

Feteasca neagră: a successful Romanian wine – tradition and future perspectives

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Abstract

Leading wine-producing countries around the world often plan their wine ranges based on specific native grape varieties. These varieties not only ensure high quality wine production, but also ensure global recognition in the countries in which they are represented through effective marketing. Spain is closely associated with Tempranillo and Garnacha, while France is famous for Cabernet Sauvignon, Pinot Noir, Gamay and Chardonnay. Likewise, Italy owes much of its prestige to varieties such as Sangiovese, Trebbiano, Nebbiolo and Barbera. In recent decades, Romania has increasingly focused on Fetească neagră, the most valued local variety. This grape has the potential to compete with the best red wine varieties in the world. The cultivation of Fetească neagră has expanded significantly in recent years and now exceeds 3,300 hectares. Wines made from this grape have won significant awards at prestigious international competitions, increasing their reputation. In addition, grape production recorded significant growth, with yields for wines with geographical indications exceeding 180,728 quintals in 2023 - almost twice as much as in 2019. This growth led to a notable increase in registered and taxed wine production to 142,546.8 hectoliters in 2023 – almost three times as much as in 2019. The versatility of Fetească Neagră wines is reflected in the different winemaking styles, including still and sparkling wines; dry, semi-dry, semi-sweet and sweet wines; as well as young, old and vintage wines. These wines are made from both conventionally and organically grown grapes, further highlighting the adaptability and appeal of this unique Romanian grape variety.

Keywords: grape variety, wine, production, awards, medals

Introduction

All major wine-producing countries have specific grape varieties that are considered symbolic, often becoming synonymous with the country's viticulture and serving as ambassadors for its wines worldwide [21]. For example, when talking about France, we inevitably refer to varieties such as Cabernet Sauvignon, Pinot Noir, Gamay or Chardonnay [20]. Cabernet Sauvignon, a grape varietal originating from Bordeaux, is renowned for its full-bodied structure and aging potential. It is often blended with Merlot, another Bordeaux classic, which adds softness and fruity complexity to the resulting wine [18]. Chardonnay, which originated in Burgundy, is a versatile white grape that is used in still wines and Champagne [9]. Appreciated for its elegance, Pinot Noir, also originating from Burgundy, is celebrated for its delicate, aromatic red wines that reflect the nuances of the terroir in which they are grown [13]. Sauvignon Blanc, associated with the Loire Valley and Bordeaux, is known for producing crisp, aromatic whites [8]. The Gamay grape variety is most closely associated with the Beaujolais region. The wines produced from this red grape are characterised by a light body, pronounced fruit aromas and flavours, and a distinctive aromatic profile. These wines often display pronounced notes of red berries, including cherry, raspberry, and strawberry. The popularity of Gamay reaches its zenith each year during the release of Beaujolais Nouveau, a young and vibrant wine that is celebrated worldwide shortly after harvest. Gamay flourishes in the granitic soils of Beaujolais, particularly in the region's ten cru villages, which produce more complex and age-worthy examples of the variety. Renowned for its soft tannins and approachable nature, Gamay is highly regarded for its versatility and ability to pair with a diverse range of foods. These grape varieties have their origins in the French wine heritage and are cultivated worldwide, remaining the benchmarks for quality and style [11].

Italy is home to an extraordinary range of native wine varieties, each reflecting the diverse terroirs and traditions of the country [17]. Sangiovese, the backbone of Tuscany's renowned Chianti and Brunello di Montalcino, is celebrated for its vibrant acidity and red fruit flavors [10]. Nebbiolo, hailing from Piedmont, produces the legendary Barolo and Barbaresco wines, known for their structure, complexity, and ability to age gracefully. Sicily boasts Nero d'Avola, a robust red variety, and the volcanic island's Carricante delivers refreshing white wines [3]. Other notable varieties include Montepulciano from Abruzzo, Aglianico from southern regions like Campania, and the fragrant white grape Vermentino from Sardinia and Liguria [4].

