Abstract – SY38

GENETIC CHARACTERIZATION OF APULIAN OLIVE GERMPLASM AS POTENTIAL SOURCE IN NEW BREEDING PROGRAMS

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The olive is a fruit tree species with a century-old history of cultivation in the Mediterranean basin. In Apulia (Southern Italy), the olive is of main social, cultural and economic importance, and represents a hallmark of the rural landscape. However, olive cultivation in this region is threatened by the recent spread of the olive quick decline syndrome (OQDS) disease, thus there is an urgent need to explore biodiversity and search for genetic sources of resistance. Herein, a genetic variation in Apulian olive germplasm was explored, as a first step to identify genotypes with enhanced bioagronomic traits, including resistance to OQDS. A preselected set of nuclear microsatellite markers allowed the acquisition of genotypic profiles, and to define genetic relationships between Apulian germplasm and widespread cultivars. The analysis highlighted the broad genetic variation in Apulian accessions and the presence of different unique genetic profiles. The results of this study lay a foundation for the organization of new breeding programs for olive genetic improvement.