

2009-2018

ROMANIAN VITICULTURE STUDY

Cosmina-Ionela Vasilache¹ (student)

Nicoleta AXINTI² (coordinator)

*Faculty of Engineering and Agronomy of Braila, „Dunărea de Jos”
University of Galați, Romania*

¹cosminaionela40@yahoo.com, ²nicoleta.axinti@ugal.ro

Abstract *The paper is a study on the viticulture heritage and the current situation regarding the evolution of the areas cultivated with vines, of the registered grape and wine productions in Romania, over a 10-year horizon..*

Keywords: *viticulture, vines, winemaking, grapes, production*

JEL Classification

Q12

Introduction

Viticulture in Romania is a traditional activity, of great economic importance, harmoniously developed, as a result of the particularly favourable natural conditions that the vines have.

It is found all over the country, especially in the hilly area to the east and south of the Carpathian chain, in Transylvania and Dobrogea [1].

At national level, however, the present and future development of viticulture is based on the form of private property, leasing, advanced associations of establishment and exploitation, using productive, quality varieties, recommended for multiplication as well as for each viticulture area or vineyard.

All of these are possible only by applying modern cultivation technologies (mechanization, fertilization, irrigation, integrated control), by minimizing costs and labour costs, the rational use of ecological and economic resources, so this complex of measures leading to habitat conservation against pollution [1]

Research methodology

To achieve the proposed objective, a bibliographic study was conducted based on the analysis of statistics on the area cultivated with vines, total grape production, wine production, the context of the integration of viticulture in Romania on a European and global level.

Review of the scientific literature

The geographical location of Romania and its relief ensure natural conditions, favourable for the vine culture. As a result, viticulture has experienced a continuous development, becoming one of the important branches of agricultural production.



Figure no.1 Wine regions in Romania [6]

Viticulture has had and still has a well-defined place in the agricultural economy and the national economy, whose importance can be appreciated from social, food, and economic as well points of view.

So, from the economic point of view economic the vine study is based on the following considerations:

- the large area it occupies, respectively 19100 ha at the level of 2018;
- valorises with good results lands unsuitable for agricultural crops (sandy, calcareous, stony, rocky, poorly fertile) and slopes eroded with thin soils on hills;
- has an important anti-erosion role, protecting against surface erosion by fixing moving sands, actively intervening in soil conservation;
- request of qualified personnel in the field;
- taxes and capitalization of wine products contribute to the establishment of the state budget;
- domestic and international trade in wine products and by-products is a source important income and profits;
- absorption of funds for the development of the wine-growing sector.

Results and discussion

In Romania, viticulture is concentrated in 8 wine regions, 37 vineyards and 180,000 hectares occupied with vines, of which 28% are in the commercial circuit (figure 1).

The dynamics of the Romanian areas cultivated with vines in the period 2009 - is presented by the type of vine and by the destination of the grapes in bellow table 1.

Table no. 2. Total Romanian grape production registered between 2009 - 2018, (Tons) [3]

Categorii vii	Anul									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total vii pe rod	990232	740118	879487	746385	991559	783690	798765	736892	1067120	1144305
Vii altoite pe rod	587501	455195	497380	421930	529859	466197	476385	451722	590658	661729
Vii hibride pe rod	402731	284923	382107	324455	461700	317493	322380	285170	476462	482576
Struguri de masă	73468	49656	55959	49032	55377	35959	42088	38806	47678	71405
Struguri de vin	923526	690462	823528	697353	936182	747731	756677	698086	1019442	1072900

Vines have occupied in recent years (2009-2018) an average area of 182885.6 ha, of which 9879 ha with table grapes and 173222.9 ha with wine grapes.

It can be observed that the largest area occupied by vines was registered in 2009 (223579 ha), after which it decreases, so that after 2013, the area occupied by vineyards per fruit is maintains a value of over 178,600 ha. In the case of grafted vineyards, they registered a decrease, from 160978 ha in 2009 to 88047 ha in 2018, reaching in 2018 91590 ha. In contrast, hybrid vineyards have grown annual from 62601 ha in 2006 to 85665 ha in 2018.

