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CONSIDERATIONS REGARDING THE E.U. ROLE IN THE WORLD GRAPE PRODUCTION

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Abstract

The paper aimed to analyze the EU-27 position in the world grape production based on the data collected from FAO Stat data base for the period 2000-2008, using the index and share methods. The EU-27 is the most important vine cultivator and grape producer in the world. With its 3.5 million ha planted with vine, it accounts for 90.21 % of Europe's area of vineyards and 48.14 % of the world vine area. In 2008, the EU-27 produced 25.1 million tones grapes placing it on the top position and contributing by 41.56 % to the world production. The top European countries: Italy, Spain, France, Germany and Romania achieved 21.8 million tones grapes, representing 86.98 % of the EU-27 and 32.96 % of the world grape production. Italy, Spain and France are among the top 10 grape producers in the world. As a conclusion, even thou the EU-27 planted area decreased by 8.24 % and its grape production declined by 16.16 %, the EU-27 continues to remain the main grape producer in the world.

***Key words**: EU-27, grape, production, trends, vineyards area*

INTRODUCTION

Grapes are among the most attractive and preferred fruits. They are consumed both as such, but also as grape just, wine, jam, jelly, seed extract, raisins, sultanas, vinegar and seed oil. [1].
They have a benefic effect on the human body due to their chemical composition rich in sugar, antioxidants, minerals, vitamins etc [4].
Grape consumption assures the protection of blood vessels, the decrease of cholesterol level, it has an antioxidant effect because of its poly-phenols (mainly resveratrol) which have a strong effect against free radicals and cancer [2,3,5,6,7].
Grape demand is increasing but demand/offer ratio is unbalanced because of the production decline during the last 30 years [3].
Grape production varies from a country to another in close relationship to climate and soil conditions, vine cultivars and varieties, plantation surface and grape yield [1].
In this context, the present paper aimed to analyze the EU position of role in the world grape production taking into account the surface of vine plantation, and grape yields.

MATERIALS AND METHODS

The paper was set up based on the data collected from FAOStat data base for the period 2000- 2008 in order to comparatively analyze the status of vine plantations' area at world level and in the top cultivating countries, world grape production, its distribution by continent and in the top producing countries. Also, the data for the same years were collected for the EU-27 as a whole, but also by each member state regarding: vineyards surface and grape production in order to identify the major changes along the time and the position of the EU-27 and of its important grape producers in the world.
The primary data have been statistically processed using the index, share and comparison method, common procedures for such an analysis and the obtained results have been interpreted.

RESULTS AND DISCUSSIONS

Vine cultivated area at world level

At world level, vine plantations occupied 7,473,020 ha in 2008, by 2.54 % more than in the year 2000. In largest cultivated area is situated in Europe, which accounts for 53.54 % of world vine planted surface. On the 2nd position is situated Asia with 26.90 % of world vine planted area. On the next positions are coming South America (7 %), North America (5.19 %), Africa (4.89 %) and Oceania (2.48 %).

In the period 2000-2008, the surface of vine plantations registered a decline in Europe (-8.87 %) and North America (-0.55 %) and increased in South America (+21.49 %), Asia (+21.09 %) and Africa (+18.39 %) (Table 1).

In 2010, the total surface planted with Vitis species reached 7,586,600 ha, showing an average growth of 2 % per year.

Table 1.World area planted with vine and its distribution by continent

Continent	2000	2008	2008/2000 (%)	The share in the world area in 2008 (%)
Europe	4,375,574	3,987,500	91.93	53.54
Africa	308,624	365,400	118.39	4.89
North America	390,482	388,345	99.75	5.19
South America	430,861	523,478	121.49	7.00
Asia	1,660,357	2,010,600	121.09	26.90
Oceania	120,820	196,697	162.79	2.48
Total world	7,286,718	7,472,020	102.50	100.00

Source: FAOStat, 2011 [8]. Own calculations

The top 10 countries regarding the planted area with vine totalized 7,472,020 ha in 2008, by 2.54 % more than in the year 2000. Their vine surface represented 69.39 % of the world area in the year 2008.

The share of planted area in the world vine surface by country was the following one: Spain 14.84 %, France 10.90 %, Italy 10.54, China 9.30 %, Turkey 6.46 %, USA 5.06 %, Iran 3.71 %, Portugal 20.98 %, Argentina 2.93 %, Chile 2.58 % (Table 2).

