P2 – New genotypes for an old business: 'Criolla' and European grapevine varieties found in old vineyards from Chile

Castro, Maria H.; Meneses, Marco; Hinrichsen, Patricio*

Instituto de Investigaciones Agropecuarias, INIA La Platina, Santiago, Chile
*phinrichsen@inia.cl

Abstract

Chilean vineyards began with the arrival of the Spanish conquerors, by XVI century. Vines prospered very well in the Mediterranean climate of the southern countries of South America. Particularly in Chile, grapevines were planted all along the valleys of the central part of the country. A few genotypes were used, prevailing the red variety 'Listán Prieto' (LP), known in Chile as 'País'. Two centuries later supposedly arrived 'Muscat of Alexandria' (MA), and in a manner and timing not determined, these two founder varieties cross-polinated, originating the larger group or criolla varieties, up to now scarcely studied. Subsequently, since mid XIX century, a second wave of European varieties arrived, establishing also novel viticultural practices and wine styles. In this work we are presenting the identification and partial distribution of a number of new criolla genotypes, additional to the ones previously described in the region, as well as a few European varieties not previously registered in Chile. For their differentiation and characterization, the set of nine SSR markers proposed by the Vitis International Variety Catalogue was used, suplemented with 20 additional polymorphic SSRs to facilitate their paternity analysis. Up to now, we have found ca. 30 new criolla genotypes (according to their allelic patterns matching with LP and/or MA as the most probable parents), not included in the *V*IVC catalogue nor described before in any database. Their prevalence is quite variable, some corresponding to a single or a few vines identified in particular places, meanwhile others are repeatedly present in different valleys, suggesting they were "selected" and then propagated and shared by local growers. These criolla-type varieties co-exist with European (mostly French) old varieties; how and when each of these minor varities arrived to Chile is unknown, but most probably they traveled together with the importation of French varieties occurred during the "re-colonization" of the Chilean vineyards by mid XIX century. The discovery and documentation of these "new" genotypes is the first step of a long-term work that must be followed by evaluations of their enological characteristics, productivity and management systems, in the search for a diversification in the Chilean wine industry.

Keywords: *Vitis vinifera* L., criolla, hidden European varieties, South America, fingerprinting, microsatellites, genetic resources