

CLIMATIC ZONING OF THE IBERO-AMERICAN VITICULTURAL REGIONS

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The Ibero-American Network of Viticulture, a component of the program of agricultural technology of the CYTED (Ibero-American Program of Science and Technology for Development), is developing the project “Zoning Methodology and Application in Viticultural Regions of Ibero-America”. An objective of the project is the climatic characterization of this large viticultural region with the participation of ten countries: Argentina, Bolivia, Brazil, Chile, Cuba, Spain, Mexico, Peru, Portugal, and Uruguay. The first step in the research is based on Systematic Multi-criteria Climatic Classification (CCM) for Geo-viticultural regions. The project has assembled a climatic database that characterises the viticultural regions that includes variables relevant to viticulture: air temperature (average, maximum, and minimum), precipitation, relative humidity, solar radiation, number of sunshine hours, wind speed, and evapotranspiration. The application of the climatic indices IH, IF, and IS of the CCM System, highlights the variability of the thermal and hydrological components of the viticultural climate. The analysis of the climatic database, show the large climatic variability of the region. The initial results have identified seventeen viticultural climates in the twenty-six viticultural regions in the nine countries of the project. The identified viticultural climates represent forty-four percent of the climatic groups identified at the global level. This large regional climatic variability explains, to a large extent, the large diversity in the products of the Ibero-America region, including the organoleptic characteristics and the uniqueness of the vines produced. The research has also highlighted viticultural areas characterised by large inter-annual climatic variability. In such areas, the viticultural climatic classification changes as a function of the time of the year where grape-wine can be produced. The undergoing climate zoning is going to be used as a second phase of the project as a component of an integrated study that includes regional edaphic factors, and indicators of ecophysiological responses of the vineyards to natural factors.