SCREENING OLIVE CULTIVARS FOR RESISTANCE TO *XYLELLA FASTIDIOSA*

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Since 2016 field experiments and greenhouse tests have been started to expose plants of different olive cultivars and selections to high pressure of bacterial inoculum, either by vector-mediated transmission or by needle inoculation of *Xylella fastidiosa* subsp. *pauca* ST53. The majority of the cultivars/selection under evaluation were from propagations obtained from the World Olive Germplasm Bank (CAP-UCO-IFAPA). All the accessions under evaluation have been identified by both morphological and molecular markers. The results collected from the first field experiment set in 2016 in the infected area with 19 cultivars, showed that after two seasons of exposure to the population of infected vectors, natural infections have occurred for all cultivars, although with significantly different incidences.The data collected in this experimental parcel confirmed the evidence recovered in the past years in the commercial orchards: Leccino showed the lowest incidence of infections (8.3%), whereas infections in Cellina di Nardò and Ogliarola reached 35% and 37.5%, respectively. Among the remaining 16 cultivars: (i) Toscanina, Maiatica and Simone showed infection rate below 10% (i.e. close to that recorded for Leccino); (ii) Pendolino, Oliastro, Bella di Spagna, Itrana showed the highest infection rates comprised between 30% and 45%. Intermediate values, between 15% and 30%, were recorded for the remaining cultivars. Similarly, for the second group of 60 accessions from IFAPA whose experiments started in 2017, results from field evaluations and needle inoculations allowed to differentiate them in three categories according to the infection rates. Indeed, initial symptoms of shoot dieback were recorded on some accessions in the greenhouse experiments. However, especially for the field experiments affected by the weather and climatic conditions, observations and quantitative assays need to be prolonged in order to acquire conclusive data from multi-year surveys.