

DIAGNOSTICS OF THE TABLE GRAPE SECTOR AND THE PROSPECTS OF DEVELOPMENT

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Abstract: *The cultivation of table grapes vines is a special sector, referring to high value agriculture. Wine-growing process is a stable source of income for people in rural areas and is a reason for their retention in rural areas. In order to stimulate the development of viticulture, the national programme for the recovery and promotion of viticulture and winemaking sector has been elaborated for the period 2002-2020 in the Republic of Moldova. The main purpose of this document is to restore and create an efficient branch of production of high-quality wine products, competitive on the markets and with increased economic efficiency. The research is based on a diagnostic analysis of the table grapes from the economic perspective. In order to achieve the objective of the research, several researches, studies, documents and comprehensive analyses related to this important segment of the national economy, statistical data from the National Bureau of Statistics, reports of the Ministry of Agriculture and Food Industry were analyzed, using methods of analysis, synthesis, tabulation and graphics have been applied. The research results revealed the importance of the table grapes sector and its export potential. Thus, the authors of research conclude that, although the table grape sector in the Republic of Moldova is facing many problems, it is nevertheless registering positive trends - the export share of agricultural production of plant origin reached 7% in 2023.*

Keywords: *wine sector, economic development, export, vineyards.*

JEL Classification: *Q1, Q10, Q12, Q17.*

1. Introduction

One of the profitable branches of the agro-industrial complex is the viticulture of table grapes. Table grapes are a symbol of prosperity and reward for the hard work of winegrowers. Millennial traditions of a highly effective viticulture and a human, agro-industrial potential dispose our country. The grapes are prized for their rich and complex flavor. The assortment structure of the plantations is almost 80 varieties of table grapes, the most popular are the black grapes Moldova, Codreanca (or Black Magic) and Muscat de Hamburg, the red varieties Cardinal and Apiren Roz and the white varieties Italia, Victoria and Alb de Suruceni.

2. The analysis of the wine sector

The wine sector is a strategic one that can ensure the growing demands of the domestic and foreign market with high quality, competitive and economically effective production. The viticulture sector and especially the development of viticulture for table grapes has been given increased attention since 2006. Also, a GD project was developed on the restoration and development of viticulture for table grapes until 2020.

Viticulture is a strategic pillar for the national economy of the country. The contribution of this sector to the formation of the main indicators of the national economy, the added value of wine products, the traditions and regional and international recognition of wines and grapes, but also the related and collateral links with other sectors of the economy. The vineyards represent the most valuable asset of the wine heritage in the Republic of Moldova. The fertile soil and suitable climatic conditions in the country, the size of the vineyard areas, the traditions, the low input and operating costs are advantageous factors compared to many other wine-growing countries. Viticulture in the Republic of Moldova has a high level of utilization of agricultural land [3]. Vine plantations occupy 7% of the total

agricultural land in Moldova and 3.8% of the total surface of the country, demonstrating the highest density of vineyards in the world.

In recent years, table grape producers have moved from the exclusive use of the "Vertical Trellis" vine formation system to intensive vine systems, which allow for high quality grapes and higher yields. Thus, by adopting an intensive production system, grape producers have maximized both the quality and productivity of table grape plantations obtaining up to 30 tons of grapes per hectare, compared to 10-12 tons obtained in classic plantations [7].

The areas of wine plantations and the harvest of table grapes are not stable recently, being influenced by a series of factors, and climate changes have a significant impact on this sector.

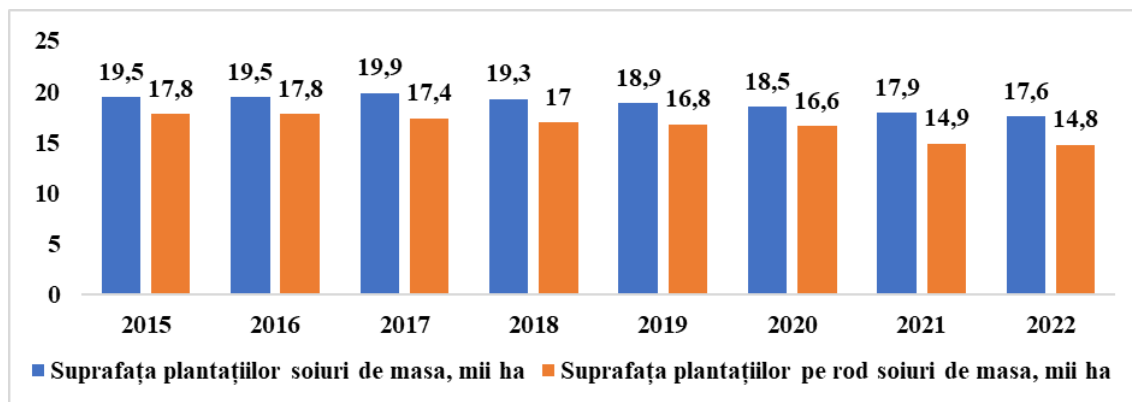


Figure 1. The dynamics of table grape vineyard areas in the Republic of Moldova, for the period 2010 -2022, thousand ha

Source: Elaborated by the author using the data from the National Bureau of Statistics

Wine plantations with table varieties have a share of about 15% in the structure of wine plantations in the Republic of Moldova. The area of wine plantations with table grape varieties in the period 2010-2022 was stable at around 20 thousand ha. The area per fruit of wine plantations with table grape varieties in the same period varied from 17.8 thousand ha (2015) to 14.8 thousand ha (2022). In 2022, this constitutes 14.9 thousand ha, figure 1.

