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Competitiveness of the wine sector: considerations on future scenarios

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For a critical assessment of the issues relating to the future viticulture nursery system in order to identify the strengths and weaknesses is essential to examine the relationship between factors of the supply chain and the extrinsic factors able of modulating the interactions between the whole wine system. The uncertainty of the evolution over time of the forecasts suggests examining these aspects for hypothetical scenarios which involves the following interfaces: Consumer (market)/ Producer, Grower/Nursery, Research/Nursery/Grower/Consumer. Other aspects might modulate the above relations: social ethics, energy cost, globalization, economic situation, climate change, Pathogens emergencies.

Consumer (market)/producer. What is certain is that enlargement of the European Community to the East and the lack of restrictions on the spread of viticulture in new emerging countries (Latin America, South Africa and Oceania), will pose competition problems on traditionally wine countries such as Italy and France which will fight fiercely to defend the current position revenue linked to the prestige of wine-growing areas. There is no doubt that the new emerging countries, at least for several years, will base their market strategy on the best ratio between cost and price, with condition that it will be possible to maintain rapid and streamlined trades between countries, leaving the market share of high-quality wines. The dominant effects of the recession could lead to the reduction in the purchasing power of the population and thus to decrease the consumption of luxury goods, within the framework of the poorer population groups. The decrease in consumption will vary depending on the role attributed to the wine (food or hedonistic) and the ability to reduce other purchases luxury or essential goods, although the pleasure being part of main needs (but individual) will favors the consumption of high quality wine. New dietary needs could emerge, to supplement the daily diet, and especially locally or from neighboring basins (localism, joint buying groups). Environmental sensitivity could increase the need for produce in an environmentally-friendly way (Scalabrelli, 2010) and with less wasted energy and CO_2 production due to long-range transport. There is, however, to take into account many motivational aspects regarding the future evolution of wine consumption. We already feel the first symptoms of new trends that tend to favor wines with special features of healthiness, peculiarity and uniqueness. In fact, a part of the population does not seek more homogeneous characteristics and wines already granted who find themselves generally in varietal wines produced in a specified area or a specific brand. The uncertainty on these issues lies in sizing the scope of this question.

Grower/Nursery. The expected decline in demand should not have immediate effects on the structural consistency of the companies, although it might affect the renewal of new vineyards and delay the activation of new business ventures. Consequently, with the exception of the physiological abandonment of vineyard areas, it could be envisaged a slight decline in demand for new plantations with possible surplus of material produced. In a first stage the survival of nursery companies will not be at risk, but those more efficient and better organized will have more chances of remain on the market. In a longer period, the continuing demand for wine (or diversification), might request to redirect the offer to new sales channels (or production), although it is hardly predictable as the globalized market might move and what changes might be required in order to produce and sell. Companies will have to carefully follow the market and consumer demands, develop new solutions to meet the new population requirements. For example, produce in an environmentally-friendly, organic, biodynamic will be no longer just slogans, if the research will have clarified and deepened aspects and come up with appropriate techniques, but the needs imposed by the consumer. For productive diversification, there is currently a clear differentiation between traditional varieties and the advent of new varieties obtained by genetic improvements. The tendency to preserve the local varieties and to use the traditional ones appears a goal practiced by small farm meanwhile the possible use of new varieties obtained by genetic improvement will be probably a strategy of the globalized system. Of course biodiversity conservation would not be exhaustive unless their characteristics and performance will be known in view to utilise this source for possible direct cultivation or for genetic improvement. In this contest the nurseries could have new opportunities either on the production of autochthon varieties or propagating new material obtained by genetic improvement.

Research/Nursery/Grower/Consumer. The critical economic situation it is not expected to influence promptly the work in progress for the clone selection, previously started, altogether new projects initiatives could be restricted unless, a reversal trend towards investment of funds for research will take place. The local germplasm collection and its use are

prospected although this aspect is not universally shared, as worldwide is focusing attention on few international grapevine varieties. In any case the biodiversity of grapevine germplasm is considered a resource (Scalabrelli, 2007; D'Onofrio and Scalabrelli, 2010). Another area of great scientific interest is the study of varietal behavior, in view of climate change and, above all, thanks to the progress made with the grape genome sequencing (Jaillon *et al*., 2007) genetic improvement to obtain varieties more resistant to biotic and abiotic stress, can take advantages of the assisted breeding techniques. We could have, therefore, on world market engineered plants produced exclusively from several countries or companies that can find spread depending on the acceptance or rejection by the consumers. It is clear that a fundamental part of research will be carried out to clarify whether GMOs can pose risks to health or the environment. On this basis a possible clarification it might also change the current hostile attitude of some countries or part of the population. The strategy choice to cultivate or not genetically modified vines could also result in disruption in the spread of viticulture in different countries, but this could not occur before ten years. In our opinion, it should be advisable the introduction of specific genes within the genus *Euvitis*. Moreover another field of research is the intensification of the studies to understand the mechanisms that regulate the plants functioning and the role of symbiotic microorganisms which could facilitate the cultivation and the development of environmentally friendly techniques (biodynamic method?). Beneficial microorganisms, genetically modified or not, will be useful for finding biotechnological solutions, especially to control biotic and abiotic stress and for a biofertilization in balance with the aimed productions. In presence of a high critical situation of funding we need to wisely manage the ethical aspects of research and ensure adequate and rational fund investment. It would be desirable for local projects carry out a "Shared Research", involving the various components of the "Wine chain", a new need this to satisfy, especially if the State and the Regions will not be able to devote resources to this sector, as committed to supporting consumption and to invest on social safety nets

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