

THE CHARACTERISTICS OF VITICULTURE PRODUCTION IN SERBIA

OBELEŽJA VINOGRADARSKE PROIZVODNJE U SRBIJI

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Abstract: *Viticulture production is highly intensive production which demands both human work and considerable capital to be fertilized through various activities. In Serbia this type of production is organized on small family estates as well as plantations. Although there are all conditions of successful grape-vine growing in Serbia, economic researches show that viticulture production, in spite of the capacity available, is not on expected level.*

Apstrakt: *Vinogradarska proizvodnja predstavlja visoko intenzivnu proizvodnju, koja pored velikog angažovanja živog rada, zahteva i značajan kapital koji se preko niza aktivnosti mora oploditi. Ovaj vid proizvodnje u Srbiji organizovan je na malim porodičnim gazdinstvima, kao i na plantažnim zasadima. Međutim, iako u Srbiji postoje svi preduslovi za uspešno gajenje vinove loze, ekonomska istraživanja pokazuju da položaj vinogradarske proizvodnje, s obzirom na raspoložive kapacitete, nije na očekivanom nivou.*

Key words: *viticulture, production, characteristics*

Ključne reči: *vinogradarstvo, proizvodnja, obeležja*

INTRODUCTION

Agroecological conditions of grape-vine growing in Serbia are known to be very favourable. This fact is confirmed by historical data showing grape-vine has been grown in this region since ancient times and that viticulture in Serbia has always been an integral part of viticulture in the Balkans. There was a particular flourish of viticulture in medieval Serbia, but it almost ceased under the Turkish reign. With liberation from the Turks it was revitalized, so Serbia became an important wine-growing country again. Development of modern viticulture had its turning point after the World War II when ownership was divided into social, communal and private sectors.

MATERIAL AND METHODS

According to data the Republic Institute of Statistics possesses and applying appropriate statistical methods, the trend of vineyard areas and grape production in Serbia were observed during the period 1950-2005. This analysis included family estates as well as plantations.

RESULTS AND DISCUSSION

Viticulture production on family estates

In 2005, comparing to 1983, vineyard areas in private sector were smaller for 25,930 ha, but percentage of their participation in the whole vineyard area in Serbia was bigger for 2.0 %. According to data from 2005, 91.69 % of the entire grape-vine growing ground was property of family estates (figure 1).

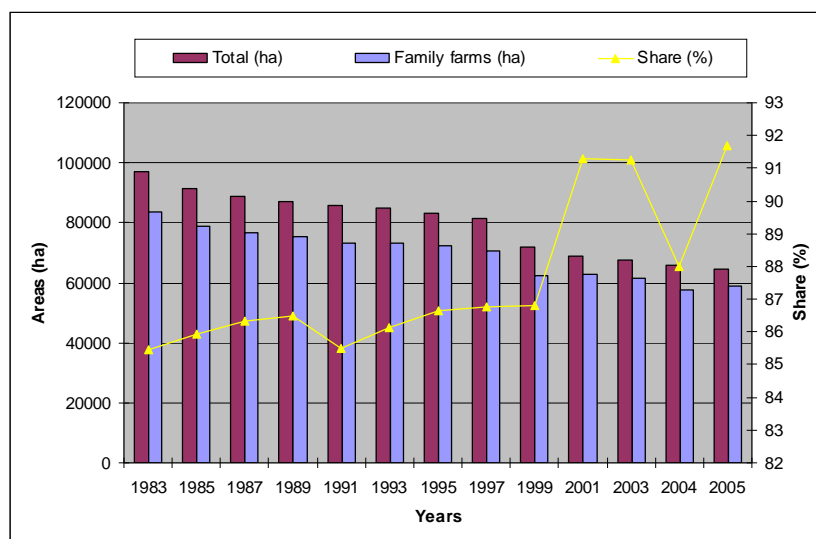


Figure 1. Entire vineyard area in Serbia, family estates and percentage of their participation in the period 1983-2005

(Source of data: Bilten "Ratarstvo, vocarstvo i vinogradarstvo" for analyzed year)

Indexes of trend of vineyard areas in private sector in Serbia in comparison with the basic 1950 are shown in Table 1.

Table 1
Indexes of trend of vineyard areas in private sector in Serbia 1950-2005 (1950 = 100)

Years	Central Serbia	Vojvodina	Kosovo and Metohia
1950	100,00	100,00	100,00
1955	112,42	68,39	122,22
1965	99,36	80,40	132,36
1975	90,39	89,87	142,02
1985	75,23	55,78	156,26
1995	69,76	45,82	158,22
2005	58,11	64,59	-

In Central Serbia the tempo of decrease of the areas is 41.89 % comparing to the basic year. In Vojvodina decrease of the areas is slower (35.41 %).

The essential factor of such a rapid decrease of the areas is the increased speed of urbanization of population, followed by active village population's getting old, while grapevine requires serious engagement of human work, only the part of which can be replaced by mechanization. Besides, the process of enlargement of family estates was slowed down when modern plantations were established.