The area cultivated with vines has a structure in which the share of hybrid varieties is very high. In recent years, the area occupied by directly producing hybrids has been about half of the vineyards on fruit.

The cultivated area for table grapes is much lower than for grapes.

In the period 2009 - 2018, Romania achieved an average total production of 887885.3 tons, of which 51942.8 tons of table grapes and 836588.7 tons of grapes for wine. The largest production recorded throughout this period was 1144305 tons, of which 71405 tons of table grapes and 1072900 tons of grapes for wine, in 2018. This is due both to the increase of the area cultivated with vines and favourable climatic conditions registered in 2018.

Table no. 3. The average production of grapes per hectare registered in Romania in the period 2009 - 2018, (Kg / ha) [3]

Categorii vii	Anul									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total vii pe rod	5369	4182	4980	4178	5559	4436	4484	4136	6020	6447
Vii altoite pe rod	6255	5055	5649	4702	5905	5179	5150	4873	6449	7180
Vii hibride pe rod	4449	3277	4314	3649	5209	3664	3765	3337	5562	5655

The year 2018 was special in terms of grape production, registering an increase of 74% compared to 2017, from 47000 tons to 83000 tons, according to Eurostar. The production of wine grapes was also increasing, from 1.01 million tons in 2017 to 1.5 million tons in 2018, an increase of 13.3% according to data provided by the Ministry of Agriculture [13].

Table no. 3 presents the average grape production data recorded in the period 2009-2018 for fruit vineyards.

The Romania average grape production registered in the period 2009 - 2018 varied between 4136 kg / ha in 2016 and 6447 kg / ha in 2018, a lower value than the world average production (11054.7 kg / ha) and the average European production (8218.3 Kg / ha) registered in 2018.

Table no. 4 shows the wine production obtained in our country, in each wine region and rendered by quality categories and wine colour.

The total wine production obtained in 2018 was 3369.9 thousand hl, of which the highest quantity was obtained along the Dealurile Moldovei area, a viticulture region (1658.4 thousand hl). From the quality production side, the largest quantity was represented by table wine (1839.5 thousand hl). in what in terms of color, white wines (2189.7 thousand hl) dominate wine production in Romania.

The wine production registered in Romania in 2019 was 4.9 million hectoliters, with 4% less than in 2018, according to data presented by the O.I.V. [15]. Regarding the grape variety, at the level of 2018 (figure 1), the first varieties

cultivated were: Fetească Regală (14.01 thousand ha), Merlot (11.901 thousand ha), Fetească alba (9.295 thousand ha), Italian Riesling (6,429 thousand ha), Aligote (4,187 thousand ha), Sauvignon (5,455 thousand ha), Cabernet Sauvignon (5,474 thousand ha), Muscat Ottonel (4,229 thousand ha), Băbească neagră (2,638 thousand ha), Fetească black (2.95 thousand ha), Red (1.994 thousand ha), others (16.538 thousand ha) [4].

