

THE CURRENT STATE OF THE VITIVINICULTURE SECTOR IN UKRAINE

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Abstract. The *purpose* of the paper is the identification of the current state and trends of the vitiviniculture sector in Ukraine. *Methodology.* There was made an analysis of the major indicators' dynamics of the viticulture development during 1995–2016 years in terms of the assessment of the total vineyards area, productivity, and gross harvest of grapes. There are given results of the analysis of wine production producing dynamics for 2010–2016 years from the position of grape wines classification, namely: producing of grape wine, table wines, producing of champagne and sparkling wines, brandy and fortified wines. *Results.* It was determined that the results of the analysis of the major indicators dynamics of the winemaking (viticulture) development in Ukraine show structural changes, the situation of the wine market, and an untapped potential of the industry. *Practical implications.* The domestic viticulture and wine industry must be up to the world standards of production and quality in order to occupy a fitting place among world producers. The achievement of specified goals is only possible in case the industry output is on the sufficiently high level of development that induces to systematic search by scientists, practical farmers, winegrowers and winemakers together with the state support that provides ways and methods for improving the economic, technological, social, and other kinds of industry efficiency. *Analysis of recent researches and publications.* During the last decades, a great number of scientific and practical works in Ukraine were published, dedicated to the research of the current state and the development of the viticulture and winemaking industry. The publications of such authors as Avidzba A.M., Antipov V.P., Buzni A.N., Harkusha O. M., Matchyna I.H., Rybintsev. V.A., Sabluk P.T., Cherven I.I. etc. are particularly noteworthy. However, dynamic changes of the economic situation in the country indicate a necessity of the further examination of the industry and the search for solutions to the problems, which restrain its development. *Statement of the problem.* The previously unsolved parts of the common problem are a separation of factors, which influence the vitiviniculture sector of Ukraine and the search for ways of the progressive industry's development recommencement.

Key words: viticulture, winemaking, vitiviniculture sector, production indicators, processing of wine materials, wine production.

JEL Classification: L66, Q13

1. Introduction

The viticulture and the winemaking (viticulture) in Ukraine are traditional and high-productive industries in the agro-industrial complex and their products are much in demand. The vitiviniculture sector of Ukraine is a combined inter-branch system of economy that includes winegrowing and its industrial processing, as well as the manufactures, which maintain this industry. The territorial and the industrial structure, the key indicators of this industry are quite dynamic and changeable, which depend on a number of factors, both natural and market ones. According to the analysis' results of the dynamics of the vitiviniculture sector

development in Ukraine, it is significant that despite impediments in the country's economy, this sector has a large untapped potential for development.

2. Viticultural production potential

The vitiviniculture sector of Ukraine was always an important industry of the agricultural branch and influenced the level of social and economic development of the regions. Ukraine is situated in a quite attractive zone for the winegrowing. According to Cadastre of Ukrainian vineyards, an informational database about agriculture organization of winegrowing, approved of 25th June 2010, in Ukraine there are 9 (without

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consideration of the temporally occupied territory of The Autonomous Republic of Crimea) emphasized winegrowing zones (macrozones), which are the basis for the region sorting, and 46 naturally winegrowing regions (microzones).

At the same time, the vineyard areas in Ukraine (area under vines destined for the production of wine grapes, table grapes or dried grapes, in production or awaiting production) decrease every year, from 69.1 thousand hectares (kha) in the 2011 year to 45.1 kha in 2016. After the annexation of Crimea, the largest plantation structure, the vineyard area in the fruit-bearing age, is situated in Odesa region – 27.4 kha (64%). Considerable is the vineyard plantations in Mykolaiv – 5.5 kha (13%), Kherson – 4.5 kha (11%), and Zakarpattia – 3.4 kha (8%) regions. In general, 96% of all the vineyard areas are concentrated in 4 regions of the state. These regions give an opportunity to produce unique types of the wine industry from the grown grapes, which are extremely popular in the world. In the rest of the regions, the general vineyard area in the fruit-bearing age doesn't exceed 300 ha or approximately 4% of the whole part in its structure.