Spain boasts a rich tapestry of native wine varieties, each rooted in its distinct regions and traditions. Tempranillo, Spain's flagship grape thrives in Rioja and Ribera del Duero, producing wines with rich red fruit flavors and excellent aging potential [12]. Garnacha (Grenache) is versatile, creating both robust reds and elegant rosés, particularly in regions like Priorat and Navarra [7]. Albariño, a prized white grape, flourishes in Galicia's Rías Baixas, offering crisp, aromatic wines with a hint of salinity [19]. Verdejo, native to Rueda, is known for its fresh, citrusy whites. Monastrell (Mourvèdre) in the southeast contributes bold, spicy reds [14]. These varieties highlight Spain's diverse climates and winemaking legacy.

Romania, despite its rich viticultural heritage and high-quality native grape varieties, has not yet fully established its native grape varieties as global icons similar to those of other wine-producing countries [6]. Varieties like Fetească Neagră, Fetească Regală, and Grasă de Cotnari could become internationally recognised and established as standards in winemaking with focused marketing and increased exposure abroad, like Spain's Tempranillo, France's Cabernet Franc, Italy's Barbera, or Portugal's Touriga Nacional [5, 16]. Since ancient times, Fetească Neagră has been grown in Romania; the Geto-Dacians grew it primarily in areas between the Carpathians and the Nistru River [2]. The cultivation of Fetească Neagră has expanded significantly in recent years as a result of climate change and a general trend of increased temperatures; it is now found in almost every wine area in Romania [15]. However, the largest areas planted with this variety—more than two-thirds of the whole cultivated surface—are found in the hills of Muntenia and Oltenia, as well as the wine areas of the Moldavian Hills [22]. The remarkable quality of Fetească Neagră and the rising demand for genuine, regionally distinctive wines are both reflected in the expansion of vineyard area, grape yield, and wine output [1]. In the dynamic and competitive global wine market, these wines are becoming more and more desired.

The study, aimed to analyze and evaluate key trends and data related to the cultivation and production of the Fetească Neagră grape variety in Romania over the five-year period from 2019 to 2023.

Material and Method

The study investigated national wine production volumes derived from Fetească neagră grapes in the PDO, PGI, and varietal categories for the period 2019–2023. This analysis aimed to explore correlations between grape production and wine output, considering changes in processing capacity and market demand. The study examined the dynamics and zonal distribution of areas planted with Fetească neagră variety. Data were collected on changes in vineyard coverage at the national level and by specific wine-growing regions. Trends in the expansion or contraction of cultivation zones were evaluated to identify regional patterns and the factors influencing these dynamics. Total grape production data were assessed, categorized into three quality segments:

PDO (Protected Designation of Origin): high-quality grapes used for premium wine production; PGI (Protected Geographical Indication): grapes grown in recognized geographical zones but not meeting PDO standards and Varietal: grapes identified by variety without a specific geographical designation. Production quantities were compared across the years to determine trends and shifts in focus on different categories. The average grape production per hectare was analyzed at the national level, focusing on PDO, PGI, and Varietal. These data were used to evaluate vineyard productivity and assess whether agronomic improvements or changes in cultivation practices impacted grape yields.

A review of accolades and medals won by Fetească neagră wines in recent years was undertaken to assess their impact on the perception and reputation of this grape variety on both domestic and international markets. Data were gathered from notable wine competitions and awards, highlighting the variety's competitive standing.

Data sources included national agricultural and wine production databases, reports from regional viticultural authorities, and documentation from wine competitions. Regional distribution maps and production charts were developed to visually represent findings. This comprehensive approach allowed for an in-depth understanding of the status, evolution, and potential of the Fetească neagră grape variety within Romania's wine industry.

Results and Discussion

The areas cultivated with the Fetească neagră variety in Romania have increased significantly, especially in recent years due mainly to the quality of the wines from this variety, but also to the general trend of climate warming, which has generated favorable conditions for cultivating this variety in the vast majority of wine-growing areas in Romania.

