



COMMISSION OF THE EUROPEAN COMMUNITIES

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**REPORT FROM THE COMMISSION
TO THE EUROPEAN PARLIAMENT AND THE COUNCIL**

**on the use of interspecific vine varieties suitable for the production
of quality wines produced in specified regions**

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1. INTRODUCTION

- 1.1. The current legislation allows the use of interspecific varieties only for producing table wines, while quality wines psr can be produced exclusively with *Vitis vinifera* varieties.
- 1.2. The common organisation of the market in wine provides that the Commission, on the basis of an independent study, report to the European Parliament and to the Council on the possible use of interspecific varieties in quality wines produced in specified regions.
- 1.3. In fact, during the discussions in the framework of the previous reform of the wine sector, it appeared that there was a great divergence of opinions in the Council on this matter.
- 1.4. The purpose of this report is precisely to meet the obligation of the Commission to submit to both Institutions, the European Parliament and to the Council, a background for policy proposals.

2. LEGAL FRAMEWORK

- 2.1. Council Regulation (EC) No 1493/1999 of 17 May 1999 on the common organisation of the market in wine provides for the following:
 - 2.1.1. Article 17(3): "The Commission shall fund an independent study on the use of interspecific varieties. On the basis of this study it shall present by 31 December 2003 a report to the European Parliament and the Council accompanied, if appropriate, by proposals."
 - 2.1.2. Article 19(2): "In their classification, Member States shall indicate the vine varieties suitable for the production of each of the quality wines psr produced in their territory. These varieties shall be of the species *Vitis vinifera*."
 - 2.1.3. Article 55(1): "The provisions covering the production of quality wines psr shall, in addition to any national rules adopted pursuant to Article 57(1), and regard being had to the traditional condition of the production in so far as these are not such as to prejudice the policy of encouraging quality production and the smooth operation of a single market, be based on the following factors:
 - (a) demarcation of the area production,
 - (b) vine varieties,
 - (c) cultivation methods,
 - (d) wine-making methods,
 - (e) minimum natural alcoholic strength by volume,
 - (f) yield per hectare,
 - (g) analysis and assessment of organoleptic characteristics."

- 2.1.4. Annex VI. B. 1: "Each Member State shall draw up a list of the vine varieties, referred to in Article 19, suitable for producing each of the quality wines psr produced in its territory. These varieties must be of the species *Vitis vinifera*".

3. STUDY FUNDED BY THE COMMISSION

- 3.1. With a view to assessing the possible impact on the wine market, in case that interspecific varieties are authorised to produce quality wine psr, in August 2002, the European Commission launched a specific study which had to analyse the results and works already made on this matter. It had to provide information about interspecific varieties on the basis of an examination of the existing scientific literature.

This study¹ has been carried out by an external contractor, formed by a group of experts with distinct backgrounds of three different countries: France, Germany and Hungary. It has focused on the following issues:

- The impact of the use of interspecific varieties on the quality of wine compared to the quality of wine from traditional varieties;
- The impact of the use of interspecific varieties on the environment and the utilisation of plant protection products;
- The economic impact of the use of interspecific varieties on the EU wine market.

- 3.2. The outcome of this study was focused to answer three key questions:

- Do wines produced from interspecific varieties have the same quality as wines made from traditional varieties?
- Does the use of interspecific varieties allow a reduction of the use of plant protection products?
- What is the economical impact that interspecific varieties would have on the wine market, if the prohibition for the use of interspecific varieties for the production of quality wine psr was abolished?

- 3.3. Bearing in mind that there are several thousands of interspecific varieties, in order to have a representative assessment, for this study 8 interspecific varieties were pre-selected, based on their economical relevance and their potential to produce quality wine.

4. ASSESSMENT OF THE IMPACT ON QUALITY

As regards the impact on quality, the findings of the study can be summarised as follows:

- 4.1. The composition of the berries and wine from interspecific varieties show constant differences compared to those from *Vitis vinifera*.

