

STUDY CONCERNING THE EVOLUTION OF VINEYARDS IN THE NORTH WEST REGION OF ROMANIA AND IN CLUJ COUNTY

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ABSTRACT

The study regarding the evolution of the vineyard surfaces on private property forms, in the North West development region as well as in Cluj County, over the period 1990-2019, provides the creation of the main image describing the direction of development in the vine- and viticultural field, an important component of agriculture.

Such an orientation has already emerged: the viticulture will be organized within the territorial limits of traditional areas. In the future, we foresee the establishment of new viticultural plantations, in areas with oenological potential.

In Cluj County, there is a favourable direction in the development of viticultural areas.

In 1990, the private form of vineyards was timidly represented, later it is described as a debut for the establishment of new vineyards in Cluj County, in Turda, on the Durgău hills, a place where vineyards have been cultivated for thousands of years. (Potaissa). In recent years, we can see an association between the culture of the vine and the tourist component of these areas, created and developed similarly within the local and regional tradition (from Transylvania).

INTRODUCTION

In Romania, the way of using the land has known over time significant changes generated by political, socio-economic, technological factors and last but not least by natural factors and climate change (Popovici, 2008). During communist times, the land structure has changed because it focused in particular on improving the use of agricultural land, upward higher categories, namely arable land, vineyards and orchards. The vineyards have increased their surface by over 50 thousand ha, as a result of the terracing works of the slopes in the regions of hills and plateaus, but also by stabilizing the sandy lands, such as those in the plains of Oltenia, Someș, Crișurilor etc.

If during the communist period the surface of the vineyards increased from 227.3 thousand ha in 1950 to 277.5 thousand ha in 1989 (Popovici et al., 2016), after 1990 there are two distinct intervals: the transition period 1990–2003

when there have been fundamental changes in the agricultural sector related to the transition from cooperative and state ownership to private ownership and the post-transition period 2003 – present, when changes in agriculture have been influenced by the adoption and implementation of the Common Agricultural Policy (CAP).

The changes that took place in the structure of agricultural holdings in the pre-adherence period, but also those in the period of Romania's post-adherence to the European Union are insignificant, the number of subsistence agricultural holdings being still very large.

From an administrative point of view, Romania is organized in 4 macroregions and 8 regions. Thus, Cluj County is included in the North-West Development Region, within the Macroregion 1. In the analysis from the perspective of the zoning of the vineyards in Romania, we find 8 wine regions. It is important that, from the point of view of the viticultural sector, the viticultural areas

in Cluj County, are found in the Viticultural Region of the Transylvanian Plateau

Within the specialized literature, there is a particular interest for the study of grape-bearing vine varieties, a fact that has been known since the first few years after World War I. Specific scientific information and scientific papers that were published regarding the behavior of grape-bearing vines under various natural conditions and, later, the achievement of various properties by the grapes-bearing vine under various natural conditions within various viticultural areas, represented the basis for the delimitation of the viticultural areas and for

MATERIAL AND METHOD

To establish the evolution of vineyard surfaces on private forms of property, in the North West Development Region, and the Cluj County, data belonging to the domain of agriculture statistics had selectively been included in the analysis.

The site used, <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table> is considered representative for the process of analyzing and interpretation. The AGR111A form (centralized) contain surfaces cultivated with grape-bearing vines, on private property form, the North West Development Region and Cluj County were included in this study. We

establishing the most suitable areas for the grape-bearing vines in Romania. (Oșlobeanu M., M. Macici, Magdalena Georgescu, V.Stoian, 2001).

One of the main factors determining the establishment of suitable areas for vineyards in Romania was represented by the quality of the vineyard and that of the wine production, an important criterion for obtaining superior quality vines, that include the following categories: WSO/VSQ (superior quality wine bearing names of origin) and WSOQ/VSOC (superior quality wine names of origin and levels of quality) Oșlobeanu et al., 2001.

considered reference the period 1990-2019.

The working method used: graphic design analysis and interpretation of statistical data.

RESULTS AND DISCUSSIONS

The main image describing the evolution of the areas cultivated with grapes is represented along with the design chart, which combines various elements such as types of vines (grafted vines, hybrid vines) or by destination (table or wine grapes), the form of private property, Macroregion I, North West Development Region, and Cluj County analyzed for a period of 29 years.