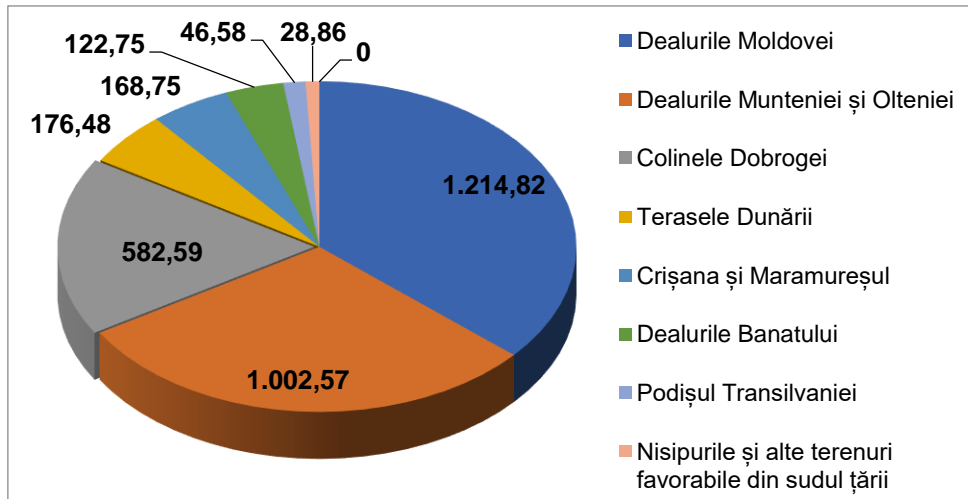


Figure 1. Total area of vineyards, cultivated with the Fetească neagră variety (hectares)

While the Fetească neagră variety was mostly found in the vineyards of southern Moldova, Dobrogea, Oltenia, and Muntenia before the 2000, it is now present in nearly every vineyard, including those on the Transylvanian Plateau and the Maramureș region (Figure 1).

In 2022, according to the Romanian National Vine and Wine Office (ONVPV) website, the total area under cultivation of the Fetească neagră variety in Romania was 3363 hectares. The largest areas are in the wine-growing regions of Dealurile Moldovei, Dealurile Muntenia and Oltenia and Colinele Dobrogei, and the smallest areas are in the Transylvanian Plateau and Nisipurile and other favorable areas in the south of the country.

The percentage of land planted to the Fetească neagră variety by wine-growing region is shown in Figure 2. Of the total vineyards, the share of the Fetească neagră grape variety is the highest in the Moldovan Hills wine region at over 36%, followed by the Muntenia and Oltenia hills with 29.81% and the Dobrogea hills with 17.32%.

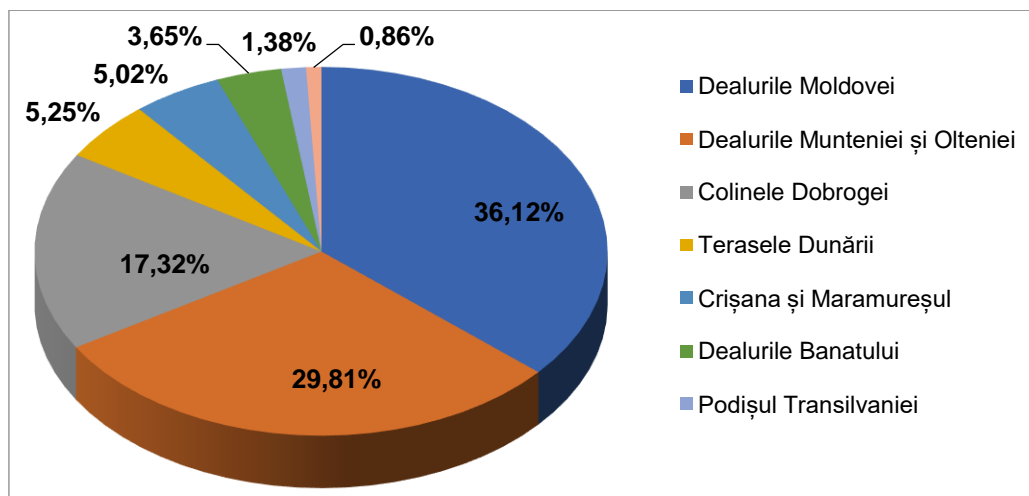


Figure 2. Total area of vineyards cultivated with the Fetească neagră variety (%)

These three wine regions account for 83.25% of the total area cultivated with the Fetească neagră variety in Romania. However, it is worth noting that the cultivation of this variety has also begun in other wine

regions of Romania, including Transylvanian Vineyards, Maramureş and Northern Moldova, where this variety was not included in the range a few years ago.