¹ Study on the use of the varieties of interspecific vines.
Coordinator, Phytowelt GmbH, Germany.
Partners: Euroquality and INRA, France.
Research Institute Geisenheim and Federal Centre for Breeding research on cultivated plant, Germany.
RIVEMARD, Hungary.

- 4.2. Unfavourable flavour compounds are the main concern when interspecific varieties are used. This concerns several molecules depending on the cultivars. Some of these compounds can also be detected in wines from *Vitis vinifera* cultivars in the case of fermentation problems.
- 4.3. The second issue concerns the sugar and acid contents of the berries from interspecific varieties. The berries tend to be poor in sugar and relatively rich in acid. Most interspecific varieties will thus give wine relatively poor in alcohol and not well balanced for acid, especially if they are grown in cool climatic conditions.
- 4.4. In Hungary several interspecific vine varieties such as Bianca, Medina and Zalagyöngye are cultivated. Experts are still discussing the advantages and disadvantages of interspecific varieties. Employing non-oxidative vinification methods, good table wines or quality wines could be produced with these varieties. For the time being, wines produced with interspecific varieties are generally sold as blended wine.
- 4.5. In the EU, interspecific varieties have been banished from the production of quality wines because most of the interspecific varieties gave wine of poor quality, also due to their high yields.
- 4.6. The reported data show that, even if most interspecific varieties have effectively some strong deficiencies and produce wines of poor quality, certain others have proven to be suitable to produce wines of good quality, provided that:
- they are well cultivated and planted in adequate areas, with very strict and careful growing practices,
 - the wine is produced properly and aged well.
- Obviously, strong distinctions should be made between crude hybrids and more complex descendants, which give the best results.
- 4.7. Most data were gathered about grapes grown in cooler areas. In these areas cultivars such as Villard blanc or Bianca could be used to produce quality wine *psr*. Varieties showing good quality, in particular for colour and tannins, could be an alternative for the production of red wines of good quality. These varieties can be used for varietal wines, but they may be even better adapted for blended wines.
- 4.8. In order to produce wines of good quality, varieties have to be cultivated under adequate growing conditions. It is well known that each cultivar should be cultivated in areas to which they are well adapted. The grape breeding and testing process and more specifically the location(s) greatly influence the adaptation of the variety to its environment.
- 4.9. Moreover, the interspecific varieties, which are cultivated or tested today, are probably not the varieties that would gain European-wide significance if they were allowed for producing quality wine *psr*. Rather, varieties of national or regional importance, adapted to the needs of local consumers and winegrowers, would be bred in each country, as is the case for the traditional *Vitis vinifera* varieties.

5. ASSESSMENT OF THE IMPACT ON THE ENVIRONMENT

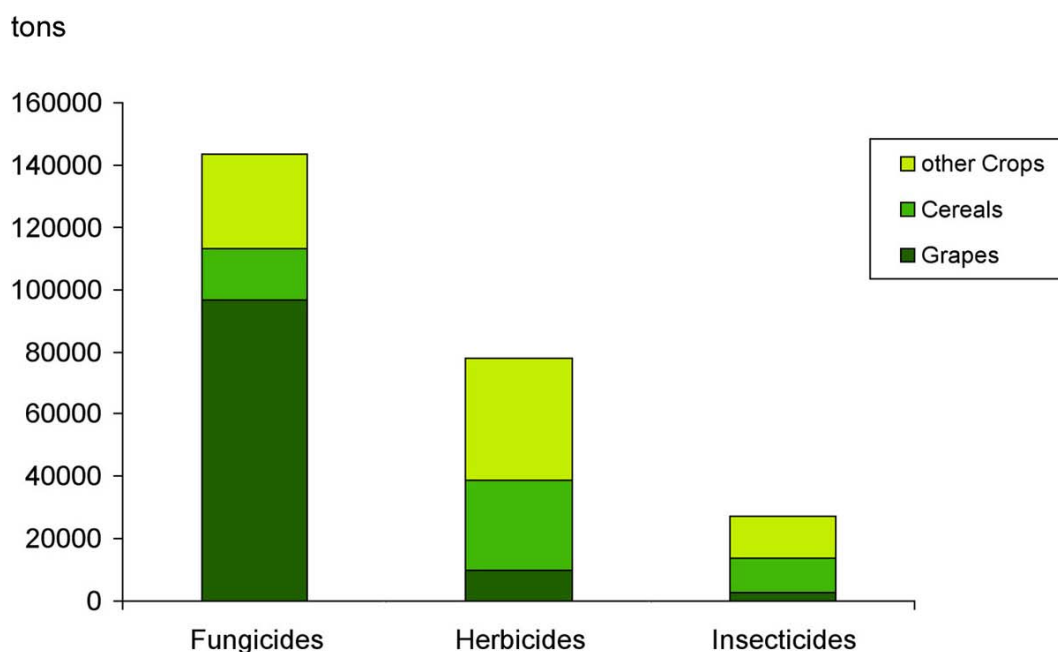
As regards the impact on the environment, the findings of the study can be summarised as follows:

