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Territori del vino in Italia

Evolution of ampelographic platform in Italy

01 March 2014.

Luigi Bavaresco, Mario Pecile Carmelo Zavaglia

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PREO

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INTRODUCTION

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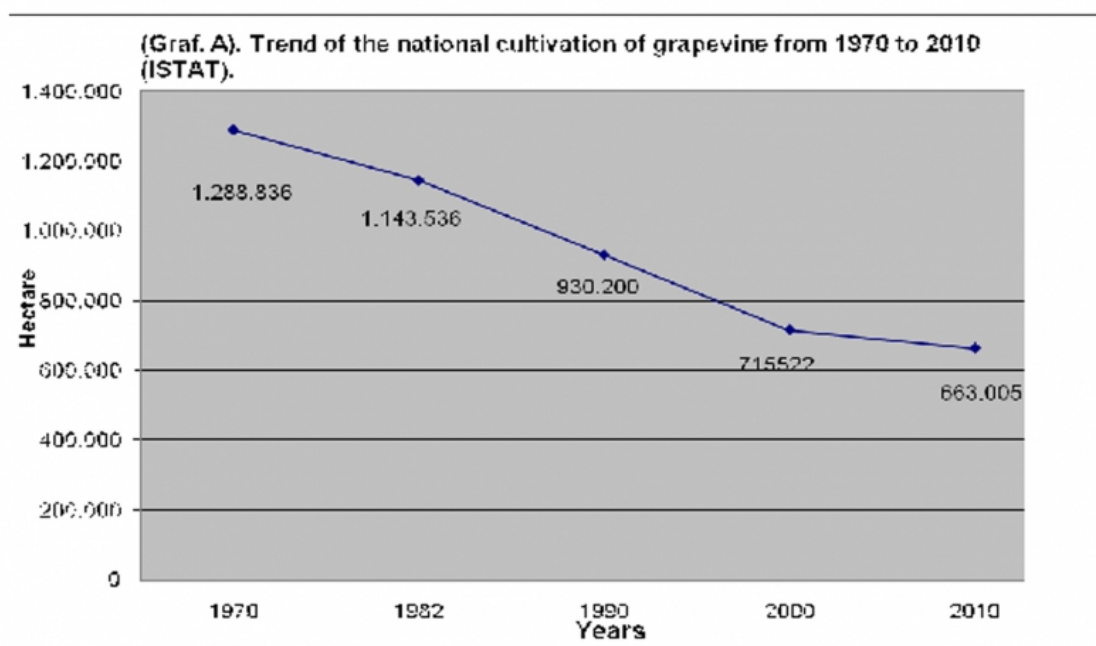
INTRODUCTION

- 1 Grapevine cultivation in Italy can be traced back to ancient times and covered the entire peninsula adapting to a very large number of environmental conditions. Currently, compared to pre-phylloxera age, the number of cultivated varieties has certainly reduced, but still remains substantial. In fact, in the National Register of vine varieties 472 grape varieties for wine production and 129 for table grapes are recorded.
- 2 The purpose of this paper is to analyze briefly the main changes in the cultivation of vine in the period 1970 - 2010, on the grounds of official data of the decennial censuses made by ISTAT (National Institute of Statistics). In the first part data will be provided on the progress of the national and regional acreages devoted to vine for table and wine production. Due to the fact that production of table varieties is less important in comparison to wine varieties and that the

table varieties grown are the more and more foreign varieties that change quickly, in the second part we will analyze the main patterns of national acreage in respect to vine varieties for wine production only.

THE NATIONAL AND REGIONAL VINEYARDS.

- 3 Since the early '70s, the areas under vines have had a negative trend with a sharp decline to the present day. In fact, the over 1.288.836 hectares (wine and table varieties) surveyed by ISTAT in 1970 shifted to 663.005 in 2010, a decrease of 625.831 hectares equal to 50% of the initial vine growing area. This decline has been continuous and had a higher incidence in the 70-82 decade, with the loss of about 145.300 hectares, and then in 1990-2000 decade with other 214.678 hectares that were withdrawn from the production area. The phenomenon has continued according to the last ISTAT (2000-2010) survey, but with a little slower trend, to the point that in this period only 50.000 hectares of vineyard area were lost; that is an annual quota of about 5.000 hectares, compared with more than 20.000 of the previous decade and 15.000 in the period 70-82 (Graph. A and Table 1).