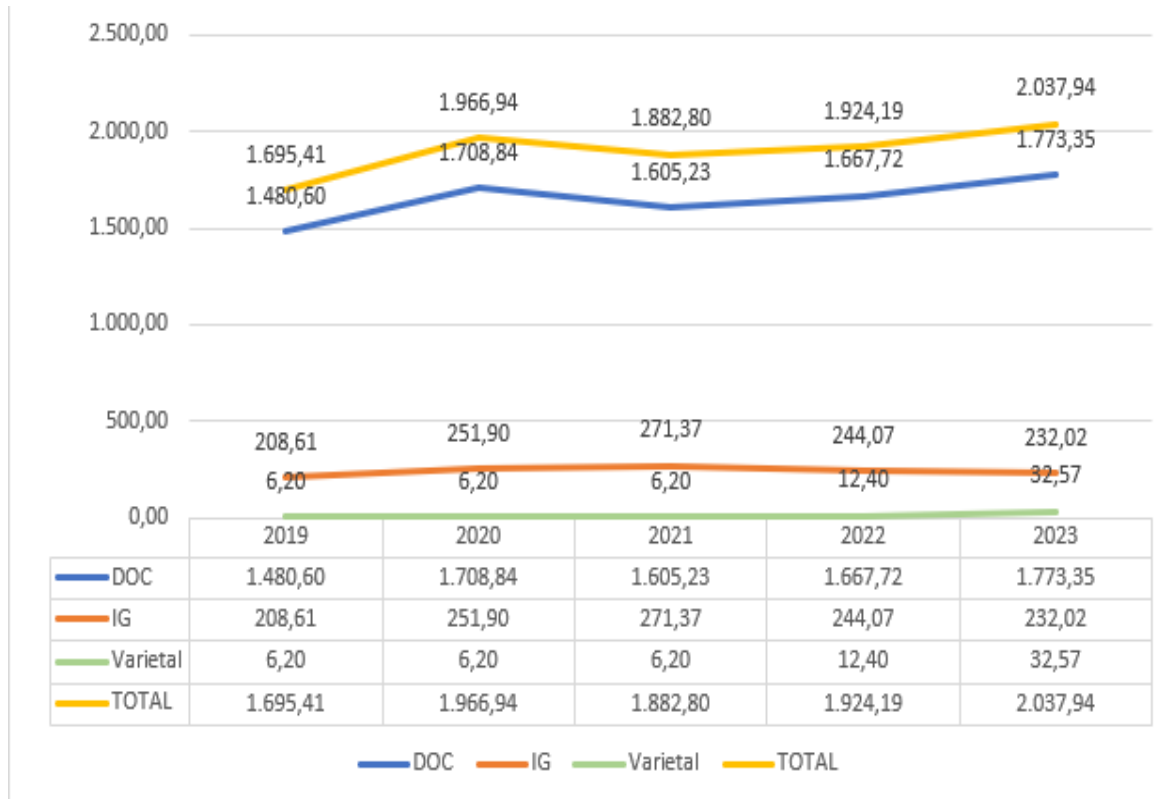


Figure 3. Planted area (hectares) with the Fetească neagră PDO(DOC) / PGI(IG)/ varietal (VV) variety

Figure 3 shows the areas cultivated with the Fetească neagră variety, intended for wines of the PDO, PGI and varietal categories, compared to the total areas cultivated with the Fetească neagră variety. The areas dedicated to quality wines are generally increasing Trending from 1695.41 hectares in 2019 to 2037.94 hectares in the year 2023.

However, due to the ratio between old cleared plantations and newly established plantations, 2021 shows a slight downward trend compared to last year, this year recording only 1882.8 hectares. In the category of grapes destined for quality wines, the areas dedicated to PDO (Protected Designation of Origin) wines predominate, occupying 1773.35 hectares of the total area dedicated to quality wines at the end of 2023. And the trend of areas dedicated to PDO wines is increasing over the period examined.