In turn, the quite ponderable indicator of the effective growth of the grapes as raw material for the further processing is productivity (yield per ha). In the 2016 year, there were gathered 37.8 thousand tons of grapes in all the agricultural categories, from which 23.1 thousand tons in Odesa region, approximately 5.6 thousand tons in Mykolaiv, 3.4 thousand tons in Kherson, and almost 2.5 thousand tons in Zakarpattia regions. The average grape productivity form 1 ha of the plantations in the fruit-bearing age in Ukraine in the 2016 year was 88.4 centners (Table 1).

It was the highest in Vinnytsia region (339.7 centner/hectare), Kirovohrad (320.0 centner/ha) and Poltava (284.2 centner/ha) regions. The lowest grape productivity from its average indicator in the state is obtained in Zhytomyr region (39.9 centner/ha), Kharkiv region (61 centner/ha), Donetsk region (71.3 centner/ha), Zakarpattia region (73.3 centner/ha), Kherson region (75.5 centner/ha), Sumy region (79.5 centner/ha), Ternopil region (80.5 centner/ha), Odesa (84.5 centner/ha), and Volyn (87.5 centner/ha) regions.

Table 2

The volume of grape processing into wine materials according to regions

Regions	Grape processing into wine materials, tons		including grapes, tons		Average grapes purchasing price, UAN/ton	
	2016	in % by 2015	self-grown grape	bought grape	2016	in % by 2015
Ukraine, total	253856,3	130,8	42469,7	211386,6	5688,0	84,9
Zakarpattia	4915,5	74,3	... ¹	... ¹	6805,5	264,8
Mykolaiv	101772,5	229,4	6473,0	95299,5	4341,0	69,3
Odesa	121448,8	106,4	28447,1	93001,7	6002,5	98,7
Kherson	25719,5	89,4	... ¹	... ¹	10820,5	100,5

Note: ¹ The data is not published for the purpose of enforcing the requirements of the law of State Statistics Service of Ukraine for the confidentiality of information.

Source: formed by the authors based on: State Statistics Service of Ukraine (2018). Retrieved from <http://www.ukrstat.gov.ua>

Table 1

Dynamics of the main indicators of viticulture development in Ukraine

Year	Vineyards area, thousand hectare	Productivity, tons/hectare	Gross harvest of grapes, thousand tons	The ratio of the gross collection of grapes to the previous year, %
1995	137,7	3,32	457,3	-
2000	99,4	5,17	513,8	112,36
2005	80,6	5,49	442,6	86,14
2010	67,6	6,03	407,9	92,16
2011	69,1	7,55	521,9	127,95
2012	67,9	6,72	456,0	87,37
2013	67,1	8,52	575,4	126,18
2014	48,7	9,86	435,6	75,70
2015	45,4	9,23	386,3	88,68
2016	45,1	8,84	377,8	97,79

Source: formed by the authors based on: State Statistics Service of Ukraine (2018). Retrieved from <http://www.ukrstat.gov.ua>

The average grape productivity increased by 1.5 times during 2000–2016 years. However, due to the decrease of vineyards areas, its production has also reduced by 1.5 times. At the same time, it is completely possible to raise the production twice in coming years on condition that the current positive dynamics of the grape productivity's increase is preserved. It is necessary to state that the given indicators for the 2016 year in Ukraine are only approximate to the indicators of the contemporary European countries of high-efficiency winegrowing.

Consider another indicator of viticulture development in Ukraine – the total grape processing into wine materials, which are given in Table 2. Therefore, the volume of grapes processing into wine materials in Ukraine has increased substantially, namely by 30.8% in 2016 in comparison with 2015.