In the period 2000-2008, the area planted with vine has registered a decline in Italy (-9.70 %), France (-5.38 %), Spain (-5.03 %) and Portugal (-4 %), but it has increased in China (+144.20 %), Chile (+22.95 %), Argentina (+16.88 %) and Iran (+5.32 %).

In 2010, the top producers of grapes for wine making, in the decreasing order according to the planted area were: Spain (1,175 thousand ha), France (864 thousand ha), Italy (827 thousand ha), Turkey (812 thousand ha), USA (415 thousand ha), Iran (286 thousand ha), Romania (248 thousand ha), Portugal (216 thousand ha), Argentina (208 thousand ha), and Chile (184 thousand ha).

Table 2.The top 10 countries in the world based on the area planted with vine (ha)

Country	2000	2008	2008/2000 (%)	The share in the world area in 2008 (%)
Spain	1,167,700	1,109,050	94.97	14.84
France	860,979	814,697	94.62	10.90
Italy	872,730	788,100	90.30	10.54
China	786,128	698,730	244.20	9.35
Turkey	535,000	482,780	90.23	6.46
USA	383,016	378,770	98.89	5.06
Iran	263,692	277,740	105.32	3.71
Portugal	231,959	222,700	96.00	2.98
Argentina	187,740	219,440	116.88	2.93
Chile	156,859	192,870	122.95	2.58
Total Top 10	4,945,803	5,184,877	104.83	69.39
Total world	7,286,718	7,472,020	102.54	100.00

Source: FAOStat, 2011[8]. Own calculations

Therefore, 5 European countries: Spain, France, Italy, Romania and Portugal are among the top countries regarding the surface planted with vine in order to produce wine.

The surface planted with vine in the EU-27 accounted for 3,597,437 ha in the year 2008, when it was by 9.24 % smaller than in the year 2000. In 2008, it represented 90.21 % of the vine planted area in Europe and 48.14 % of the vine planted area at world level. In the period 2000-2008, the share of the EU-27 in the Europe's planted area with vine increased from 89.59 % in 2000 to 90.21 % in the year 2008 (Table 3).

At world level, the share of the EU-27 planted area with vine declined from 53.79 % in the year 2000 to 48.14 % in the year 2008.

In the EU-27, there are important cultivators of vine with a long tradition, also some other countries with medium-sized surfaces cultivated with vine and also countries with very small or no cultivated areas with vine

(Denmark, Estonia, Finland, Ireland, Latvia, Lithuania, Poland and Sweden).

The planted area with vine declined in most of the EU-27 countries. The highest decrease was noticed in: Belgium (- 85 %), Slovakia (- 46 %), Greece (-30 %), Malta (-40 %), Romania (-25 %), Hungary (-15 %), Cyprus (- 22 %). The only countries where the planted area with vine registered an increase were Czech Republic (+ 45 %), Luxemburg (+6.95 %), Slovenia (+4.33 %) and the Netherlands (+20 %) (Table 3).

Table 3.The area planted with vine in the EU-27 (ha)

Country	2000	2008	2008/2000 (%)	Share of the EU-27 in 2008 %
Austria	48,082	45,622	94.88	1.26
Belgium	65	10	15,38	0
Bulgaria	111,207	110,816	99.64	3.08
Cyprus	18,410	13,590	78.31	0.37
Czech Republic	11,236	16,300	145.06	0.45
Denmark	-	-	-	-
Estonia	-	-	-	-
Finland	-	-	-	-
France	860,979	814,697	94.62	22.64
Germany	101,546	99,700	98.18	2.77
Greece	124,790	86,800	69.55	2.41
Hungary	88,672	75,776	85.45	2.10
Ireland	-	-	-	-
Italy	872,730	788,100	90.30	21.90
Latvia	-	-	-	-
Lithuania	-	-	-	-
Luxemburg	1,309	1,400	106.95	0.03
Malta	317	190	59.39	0
Netherlands	40	48	120.00	0
Poland	-	-	-	-
Portugal	231,959	222,700	96.00	6.19
Romania	247,500	187,038	75.57	5.19
Slovakia	17,531	9,600	54.76	0.20
Slovenia	15,335	16,000	104.33	0.44
Spain	1,167,700	1,109,050	94.97	30.82
Sweden	-	-	-	-
United Kingdom	809	700	86.52	0.09
EU-27	3,920,217	3,597,437	91.76	100.00
Share of the EU-27 in Europe (%)	89.59	90.21	-	-
Share of the EU-27 in total world (%)	53.79	48.14	-	-