The vineyards for the production of wines of the PGI (Protected Geographical Indication) and varietals categories occupy much smaller areas, in this case 232 hectares at the end of 2023 of PGI wines and 32.57 hectares at the end of the same year, in the case of wines of the Category VV. Although a growth trend is also observed in plantations for PGI and varietal wines, the growth rate is much lower compared to plantations for PDO wines.

The production of grapes of the Fetească neagră variety, intended for the production of quality wines, generally recorded an increasing trend, from 99,739 q in 2019 to 180,728 q in 2023 (Figure 4). The year 2022 was the only one of the four years analyzed; the production trend was aimed at quality wines, a decline compared to the previous year.

Most of the grapes destined for quality wines belong to the PDO category, they recorded 138904 q in 2023 out of a total of 180728 q. Compared to the grapes destined for PDO wines, the other two categories (PGI and varietal) recorded significantly lower values during the mentioned period.

The quantities of Fetească neagră grapes intended for wines in the varietal category recorded a maximum value of 22137q in 2023. Among the years mentioned, the quantities of grapes intended for wines in this category were the lowest in 2020. The quantities of grapes destined for wines of the PGI category had fluctuating values over the four years, with the maximum value recorded in 2021 - 33754 q, and the minimum value in 2019 - 11808 q.

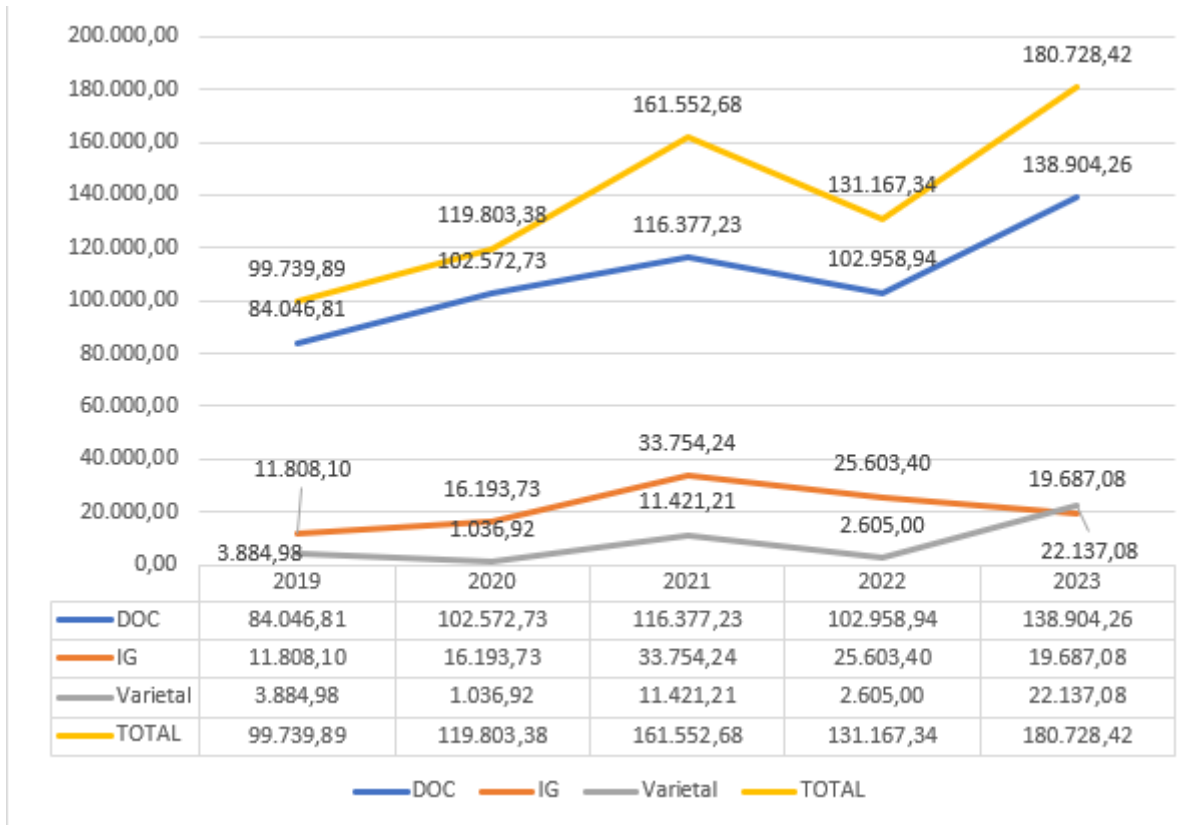


Figure 4. Grape production (q) of the Fetească neagră variety intended for the production of quality wines