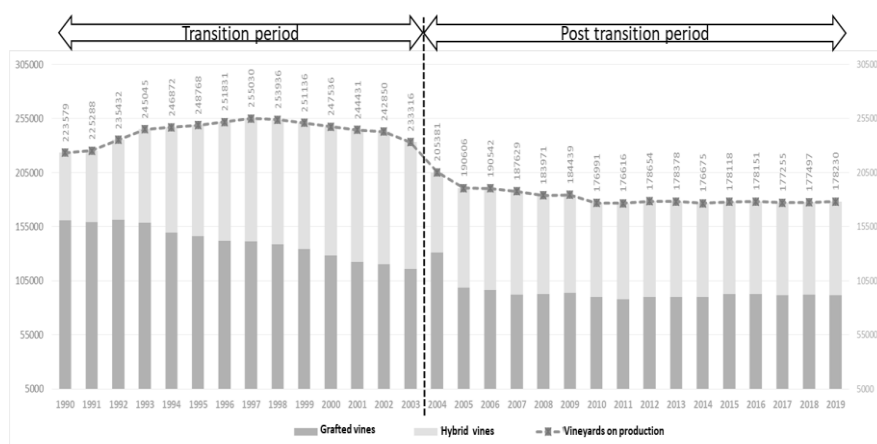


Fig. 1. Evolution of viticultural areas (ha), in the period 1990-2019, at national level

As shown in Figure 1, the two stages of the period after 1990, left their mark on the evolution of wine-growing areas in Romania. At the beginning of the transition period, in the year 1990, out of

There is a declining evolution from 1990 to 2003 of the areas with grafted vines and a significant increase of those with hybrid vines in the total vine. In 2004, out of the total vineyards in production (205 381 ha), the areas with grafted vines increase 131 325 ha (63.94%) compared to the areas with hybrid vineyards,

the total areas with vineyards in production (223 579 ha), the area with vineyards was occupied by 160 978 ha (72%), and the one with hybrid vineyards of 62 601 ha in (28%). decrease to 74 056 ha, this being due to deforestation.

In 2019, the total area with vineyards was 178 230 ha, the area of grafted vineyards represents 51.5%, and that with hybrid vineyards 48.5%, this trend being maintained since 2005.

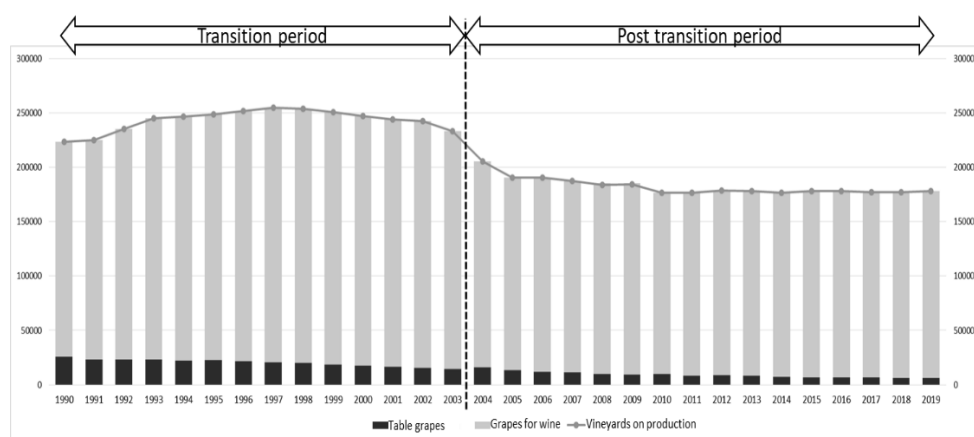


Fig. 2. Distribution of grape varieties according to destination, in the period 1990-2019, at national level

As shown in Figure 2, the evolution of the table grapes is different compared with grape for wine. In 1990, from the total area under vines on production, 223 579 ha it is observed that the 25 931 ha (11,55%) was occupied with table grapes and 197 748 ha (88,45%) with grapes for wines. In 2019, the evolution of the areas occupied with wine grapes shows a

maximum (the highest values) and the lowest value 3.5% for the areas with table grapes compared to 1990, of the vineyard surfaces. The analysis of areas with grafted vines versus hybrid vines out of the total areas with vines per fruit shows very high values recorded in most years (2003, 2014, 2018).