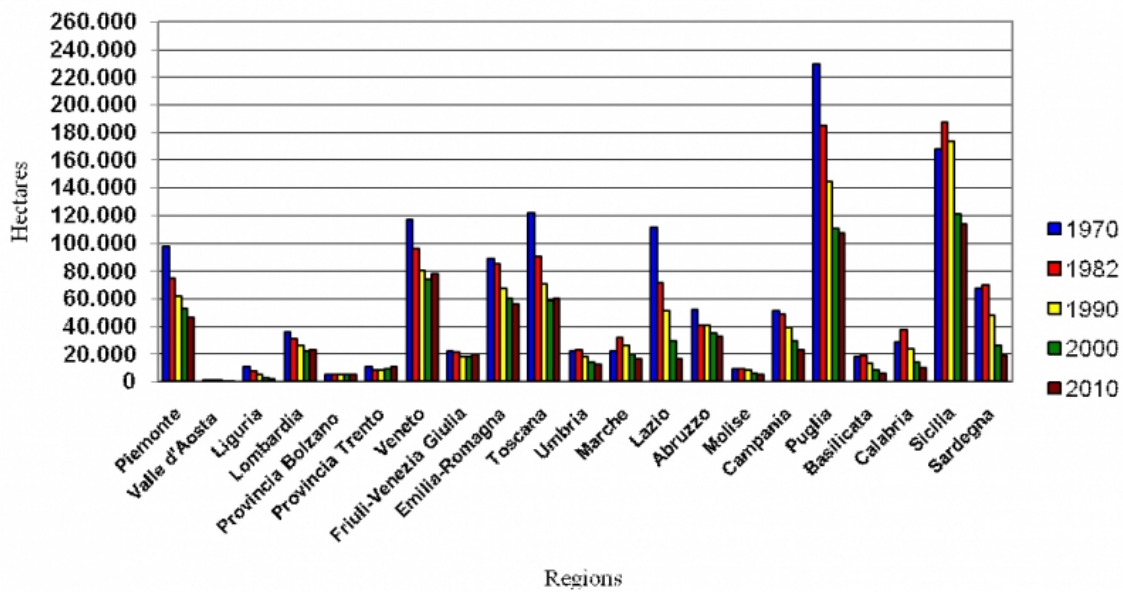
REGIONS	Years									
	1970		1982		1990		2000		2010	
	Hectares	%	Hectares	%	Hectares	%	Hectares	%	Hectares	%
Piemonte	97.508	7,58	74.563	6,52	61.734	6,64	52.887	7,39	46.570	7,02
Valle d'Aosta	968	0,08	947	0,08	691	0,07	515	0,07	463	0,07
Liguria	10.831	0,85	7.378	0,65	5.279	0,57	2.391	0,33	1.565	0,24
Lombardia	35.578	2,77	30.683	2,68	25.873	2,78	22.048	3,08	23.185	3,50
Provincia Bolzano	5.476	0,42	5.157	0,45	5.086	0,55	4.809	0,67	5.291	0,80
Provincia Trento	10.919	0,85	8.709	0,76	8.587	0,92	9.051	1,26	10.386	1,57
Veneto	116.501	9,04	95.699	8,37	80.635	8,67	73.726	10,30	77.806	11,74
Friuli-Venezia Giulia	21.760	1,69	21.529	1,88	17.805	1,91	17.800	2,49	19.332	2,92
Emilia-Romagna	87.730	6,85	85.590	7,48	67.497	7,26	59.988	8,38	55.914	8,43
Toscana	121.364	9,47	89.979	7,87	70.487	7,58	58.446	8,17	59.955	9,04
Umbria	22.076	1,72	22.955	2,01	17.986	1,93	14.226	1,99	12.503	1,89
Marche	21.822	1,70	32.021	2,80	26.179	2,81	19.703	2,75	16.838	2,54
Lazio	106.154	8,61	71.207	6,23	51.362	5,52	29.524	4,13	16.798	2,53
Abruzzo	38.479	4,05	40.709	3,56	40.824	4,39	34.890	4,88	32.496	4,90
Molise	8.893	0,71	9.187	0,80	8.037	0,86	5.883	0,82	5.177	0,78
Campania	50.950	4,00	48.793	4,27	39.123	4,21	29.251	4,09	23.257	3,51
Puglia	190.487	17,80	185.044	16,18	144.533	15,54	110.434	15,43	107.187	16,17
Basilicata	16.980	1,40	18.803	1,64	13.118	1,41	8.694	1,22	5.549	0,84
Calabria	27.785	2,21	37.576	3,29	23.797	2,56	13.801	1,93	9.978	1,50
Sicilia	157.719	13,01	187.141	16,37	173.746	18,68	121.266	16,95	113.848	17,17
Sardegna	65.393	5,20	69.866	6,11	47.821	5,14	26.190	3,66	18.906	2,85
ITALY	1.215.372	100	1.143.536	100	930.200	100	715.522	100	663.005	100

Tab. 1 Trend of regional areas under vine from 1970 to 2010 (ISTAT).

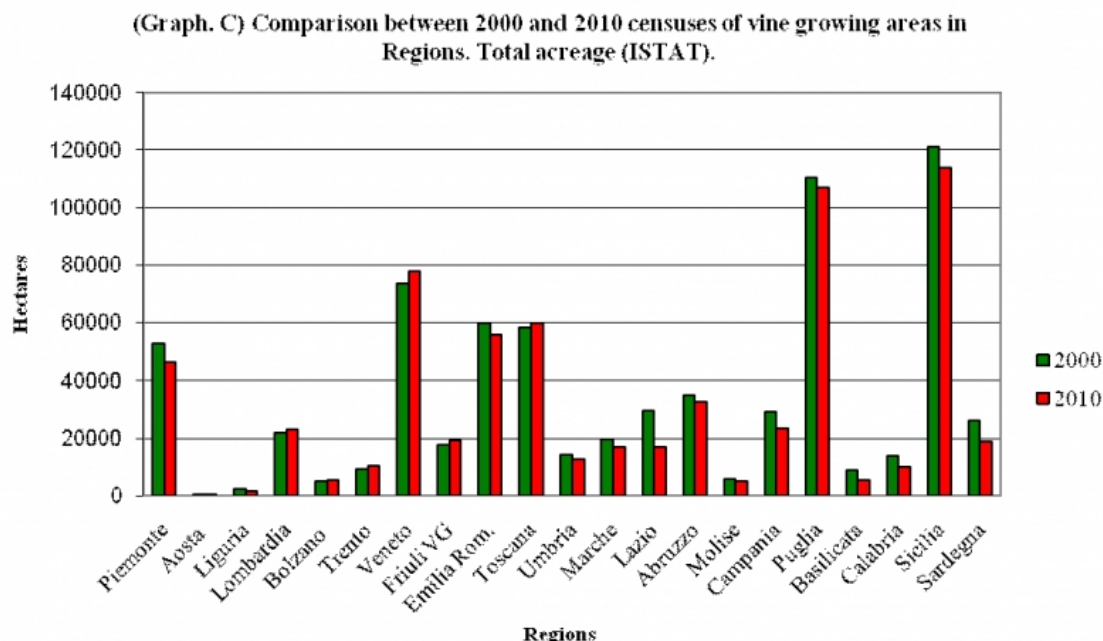
- 4 The reasons of this reduction, which interested the whole country, are due to many factors, such as: a) the type of economic development, where the incidence of the agricultural sector on the entire economy, from the 60s, has been gradually decreasing in respect to industry and services sectors; b) the specialization of farms whose productions have been increasingly market-oriented; c) the wine policies, at European and national level, that first encouraged the abandon of areas under vines and later promoted the conversion and renovation of existing vineyards; d) the evolution of consumer tastes that are increasingly oriented to the use of neutral and less alcoholic drinks which have certainly given a blow to consume of wine, which in turn is passed from over 100 liters. per capita of the '60 to 40 liters of today.
- 5 Continuing the analysis on the pattern of areas under vines in the last decade, but on a regional basis (Graph. B), we note that, especially in some regions, this has taken different and extremely positive trends in terms of increase in wine-growing areas such as the Veneto, Friuli V.G., Toscana, Lombardia and of the Provinces of Trento and Bolzano.