The enterprises in Odesa region are the leaders in the amounts of grapes processing, which is almost 48% of the total number and the enterprises in Mykolaiv region have increased the volume of grapes processing into wine materials by 1.5 times. The decrease of the wine materials production by 25.7% and 10.4%, respectively, is observed in the enterprises of Zakarpattia and Kherson regions.

The average grapes purchasing price for processing decrease from 6702 UAH for 1 ton in 2015 to 5688 UAH in 2016 (by 15.1%). It happened on account of grapes' price decreasing in Mykolaiv region – from 6265 to 4341 UAH/ton, or by 30.7% and in Odesa region – from 6079 to 6003 UAH/ton, or 1.3%. The rest of the regions indicate an increase of the purchasing price, this indicator is particularly high in Zakarpattia region, where it has increased by 164.8%. It must be noted that the amounts of self-grown grapes processing increased by 17.5%, and bought ones by 33.9% in 2016 in comparison with 2015.

The important inner particularity of the winemaking enterprises' economic activity that causes development instability of the winemaking industry is seasonal-climate and raw orientation, which determines a difficulty in providing a stable quality of raw materials. That is to say, the winemaking industry depends directly on the used raw-material base that is determined by the quality structure of wine materials, geographical position, as well as seasonality factors and climate conditions (Kalaman, 2017).

Thus, the quality of the wine materials are influenced by a grape productivity, a seasonal orientation (the grape harvest is gathered once a year in autumn), a date of purchase (the latter is the manufacture date, the worse is the quality), a period and preservation conditions (Matveev, 2014). Therefore, the presence of its own raw base is very important in the process of the winemaking enterprises' development since the proportion of the grown grapes in Ukraine for the wine materials processing is only 16.73%.

3. Wine production

The industries' grapes processing amounts and the wine materials' productions had an unstable dynamics during the period of 2010–2016. The volume of grapes processing into wine materials in Ukrainian enterprises in 2016 represented 254 thousand tons, that is, 60 thousand tons or 30,9% more than in 2015; 16.6 million dal. (1 dal. (decilitre) is 10 litres) wine materials have been produced (2.5 million dal. or 17.7% more).

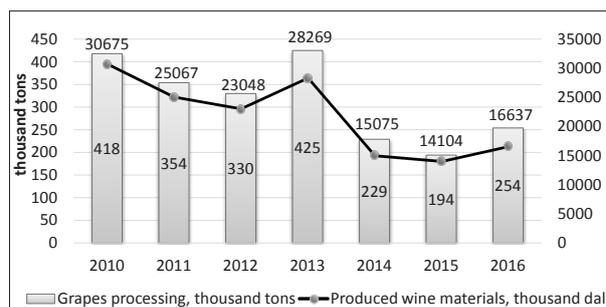


Fig. 1. Grapes processing dynamics and wine materials production

Source: formed by the authors based on: Ukrainian Statistic Yearbook 2016 (2017). *Ukraine in figures*, K.: State Statistics Service of Ukraine: Scientific provision of the Ukrainian viticulture, 611 p.

According to the official data, in winemaking industry, about two hundred enterprises of Ukraine are occupied with grapes processing wines, champagne and sparkling wines, and cognacs producing. There are two clearly delineated groups among them: traditional enterprises that possess their own vineyards, and enterprises of a new wave that are exceptionally engaged in bottling wine.

Consideration of the production of wine and wine materials by regions is given in Table 3.

The given tables indicate that in comparison with 2015, the total wine materials production was increased by the enterprises in Mykolaiv region – 3.9 million dal. (by 123.2%). Champagne and sparkling wines were produced of 5.1 million dal., that is, 15.4% more than in 2015, at the same time, the production of cognac wine material (2.1 million dal.) has decreased by 16%. The amounts of the table wines production have considerably increased (8.4 million dal.) – by 73.5%.

Wine materials production dynamics in Ukraine, including for wine production, laying and maturing of wine, is given in Figure 2. In 2016 in comparison with 2010, the amount of wine materials production in Ukraine decreased twice that was caused by economic crisis condition of the state and the annexation of the AR of Crimea.