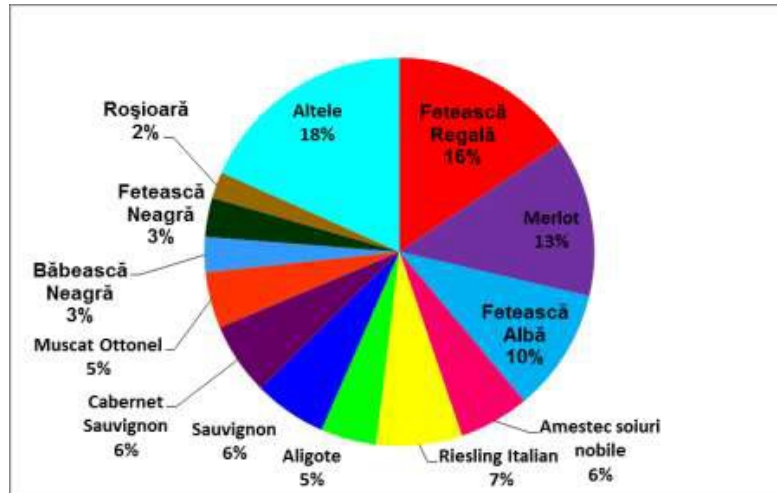


Figure no.2 The main noble varieties of grapes for wine registered in 2018

According to the report of the International Organization of Vine and Wine (O.I.V), in year 2018, Romania was on the 10th place in the world regarding the area cultivated with vines, being followed by Iran, India, Australia and the Republic of Moldova (Figure no. 3).

Table no. 4. The production of wine from noble varieties registered in 2018
(thousand hl) [4]

Regiunea viticolă	Totală	categorii de calitate				pe culoare		
		*DOC	**IG	***fără DOC și fără IG, cu denumire de soi	****fără DOC și fără IG, fără denumire de soi	alb	roze	roșu
Podișul Transilvaniei	367,4	246,1	36,6	0,3	84,5	350,8	7,7	9,0
Dealurile Moldovei	1658,4	426,7	139,2	43,8	1048,7	1189,1	33,9	435,5
Dealurile Munteniei și Olteniei	870,6	223,8	30,3	18,1	598,4	384,4	132,1	354,0
Dealurile Banatului	218,6	110,3	1,6	77,5	29,2	121,6	37,4	59,6
Dealurile Crișanei și Maramureșului	67,1	21,2	18,0	2,5	25,4	44,4	3,5	19,2
Colinele Dobrogei	181,4	86,2	38,3	8,4	48,5	95,0	26,9	59,5
Terasele Dunării	1,9	0,0	1,7	0,0	0,3	1,9	0,0	0,1
Nisipuri și alte terenuri favorabile din sudul țării	4,5	0,0	0,0	0,0	4,5	2,5	0,0	2,0
TOTAL	3369,9	1114,3	265,6	150,5	1839,5	2189,7	241,5	938,8

Explicative notes: According to law no. no.164 / 2015 of the vineyard and wine: * DOC - wine with controlled origin), ** IG - wine with geographical indication), *** without DOC and without GI, with variety denomination - varietal wine; **** without D.O.C., without I.G. and without variety name - table wine.



Figure no. 3 The main wine-growing countries of the world in 2018

In the same year, Romania produced 1.3 million tons of grapes and 5.1 million hectoliters of wine (according to the OIV), ranking 17th out of 95 vine-growing countries (according to Faostate data, 2020), (figure no.3) and 6th place in Europe (figure no.4).



Figure no. 4 The main wine-growing countries in Europe in 2018 (according Faostate,)

The grape production in 2018 placed Romania in the world 17th rank having a production of over 1144 thousand tons (figure no. 5).