In all other cases, the regional area planted to vineyard has been affected by a steady decline, although there were also available for these Regions incentives for preventing the abandon of wine-growing areas and to upgrade and enhance the wine production .

(Graph B) Trend of regional acreage for table and wine grapes from 1970 to 2010 (ISTAT)

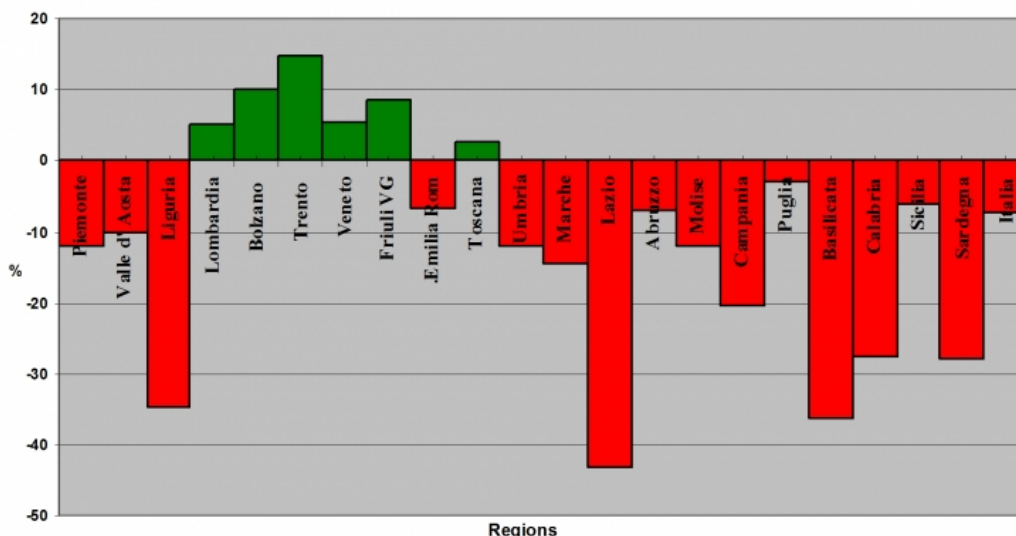


- 6 Likely the Regions mentioned above, where the wine industry was already growing due to increased demand for the products of those areas, have been able to take advantage of these measures especially in the last decade (Graph. C), and this has helped to accelerate and in some cases strengthen their supply curve. An example of this is the increase in the areas planted with the varieties Pinot Grigio and Glera in Veneto and Friuli Regions.



7 Graph C. shows the areas under vine in 2000 and in 2010. It makes clear what earlier stated and how this increase in surface has interested primarily a well-defined wine-growing area of the Country, which includes more Regions that are almost homogeneous by climatic conditions and dedicated to the cultivation of vine varieties that give a "footprint" very significant to their wines. By contrast, in areas where occurred a sharp decline, which continued, albeit in a more subdued way even in the last decade, the autochthonous varieties have been an opportunity for a recovery of the cultivation and the same time have contributed to help preventing the erosion of the wine growing area (Graph. D).

(Graph. D) Variation in percentage of the regional acreage under vine of 2010 in respect to year 2000.



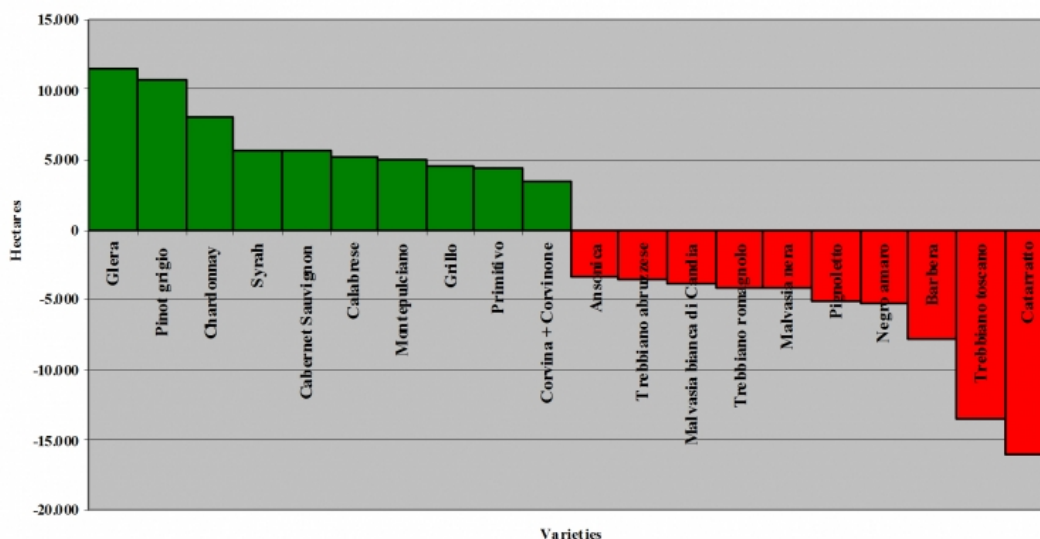
- 8 On such basis, one can easily deduce that the loss of potential production that has affected our country, and which will be later explained in more detail, is not necessarily the same in all varieties. In fact reduction of the size of some of them is in line with the general decline registered for the country. This is the case of Trebbiano romagnolo, Trebbiano toscano, Malvasia bianca di Candia , etc. Other varieties, however, show a sharp increase such as Glera and Pinot grigio; others a consolidation associated with a slight but continuous growth. This is what happens with some autochthonous varieties such as Aglianico, Pecorino, Fiano, Falanghina etc.