Although, the wine sector faces many challenges and difficulties, climate change, poor agrotechnical and phytotechnical condition, financial difficulties, global crisis and many others, however, despite the challenges, the wine sector has been showing a positive trend lately. According to the data, in 2022 the global harvest of table grapes was about 99.3 thousand tons, being 10.9% less compared to the year 2000. The average harvest in 2022 was about 64.9 q/ha, being higher by 14.6% compared to 2000 [1; 4; 5].

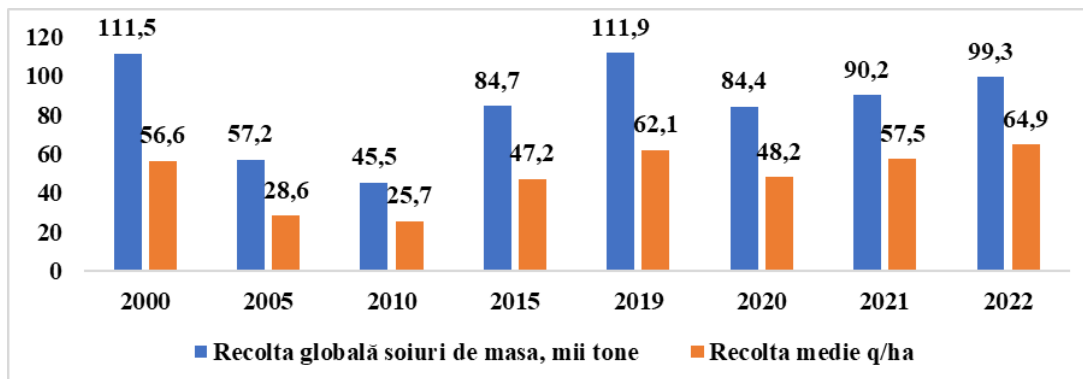


Figure 2. Table grape harvest trends, for the period 2000-2022

Source: Elaborated by the author using the data from the National Bureau of Statistics

The research concluded that not all vineyards have a highly developed post-harvest infrastructure (especially emergency cooling facilities), but some progress has been made in this area. The quality of grapes for trade, especially export-oriented grapes, has increased in recent years, which has a positive impact on the price.

Thus, in recent years, the table grape sector has seen growth and enormous export potential. And, following the research carried out, we observe that approximately 100 thousand tons of table grapes are obtained annually, of which more than 60% are exported. Thus, the share of table grapes in the export of agricultural production of the vegetable kingdom was 4.8% in 2020 and reached 6% in 2022. The share in the export of edible fruits: 11.9% was in 2020 and reached 24 % in 2022.

Table 1. Export of table grapes (code 0806) from the Republic of Moldova to some partner countries, in 2016-2021

	Sales volume, thousands of tons						Growth/decrease rate in 2021, %, compared to:	
	2016	2017	2018	2019	2020	2021	2019	2020
Total	51,44	80,2	48,2	62,7	41,3	57,8	92,2	140
from which								
Belarus	9,3	6,2	2,8	5,3	1,9	4,3	81,1	226
The Russian Federation	24,7	48,2	27,4	25,4	19,9	27,1	107	136
Romania	11,8	16,3	11,4	17,4	11,5	12,6	72,4	110
Ukraine	4,6	2,9	3,4	7,8	4,3	6,3	81	147
Iraq	0,65	2,5	0,5	2,1	0,3	1,9	90,4	633
Poland	-	-	-	1,5	1,8	2,6	173	144

Source: According to the data, <https://comtradeplus.un.org/>

The analysis of exports of table grapes (table 1) shows an upward trend, so in 2021 about 57.8 thousand tons of grapes were exported, which is 12.4% more than in 2016. Thus in 2021 the volume of sales of grapes for table constituted 57.8 thousand tons. Of which about 27.1 thousand tons were delivered to the Russian Federation, which had a share of more than 50% of the total export, to Romania, being also a main partner for the Republic of Moldova, the export of grapes to this country constituted 12,6 thousand tons. At the same time, during this period, the amount of income from the export of table grapes was also recorded. In 2021, income from the export of table grapes is increasing by 76.8% compared to 2016 (table 2).