Table 3

Wine materials production, thousand dal.

Regions	Amount of produced wine		including			
	2016 p.	in % by 2015	champagne and sparkling	cognacs	for wine production, laying and maturing	
					table	fortified
Ukraine, total	16637,3	118,0	5086,6	2126,6	8428,6	698,5
Zakarpattia	335,6	85,2	-	-	326,7	... ¹
Mykolaiv	7140,9	223,2	2207,7	159,0	4357,2	417,0
Odesa	7403,5	86,8	2713,8	1163,3	3250,9	254,3
Kherson	1757,4	89,0	165,0	804,3	493,8	... ¹

Note: ¹ The data is not published for the purpose of enforcing the requirements of the law of State Statistics Service of Ukraine for the confidentiality of information.

Source: formed by the authors based on: *Ukraine in numbers in 2016 (2017)*. K.: State statistics service of Ukraine. 240 p.

In 2016 in comparison with 2015, the specific weight for the laying, maturing, and production of table wines increased by 38.4%, of champagne and sparkling wines – by 13.4%; but a part of wine materials for laying, maturing, and production of fortified wines decreased by 54.7% and of cognacs – by 38.1% in the total winemaking production.

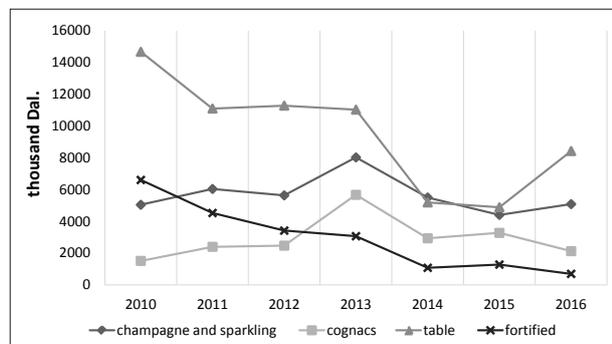


Fig. 2. Dynamics of wine production in Ukraine

Source: formed by the authors based on: *Ukrainian Statistic Yearbook 2016 (2017)*. *Ukraine in figures, K.: State Statistics Service of Ukraine: Scientific provision of the Ukrainian viticulture*, 611 p.

4. International trade

The main part of grown grapes is used for the production of various wines. Grape wines take a significant place in the world market of alcoholic beverages and the production of high-quality wine is increasing in recent years, which predicts great prospects of this production in the future. Nonetheless, the urgent issue of the vitiviculture sector in Ukraine is a negative surplus of the foreign economic trade balance.

There were imported 85.3 million USD worth of wines in Ukraine that is 1.5 times more than a year before. In the qualitative terms, the deliveries have also increased from 23.3 million litres in 2015 to 43.1 million litres in 2016. The main wine importer in Ukraine remains Italy, for the second year running. The deliveries reached 24.46 million US dollars (7.35 million litres) There were imported 13.17 million USD worth of French wines (2.73 million litres) Georgia is on the 3rd place of the biggest wine importers in Ukraine. Its deliveries were 12.16 million US dollars (4.58 million litres) that is 5.8 million of bottles. This constitutes more than a 70% increase over those import indicators of 2015. Moreover, Ukraine has moved into the second place at Georgian wines' import behind the Russian Federation, overtaking China according to the 2016 results. It is important to emphasize that in 2016 the biggest wine importers included new countries such as Lithuania and Portugal, thus pushing back Argentina and Australia.

But the export of Ukrainian wines abroad decreased in 2016. When in 2015 the deliveries reached 38.2 million US dollars (61.23 million litres), then in 2016 the export was 24.7 million US dollars (31.57 million litres). Such a drastic export reduction is caused by deliveries

decline to Russia that was always a main wine consumer of Ukraine. Officially, the delivery of the goods to the Russian Federation fell almost 2.3 times during 2016. There were delivered 11.6 million US dollar worth of wine to the Russian Federation. The very fact is also that Ukrainian producers redirected their export in 2016. China has become one of the main purchasers – during 2016 there were delivered 1 million US dollar worth of wine (618 thousand litres). Georgia, Azerbaijan, and Germany are among the top five biggest purchasing countries of wine produced in Ukraine.