Fetească neagră is a high-quality variety characterized by superior grape quality parameters, while at the same time being a relatively sensitive variety to climatic conditions and the technological level applied. For the reasons mentioned above, this variety is not characterized by a very high production of grapes per hectare. In terms of production volume achieved, 2023 was the year with the highest production, with the national average exceeding 8800 kg/ha (Figure 5). The opposite was the year 2019 with a national average of 5,800 kg/ha, which was also the only year in which the national average per hectare fell below 6,000 kg/ha.

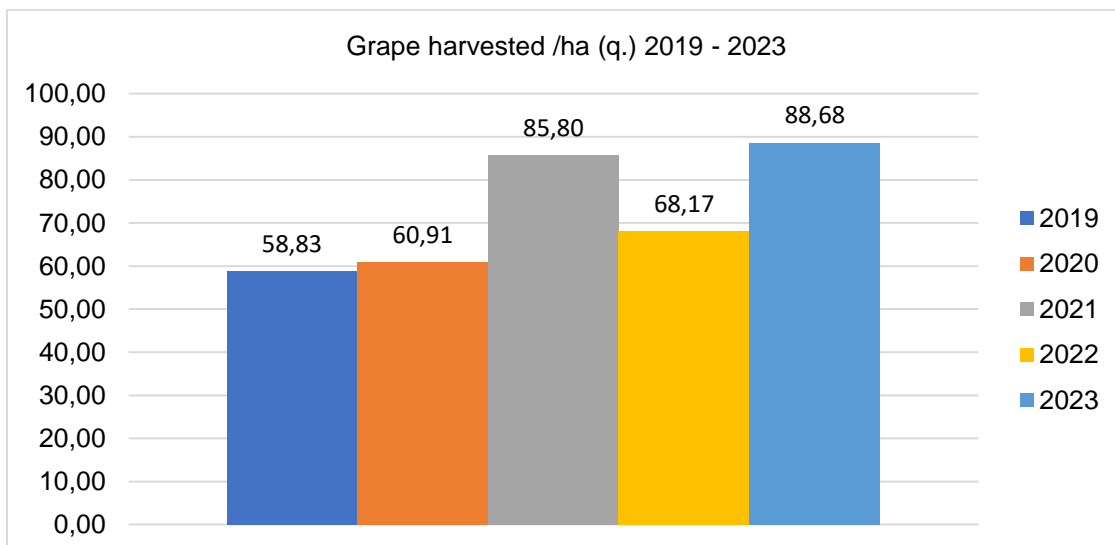


Figure 5. Average pe hectare production (q) achieved for the Fetească neagră variety (2019-2023)

Table 1. Minimum and maximum grape production (CMD) and PDO wine yield (hl) in several wine-growing regions for the Fetească neagră variety (according to the Specifications for PDO wines in force) [23]

Vineyard	Kg. (CMD)		hl.		Arealul
	max.	min.	max.	min.	
PDO Odobesti	17.500	7.000	129	-	PDO Stefanesti
PDO Panciu	16.500	7.000	122	48	PDO Adamclisi
PDO Minis	15.000	8.000	112	52	PDO Dealu Bujorului
PDO Murfatlar	15.000	8.000	105	52	PDO Banat

The data in Table 1 show both the potential of the Fetească neagră variety and the pedo-climatic suitability of certain areas for growing this variety. Although the Fetească neagră is not a variety that is superior in terms of production potential, under very favorable circumstances it can achieve very high yields. From the data centralized by the National Vine and Wine Office (ONVPV), it appears that in certain years and on certain plots, the yields at full maturity of the grapes intended for the production of PDO wines range from 17,500 kg/ha in the Odobesti and Ștefănești areas to 15,000 kg/ha in the Minis, Murfatlar and Banat areas.