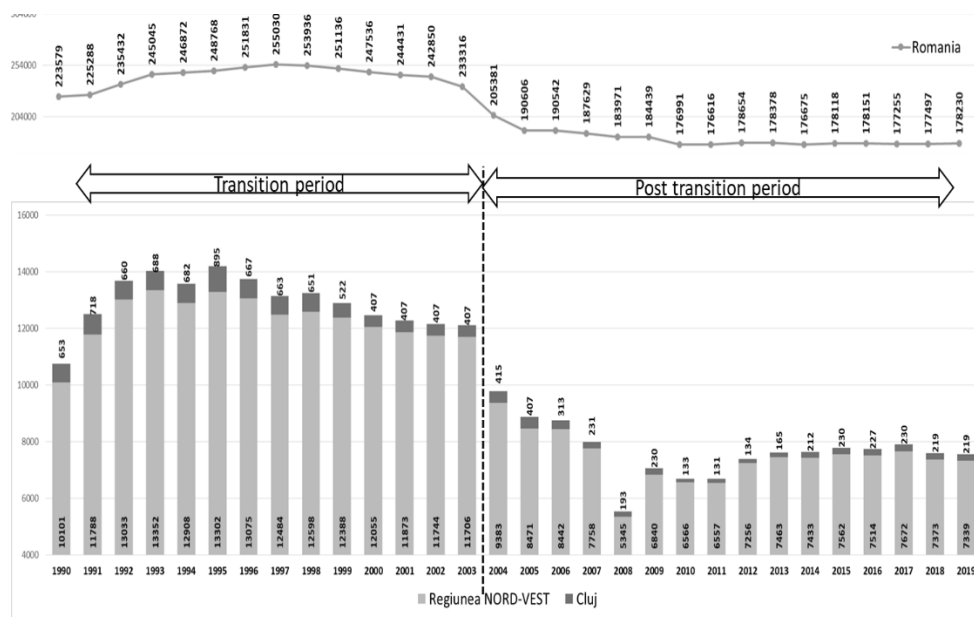


Fig. 3. Evolution of viticultural areas in Nord-West Region, in the period 1990-2019

At the level of the North-West Region of Romania also at the level of Cluj County (Fig. 3), the areas occupied by vines are very small compared to the national area. If during the transition period, the vineyards in the region were over 10 thousand ha, after 2003 they

began to decrease dramatically reaching about 7.5 thousand ha in 2019. The same trend registered in Cluj County, where it is currently found 219 ha cultivated with vines (0,12%) of the total area at the national level.

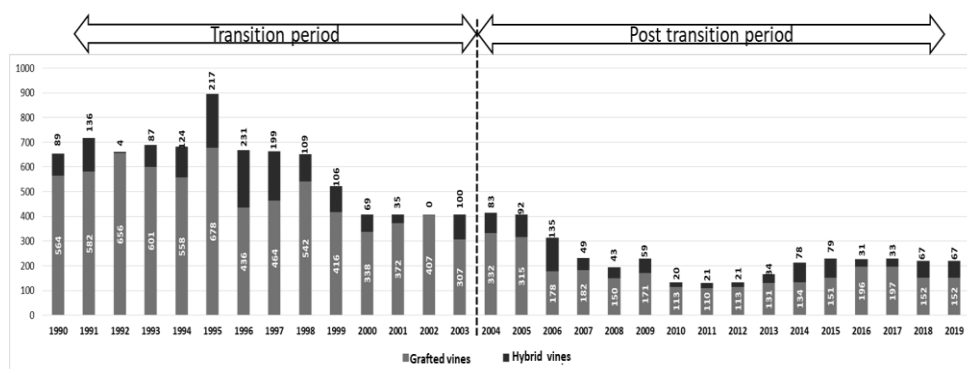


Fig. 4. Evolution of viticultural areas in Cluj County, in the period 1990-2019

In 1990, in Cluj County (Fig.4), the total area with vineyards on production was 653 ha from a total of 223 579 ha. In 1995, the vineyards occupied 895 ha of total vineyards and from this year until 2019, the area with vineyards is continuously decreasing.

Regarding the ratio between noble plantations and those planted with directly producing hybrids (Fig.4), from the maximum reached in 1995, after the transition period, by massive

deforestation, in 2003 the areas with grafted vineyards were halved (307 ha) as well as hybrids (100 ha). Between 2006 and 2017, in Cluj County, a favourable situation is observed again, the areas with grafted vines have an ascending increase compared to the hybrid vine from the total vine. This change in structure is due to the funds allocated to the wine sector as a result of Romania's accession to the EU.



Fig. 5 Distribution of grape varieties according to destination, in the period 1990-2019, at national level

Between 1990-2019, in Cluj County, the areas with grapes for wine dominate, those with table grapes are insignificant in terms of representation (Fig. 5). In 1990, 547 ha (83,8%) are occupied with grapes for wine versus 106 ha (16,23%) vineyards with table grapes, out of 653 ha, the total area with vineyards per fruit.