- 9 While Italy has seen over the last 50 years a steady erosion of areas under vines reaching in 2010 about 663.005 hectares, is also very interesting to wonder if the current acreage can be deemed to be balanced with the marketing of wine even if over the past decade it has been subject to an average annual decrease of approximately 5.000 hectares that in percentages corresponds to slightly less than 10 % of the total acreage. Most likely, given the nature of wine market and complexity of exchanges that take place on a global scale , the national vineyard, can be considered balanced for the simple reason that now the growers are specialized and have all the tools to cope with the changes of market in a relatively short time. A major obstacle that is, paradoxically, a limitation to the adaptation of production struc-

tures to the needs of the market, is represented by the EU wine policy that imposes very severe constraints on the establishment of new vineyards, with consequences that heavily condition not only the growth and diversification of global supply but also its flexibility in response to changes in the demand for the relevant wine products.

- 10 The graph E shows the varieties that between 2000 and 2010 increased and decreased more than 3.000 hectares. It 's interesting to note that in respect to 2000 census, the increase in the total area of the 10 varieties that have increased their acreage accounts for 63.807 hectares, while it amounts to 66.835 hectares for those 10 for which the cultivated area is reducing; in practice nearly the same figure.

(Graph. E). The top ten varieties for wine production that account for an increase or reduction of more than 3.000 hectares between 2000 and 2010.



THE ACREAGE FOR THE PRODUCTION OF PDO WINE

- 11 Italy is one of the leading wine producing countries in the world and every year it compete with France for the first place.
- 12 The production of wines with a designation of origin, however, is steadily increasing and, to date, it accounts for 73 Denomination of Controlled and Guaranteed Origin (DOCG) wines, 336 Denomination

of Origin (DOC) while IGT (Typical Geographical Indication) wines are 118.

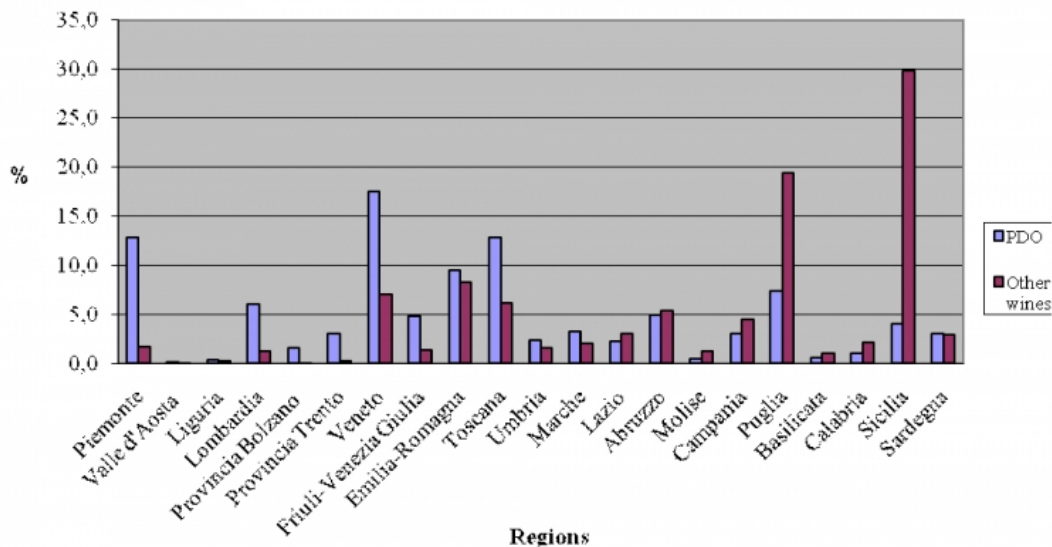
- 13 Italian traditional terms DOCG and DOC correspond to EU PDO (Protected Denomination of Origin) term, and IGT to PGI (Protected Geographical Indication) term also envisaged by EU regulations.

Tab.2. Trend of acreage under vine in Italy for PDO and other wines production between 2000 and 2010 (ISTAT).

REGIONS	Year 2000				Year 2010							
	PDO wines		Other wines		Total		PDO wines		Other wines		Total	
	Hectares	%	Hectares	%	Hectares	%	Hectares	%	Hectares	%	Hectares	%
Piemonte	39.436	16,8	13.196	3,0	52.632	7,8	40.989	12,8	5.328	1,7	46.317	7,4
Valle d'Aosta	225	0,1	284	0,1	509	0,1	301	0,1	162	0,1	463	0,1
Liguria	774	0,3	1.571	0,4	2.345	0,3	848	0,3	690	0,2	1.538	0,2
Lombardia	15.426	6,6	6.569	1,5	21.996	3,3	19.194	6,0	3.895	1,3	23.089	3,7
Prov. Bolzano	4.627	2,0	178	0,0	4.805	0,7	5.119	1,6	163	0,1	5.282	0,8
Prov. Trento	7.753	3,3	1.264	0,3	9.016	1,3	9.478	3,0	898	0,3	10.377	1,7
Veneto	33.413	14,3	40.223	9,1	73.636	10,9	56.042	17,5	21.602	7,1	77.644	12,4
Friuli-V.G.	12.936	5,5	4.820	1,1	17.755	2,6	15.177	4,7	4.073	1,3	19.250	3,1
Emilia-Rom.	24.633	10,5	35.279	8,0	59.912	8,9	30.433	9,5	25.364	8,3	55.796	8,9
Toscana	34.798	14,9	23.473	5,3	58.271	8,6	40.962	12,8	18.877	6,2	59.839	9,6
Umbria	5.441	2,3	8.762	2,0	14.203	2,1	7.512	2,3	4.978	1,6	12.491	2,0
Marche	7.142	3,1	12.517	2,8	19.659	2,9	10.376	3,2	6.369	2,1	16.745	2,7
Lazio	8.691	3,7	20.280	4,6	28.971	4,3	7.072	2,2	9.329	3,1	16.401	2,6
Abruzzo	10.106	4,3	23.379	5,3	33.484	5,0	15.843	4,9	16.347	5,4	32.189	5,1
Molise	868	0,4	4.998	1,1	5.866	0,9	1.209	0,4	3.945	1,3	5.154	0,8
Campania	4.589	2,0	24.456	5,5	29.045	4,3	9.515	3,0	13.670	4,5	23.185	3,7
Puglia	9.918	4,2	75.041	17,0	84.959	12,6	23.642	7,4	59.117	19,4	82.760	13,2
Basilicata	1.316	0,6	6.392	1,4	7.708	1,1	1.585	0,5	3.278	1,1	4.863	0,8
Calabria	2.705	1,2	10.806	2,4	13.511	2,0	3.189	1,0	6.595	2,2	9.783	1,6
Sicilia	4.154	1,8	107.485	24,3	111.638	16,5	12.835	4,0	91.234	29,9	104.068	16,6
Sardegna	4.655	2,0	20.970	4,7	25.625	3,8	9.537	3,0	3.928	2,9	13.465	3,0
ITALY	233.605	100	441.940	100	675.546	100	320.859	100	304.841	100	625.700	100

