes has shown that in 2006-2010 and 2020 the needs of the domestic market were provided by increasing volumes of import supplies of fruits and berries.

The conducted analysis of the dynamics of export-import operations showed that during 1995-2021, the volume of imports of fruit and berry products significantly exceeded export deliveries. In some years (2006-2013, 2020-2021), this excess was 3-4 times while maintaining a positive balance between domestic production and consumption.

This may indicate a significant unused domestic production potential and the need to find alternative external sales channels for fruit and berry products to maximize the export potential of our country. In our opinion, the practical implementation of this task is possible by increasing domestic production, primarily by stimulating the development of small and medium-sized agrarian businesses.

Today, the production of fruit and berry products, despite the state of war in the country, organizational, resource and logistical difficulties, remains one of the

economically attractive and highly profitable types of agricultural activity that does not require significant land, financial and labor resources for profitable business. In order to ensure competitive advantages and create prerequisites for more efficient production and economic activity, there is a need for more rational use of available resources, more active implementation of progressive and resource-saving technologies for the production of fruit and berry products, intensification of the production, improvement of the varietal composition of fruit and berry plantations, creation and expansion opportunities for processing, freezing and storage of fruits and berries in the places of their production, effective implementation of marketing and price policy, search for additional sales channels for manufactured products, organizational construction of logistics routes for product delivery, optimization and improvement of the process of production of fruit and berry products as a whole.

### References

1. Vasylychenko, N.V. (2020). Orhanichne vyrobnytstvo plodovo-yahidnoi produktsii yak perspektyvnyi napriam sadivnytstva u Sumskii oblasti [Organic production of the fruit and small fruit products as the perspective direction in the horticulture of the Sum Region]. *Sadivnytstvo – Horticulture*, 75, 228-234. DOI: 10.35205/0558-1125-2020-75-228-234 [in Ukrainian].

2. Galat, L.M. (2021). Svitovyi rynek yahid: suchasni tendentsii ta perspektyvy dlia Ukrainy [World berries market: current trends and prospects for Ukraine]. *Efektivna ekonomika – Efficient economy*, 2. DOI: 10.32702/2307-2105-2021.2.76. Retrieved from: [http://www.economy.nayka.com.ua/pdf/2\\_2021/78.pdf](http://www.economy.nayka.com.ua/pdf/2_2021/78.pdf) [in Ukrainian].

3. Honcharuk, I.V., Kovalchuk, S.Ya., Tsyptsyura, Ya.H., & Lutkovska, S.M. (2020). *Dynamichna protsesy rozvytku orhanichnoho vyrobnytstva v Ukraini* [Dynamic processes of development of organic production in Ukraine]. Vinnytsia: TOV «TVORY» [in Ukrainian].

4. Honcharuk, I.V., & Shevchuk, H.V. (2020). Marketynh yak faktor konkurentospromozhnosti pidpriemstv plodoovochevoi haluzi [Marketing as a factor of competitiveness of enterprises in the fruit and industry]. *Ahrosvit – Agrosvit*, 5, 50-55. DOI: 10.32702/2306-6792.2020.5.50 [in Ukrainian].

5. Kaletnik, G.M., & Pchelianska, H.O. (2014). Mistse i rol prodovolchoi bezpeky u formuvannia ekonomichnoi bezpeky Ukrainy [Place and Role of Food Security in Formation of Economic Security]. *Biznes Inform – Business Inform*, 2, 30-34 [in Ukrainian].

6. Kernasiuk, Yu.V. (2019). Rynek plodovo-yahidnoi produktsii: stan, prohnozy ta rentabelnist [Market of fruit and vegetable products: state, forecasts and profitability]. *agro-business.com.ua*. Retrieved from: <http://agro-business.com.ua/agro/ekonomichni-hektar/item/15148-rynek-plodovoiahidnoi-produktsii-stan-prohnozy-ta-rentabelnist.html> [in Ukrainian].

7. Kolokolchykova, I.V., & Makarenko, P.M. (2020). Metodichni pidkhody monitorynhu rynku plodovo-yahidnoi produktsii [Methodological approaches of market monitoring fruit – berry products]. *Zbirnyk naukovykh prats Tavriiskoho derzhavnogo ahrotekhnolohichnoho universytetu imeni Dmytra Motornoho*

(*ekonomichni nauky*) – Collection of scientific works of the Dmytro Motorny Tavri State Agro-Technological University (economic sciences), 2 (42), 33-40. DOI: 10.31388/2519-884X-2020-42-33-40 [in Ukrainian].

8. Ofitsiyni vebsait Asotsiatsii «Yahidnytstvo Ukrainy» [Official website of the «Berry Farming of Ukraine» Association.]. *uaberries.com*. Retrieved from: <https://uaberries.com> [in Ukrainian].

9. Ofitsiyni vebsait Derzhavnoi sluzhby statystyky Ukrainy [Official website of State Statistics Service of Ukraine]. *ukrstat.gov.ua*. Retrieved from: <http://www.ukrstat.gov.ua> [in Ukrainian].

10. Ofitsiyni vebsait Ukrainskoi Asotsiatsii Ahrarnoho Eksportu [Official website of the Ukrainian Agricultural Export Association]. *uaexport.org*. Retrieved from: <https://uaexport.org/> [in Ukrainian].

11. Pravdiuk, N.L. (2021). Oblikove zabezpechennia upravlinnia vytratamy na vyrobnytstvo ta realizatsiiu produktsii sadivnytstva [Accounting support for management of costs for production and sale of gardening products]. *Ekonomika, finansy, menedzhment: aktualni pytannia nauky i praktyky – Economy, finances, management: topical issues of science and practical activity*, 3 (57), 103-120. DOI: 10.37128/2411-4413-2022-2-1 [in Ukrainian].

12. Pro zatverdzhennia naboriv produktiv kharchuvannia, naboriv neprodovolchych tovariv ta naboriv posluh dlia osnovnykh sotsialnykh i demografichnykh hrup naselennia [On the approval of sets of food products, sets of non-food products and sets of services for the main social and demographic groups of the population]. (2016, October 11). *zakon.rada.gov.ua*. Retrieved from: <https://zakon.rada.gov.ua/laws/show/780-2016-%D0%BF#Text> [in Ukrainian].

13. Salo, I.A. (2020). Rozvytok rynku plodiv ta yahid v Ukraini [Fruit and berries market development in Ukraine]. *Mizhnarodnyi naukovo-vyrobnychiy Zhurnal «Ekonomika APK» – International Scientific and Production Journal «Economy of AIC»*, 3, 16-25. DOI: 10.32317/2221-1055.202003016 [in Ukrainian].

14. Simakhina, G.O., & Kaminska, S.V. (2020). Rynok zamorozhenykh plodovo-yahidnykh napivfabrykativ v Ukraini [The market of frozen fruit and berry half products in Ukraine]. *Vcheni zapysky Tavriiskoho natsionalnoho universytetu imeni V.I. Vernadskoho, seriia «Tekhnichni nauky» – Academic notes of the Tavri National University named after V.I. Vernadskyi, series «Technical Sciences»*, 3 (2), 67-71. DOI 10.32838/TNU-2663-5941/2020.3-2/12 [in Ukrainian].

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