

## **The impact of the recent climatic change on grapevine phenophases and the prediction for the future**

P. Zahradnicek

Czech Hydrometeorological Institute, Brno, Czech Republic, (zahradnicek@chmi.cz)

Grapevine (*Vitis vinifera* L.) cultivation is influenced by the weather. The study try to explain connection between selected phenophases and meteorological characteristics with the focus on their temporal dynamics. Phenological observations in the Czech Lands have a long tradition, but choice of a suitable station is not simple. Finally were selected station Velké Pavlovice, this station have meteorological elements observation. The guideline for observers was set up in 1956 and has included the subsequent observed variables for the vine *Vitis vinifera* L.. This was replaced by the new CHMI methodology instruction number 3 in 1984. This case study researched available period 1984-2007. The quality control of meteorological characteristics were executed and then data were checked for relative homogeneity by Standard Normal Homogeneity Test and then adjusted with respect to the inhomogeneity year. Grapevine phenophases best respond with high correlation coefficient with average and maximum temperature. In the last time the temperature significantly increase and it is hyphotesis this phenomenon will be continued. Grapevine react on this climatic change yet in the present time. Beginning of the phenophases is earlier about 8 to 20 days before 20 years and in the future could be starting of the phenophases faster. The study work with time scale 2021-2050 and 2071-2100.