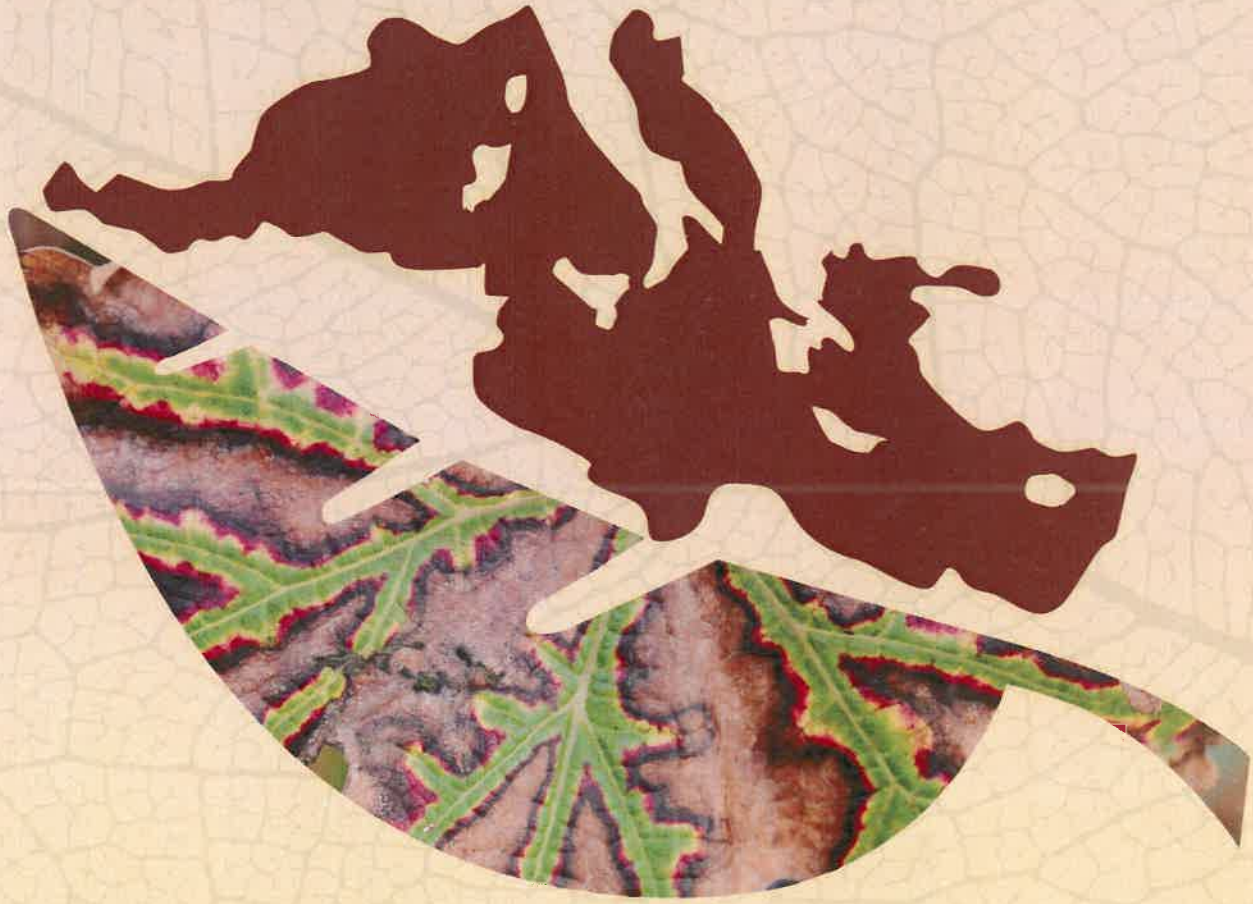
15TH CONGRESS OF
THE MEDITERRANEAN
PHYTOPATHOLOGICAL UNION

# PLANT HEALTH SUSTAINING MEDITERRANEAN ECOSYSTEMS

# ABSTRACTS BOOK



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Milano,Italy) in Petri dishes (10-cm diameter) for preliminary morphological identification on the basis of macroscopic and microscopic features.

A total of 15 fungal taxa, mainly belonging to *Ascomycota*, were identified by macro and microscopic methods. The most represented family were *Pleosporales*. The results show that antagonistic capacity of *Gliomastix* sp., *Papulaspora* sp. *Cladosporium sphaerospermum* had the higher antagonistic activity against *P. aphanidermatum* than the other fungi isolated from the roots of *P. oceanica.*

**P.112 Screening of potential biocontrol bacterial against *Pseudomonas savastanoi* pv. *savastanoi* and elucidation of their mode of action.** D. MINA[1], J. PEREIRA[1], T. LINO-NETO[2] and P. BAPTISTA[1]. [1]*CIMO / School of Agriculture, Polytechnic Institute of Bragança,* Campus de Santa Apolónia, 5300-253 Bragança, Portugal. [2]*BioSystems & Integrative Sciences Institute (BioISI), Plant Functional Biology Centre*, University of Minho, *Campus* de Gualtar, 4710-057 Braga, Portugal. Email: pbaptista@ipb.pt

Over the last decades, the olive knot disease, caused by the bacterium *Pseudomonas savastanoi pv. savastanoi* (Psv), has been responsible for irreversible damages on olive orchards. Reduced vigor and stem dryness caused by this phytopathogen lead to a decrease in olive fruit production, conducting to countless losses for farmers. In this work, bacterial endophytes and epiphytes of olive tree phyllosphere were screened for the suppression of Psv, and several mechanisms behind this activity was also studied by evaluating indoleacetic acid (IAA), siderophore and lytic enzymes production. Interspecific interaction was assessed on solid media with agar overlays. IAA was estimated spectrophotometrically, whereas siderophores and lytic enzymes were evaluated qualitatively. Several bacterial species tested showed to reduce Psv growth up to 70%, as well as its viability. The highest inhibition was observed for *Frondihabitans* sp. and *Paenibacillus* sp. A reduction on production of both IAA and siderophore, which are associated with knot development, by Psv was noticed in the presence of the most efficient bacterial. Production of lytic enzymes by antagonists such as lipase, chitinase, protease and amylase was also identified. Altogether the results indicate that some of the bacterial tested have great potential as biocontrol agents due to their capacity to produce metabolites/lytic enzymes that can interfere with Psv growth and/or development of knots. These potential biological agents should be further evaluated under natural conditions.

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**P.113 Biological control of *Pseudomonas savastanoi* pv. *savastanoi* by two bacterial isolated from olive tree phyllosphere** D. MINA[1], A. SANTOS[1], J. PEREIRA[1], T. LINO-NETO[2] and P. BAPTISTA[1]. [1]*CIMO / School of Agriculture, Polytechnic Institute of Bragança,* Campus de Santa Apolónia, 5300-253 Bragança, Portugal. [2]*BioSystems & Integrative Sciences Institute (BioISI), Plant Functional Biology Centre*, University of Minho, *Campus* de Gualtar, 4710-057 Braga, Portugal. Email: pbaptista@ipb.pt

Olive knot disease, caused by the bacterium *Pseudomonas savastanoi* pv. *savastanoi* (Psv), has been responsible for high economical crop losses in olive orchards, especially in Mediterranean countries. Olive