

PROFILING OF GRAPEVINE FUNGAL ENDOPHYTIC COMMUNITY USING AUTOMATED RIBOSOMAL INTERGENIC SPACER ANALYSIS (ARISA)

Michael Pancher, Paola Elisa Corneo, Ilaria Pertot, Andrea Campisano.

Fondazione Edmund Mach, via E.Mach, 38010, S. Michele all'Adige, (TN), Italy.

A wide diversity of endophytic fungi has been associated with grapevines (*Vitis vinifera* L.). The composition of the endophytic microbial population changes greatly across plants and plant parts. The factors affecting the fluctuations of fungal communities composition in grapevine are as yet not understood. We compared fungal endophytic populations in Italian grapevines across farms using organic or integrated pest management (IPM). Both isolation of fungi on synthetic media and community analysis using an automated, DNA-based approach (ARISA) agreed in indicating that fungal populations from organic farms were significantly different from those from IPM farms. A multivariate statistical analysis showed that data obtained from DNA-based community fingerprinting ARISA was more information-rich than the analysis of cultured fungi.