Table 2. Sales revenue related to table grapes exported from the Republic of Moldova to some partner countries, for the period 2016-2021

	Sales revenue, thousands of US dollars						Growth/decrease rate in 2021,% compared to:	
	2016	2017	2018	2019	2020	2021	2019	2020
Total	20403,8	38625,8	25124,5	29664,7	26868,9	36077,9	122	134
Belarus	2504,7	3927,4	1727,9	3323,8	1198,8	3287,2	98,9	274
The Russian Federation	7157,4	16869,9	9548,6	9679,8	12192,1	16280,1	168	134
Romania	8615,1	12777,3	10324,8	10223,9	9040,1	8658,6	84,7	95,8
Ukraine	1253,5	945,9	1037,7	2385,3	1237,2	2259,5	94,7	183
Iraq	205,1	1209,4	192	770,5	124,6	380,5	49,4	305
Poland	-	-	997,2	1151,9	1678	2506,4	218	149

Source: According to the data, <https://comtradeplus.un.org/>

According to the analysis of the income from the export of table grapes, we notice that, although a smaller amount of grapes was exported to Romania, compared to the Russian Federation, but the export income was higher, which proves to us that the winegrowers can obtain income higher, complying with international requirements, which influence the price.

If we compare the average export price of table grapes, we can mention that between 2001/2005 the average price was 0.26 dollars per kilogram; 2006/2010 – 0.36; 2011/2015 – 0.44; 2016/2020 – 0.51; 2021 – 0.62; 2022 – \$0.69 per kilogram. In the last period, there was also a diversification of the market, so that in 2010 table grapes from the Republic of Moldova were exported to only 7 countries; in 2015 already in 18 countries; 2019 – 28 countries, 2020 (pandemic year) – 22 countries; 2021 – 23 countries; 2022 – 26 countries. The main partner countries of the Republic of Moldova in recent years Romania is in first place with 30%; Russia – 24.2%; Poland – 9.8%; Belarus – 8.5%; Kazakhstan – 6.3%; Ukraine – 5.9%; Latvia – 2.8%; Netherlands – 2.1%; Mongolia – 1.9%; Kyrgyzstan – 1.3%; Other 30 countries – 7.4%.

Exporters of table grapes mention that the Moldovan grape variety has several advantages in the export markets, such as the unique taste, the dark color of the berries, the ability to keep for a long time. At the same time, the Republic of Moldova must concentrate its exports on the EU market in the months of September-December, when the grapes

produced in countries with traditions such as Chile, Peru, Brazil, etc. are still not delivered. they must also undertake several priority actions such as increasing the quality of grapes, managing the level of pesticide residues, harvesting, sorting and storing correctly, implementing the international standards Global G.A.P., GRASP and/or SMETA, diversifying the types of packaging. And in the long term, producers need to diversify the assortment of table grape varieties by testing and adopting seedless (seedless) varieties [7].

The Association of Producers and Exporters of Grapes from the Republic of Moldova mentions that the increase in the price of grapes for export was due to the significant increase in the mass viticulture structure of the weight of products harvested from plantations where high technologies are used. According to forecasts, this year the total area of "Pergola" and "Gable" type vineyards, capable of producing high-quality products of 30-50 tons per hectare, will increase to 600-700 hectares [2].

Another factor that influenced the price of table grapes for export was primarily due to the specific conditions of the European market. Namely, the small harvest of table grapes in some important wine-growing countries in the EU due to weather conditions (extreme drought and, in some regions, floods. In order to have stable exports of table grapes from Moldova to the EU, it is necessary to further improve and the EU market is a market that opens up perspectives for grape producers, but winegrowers in the Republic of Moldova must take measures regarding the renewal of the grape assortment and identify highly productive varieties with qualities requested by consumers. Today, on the territory of the Republic of Moldova, the Moldova variety predominates, occupying about 90% of the structure of wine plantations [8].

3. Conclusions

In the last two years, most of Moldova's table grape harvest was sold between September and December, while "off-season" exports, winter-spring, decreased. That's why, we can conclude that the sales period for table grapes in the Republic of Moldova has changed, the marketing year now almost coincides with the calendar year.

Not all vineyards have a highly developed post-harvest infrastructure, especially emergency cooling facilities, but some progress has been made in this area. The quality of grapes for trade, especially export-oriented grapes, has increased in recent years, which has a positive impact on the price.

The solution regarding the restructuring and modernization of the wine sector can be through investments, subsidies being a tool applied by the authorities to stimulate this process. But they are to be used with care and caution. Both subsidies and aid should be applied only to help winegrowers channel themselves into successful modes of operation, not to perpetuate outdated, uneconomic or inappropriate practices.

Grape exporters can access the EU market without tariff or quantitative restrictions, but this comes with responsibility, and it is essential that producers engage in effective planning and coordination to ensure that their grapes meet the strict quality and safety requirements of the market European.

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