Ukraine exported 114.4 thousand litres of wine to the EU countries in 2016 that is almost twice more than in 2015. As a result of the 2016 year, Poland is leading in importing of Ukrainian wine among the EU countries. Thus, in 2016 Ukraine exported 86.9 thousand litres of wine to Poland. The second place is taken by Belgium – 18 thousand litres, the third place – by Lithuania – 4.7 thousand litres of wine. In 2016, Ukraine exported up to 209 litres of wine to France.

These belong to the particularities of the winemaking industry that influence the behaviour of the industry's enterprises and the results of its management: a seasonal climate and a raw orientation of the manufacture; a long expenses cycle of production and a financial cycle, a material consumption and a labour intensity of the manufacture; an unevenness of economic activity and an utilization of the productive capacity during a year; a dominance in the structure of the circulating capital of low liquid assets; an exceptionally positional competition character in the industry, a high concentration of the industry, a consolidation tendency existence; a high sensitivity to volatilities of the market condition and a direct dependence on the standard of living and the population's solvency and so forth (Harkusha, 2015).

However, contrary to that and ancient traditions, the winemaking in Ukraine still has an untapped potential. In recent years, the industry suffers great losses because of an economic downturn and an excessive number of the manufacturing regulatory documents. The vineyard areas are rapidly decreasing year after year. The winemakers complain about an extremely bureaucratic license application procedure, land issues, an absence of the government support and a pressure from the local government, etc. The industry is going through the most difficult time in its history and needs a systemic policy of its management and support.

A list of high-priority tasks for the viticulture and winemaking development must be elaborated. Firstly, the industry needs a planting of new plantations and a bringing of the viticulture range up to the population and the manufacture demands' level, in order not to have a necessity in import. Secondly, according to expert estimates, a planting of vineyard hectare costs 10 thousand dollars, which is too expensive for the manufacturers, therefore, its development is not possible in the absence of the government support.

5. Conclusions

The dynamics of the viticulture industry development in Ukraine during 2011–2016 indicates a reduction of the vineyards areas from 69.1 thousand ha in 2011 to 45.1 thousand ha in 2016, and also shifting to a providing of the winemaking industry with imported raw materials. Big industrial vineyards are mainly concentrated in Odesa, Kherson, Mykolaiv, Zakarpattia regions; their share in the total vineyard's amount of Ukraine is 96% from all the plantations. At the same time, 1.5 times productivity growth is observed; the average grape crop capacity from 1 hectare in 2016 was 88.4 centers. However, over the decrease of the vineyard areas, its production has also reduced – there were gathered 37.8 thousand tons of grapes in all the industry's categories in 2016. In other words, it had been unable to preserve and to increase the production amount through an average productivity growth on conditions of the essential vineyard area's reduction. In 2016 in comparison with 2010, the amount of winemaking materials production in Ukraine decreased twice that

was caused by economic crisis condition of the state and the annexation of the Autonomous Republic of Crimea. The dynamics' results of the winemaking materials production in Ukraine indicate structural changes and the wine market condition that considers a consumer demand.

The capacity of the wine market in Ukraine is constantly reducing. The production on the external trade wine market has essentially changed in recent years: the production import is moving to decrease, and the export is gathering momentum. The favourable soil and climate conditions and sufficient provision with labour and other resources; the capacity potential of the internal and external wine market; the presence of the intellectual and the productive capital for the implementation of innovative technologies; an urgent need for the government support; a necessity for the reorientation of consumers' preferences from strong alcohol drinks to wines necessitate improvement and development of the vitiviniculture sector in Ukraine.

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