5.1. All traditional European grapevine varieties *Vitis vinifera* are susceptible to the fungal diseases powdery mildew (*Oidium tuckeri*, *Uncinula necator*) and downy mildew (*Plasmopara viticola*), which were introduced to Europe from North America during the 19th century. As a consequence, regular plant protection measures are essential for European grapevine varieties. For about 100 years, grape breeders in different European countries tried to combine resistance characteristics, which are present in American and Asian *Vitis* species, with the quality features of traditional European varieties.

5.2. Increased cultivation of interspecific and/or mildew tolerant *Vitis vinifera* varieties may lead to a significant reduction of plant protection measures. The degree of reduction largely depends on the degree of fungal resistance of the variety and the climatic conditions in the vine-growing region.

It is also probable that conventional growers would plant interspecific varieties in order to cut production costs or to grow grapes in poorly accessible areas (e.g. on steep slopes, where plant protection is particularly difficult and expensive). The major reason for the use of interspecific and/or disease tolerant *Vitis vinifera* varieties will still be organic viticulture.

5.3. Data concerning the current use of pesticides in viticulture and other major crops was obtained from Eurostat. From 1992 to 1996, more than 100 000 t of active ingredients were used annually on grapevines in the EU-15, which accounts for about 40% of the total pesticide application in the entire agricultural sector.



- 5.4. Therefore, mildew tolerant cultivars, which are suitable to produce wines of good quality, would definitely have a market potential. In recent years, more than 600 ha of the recently bred, mildew tolerant *Vitis vinifera* variety "Regent"², have been planted in Germany.
- 5.5. This would not only be beneficial for the German wine industry in general, especially for organic grape production, but it would also lead to a significant reduction in the consumption of fungicides.
- 5.6. Hungary has already more than 8 000 ha of interspecific varieties planted, which represent a little less than 10% of the total area under vine in Hungary.
- 5.7. Early attempts to introduce pest and disease resistance into *Vitis vinifera* from tolerant American species has resulted in a large number of interspecific varieties. The so-called direct producers are the outcome of such early crossings, with their name referring to the fact that they can give drinkable wine without having to be grafted onto a rootstock. Most of them are sufficiently resistant to reduce fungicide application significantly but produce wine of low quality.
- 5.8. The use of either more sophisticated interspecific crosses or varieties like Regent has the potential to reduce significantly the application of fungicides in the future. One major use of these varieties would most likely be the production of wine from organic production grapes.

6. ASSESSMENT OF THE IMPACT ON MARKET EQUILIBRIUM

As regards the impact on the EU wine market, the findings of the study can be summarised as follows:

- 6.1. If Regulation (EC) No 1493/1999 maintains the principle of a prohibition of the planting of vines of wine grape varieties until 31 July 2010, the total area under vine will not be affected by the possible introduction of interspecific varieties for producing quality wine.
- 6.2. Bearing in mind that, in such a case, the yields of interspecific varieties have to be regulated and should be similar to the yields of *Vitis vinifera*, the total volume of wine produced would not change considerably and the current balance would be preserved.
- 6.3. The area of interspecific varieties, which could be planted in the EU, has been calculated in the study on the basis of an index, which takes into account several parameters like:
 - adequacy to climatic conditions,
 - organic farming policy,

² Regent is registered in Germany as a *Vitis vinifera* variety, showing relatively high resistance against fungal diseases. Based on practical experience with Regent, a reduction of 80% in the application of plant protection compounds can be achieved compared to traditional varieties. However, discussions are still going on at the International Vine and Wine Office about Regent in order to establish if it is a *Vitis vinifera* or an interspecific variety.