The minimum yields in the same years were between 7,000 and 8,000 kg/ha. These data prove that, under favorable climatic conditions and with appropriate cultivation techniques, the Fetească neagră variety, although not a quantity variety, can produce high yields without significant impairment of the grape quality parameters and their winemaking yield.

The harvesting of grapes for PDO wines is carried out year after year only at full maturity, which for example in the Banat, Miniș, Dealul Bujorului wine-growing areas translates into reaching sugar concentrations of 204 gr/l, while in Aiud, Sebeș Apold, Lechința and Târnave at only 155 gr/l. The harvesting of grapes with accumulations of approximately 155 - 175 g/l. is considered technological maturity for obtaining sparkling wines, the harvesting of grapes for obtaining effervescent wines being the earliest every year.

Late grape harvesting usually takes place in the areas like Murfatlar, Adamclisi, Dealu Bujorului, Banu Mărăcine, Segarcea and Dealurile Transilvaniei at a sugar accumulation in grapes of at least 220 g/l and in the areas of Babadag, Sarica Niculițel and Cotnari at a sugar accumulation of 210 g/l.

Table 2. Sugar accumulation potential in Fetească neagră grapes harvested, late harvested and full-maturity (according to the Specifications for PDO wines in force) [23]

C.I.B.	C.T.		C.M.D.	
	max.	min.	max.	min.
240 gr./l.	220 gr./l.	210 gr./l.	204 gr./l.	155 gr./l.
PDO Adamclisi	PDO Murfatlar	PDO Babadag	PDO Banat	PDO Aiud
PDO Dealu Mare	PDO Adamclisi	PDO Sarica Niculitel	PDO Minis	PDO Sebes Apold
PDO Dragasani	PDO Dealu Bujorului	PDO Cotnari	PDO Dealu Bujorului	PDO Lechinta
PDO Banu Maracine	PDO Banu Maracine			PDO Tarnave
PDO Segarcea	PDO Segarcea			
PDO RV a Dealurilor Transilvaniei	PDO RV a Dealurilor Transilvaniei			
PDO Iași				

CIB-PDO - Harvested at noble rot; CT-PDO - Late harvest; CMD-PDO - Harvested at full maturity

Late harvest (CT), however, is not possible year after year, nor is harvesting grapes at the time of berry refinement (CIB), with an accumulation of at least 240 g of sugars/liter, possible only rarely and only by meeting certain restrictive conditions according to the Specifications in the Adamclisi, Dealu Mare, Banu Maracine or Segarcea areas.

Table 3. Volumes of Fetească neagră wine by quality category at national level (2019-2023)

Year	Wine (hl.) PDO / PGI / varietal	Table wine (hl)	Total (hl)
2019	62,966.54	1,228.02	64,194.56
2020	77,000.27	2,890.14	79,890.41
2021	106,917.06	865.46	107,782.52
2022	85,806.84	1,469.38	87,276.22
2023	135,104.21	7,442.60	142,546.81

Most wines made from the Fetească neagră grape variety naturally fall into the category of high-quality wines, while a relatively small percentage fall into the category of table wines. Of the years analyzed, the largest amount of Fetească neagră wine was clearly produced in 2023, namely over 142,546 hl. Of this amount, 135,104 hl were PDO, PGI and varietal wines, while 7,442 hl were classified as table wines. Second in terms of the quantity of wines, was the year 2021 with a title wine production of 107,782 hl that fell into the category of PDO, PGI and varietal wines, while 865 hl were classified as table wines.

The smallest amount of Fetească neagră wine was obtained in 2019 with a production of 64,194 hl, which is rate 45% of the 2023 production; 62,966 hl of these, were PDO, PGI and varietal wines and 1,228 hl were classified as table wines. Due to the recognition of the quality of Romanian wines from the Fetească Neagră variety, acquired from various producers, they have been awarded medals at the most prestigious international wine competitions.