Source: FAOStat, 2011[8]. Own calculations

In 2008, the top 10 countries in the EU-27 regarding the planted area with vine were: Spain, whose share in the total EU-27 area of vineyards was 30.80 %, then on the 2nd position comes France (22.63 %), on the 3rd position Italy (21.89 %). The cultivated area with vine in these three countries accounted for 2,711,847 ha, representing 75.38 % of the EU-27 area and 36.29 % of the world area planted with Vitis species. The countries coming on the next positions are: Portugal (6.18 % of the EU-27 area planted with vine), Romania (5.19 %), Bulgaria (3.07 %), Germany (2.76 %), Greece (2.41 %), Hungary (2.10 %) and Austria (1.26 %).

All these top 10 countries in the EU-27 had together 3,540,299 ha representing 98.41 % of the EU-27 planted area with vine. If one considered all the 5 countries situated on the top positions, their vine surface accounted for 3,121,585 ha, representing 86.77 % of the EU-27 and 41.77 % of the world planted area with vine.

World grape production increased by 2.85 % from 64.4 million tones in the year 2000 to 66.2 million tones in the year 2008. The highest contribution to the world grape production was given by Europe, 41.56 %, and Asia, 27.86 %. The other continents had a smaller contribution in the year 2008: South America 10.80 %, North America 10.14 %, Africa 6.37 % and Oceania 3.27 %. In 2010, world grape production reached 68,311,466 tones according to FAO Statistical data, of which 71 % was used for producing wine, 27 % as fresh fruit and 2 % as dried fruit (Table 4).

Table 4.World grape production by continent (Tones)

Continent	2000	2008	2008/2000 (%)	Share in the world in 2008
Europe	22,575,639	27,547,816	84.56	41.56
Africa	3,216,066	4,226,063	131.40	6.37
North America	7,037,548	6,720,882	95.50	10.14
South America	5,671,506	7,158,301	126.21	10.80
Asia	14,536,278	18,466,090	127.03	27.86
Oceania	1,391,480	2,151,790	154.64	3.27
Total world	64,428,517	66,270,742	102.85	100.00

Source: FAOStat, 2011[8]. Own calculations

The top 10 countries in the world produced together 46.2 million tones grapes in the year 2008, by 7.01 % more than in the year 2000. Their production represented 69.82 % of the world grape production in 2008. The hierarchy, in the decreasing order, and the contribution of each country to the world grape production in the year 2008 was the following one: Italy (16.84 %), China (15.63

%), USA (14.34 %), Spain (12.86 %), France (12.27 %), Turkey (8.46 %), Argentina (6.28 %), Chile (5.18 %), Australia (4.22 %) and South Africa (3.87 %) (Table 5).

In the year 2010, the contribution of various countries to the world grape production, 63,311,466 tones, was the following one: China 12.67 %, Italy 11.40 %, the USA 9.11 %, Spain 8.94 %, France 8.56 %, Turkey 6.23 %, Chile 4.03 %, Argentina 3.83 %, India 3.31 % and Iran 3.30 %. One can notice China's fast increase of the area cultivated with vine and grape production. This country succeeded to come on the 1st position, regarding grape production.

Grape production in the EU-27 decreased by 16.16 % from 29.9 % million tones in the year 2000 to 25.1 million tones in the year 2008. However, the situation is different from a country to another. Grape production registered a decline in countries such as: Belgium (-89 %), United Kingdom (-24 %), Bulgaria (-20 %), Cyprus (-68 %), France (-27 %), Greece (-32 %), Hungary (-17 %), Italy (-13 %), Luxembourg (-8 %), Portugal (-27 %), Romania (-23 %), Slovakia (-13 %), Slovenia (-17 %) and Spain (-9 %). Therefore, this was the main factor determining the decline of grape production in the EU-27. But grape production increased in a few countries: Austria (+31 %), Czech Republic (+46.8 %), Germany (+4.9 %), Malta (+2.75 %), and the Netherlands (+6 %).