In Kosovo and Metohija there is an opposite trend, i.e. increase of the areas comparing to the basic year for 58.22% in 1995. One of the main reasons for such a situation is investing in new plantations.

Although data needed for a reliable and thorough analysis are not complete, it can be said that unfavourable economic position of viticulture production on family estates results in constant decrease of production. Considering fact that private sector in Serbia realizes more than 87.00% of the entire grape production, private producers` problems are essential problems of our viticulture production (figure 2).

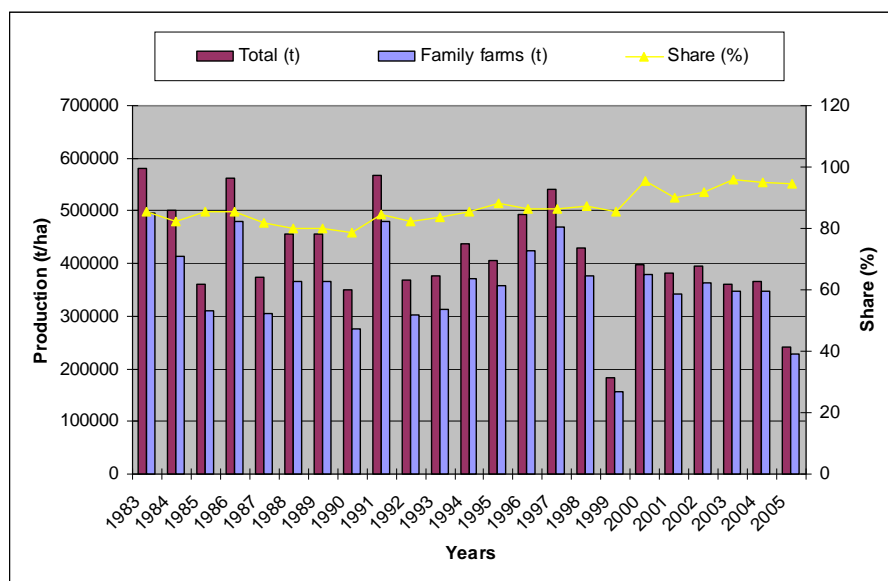


Figure 2: Trend of the entire grape production in Serbia, production on family estates and percentage of their participation during the period 1983-2005
(Source of information: Bilten "Ratarstvo, vocarstvo I vinogradarstvo" for analyzed years)

Decrease of viticulture production can be explained by:

- old and out-of-date plantations (regarding the system of growing and grape varieties) and producers' inability (or indifference) to replace them
- insufficient application of modern viticulture technology on small estates
- decrease or giving up viticulture by a large number of producers as a consequence of inadequate economic results
- in recent years, absence of efficient productive cooperation among companies and private producers, i.e. lack of their professional and material influence on improvement of production in this sector. Their arrangement of cooperation so far included mere selling and purchasing relation with distinctive intention of providing raw materials for processing industry. In most cases such an attitude did not result in intensification of production. Today, the things are gradually changing because of scientific organizational-technical approach to revitalization

of production in private sector, applied and tested in developed grape-vine growing countries.

If the trend of average yield is analyzed, it can be noticed that the lowest yields were achieved in 1999(2,51t/ha) and the highest (6,92t/ha) in 1996, which is also the maximum yield achieved on family estates in Serbia during the period analyzed (figure 3).

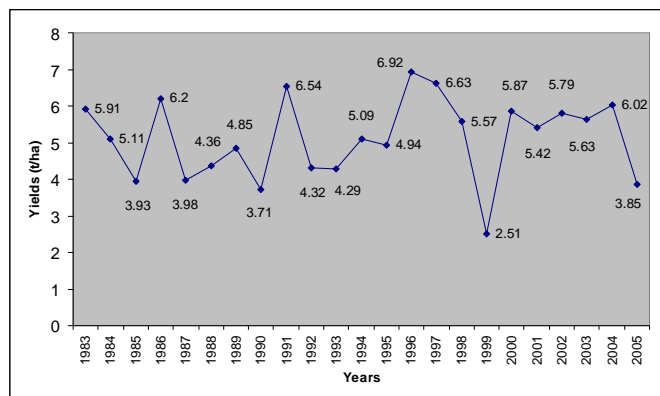


Figure 3: Trend of average yield on family estates in Serbia in the period 1983-2005

The question of which level of production provides acceptable economic results is frequently discussed, i.e. which height of yield brings about profitable grape production. There are various practical and theoretical attitudes to this issue. In studies on growing intensive vineyards yields of 10-20 t/h are considered to be the best.

Viticulture production on plantations

According to Milic, several years lasting vineyards properly planted in rows in a ground complex of adequate shape and size and rationally treated are called plantations.

Plantations represent major capacities of modern production which, with modern technology and organization applied, can provide high yield.

On plantations in the world there are vineyards in wide rows, with high stems and modern shapes of vine stocks. These vineyards use contemporary mechanization for soil maintenance, fertilization and protection against diseases and pests.

