

VALORIZATION OF A VENETO GRAPEVINE GERMPLASM COLLECTION BY MOLECULAR CHARACTERIZATION AND BIOCHEMICAL ANALYSIS OF RESVERATROL COMPOUNDS

M. SALMASO*, C. FORESTAN*, F. MATTIVI**, M. LUCCHIN*

*) Department of Environmental Agronomy and Crop Production. Agripolis, University of Padova (PD)

***) Istituto Agrario di San Michele all'Adige (IASMA), Centro Sperimentale, Via E. Mach 2, 38010 San Michele all'Adige (TN)

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Grapevine is the most important perennial crop worldwide. The world's collections of grape plant material are estimated to contain about 12000–15.000 cultivars. Many of these are ancient and autochthonous cultivars still not registered in the ampelographic national catalogues and therefore risking the extinction. In order to safeguard this germplasm a correct classification solving the problems of synonymous and homonymous in the cultivar designations is requested.

The identification and comparison of plant material by ampelographic methods is liable to misinterpretations, while DNA-based markers provide a more reliable alternative for cultivar identification. To preserve the genetic variability of local germplasm we initiate the characterization of 30 North-Eastern cultivars at 23 microsatellite loci. The markers were proved to be informative in the grapevine cultivars. The genetic profiles of all 30 cultivars were searched for possible parent-offspring groups and several cases of suspected synonyms have been investigated.

The valorization of this germplasm was implemented by biochemical analysis of resveratrol (*trans*-3, 4, 5-trihydroxystilbene) content. This stilbenic compound is a phytoalexin protecting grapevine against fungal infections. The recent years have also witnessed intense research aimed to clarify the role of stilbenes (that are also present in wines) and, among them, resveratrol, in human health because of their protective effects against cardiac decompensation and cancer. The potential therapeutic value of resveratrol has stimulated research activities on the occurrence of this molecules in grapes and wines.