Growing of Vine in the Dry Areas of Romania

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ABSTRACT

At the Research Station Murfatlar was developed a research project that aims to increase overall competitiveness of vine holdings located in arid areas of Romania by adapting vine growing technology to better utilization of water resources with the preservation of quality of the wines. The experimental plots were placed in two plantations located in the center of Murfatlar vineyard, on two vine varieties Riesling Italian and Cabernet Sauvignon. Both plots are provided with drip irrigation system. Was studied the influence of the irrigation and of the in green works – partial removing of the clusters – on the main physiological processes (stomatal conductance, chlorophyll content in the leaves, maximum daily photosynthesis) and on the quality of grapes. Increasing of dryness phenomenon in the areas of South and South-Eastern Romania impose to adapt technology for grape growing in order to better utilization of natural water resources and their replacement by modern methods of irrigation. Balance between a profitable grape production and quality depends on the right choose of the appropriate system culture (way of cutting, foliage management, intake of water and fertilizers, etc.), whose effect can be monitored observing the evolution of the main physiological processes that lead to a suitable harvest. In this context, at the Research Station Murfatlar was developed a research project that aims to increase overall competitiveness of vine holdings located in arid areas of Romania by adapting vine growing technology to better utilization of water resources with the preservation of quality of the wines. Randomized blocks were set up by varying the following factors: irrigation (I) and non-irrigated (nI), partial clusters removing (T) or non-intervention (nT). Evolution of the physiological processes: shows a growth of the stomatal conductance in time at the Irrigated variants regardless of suppressing or not of the grapes. The chlorophyll content is not influenced by irrigation factor, this decrease concomitantly with the grape maturation process. Data on the evolution of photosynthesis is directly correlated with that of stomatal conductance.