

## **CHARACTERISATION OF LOCAL NORTH-EASTERN ITALIAN GRAPEVINE CULTIVARS USING MICROSATELLITE AND FUNCTIONAL MARKERS**

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Grapevine (*Vitis* spp.) includes cultivars, wild species and hybrids that show a wide genetic variability. Grapevine cultivation is an ancient tradition in the Veneto region, and therefore a large number of ancient cultivars are still present. Some of these (e.g. Raboso and Prosecco) are recognised as producing important Controlled Designations of Origin (D.O.C.) wines, while other local types have been lost because substituted by international cultivars.

Our aim is to characterise these ancient grapevine cultivars grown for centuries in the North-Eastern Italy to preserve their genetic variability. To this purpose we are characterising 30 cultivars with microsatellite markers, some of which are recommended by the GENRES No. 81 EU Project for the identification and differentiation of the European grapevine cultivars or varieties. Due to different labelling used by various laboratories, direct comparison of microsatellite size data is often difficult. Therefore the transformation procedure proposed by GENRES No. 81 is being used to add our local cultivars to the European database. Further marker descriptors, chosen on the basis of our preliminary examinations, are also used. The results indicate the possibility to differentiate the varieties on the basis of their individual SSR pattern and allele sizes. The phylogenetic relationships among the cultivars are also evaluated. A functional characterisation is in progress by evaluating the sequence and expression variation of grapevine MybA genes in relation to berry colour.