In tables 4, 5, 6 are selectively present some of the most valuable medals received by wines from this variety in the most famous, demanding and popular wine competitions, such as: the Brussels World Competition, the Mundus Vini International Competition and the London Wine Competition and the Decanter World Wine Awards.

Table 4. Medals received by Fetască neagră wines at Brussels-World Competition


Grande Médaille d'or/ Gold Medal		
1.Hyperion Feteasca Neagra 2016		
2.Hyperion Exclusive Chairman's Reserve Cuvee Roumaine 2013 (Cabernet Sauvignon 40%, Merlot 30%, Feteasca Negra 30%)		
3.Domaine Ceptura Rouge 2014(Cabernet-Sauvignon 33%, Merlot 35%, Feteasca Negra 32%)		
Médaille d'or / Gold Medal		
1.Bacanta Feteasca Neagra 2017		
2.Davino Flamboyant (Cabernet Sauvignon 73%, Merlot 16%, Feteasca Negra 11%)		
3.Davino - Domaine Ceptura Rouge (Cabernet Sauvignon 34%, Merlot 32%, Feteasca Negra 34%)		
4.Feteasca neagra & Cabernet franc Stonewine (Feteasca Negra 40%, Cabernet franc 60%)		
5. Constantin Premium Red Blend (Merlot 40%, Cabernet-Sauvignon 30%, Feteasca Negra 30%)		
6.Domeniile Prince Matei (Merlot 40%, Feteasca Negra 45%, Cabernet-Sauvignon 15%)		

Table 5. Medals received by Fetească neagră wines in 2023 at the MUNDUS VINI International Competition




Médaille d'or / Gold Medal	
1.Selene – Fetească Neagră – Cramele Recas	
2.Melgis - Fetească Neagră- Petro Vaselo	
3.Lechburg - Feteasca Neagra	
4.Magnus - Feteasca Neagra (Ceptura)	
5.Hyperion Alexandrion - Feteasca Neagra	
6.Liliac Red Cuvée	
7.Davino Rouge	
8.Crepuscul	
9.Byzantium Rosso DOC	

Table 6. Medals received by Fetească neagră wines at the London Wine Competition and Decanter World Wine Awards

London Wine Competition - Silver Medal	
Selene – Fetească neagră – Cramele Recaş	
Vinarte - Fetească neagră	
Navigo - Feteasca neagra	
7arts by Sanvino Prod	
Decanter	
La Putere – Feteasca neagră - Cramele Recaş	
Petro Vaselo – Melgis	
Murfatlar - 3 Hectare	
Hallewood Hyperion - Feteasca neagră	
Budureasca - Feteasca neagră	
Byzantium Rosso Di Valachia (60% Fetească neagră, 20% Syrah/ Shiraz, 20% Cabernet Sauvignon)	

Conclusions

Just as the most famous wine-producing countries in the world have two or three very well-known varieties with which the viticulture of their respective countries is practically identified, we believe that Feteasca neagră can also become a representative variety for viticulture and winemaking in Romania due to the exceptional quality of the wines of this variety produced in recent years. The Fetească neagră variety has been cultivated since Dacian times, primarily in the wine-growing regions of Moldova. However, due to the new climatic conditions, the resources of most vineyards in Romania are equal to the biological needs of this variety, so it can be said that the variety can currently be found in the varietal ranges of most vineyards in Romania. However, over two thirds of the areas cultivated with this variety are in the wine-growing regions of Dealurile Moldovei, Dealurile Muntenia and Oltenia. Although it is a relatively demanding variety in terms of both growing conditions and winemaking technologies, due to the undeniable quality of the grapes, the areas planted have grown steadily in recent years, currently exceeding 3,300 hectares.

The vast majority of growers have managed to perfect and adapt the cultivation technologies according to the requirements of this variety, so that in most of the plantations, the productions obtained are more than satisfactory, balanced in quantity and quality. As a result of the new technologies of cultivation and winemaking, the quality of wines produced in Romania from the Fetească neagră grape variety is exceptional, appreciated and unanimously recognized by both consumers and specialists in the field. Testimony to this is the numerous gold medals obtained at the most prestigious wine competitions in the world.

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