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Poster Communication Abstract – 6.30

BREEDING FOR SEEDLESS TABLE GRAPEVINES IN PUGLIA

PIARULLI L.*****, PIROLO C.*****, ROSETI V.***, FORTUNATO A.***, BELLIN D.****, FIDEGHELLI C.***, MONTEMURRO C.*****, MIAZZI M. M.****

*) Department of Soil, Plant and Food Sciences, University of Bari Aldo Moro, Bari, Italy
**) SINAGRI S.r.l. – Spin-Off of the University of Bari Aldo Moro, Bari, Italy
***) Rete Italian Variety Club, Locorotondo, Bari, Italy
****) University of Verona, Verona (VR), Italy

seedlessness, resistance, Marker-Assisted Selection

The Italian Variety Club producer consortium, with the aim of promoting a more sustainable viticulture, has undertaken a five-year extensive breeding programme to produce seedless grape varieties adapted to the southern Italian climate and resistant to powdery (PM) and downy mildew (DM). One hundred and nine seedless table grape varieties were crossed with elite varieties grown in the area or with resistance donors. The crossing programme made it possible to obtain 118,271 seedlings that were subjected to marker-assisted selection for seedlessness with the marker VvAGL11, and for resistance to downy and powdery mildew with 8 specific markers. Of the 7,696 putative seedless individuals tested in the field for agronomic value, the ten most promising new varieties started the procedure for the commercial registration and inclusion in the National Register of Vine Varieties (RNVV). In addition, 672 seedless individuals resistant to PM and DM were obtained, 81 of which showed pyramiding of resistance genes. This study allowed to deep the knowledge on the main parameters involved in the efficiency of such crossing programs and will help to promote a more sustainable and environmentally friendly viticulture in Puglia.