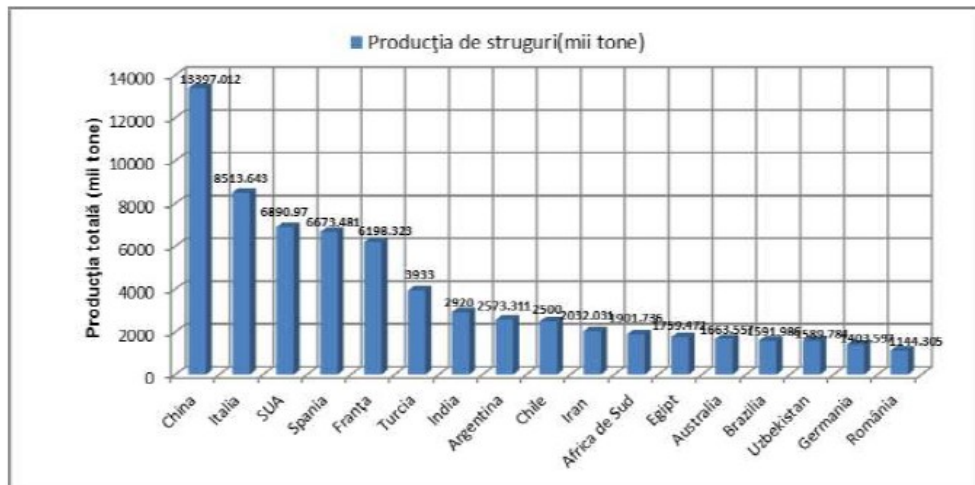


Figure no.5 Grape production recorded by the main wine - growing countries

(data processed after Faostate)

The world wine production was 292 mil.hl. in 2018, Romania recorded a wine production of 5.1 million hl, of which it exported in the period 2018 - May 2019, 18000 hl of wine, the highest quantity to the USA (6000 hl) and China (5000 hl).

The wine production (including sparkling wine and juice grapes) in the EU was about 15 million hl, the largest wine producers were Italy, Spain and France, followed by Portugal, Germany and Hungary, according to Eurostar data.

In 2018, Romania ranks 13th in the ranking of wine countries in the world, with a production of 510 thousand hl of wine (figure no. 5).

The total value of Romania's wine exports was 5 million Euros, of which the highest 2 million euros came from deliveries to China, 1 million euros from the US and 1 million euros from Japan.

According with statistics (2019), Romania was 12th in ranking of the world's wine producers with a wine production of 4.9 million hectolitres being overtaken by countries such as China, Portugal and Germany (according to O.I.V.,).

Romania ranks 13th in the world accounting in terms of wine consumption, with 4.5 million hectolitres, in 2018, by 3.9% less than in 2014. The world consumption was 246 million hectolitres [18].

The average per capita consumption worldwide is 3.5 l / year, in Romania Vrancea County has the largest wine-growing area in the country, about 10% of the viticulture, respectively 26000 hectares of vines.

In 2019, the production of table grapes was 5000 kg / ha and 6200 kg / ha for grapes wine, while in 2018 an average production of table grapes of 9535 kg / ha was reported and

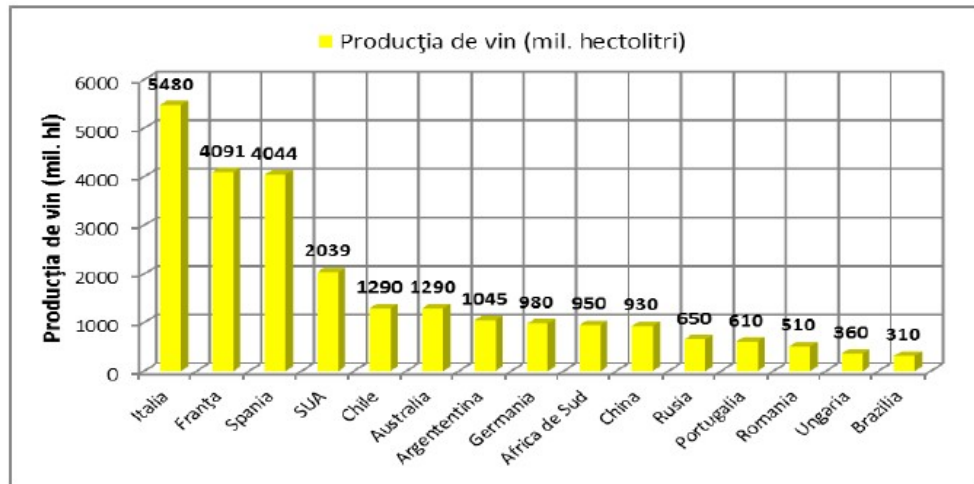


Figure no. 6 Wine production registered by the main wine-growing countries in 2018 (data processed after [11])

of 9245 kg / ha for wine grapes. Annually, in Vrancea are produced about 100 million liters of wine.