- adequacy to market needs.

6.4. On the basis of this index, and taking into consideration that the average yields of the interspecific varieties should be similar to those of the *Vitis vinifera* varieties, the study has calculated the following potential production of quality wine psr produced with interspecific varieties:

Table 1 – Average yield (in hl/ha) and estimated production (in hl)

	Austria	France	Germany	Greece	Hungary	Italy	Portugal	Spain	UK	Total
Average yield	50	58	92	50	45	58	35	32	20	
Production 5 years	46 351	562 030	242 717	14 525	124 948	333 221	33 168	137 038	2 836	1 496 834
Production 10 years	92 701	1 124 061	485 433	29 050	209 486	666 442	66 336	274 077	3 672	2 951 258
Production 20 years	185 402	2 248 122	970 867	58 100	378 563	1 332 884	132 672	548 153	5 344	5 860 106

- 6.5. If a total annual production of quality wine of 70 million hl is considered, interspecific varieties could represent 4,2% of the total quality wine production after 10 years and 8,4% of the total quality wine production after 20 years. When considering the total wine production (160 million hl), it could represent 1,8% of the total production after 10 years and 3,7% after 20 years.
- 6.6. If the limitation on planting rights continues after 2010, the introduction of interspecific varieties should not have any impact on the total wine supply and the current market equilibrium should be preserved.
- 6.7. The situation would be very different in the case of a deregulated market (with no more restriction on the plantation of vine). This does not concern only interspecific varieties but also *Vitis vinifera* varieties: in this case it is very difficult to estimate wine market balance and such an estimation was not the object of the report.

7. CONCLUSION OF THE STUDY

- 7.1. The great majority of interspecific varieties is not suitable to produce quality wine psr. For the time being, it appears that only a few of them could be authorised to produce quality wine psr. Furthermore, it is likely that, in case that they were authorised, it is not the current interspecific varieties, for the most part, that would be used in the future for producing quality wine psr. Moreover, they could be extremely useful to produce wines issued of the organic farming agriculture.

8. SUGGESTIONS

8.1. Based on the above analysis, the Commission for the time being, suggests the following approach:

- To keep, for the time being, the interdiction on the use of the interspecific varieties in order to produce quality wines psr.
- This would encourage continuing the research in order to breed new, better interspecific varieties suitable for producing quality wines psr.

9. DEFINITIONS

direct producer	vines with sufficient <i>Phylloxera</i> tolerance to be grown without being grafted
interspecific hybrids	see interspecific varieties
interspecific varieties	synonymous to interspecific hybrids. Varieties, which can be traced back to crossings of <i>Vitis vinifera</i> varieties with non- <i>Vitis vinifera</i> varieties. In the report, only the term interspecific varieties is used for reasons of uniformity
mildew	various vineyard fungi that can cause severe damage if not treated for prevention. There are two main types: powdery mildew and downy mildew
<i>phylloxera</i>	a tiny aphid-like insect that attacks the roots of grapevines
psr	produced in a specified region
tannins	complex group of compounds comprising phenols, hydroxy acids and others
variety	subdivision of a species, with common anatomical and morphological characteristics, emerged due to either natural or artificial genetic isolation, e.g. vegetative propagation

10. LIST OF THE VARIETIES SELECTED FOR THE STUDY ON THE USE OF THE VARIETIES OF INTERSPECIFIC VINES, DIVIDED INTO WHITE AND RED WINE VARIETIES

- Villard blanc (white)
- Seyval blanc (white)
- Bianca (white)
- Zalagyöngye (=Pearl of Zala) (white)
- Medina (red)
- Regent (red)
- Villard noir (red)
- Couderc noir (red).