- 14 Comparing to 2000, the Controlled and Guaranteed Designations of Origin increased by almost three times, the Controlled Designations of Origin by 25% and the Typical Geographical Indications by 15%. The latter, while representing production of high quality that can be compared, in some respects, to the ones of the other two categories, if only for their origin and the close link with the territory, account for a significant share of Italian wine-growing area and contribute significantly to its qualification. For the purposes of the official statistics, however, so far, this category of products is included in the group of "other wines", as shown in Table 2 and Graph F below.

(Graph. F). Trend of the regional acreage for PDO and other wines production between 2000 and 2010. Percentage of the entire acreage for wine production (ISTAT).



- 15 Analyzing the trend of the acreage in relation to the different kinds of wines, it appears (Table 2) that there has been a significant increase in the qualification of wine production and the surface for the production of wines with Controlled Designation of Origin moved by under 35 % in 2000 to 51 % in 2010. And this demonstrates the sensibility that growers and wine makers have had to react to the spurs coming from the market and to technological innovations, with the transformation and upgrading of the productions that have affected our winemaking sector in the last two decades.
- 16 Going more in depth, we note that, as absolute value, the hectares of vineyards intended for qualified productions increased by 37% from 233.605 in 2000 to 320.859 in 2010, that is an increase of 87.254 hectares. It is a very important result particularly if it is compared to other types of wines whose surfaces have, however, suffered a decline in the same decade of 42 %, that is 137.099 hectares. The latter figure also includes 50.000 hectares lost with the general contraction of the wine-growing area, but it clearly shows and confirms the dynamics of production that are increasingly oriented towards the wines of high quality.

- 17 As to the geographical concentration of production with Controlled Designation of Origin, the highest score is northern and central Italy (73% of the total area), while in the southern Italy, between 2000 and 2010 it was registered the greatest percentage of increase that for some designations has doubled (Table 3). The phenomenon can be explained by gap existing, since the second half of the last century, between viticulture and oenology of the two areas which still now have very different socio-economic and structural characteristics .

Table 3. Trend of the regional acreage for PDO and Other wines production between 2000 and 2010 (ISTAT).

REGIONS	Year 2000					Year 2010				
	PDO wines		Other wines		Total Hectares	Doc e Docg		Other wines		Total Hectares
	Hectares	%	Hectares	%		Hectares	%	Hectares	%	
Piemonte	39.436	74,0	13.196	25,1	52.632	40.989	88	5.328	12	46.317
Valle d'Aosta	225	44,2	284	55,8	509	301	65	162	35	463
Liguria	774	33,0	1.571	67,0	2.345	848	35	690	45	1.538
Lombardia	15.426	70,1	6.569	29,9	21.996	19.194	83	3.895	17	23.089
Provincia Bolzano	4.627	96,3	178	3,7	4.805	5.119	97	163	3	5.282
Provincia Trento	7.753	86,0	1.264	14,0	9.016	9.478	91	898	9	10.377
Veneto	33.413	45,4	40.223	54,6	73.636	56.042	72	21.602	28	77.644
Friuli-Venezia Giulia	12.936	72,9	4.820	27,1	17.755	15.177	79	4.073	21	19.250
Emilia-Romagna	24.633	41,1	35.279	58,9	59.912	30.433	55	25.364	45	55.796
Toscana	34.798	50,7	33.473	49,3	58.271	40.962	68	18.877	32	59.839
Umbria	5.441	38,3	8.762	61,7	14.203	7.512	60	4.978	40	12.491
Marche	7.142	36,3	12.517	63,7	19.659	10.376	62	6.369	38	16.745
Lazio	8.691	30,0	20.280	70,0	28.971	7.072	43	9.329	57	16.401
Abruzzo	10.106	30,2	23.379	69,8	33.484	15.843	49	16.347	51	32.189
Molise	368	14,8	4.998	85,2	5.366	1.209	23	3.945	77	5.154
Campania	4.589	15,8	24.456	84,2	29.045	9.515	41	13.670	59	23.185
Puglia	9.918	11,7	75.041	88,3	84.959	23.642	29	59.117	71	82.760
Basilicata	1.316	17,1	6.392	82,9	7.708	1.585	33	3.278	67	4.863
Calabria	2.705	20,0	10.806	80,0	13.511	3.189	33	6.595	67	9.785
Sicilia	4.154	3,7	107.485	96,3	111.638	12.835	12	91.234	88	104.068
Sardegna	4.655	18,2	20.970	81,8	25.625	9.537	52	8.928	48	18.465
ITALY	233.605	34,6	441.940	65,4	675.546	320.859	51	304.841	49	625.700

Table 3. Trend of the regional acreage for PDO and Other wines production between 2000 and 2010 (ISTAT).

- 18 At the level of regions , it can be seen that in over half of these (12 regions and 2 autonomous provinces) the percentage of qualified vineyards swings between 97% and 52% of their total surface, while in 7 other regions this percentage is between 30 and 50%. Only in Sicily, this percentage is low and reaches 12%. But if we think that such percentage is equal to 12.835 hectares, we note that even in this region

there was an important and significant increase of the qualified vineyards. Such surface will be set to increase over the years, given the remarkable consistency of the wine-growing area of this region.

- 19 A large number of varieties, both autochthonous and international, that can bring forth the best of their characteristics thanks to the peninsular territory which provides a different type of soil and climate environments, contribute to the production of this rich category of quality wines.

THE EVOLUTION OF ACREAGE GROWN WITH WINE PRODUCING VARIETIES

- 20 The wine grape varieties currently more grown are presented in graph G, while table 4 shows the trend of the top 20 varieties since 1970.