Conclusions

According all above the following conclusions can be underline:

- In Romania, the wine-growing sector is in a continuous development;
- With a viticulture heritage of 177255 ha, Romania ranks 10th in the world and 6th in Europe, after Spain, France, Italy, Portugal according statistic dates issued for 2018,;
- Although it is the tenth country in terms of areas occupied by vines, Romania ranks 17th in the world in terms of grape production, with 1.3 million tons. The largest amount of grape production is for wine, grapes table with a low weight;

- With a wine production of 510 million hectolitres, Romania is placed on the 13th position in the world and 6th rank in the Europe;
- The 12th place in the world in terms of wine consumption, with 4.9 million hectolitres, the seventh place in the European Union.

Acknowledgment Assoc Prof. E. D. Zeca, PhD for translation support

References

- [1] Bucur Georgeta Mihaela, 2011, Viticultură – curs pentru învățământul la distanță, USAMV București (pag. 6 – 25);
- [2] Liviu Dejeu, Viticultură practică, Editura Ceres, București (pag. 7 – 9);
- [3] <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>
- [4] <https://www.madr.ro/horticultura/viticultura-vinificatie.html>
- [5] <http://www.fao.org/faostat/en/#data/QC>
- [6] <https://www.zf.ro/companii/harta-vinului-romanesc-cu-opt-regiuni-viticole-37-de-podgorii-si-180-000-de-hectare-de-vie-romania-se-afla-pe-locul-cinci-in-europa-13386089/galerie?foto=2>
- [7] <https://www.maap.ro/pages/page.phpself=01&sub=0101&tz=010107https://revino.ro/viticultura-in-romania-vin-romanesc-turism-viticol-vita-de-vie-harta-viticola-a38.html>
- [8] https://www.economica.net/romania-iese-din-top-10-al-producatorilor-mondiali-de-vin-darintra-in-topul-consumatorilor_39335.html
- [9] <https://www.agro.basf.ro/ro/stiri/fermier-in-romania/ghidul-principalelor-regiuni-viticole-sipodgorii-din-romania.html>
- [10] <https://www.bursa.ro/productie-slabă-de-struguri-dar-vinul-va-fi-foarte-bun-04145835>
- [11] <https://www.rafinat.ro/2019/04/clasamentul-mondial-privind-productia-de-vin-in-2018/>
- [12] <https://revino.ro/clasificarea-vinurilor-a338.html>
- [13] <https://www.zf.ro/companii/retail-agrobusiness/un-alt-record-in-agricultura-romaneasca-in-2018-productia-de-struguri-de-masa-a-crescut-cu-74-fata-de-anul-2017-17812456>
- [14] <https://www.forbes.ro/analiza-euromonitor-international-factori-care-contribuie-lapotentialul-de-crestere-al-vinului-din-comert-romania-145011>

- [15] <https://www.zf.ro/companii/analiza-zf-productia-de-vin-a-romaniei-a-scazut-cu-4-in-2019-in-europa-doar-portugalia-e-pe-plus-marii-jucatori-au-pierdut-intre-15-si-24-18580232>
- [16] <https://www.crameromania.ro/informatii-utile/oiv-productia-globala-de-vinuri-o-crestere-in-2018-435.html>
- [17] <https://www.bursa.ro/in-2018-exporturile-de-vin-ale-ue-au-ajuns-la-22-7-miliarde-euro-62654838>
- [18] <https://fermierinromania.ro/cat-conteaza-romania-pe-piata-europeana-si-mondiala-a-vinului/>
- [19] <https://italianwinecentral.com/top-fifteen-wine-producing-countries/>
- [20] <https://modernbuyer.ro/strugurii-o-categorie-extrem-de-dinamica-si-foarte-greu-deprevizionat/>
-