Table 5 .Top 10 producing countries of grapes in the world (Tones)

Country	2000	2008	2008/2000 (%)	Share of the EU-27 in 2008 %
Italy	8,869,500	7,793,300	87.86	16.84
China	3,373,216	7,235,656	214.50	15.63
USA	6,973,800	6,639,920	95.21	14.34
Spain	6,539,810	5,951,580	91.00	12.86
France	7,762,580	5,678,500	73.15	13.27
Turkey	3,600,000	3,918,440	108.84	8.46
Argentina	2,459,860	2,910,640	118.32	6.28
Chile	1,899,940	2,400,000	126.31	5.18
Australia	1,311,380	1,956,790	149.21	4.22
South Africa	454,730	1,791,640	394.00	3.87
Total top 10	43,244,916	46,276,466	107.01	69.82
Share of the Total world 9%)	67.12	69.82	-	-

Source: FAOStat, 2011[8]. Own calculations

Also, countries like Denmark, Estonia, Finland, Ireland, Latvia, Lithuania, Poland and Sweden could not give any contribution to the EU grape production because of the lack of vine plantations as imposed by climate conditions (Table 6).

The top 10 grape producers in the EU-27 are: Italy on the 1st position with a share of 31.03 % in the EU-27 production, Spain on the 2nd position with a contribution of 23.70 %, on the 3rd position is France with 22.61 %. These 3 countries together contributed by 77.34 % to the EU-27 grape production in the year 2008.

Table 6.Grape Production in the EU-27 (Tones)

Country	2000	2008	2008/2000 (%)	Share of the EU-27 in 2008 %
Austria	303,940	399,163	131.32	1.58
Belgium	800	90	11.25	-
Bulgaria	451,474	363,539	80.52	1.44
Cyprus	110,768	35,976	32.47	0.14
Czech Republic	66,937	98,323	14.688	0.39
Denmark	-	-	-	-
Estonia	-	-	-	-
Finland	-	-	-	-
France	7,762,580	5,678,500	73.15	22.61
Germany	1,360,900	1,428,780	104.98	5.68
Greece	1,251,460	852,900	68.15	3.39
Hungary	683,641	570,502	83.45	2.27
Ireland	-	-	-	-
Italy	8,869,501	7,793,300	87.86	31.03
Latvia	-	-	-	-
Lithuania	-	-	-	-
Luxembourg	18,357	16,900	92.06	0.06
Malta	1,306	4,898	375.03	0.01
Netherlands	100	106	106.00	0
Poland	-	-	-	-
Portugal	1,045,030	763,000	72.94	3.03
Romania	1,295,300	996,023	76.89	3.96
Slovakia	59,371	51,617	86.93	0.20
Slovenia	126,650	105,719	83.47	0.42
Spain	6,539,810	5,950,580	91.00	23.70
Sweden	-	-	-	-
United Kingdom	1,400	1,064	76.00	0.09
EU-27				
EU-27	29,950,224	25,111,980	83.84	100.00
Total Top 10	29,564,536	24,797,287	83.87	98.74

Source: FAOStat, 2011[8]. Own calculations

On the 4th position was placed Germany with 5.68 % and on the 5th position Romania with 3.96 %. The first 5 countries contributed all together by 86.98 % to the EU-27 grape production in the year 2008. In the same year, their grape production represented 21.8 million tones which accounted for 32.96 % of the world grape production.

Also, on the next 5 positions are situated Greece (3.39 %), Portugal (3.03 %), Hungary (2.27 %), Austria (1.58 %) and Bulgaria (1.44 %) as other important producers in the EU-27.
Taking into consideration all these 10 top grape producers, their production accounted for 24.7 million tones, representing 83.87 % of the EU-27 production (Table 6).

CONCLUSIONS

The EU-27 is the most important grape producer in the world. Its area planted with vine accounted for 3.5 million ha, representing 90.25 % of the vineyards area in Europe and 48.14 % of the vine planted area in the world.
Four EU countries: Spain, France, Italy and Portugal had together 2.9 million ha vineyards, representing 39.18 % of the world planted area with vine, placing them among the 10 top vine cultivators in the world.
The EU surface cultivated with vine decreased by 8.24 % in the period 2000-2008, with a negative influence on grape production and its contribution to the world production accounted for 25.1 million tones, being by 16.16 % smaller than in the year 2000.
The general trend was a decreasing one in the most important producing countries in the EU.
The top 5 EU-27 grape producers are: Italy, Spain, France, Germany and Romania, whose production totalized 21.8 million tones, contributing by 86.98 % to the world grape production.
Three countries: Italy, Spain and France are among the 10 top producers of grape in the world. As a conclusion, the EU plays and will continue to play a very important role in the world grape production as long as it has a long tradition and high performance in producing grapes, a large market and a favorable demand/offer ratio.

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