(Graph. G). First top 20 varieties for wine production grown in Italy according to 2010 census (ISTAT).

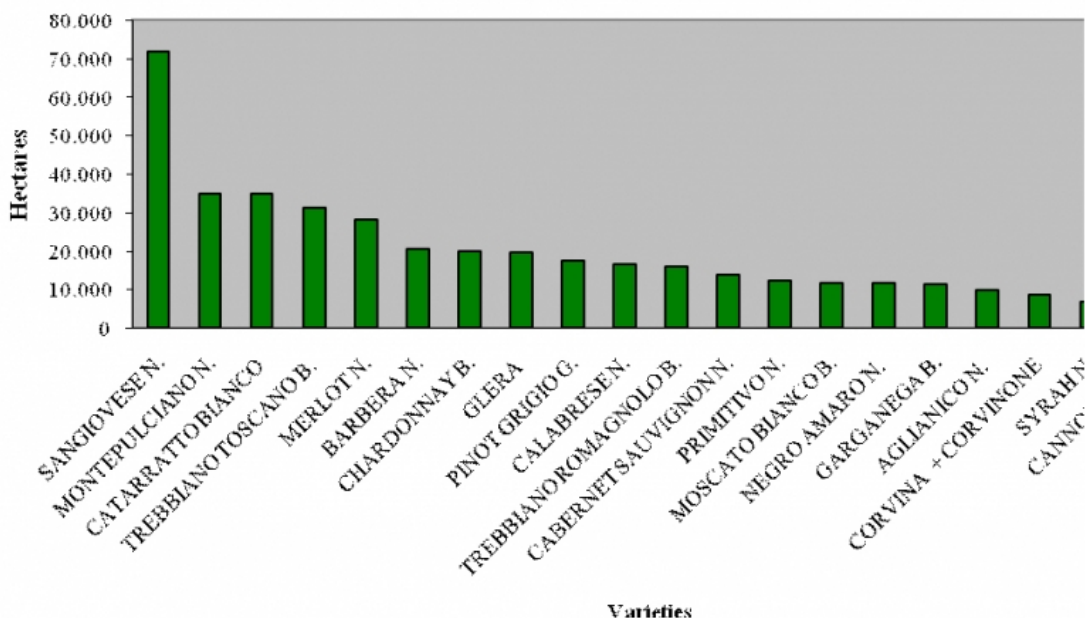


Table 4. First 20 wine grape varieties acreage from 1970 to 2010 (ISTAT)

VARIETY	1970	1982	1990	2000	2010
SANGIOVESE N.(1)*	87.158,41	103.944	88.320,92	70.112,06	71.668,2
CATARRATTO BIANCO (3)*	86.552,79	81.470	74.773,42	50.794,29	34.794,24
TREBBIANO TOSCANO B. (2)*	60.224,63	60.559	61.528,86	44.537,27	25.301,52
BARBERA N.	81.214,66	62.757	4.7120,92	28.366,24	20.523,88
MERLOTN.	52.961,95	48.176	31.872,3	25.615,5	28.041,7
MONTEPULCIANON.	26.182,06	34.646	31.008,48	29.828,27	34.824,27
NEGRO AMARO N. (18)	42.622,11	38.421	31.387,14	16.759,96	11.491,6
PRIMITIVO N.	47.665,17	31.693	17.249,88	7.951,06	12.233,59
TREBBIANO ROMAGNOLO B.	22.315,56	25.828	21.257,43	20.032,84	15.893,47
CALABRESE N.	15.896,12	19.685	14.182,78	11.409,76	16.595,01
AGLIANICO N. (6)*	16.588,41	15.011	13.042,45	9.892,07	9.910,42
GARGANEGA B.	13.763,32	12.484	13.048,29	11.636,95	11.291,74
MOSCATO BIANCO B.	10.888,29	12.536	13.533,14	13.279,96	11.506,38
MALVASIA BIANCA DI CANDIA B. (20)*	20.274,06	25.793	23.152,23	8.787,52	
NERELLO (10)*	18.461,7	20.254	19.594,26		
MALVASIA BIANCA LUNGA B.	17.608,26	11.460	9.341,12		
CANNONAU N. (9)*	13.840,29	15.682	12.525,34		6.347
NURAGUS B.	18.506,92	16.072			
RABOSO (13)*	13.111,36				
UVA DITROIA N.	10.839,79				
ANSONICA B.		13.739	12.711,31	9.518,05	
DOLCETTO N.		11.807	10.415,77	7.349,83	
TREBBIANO ABRUZZESE B.			11.950,79	8.693,42	
CHARDONNAY B.				11.773,06	19.709,4
GLERA (4)*				8.143,37	19.621,2
CABERNET SAUVIGNON N.				8.042,33	13.724,48
CORVINA + CORVINONE (5)*					8.406,23
SYRAH N.					6.738,77
PINOT GRIGIO G.					17.281
TOTAL	676.675,86	662.019	55.8016,85	402.524,01	395.904,1
TOTAL ACREAGE	1.215.372,43	1.063.330	862.386	675.545	625.999
%ACREAGE TOP 20 VS. TOTAL	56	62	65	60	63

* See footnotes under table 5.

- 21 These varieties account for over half the national vineyard. Moving from 1970 to 2010 the area planted with these varieties increased 56 to 64 % compared to the total area devoted to wine grapes. Logically the list includes 29 varieties as some of them that were among the most cultivated in the early decades, later went down in the rankings, while others in the more recent decades are among the top twenty.
- 22 There is, however, a core of 13 varieties that fall into this group in all 5 censuses: Sangiovese, Trebbiano toscano, Catarratto (bianco e lucido), Barbera, Merlot, Montepulciano, Negro amaro, Trebbiano romagnolo, Primitivo, Aglianico, Garganega, Calabrese and Moscato. Among these 13 varieties, only Merlot is an international variety, the others are autochthonous varieties spread across many regions (Sangiovese, Trebbiano toscano, Moscato, Montepulciano) or localized mainly in certain quality wine-growing areas: Sicily (Catarratti and Calabrese), Piedmont (Barbera) Puglia (Primitivo and Negroamaro), Basilicata

(Aglanico), Garganega (Veneto) and Trebbiano romagnolo (Emilia Romagna).

