INVESTMENT IN R&D+i AS A MEANS OF PRODUCT DIFFERENTIATION AND INTERNATIONALIZATION OF A SMALL FAMILY TYPE WINERY: THE CASE OF CLONAL SELECTION OF MALBEC

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Abstract.

Semi-arid climate, with the Andes Mountains framing the rows of vines; it is in Mendoza, where Malbec after being brought to America from Cahors, France, found its ideal habitat. With its great adaptability to arid areas, their need for sun and heat and their preference for cold nights, with great thermal amplitude between day and night, Malbec seems to be the ideal variety for Mendoza geography, which not only adapted but it grew to become the iconic symbol of Argentina’s wine industry. Today Malbec belongs to Argentina, as Shiraz to Australia, Pinot to France, Sangiovese to Italy and Grüner Veltliner to Austria.

However, Malbec as such has many different expressions, depending very much on environmental and cultivating conditions and on natural mutations occurred over time.

Imbued with the belief that Malbec has quality attributes not yet known, Tempus Alba in Mendoza, took Malbec as a platform for its strategy of business development and since year 2000 has been working on clonal selection and “in vitro” micro-propagation of its own grapevines.

The genetic screening work was based on traditional methods - phenotypic and enological analysis, ampelographic descriptions, blind taste of micro-vinified wines - and on a molecular marker protocol. The synergy of all these methods permitted the research team to come to the selection of 16 “superior” Malbec clones.

The whole selection process comprised four types of innovations: a) Product innovation, referred to the development of a new “blend of clones single vineyard” wine concept, b) Process innovation in grapevines production – from a discontinuous climate dependent agricultural production process to a continuous controlled - in vitro - industrial process, c) Marketing innovation, generating scarcity within abundance of wines, and d) Commercial innovation thru the VERO Malbec Circle Program, that facilitates the transfer of knowledge - new selected clones – to producers located in different terroir.

By using appropriate statistical techniques it was possible to quantify the economic impact of innovation on the quality of the wine - as reflected by the higher price paid for a product of higher quality - and split that into the two most influential factors: genetic and terroir. It contributes to the reconciliation of
geneticists and terroirists, and will allow the building of a scientifically based sensory map for Malbec at the country level.

As a main conclusion of this work we may say that the private benefits of clonal selection are widely exceeded by the spill-over effects - a positive externality - on the chain value. It has also a positive impact on environment by the production of healthier (virus free) vines and the anticipation of climate change on the possible future relocation of Malbec.

The transfer of knowledge is a great contribution to the economic sustainability of other small and medium size wineries. The same social benefits will be obtained by transferring the know-how within the country, to improve other grape varieties for different commercial uses or internationally, helping other countries to rescue native varieties such as “Quebranta” in Perú or “País” in Chile.