The difficult climatic conditions in the Transylvanian region, with frosty winters, late spring frosts, and hail during the vegetation period, influenced the choice of grape varieties so that by accessing funds for reconversion, farmer's option was to varieties for wine at the expense of table grape varieties.

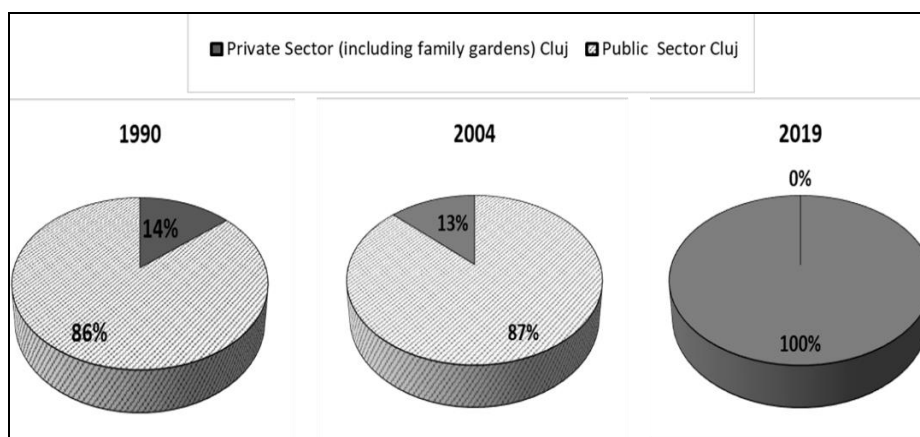


Fig. 6. Distribution of wine-growing areas (ha) in Cluj County, in the period 1990 – 2019, depending on the type of property

At the beginning of the transition period (1990), the most dominant type of property of vineyards was the state (Fig. 6). În 2004, as a result of the processes of privatization (based on the Land Fund Law 18/1991, with subsequent amendments and completions) Popescu, 2007; Bălțeanu et al., 2004, 2005, 87% of the vineyards (360 ha) had a private status, here being included the individual agricultural holdings such as family gardens.

Currently, in Cluj County, all the vineyards are found in the private sector, totaling an area of 219 ha.

The wines obtained in the Cluj region bear the Geographical Indication (GI) of quality "Transylvanian Hills". Among the most promoted wineries are those from Turda and Fizeșu Gherlii.

CONCLUSIONS

In the period after 1990, the main factors that had a significant influence in changing the dynamics of wine-growing areas are political, economic, technological, demographic factors, and with an increasing share of natural factors. None of these factors acted independently or in isolation, they were in permanent interaction.

The image described in the evolution of vineyards on the private form of properties in North West Development Region and Cluj County shows a favorable situation that encourages the systematic study of the viticultural field.

The national legislative regulations, the European legislation, and other administrative measures from the viticultural field adopted until now and correctly implemented, bring their contribution to the orientation of this field. Such an orientation has already emerged: The viticulture will be organized within the territorial limits of traditional areas.

In the future, we foresee the establishment of new viticultural plantations, in areas with oenological potential.

At the level of the North-West Region, the unfavorable situation for the increase of areas with grafted vineyards, requires administrative measures in the wine sector to allow investors to increase investments in this sector.

At the level of the North-West-Private Region, a greater involvement of the private sector at the regional level is recommended in order to increase investments in the wine sector.

In Cluj Country, there is a favorable direction in the development of viticultural areas. There is a tendency for the creation of new viticultural plantations in areas with oenological potential.

In 1990, the private form of vineyards was shy represented, and only later, it is described as the starting in the appearance of new viticultural plantations in Cluj Country, in Turda, on Durgău Hills,

a place where vines were cultivated for thousands of years (Potaissa).

From a geographical point of view, Turda is located in what we call the Turda-Aiud-Alba-Iulia Defile from the Transylvanian Depression. The natural conditions and some of the climatic particularities characterize this place, also specific to the Turda area, determine the wine obtained from the vines grown here to be provided with superior qualities.

Turda remains a viticultural area for thousands of years, being renowned for its superior quality wine, just as other vineyards and viticultural centers within The Transylvanian Plateau (Târnave, Alba-Iulia, Sebeș-Apold, Aiud, Lechința). Over the last few years, it can be observed the appearance of an association between the vines culture and the touristic component of these areas, also created and developed over the recent years within the local and regional tradition (from Transylvania).

Scientific research plays an important role in achieving information regarding the behaviour of grape-bearing vines varieties under various natural conditions specific to traditional viticultural areas and in establishing the most suitable areas for grape vines in each region of Romania. The varieties of vines approved for planting will be created through scientific research, with the recommendation to be indicated and authorized.

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