However, on plantations in Serbia the situation is quite different. There is lack of mechanization for preparing ground, planting and nursing young grape-vines. Most working operations are manually done on the level of classical planting or planting by hydrobur.

In 2005 plantations with modern organization of grape production were represented by 14.55 % in the total vineyard area (figure 4).

Wine-growers think that producing areas are smaller than statistics suggest. There are old vineyards which need clearing (since there are no longer fruitful), but statistics regard them fruitful, which means real situation and statistical records are not coordinated.

In total grape production in the Republic of Serbia plantation vineyards participated with 95,966 t or 16.90 % in 1991 and with 32,995 t or 13.71% in 2005 (Figure 5).

Applying new varieties and modern agritechnical measures, despite decrease of the areas, participation of production on plantations in the whole production rose to 20.63 % in 1993. After that, as a consequence of previously mentioned problems, as well as inability to

provide adequate means for protection and nourishment of grapes, this participation decreased to 13.71 % in 2005.

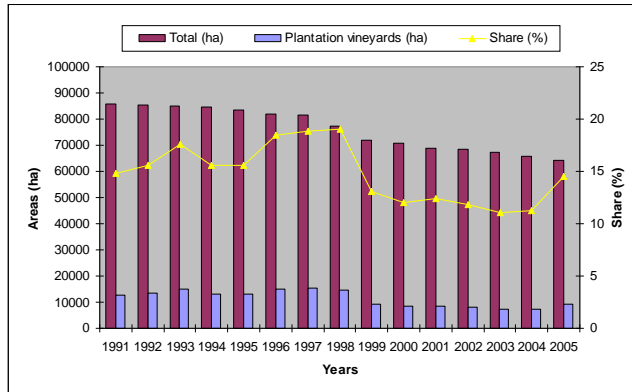


Figure 4: Entire vineyard area in Serbia and plantations in the period 1991-2005 (Source of information: "Saopstenja" by the Republic Institute of Statistics)

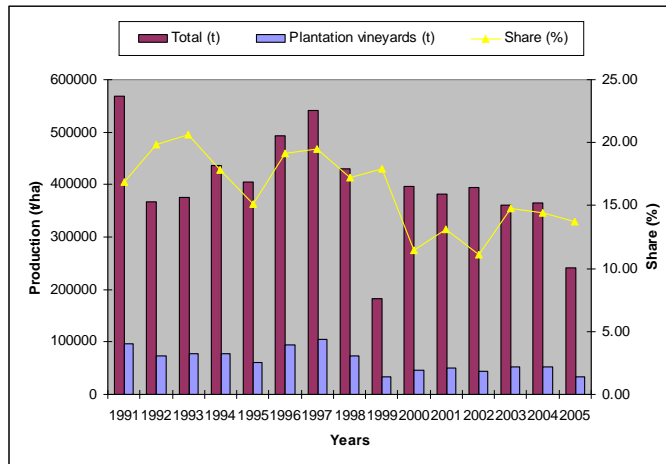


Figure 5: Grape production on plantations and their participation in the total grape production in Serbia during the period 1991-2005. (Source of information: "Saopstenja" by the Republic Institute of Statistics)

Trend of average yield on plantations during the analyzed period is presented in Figure 6. Average yields in the period 1991-1999 had a downward tendency, they reached minimum in 1999 (3,5 t/h). From 1999 to 2003 average yields showed an upward tendency, but in the last analyzed year (2005) decreases to 3,5 t/h.

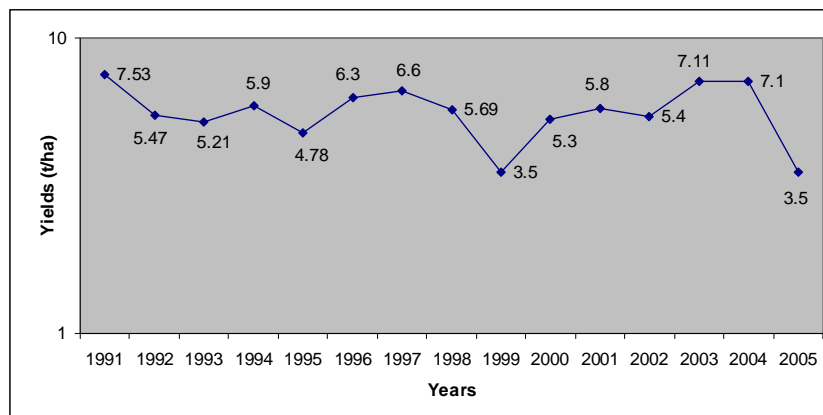


Figure 6: Trend of average yield on plantations in Serbia in the period 1991-2005.
(Source of information: "Saopštenja" by the Republic Institute of Statistics).

CONCLUSIONS

Viticulture production in Serbia is mainly organized on small family estates. In crease of participation of private sector in the entire area can be noticed despite decrease of vineyard areas in all sectors of ownership. Average yields did not provide such profits to meet expectations of household members and enable further development of estates. If conditions of applying modern and productive organizational-technical solutions are not fulfilled, production will not be revived. In that case, most households will turn to other, more profitable activities.

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