- 23 For all these varieties, there is a trend towards reduction since 1970 in line with the general reduction of the acreage under vine. Some of them, however, Sangiovese, Merlot, Montepulciano, Primitivo and Aglianico show a reversal of this trend in the period 2000-10, that is an increase in the area planted. The area planted with the variety Garganega is essentially stable since 1982.
- 24 Sangiovese steadily, from 1970 to 2010, accounts for about 10% of the national vineyard confirming its supremacy due to the wide geographical spread. Trebbiano, Barbera and Catarratti, however grown on large extent, continue to lose ground especially against more quality effective varieties. Some of the remaining top varieties showed a steady reduction: Malvasia Bianca di Candia, Malvasia bianca lunga, Dolcetto, Nerello. Others appear only in 1970 among the top 20: Uva di Troia, Raboso (Piave and Verona). Nuragus, variety grown in Sardegna, is recorded just in the censuses of 1970 and 1982; while Cannonau (together with the synonyms Alicante and Tocai rosso) is spread in Sardegna and other Regions is recovering in 2010 after a decline between 1970 and 1982. Ansonica, Dolcetto and Trebbiano abruzzese appear, as losing ground, among the top 20 between 1982 and 2000. Also interesting are the data on the varieties listed among the top 20 just in the last or the last two decades. Such varieties are expanding. Calabrese, expanding since 1990, shows between 2000 and 2010 an increase in acreage of 45% Chardonnay, during the same period, an increase of 67%, Cabernet Sauvignon 70%. Finally after 2000, among the top 20 varieties it can be found: Pinot Grigio, Corvina (and Corvinone), Glera and Syrah. Such data confirms the tendency to strengthen the quality viticulture through the expansion of the cultivation of international grapes in areas already structured for the production of quality wines and for export, and the strengthening or expansion of native grape varieties in their areas of origin always for the production of quality wines.
- 25 Finally the table 5 shows the data of the wine-growing areas of the first 100 varieties, among the more than 300 under cultivation. These varieties account for 75 (1970) to 90% (2010) of the viticultural heritage, so highlighting the national trend of viticulture for wine pro-

duction to the progressive reduction of the number of varieties under cultivation. We move now to some comments on the changes of vineyards of varieties which acreage is lower than that of the group of the top 20 and which expansion or reduction are more dependent on the regional outcome of the viticulture. The data of the 1970 census distinguishes the culture of vine in: “main crop” when the only culture practiced is vine, “mixed main crop” when vine is grown together with other herbaceous or woody crops but is the most important crop on the basis of the value of the annual production and in “secondary crop” when the vine is grown together with other herbaceous or woody crops but is the less important crop on the basis of the value of the annual production. In the present work the data concerning the “secondary crop” are not considered because they refer to small areas (gardens...) grown for personal use. In subsequent censuses the vineyard area is divided into areas for the production of wines with PDO and for the production of other wines.

- 26 A group of international varieties which acreage is growing can be emphasized. Pinot Noir has an increasing trend since 1970 mainly in areas with designations of origin. Sauvignon keeps its position with a slight increase between 1990 and 2010. It is grown for 68% in areas for wine with PDO. Similar trend is evident from the Gewürztraminer (Traminer aromatico) steadily expanding since 1970 and mainly in areas with a designation of origin of northeastern Italy. Between 2000 and 2010, nearly triples the area under cultivation. The Viognier variety recently introduced from France is classified in the Regions of Lazio, Piedmont, Sicily, Tuscany, Umbria and under observation in the Province of Bolzano. It is primarily grown for the production of wines without a protected designation of origin.
- 27 Then there is a group of local grape varieties that substantially keeps the area cultivated: Nebbiolo with an area of approximately 5.000 hectares. 91% of them for production of Protected Designation of Origin. The same can be said for Lambrusco salamino which acreage is 75% intended for PDO wines.
- 28 Ancellotta keeps its positions since 1982 equally divided between wines with Protected denomination of origin and not. Cortese is stable since 1990. Another group of native varieties shows an expansive trend. Lambrusco Maestri, grown in more Regions, after a de-

cline since 1970 is catching surfaces mainly for production of non-designation wines. Grillo, Sicilian grape variety, is expanding since 2000 mainly for the production of non PDO wines. Instead Croatina, Vermentino along with Fiano and Falanghina from Campania, Gaglioppo from Calabria and Lambrusco grasparossa grown in more regions expand mainly in areas for wines with a designation of origin. Also noteworthy is the Pecorino whose surface is even increased ten-fold between 2000 and 2010. It is cultivated in Abruzzo (mainly for non PDO wines) and Marche (usually for PDO wines). The Moscato giallo grape variety is present in many regions. Its surface area has greatly increased between 2000 and 2010. We will see in the next years if the trend continues or if it is just a momentary event.

- 29 Sagrantino is also growing steadily since 1970. It has tripled in the last decade its surface and is mainly cultivated in order to produce PDO wines. It is a native grape of Umbria, its main area of cultivation. Similar trend can be seen for Arneis, native grape of Piedmont, in steady expansion since 1970 mainly in areas for PDO wines. There is also a large group of varieties for which there is a reduction in the area of cultivation. Among them Carignano and Rondinella are in steady decline since 1970; Grecanico dorato Sicilian grape, after three decades of growth, decreases from 2000 to 2010.
- 30 Among the international grape varieties Cabernet Franc (and Carmenerre) and Pinot Blanc slow down.

