Geophysical Research Abstracts
Vol. 17, EGU2015-13508, 2015
EGU General Assembly 2015

Effects of climate variation on viticulture in Spain

Isabel Iglesias (1,2), M. Nieves Lorenzo (2), Juan J. Taboada (3), and Alexandre M. Ramos (4)

(1) Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR), Universidade do Porto, Porto, Portugal, (2) Environmental Physics Laboratory. Facultad de Ciencias. Universidad de Vigo, 32004 Ourense, Spain, (3) Meteogalicia. Consellería de Medio Ambiente e Desenvolvemento Sostible. Xunta de Galicia. Santiago de Compostela, Spain., (4) Instituto Dom Luiz, University of Lisbon, Portugal

Droughts, floods and extreme weather events (heat-waves, floods and droughts) may cause higher losses to the primary sector. The crops are very dependent on meteorological conditions. In particular, the agricultural sector needs climatic and seasonal forecast that anticipates variations in crop production. Changes in climate could alter crop distribution, and policy-makers working in areas related to climate change should learn about the impact of climate change on crop yields. The aim of this study is to investigate the effect of climate variation on Spanish viticulture. Spain remains the country with the largest area of vineyards of the European Union and the world. The vine is the third extension of cultivation in Spanish, after cereals and olives.

The knowledge on influence of changes in temperature and rainfall in the actual context of climate change on grape of wine productivity is necessary to elaborate appropriate adaptation measures to the viticulture sector. The influence of main climate variability patterns on the grape of wine also has been analyzed. In particular, the main variability modes of the North Atlantic area (NAO, EA; EAWR and SCA) and the oscillation modes of the equatorial Pacific will be considered (SOI and NIÑO$_3$4). The choice of these modes was motivated by previous work where the influence of these modes on Iberian Peninsula was analyzed.