

collection of fruits and leaf litter from the lemon trees present in the near area. Both samples, the weekly tape from the spore trap and the vegetable samples are analysed by real-time PCR with specific primers.

The present project is funded by EFSA

Distribution of *Phytophthora oleae* in southern Italy

M. Riolo¹, M. Evoli¹, L. Schena², F. Aloï^{1,3}, E. Santilli⁴, D. Ruano-Rosa⁵, G.E. Agosteo², A. Pane¹, F. La Spada¹, S.O. Cacciola¹

¹Dipartimento di Agricoltura, Alimentazione e Ambiente, University of Catania, via S. Sofia 100, 95123 Catania, Italy; ²Dipartimento di Agraria, Università Mediterranea di Reggio Calabria, Feo di Vito s.n.c., 89122 Reggio Calabria, Italy; ³Department of Agricultural, Food and Forest Sciences, University of Palermo, Viale delle Scienze, Building 4, 90128 Palermo, Italy; ⁴Council for Agricultural Research and Economics - Research Centre for Olive, Citrus and Tree Fruit (CREA-OFA), Contrada Li Rocchi-Vermicelli, 83 - 87036 Rende (CS), Italy; ⁵Instituto Tecnológico Agrario de Castilla y León – Unidad de Cultivos Leñosos y Hortícolas, Valladolid, Spain. E-mail: mario-riolo@hotmail.it

Phytophthora oleae, a recently described new homothallic species in clade 2 with an optimum temperature of about 20 °C and persistent, semi-papillate sporangia, causes occasional outbreaks of rot on mature olive drupes. Its geographical distribution has been investigated in olive orchards in Calabria using carob (*Ceratonia siliqua*) leaf baiting and selective isolation medium for *Phytophthora*. Isolates were identified by sequencing the ITS1-5.8S-ITS2 region of rDNA and *cox1* gene. The species was recovered from rhizosphere soil and fine roots of olive trees in a relatively large area along the Tyrrhenian coast of Calabria with no apparent association with root rot and decline symptoms on the tree canopy. Reports of *P. oleae* in undisturbed naturalized riparian ecosystems in Sicily (where olive is an essential and characteristic component of phytocenosis) as well as in protected natural area in Spain (where *P. oleae* was associated with root rot of wild olive) raise the questions whether its natural host range is restricted to olive or it is a polyphagous species like its close relatives in clade 2, and whether it is a recently introduced, invasive pathogen or a naturalized, occasional, weak pathogen in olive stands.

Tolerant and resistant citrus genotypes to *Plenodomus tracheiphilus*

R. Russo^{1,2}, E. Nicolosi², S.G. Scaccianocce¹, A. M. Fichera¹, M. Caruso¹, S. Di Silvestro¹

¹CREA – Research Centre for Olive, Tree fruits and Citrus, Corso Savoia 190, 95024, Acireale, Catania, Italy; ²Department of Agriculture, Food and Environment, University of Catania, Via Valdisavoia 5, 95123 Catania, Italy. E-mail: riccardo.russo.1991@gmail.com

Plenodomus tracheiphilus is the agent of “Mal secco”, one of the most injurious disease of citrus that is widespread in different Mediterranean countries. It is a tracheomycotic disease, besides lemon, “Mal secco” pathogen infects, with high yield losses, other citrus species. Identification of citrus genotypes tolerant and resistant to Mal secco is the aim of a phenotypic survey that started in the CREA orchard located in Acireale, Italy where there is lemon and lemon-like germplasm. It was planted in 2002 and today contains 25 lemon clonal selections and autotetraploids, as well as 17 citron and lemon hybrids. Other citrus species reported as tolerant or resistant were also embedded in the survey as

reference. All genotypes were replicated twice or three times and were planted in the same field block where the pressure of *P. tracheiphilus* is very high. Phenotyping for “Mal secco” symptoms started in 2018 and was performed twice on the survived clones. A screening by PCR was applied to detect possible sources of *P. tracheiphilus* in old flushes, new flushes and branches. The results showed important sources of tolerance in the germplasm. The pathogen was detected in all lemon clones, many lemon hybrids and citron hybrids, also in trees without clear symptoms, informing us about the ability of some genotypes to recover from the disease. Interestingly, an autotetraploid lemon seems to be immune to the disease under natural pressure, since *P. tracheiphilus* was not diagnosed by PCR and visual screening. Pathogen quantification was performed by Real Time PCR. This work was supported by: Associazione “Limone dell’Etna”

Effects of different viroids mixtures on Navelina ISA 315 grafted on five different rootstocks

T. Russo, M. Guardo, S. Di Silvestro, G. Varrica, G. Sorrentino

CREA – Research Centre for Olive, Tree fruits and Citrus, Corso Savoia 190, 95024, Acireale, Catania, Italy. E-mail: tiziana30russo86@gmail.com

Citrus viroids are very harmful pathogens in citrus orchards. With the aim to evaluate their effects and symptoms in a long period, a monitoring was conducted in an experimental citrus field planted and inoculated 25 years ago in Sicily. Observations were carried out on plants of ‘Navelina ISA 315’ grafted on five different rootstocks, Robidoux trifoliolate orange, Swingle citrumelo CPB 4473, Carrizo CES 2863 citrange, BA 300 citrange and Thomasville citrangequat; the seedlings were inoculated with 3 different citrus viroids complex: [Citrus Exocortis Viroid (CEVd) from Israel]; [CEVd, Hop stunt Viroid (HSVd) and CVd-III]; [CEVd, HSVd, CVd-III and citrus bent leaf viroid (CBLVd)]. The trees were planted in 1994 and since 2002 yield, fruit quality and size were evaluated every year for 10 years. The symptoms (gumming, bark scaling and yellowing) were assessed during until 2017. The results showed not only a strong reduction in the development of BA 300 and Robidoux *Poncirus trifoliata*, but also greater sensitivity to inocula with a higher percentage of dead (74%) or symptomatic trees. Other graft combinations showed less sensitivity to viroids, with a higher percentage of productivity and lower percentage of dead (36%) and symptoms, in particular on Thomasville citrangequat. The Navelina grafted on Citrange carrizo showed a size reduction too. Despite the sensitivity of these rootstocks, especially to CEVd, after 23 years from the start of trial, 46% of the plants survived. The viroids’ damage is not death of the plants but the reduction of development and productivity.

New reports of diseases on soft and durum wheat in Tuscany during the 2018/2019 crop season

A. Salerno¹, G. Carella¹, M. Nocentini¹, M. Ricciolini², L. Mugnai¹

¹Department of Agricultural, Food, Environmental and Forestry Science and Technology (DAGRI), Plant pathology and Entomology section, University of Florence, P.le delle Cascine, 28, 50144 Firenze, Italy; ²Servizio Fitosanitario Regionale, Regione Toscana, Firenze, Italy. E-mail: laura.mugnai@unifi.it

Wheat diseases monitoring has been carried out in Tuscany (Grosseto, Arezzo and Florence province) since 2013 within a collaboration agreement with the Regional Phytosanitary Service for monitoring and alert. The varieties of wheat chosen were both ancient and modern varieties of durum and bread wheat, with organic and/or integrated management. The 2018/2019