MASCATO GIALLO B.0	377,594	86,844	464,438	23,000	224,000	237,000	104,730	237,000	343,770	188,380	171,960	360,340	456,620	370,370	826,990	
GRECO B.0	2.986.484	1.827.790	4.814.470	708.000	4.210.000	4.918.000	22.860	3.203.140	3.226.000	116.910	2.924.000	3.040.710	239.200	267.410	826.610	
VERDUZZO FRIULANO B.0	1.652.034	397.820	2.049.850	707.000	1.673.000	2.380.000	406.920	1.190.310	1.797.430	409.740	1.048.640	1.638.380	334.370	433.630	807.200	
TEROLDEGO N.0	733.880	86.130	820.010	515.000	84.000	609.000	408.590	86.960	595.540	544.910	143.340	499.250	606.330	190.110	796.340	
VERDECA B.0	7.492.930	763.710	8.256.640	3.793.000	2.747.000	6.540.000	1.526.720	2.442.200	3.988.920	1.348.230	917.180	2.263.410	1.703.650	524.890	795.450	
FRAPPATO N.0	%	37,420	37,420	49,000	719,000	748,000	16,110	776,210	792,320	93,080	695,060	785,140	192,310	540,200	752,330	
VERDUZZO TREVIGIANO B.0	2.945.690	195.30	3.140.990	550.000	1.942.000	2.492.000	494.590	2.080.460	2.575.030	289.500	1.444.600	1.734.100	94.230	614.230	708.480	
PIEDROSSO N.0	794.610	3.711.350	4.505.760	28.000	2.383.000	2.413.000	91.570	1.246.590	1.338.160	169.340	943.600	1.031.140	333.870	344.740	498.610	
CESANESE (16)0	2.783.080	3.836.920	6.620.000	694.000	3.085.000	3.779.000	438.420	1.854.110	2.292.530	285.080	806.340	1.091.420	255.240	424.130	679.370	
LAGREIN N.0	493.940	13.250	507.190	350.000	65.000	410.000	325.100	49.850	374.950	428.610	48.800	477.410	628.670	24.830	653.500	
ORTUGO N.0	203,50	10,990	214,490	63,000	206,000	269,000	219,870	160,410	380,280	370,360	155,550	525,910	529,720	81,170	610,890	
MOLINARA N.0	1.421.070	875.910	2.296.980	1.480.000	479.000	1.959.000	1.337.350	293.690	1.631.240	1.119.410	228.430	1.347.840	524.630	70.010	394.640	
MALVASIA DEL LAZIO B.0	3.073.170	3.364.380	6.437.550	605.000	5.239.000	5.844.000	670.460	3.411.930	4.082.390	591.420	2.034.180	2.623.600	295.350	295.110	590.460	
CODA DI VOLPE BIANCA B.0	542,410	1.332,570	1.874,980	9,000	1.511,000	1.520,000	182,460	993,540	1.176,000	151,180	875,670	1.026,850	222,680	331,970	554,650	
MAGLIOCO CANINO N.0	%	%	%	4	545,000	2.022,000	2.567,000	10,990	1.550,400	1.561,390	76,300	540,040	616,340	87,450	451,150	538,600
MONTE B.0	1.487.940	1.015.160	2.503.100	%	1.463.000	1.463.000	499.400	725.420	1.224.820	397.660	562.140	1.159.800	367.520	169.000	530.520	
VERACCIA DIS. GIBGNANO B.0	184,360	207,890	392,240	472,000	371,000	843,000	751,010	137,310	888,320	730,480	33,430	785,910	438,040	23,720	511,760	
DIRELLA B.0	657,30	422,230	1.079,530	%	924,000	924,000	408,900	577,830	986,730	408,720	314,350	723,100	343,350	126,190	469,540	
RIBLING RENANO B.0	214,260	83,330	299,590	153,000	120,000	273,000	281,530	97,010	378,540	327,380	296,150	423,730	245,370	200,790	446,270	
CABERNET FRANC. CARMENERE (7)0	4.240.900	556.180	4.797.080	196.000	2.317.000	2.513.000	189.460	2.246.420	2.435.910	61.980	406.770	466.750	156.260	284.010	440,270	
BIANCO D'ALESSANO B.0	3.547.990	282.980	3.830.870	3.200.000	743.000	3.943.000	801.000	791.440	1.492.440	690.390	276.790	967.180	281.120	138.120	419,240	
MALVASIA DI LIPARI B.0	637,050	148,040	785,090	8,000	173,000	179,000	25,880	95,770	121,650	76,850	55,880	132,730	37,300	15,600	52,900	
TOTAL FIRST 1000	686.796.390	240.026.040	926.722.430	208.142.000	706.347.000	906.489.000	183.681.460	598.449.180	772.130.000	216.317.320	374.431.620	599.748.850	298.992.420	264.679.830	666.923.400	
TOTAL ITALY	810.367.520	328.047.000	1.138.404.520	209.794.000	863.634.000	1.063.330.000	196.882.000	671.634.000	862.380.000	233.666.000	441.940.000	678.645.000	320.889.000	304.840.000	626.690.000	
%FIRST 1000S.TOTAL ITALY	%	%	76,60%	%	%	86,26%	%	%	89,63%	%	%	87,30%	%	%	99,46%	

Table 5c. More important wine varieties grown in Italy from 1970 to 2010 (ISTAT).

CONCLUSION

31 The changes to the acreage of the wine varieties for wine production are described by the means of the data supplied by the decennial censuses of agriculture. Availability of records concerning a period of time of 40 years allows to perceive the trends of viticulture that, obviously, are linked to those of production of wine. The national vineyard continues to shrink but at a slower pace in comparison to the past decades. Anyway such reduction, that depends also on the grape and wine producing structures and on the stiffness of the EC rules as for the enlargement of the acreage devoted to vine, affects in different ways the varieties under cultivation. Generally speaking the varieties that give back revenue, replace the less interesting under the economical point of view. The varieties more grown are the autochthonous ones. Some of them have been the same all along the decades considered. Some other are emerging since 2000 and, due to the actions for bettering the PDO of the concerned wines, are widening their growing area. The occurrence and enlargement of the

cultivation of some foreign varieties, mainly of French origin, is registered mostly in Regions where the production of PDO wines is already well established. In general the Italian viticulture strongly tends towards a steady improvement of wines obtained either by autochthonous and international varieties.

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By the means of the data of the decennial censuses of agriculture it was commented the evolution of the Italian viticulture from 1970 to 2010 either as for the national and regional acreage and as for the changes of the surfaces occupied by the wine producing varieties. It continues to rely mainly on native varieties and on some quality effective foreign varieties. Italian viticulture is in general reducing its acreage but there is an increase of the surface cultivated with varieties for production of PDO wines at the expenses of varieties for production of non PDO or less appreciated wines.

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