

## THE APPLIED RESEARCH PROGRAMME AT THE OPERATIONAL CENTRE IN Gagliano del Capo (LE)



Iniziativa realizzata nell'ambito dell'Accordo di Cooperazione tra Regione Puglia e CIHEAM Bari per l'attuazione del "Piano straordinario per la rigenerazione olivicola della Puglia", art. 18 "Comunicazione e Informazione" - Azione 4.2



In recent years, at the "Forestaforte" oil mill premises of the Melcarne farm in Gagliano del Capo, an applied research station has been established as a virtuous example of concrete collaboration between researchers and stakeholders.

The need to carry out experiments on *Xylella* under natural infection conditions, while ensuring phytosanitary safety for the surrounding environment, has fostered active collaboration with the Melcarne Farm. At its olive mill, a true operational centre has been established for CNR-IPSP researchers, as well as for national and European research consortia which, through the CNR-IPSP, contribute directly to the development of research activities that could not otherwise be conducted elsewhere due to the phytosanitary risks associated with handling the bacterium outside the infected area.

The main line of experimentation focuses on the search for resistant olive germplasm, through the implementation of a crossbreeding program for genetic improvement. The availability of farm spaces has been exploited to establish fields and structures suitable for plant cultivation, serving various experimental purposes:

- **A 110 m<sup>2</sup> greenhouse**, built thanks to a fundraising campaign promoted by Andreas Metz, Director of the German magazine *Merum*, used for the propagation and cultivation of plants under optimal temperature conditions
- A screen-house built thanks to a fundraising campaign by the non-profit organisation Save the Olives (whose ambassador is Helen Mirren), designed to grow olive trees with promising agronomic and resistance traits under protected and isolated conditions, ensuring their health with respect to Xylella and other pests
- A 24 m² climate chamber, built through a project funded by UNAPROL the Italian Olive Consortium for the development of rapid pathogenicity tests
- An area equipped with small c**limate chambers (phytotrons)** used for experiments with insect vectors, which are not authorized elsewhere
- **Experimental field** for the selection of seedlings obtained through crossbreeding.





#### "FORESTAFORTE" OIL MILL in GAGLIANO DEL CAPO - Dr. Agr. GIOVANNI MELCARNE



## 110 m<sup>2</sup> GREENHOUSE, BUILT THANKS TO A FUNDRAISING CAMPAIGN AMONG THE READERS OF THE GERMAN MAGAZINE "Merum"





## 135 m<sup>2</sup> SCREEN-HOUSE ADJACENT TO THE GREENHOUSE, MADE POSSIBLE THROUGH A FUNDRAISING CAMPAIGN BY THE NON-PROFIT ORGANISATION "Save the Olives"



#### IN THE IMAGE BELOW, DETAIL OF THE PLANTS CULTIVATED INSIDE





# THE 24M<sup>2</sup> CLIMATE CHAMBER USED FOR PATHOGENICITY TESTS ON NEW OLIVE GENOTYPES BELOW: DETAIL OF THE PLANTS GROWN IN THE CHAMBER, FOLLOWING INOCULATION WITH THE BACTERIUM, SHOWING THE TYPICAL SUSCEPTIBILITY REACTION.











### EXPERIMENTAL FIELD FOR THE EVALUATION OF CA. 1500 SEEDLINGS OBTAINED THROUGH CROSSBREEDING







