

Preservation and premultiplication of selected grape material in Trentino: collaboration between FEM- S. Michele all'Adige and Trentino Grape-Nurseries AVIT-Consortium

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In Trentino, the Edmund Mach Foundation-San Michele all'Adige (FEM) is the institution responsible for the selection of grape propagation material for the wine industry, serving not only the local area. The premultiplication material, selected and maintained by FEM, is released commercially in the vine-nursery chain in collaboration with the Trentino Grape Nurseries Consortium (AVIT). FEM has made significant investments for the qualification of sanitary selection. In particular, the already existing structures (screen-house of approx. 500 m²) have been totally renovated and new open-field greenhouses/tunnels (with anti-insect nets) have been realized. Special attention was paid to scientific training and updating of the personnel responsible for the control and treatment of clonal material primary sources. The personnel involved in the selection programs is also qualified thanks to participation in activities and projects carried out at national level, in collaboration with other premultiplication centres and scientific institutions, for the study and validation of official protocols of selection and/or premultiplication. Active participation in these initiatives has enabled a constant updating of procedures for internal audit on selected materials.

The preservation of "primary sources" of registered clones takes place both under screen house and in a micropropagation laboratory (tissue culture), allowing the possible "sanitation" of special accessions. This service is carried out also for other breeders. Annually FEM manages at their farm more than 3.5 hectares of surface area for "initial", "basic" and "certified" categories of *V. vinifera* and rootstock propagation material. An additional approx. 1.5 hectares of vineyards, obtained with FEM selections but commercially classified in the "standard" category, is also under FEM control. The "initial" materials of 84 accessions of *V. vinifera* and *Vitis* hybrid rootstock clones are preserved under screen-house. These materials belong to clones registered by FEM, some of them in association with other institutions, or preserved on behalf of third parties. Each accession or clone is present with an average of five or more plants (grown in 70-L containers), depending on the "commercial" interest. The yield of buds or cuttings to supply grafting activity is significant. The two tunnel-like structures in the field (one for the production of rootstock cuttings and the other of *V. vinifera* scions) cover a total area of approx. 2,000 m² with a defined mapping of every single vine. Most of the materials under the tunnels belong to the "basic" category. In addition to vineyard management, a strict sanitary control is carried out by means of field surveys and visual monitoring of the main disease symptoms. Plants are routinely sampled for diagnostic virus assays, particularly for the official verifications required by certification services. All the operations are carefully recorded as required for genuine traceability of nursery materials and as a guarantee in the subsequent stages of propagation. Since 2008, AVIT acts as the only authorized nursery for management and marketing of "basic" category grafted rootlings of the FEM clones. AVIT, along with its administrative office in collaboration with Nucleo di Premoltiplicazione Viticola delle Venezie, arranges reservations, production and distribution of selected rootlings.

AVIT has recently been recognized as a co-breeder proponent, along with FEM, of seven new clones (registered in the National Catalogue). In 2012, a consortium was formed by FEM and CIVIT AVIT with the aim of pursuing a path of mutual interest, in the wake of innovation in the field of viticulture and wine making.