IN VITRO ACTIVITY OF PLANT CRUDE EXTRACTS AND IN SITU PROTECTIVE EFFECT OF *PHLOMIS PURPUREA* AGAINST *PHYTOPHTHORA CINNAMOMI*

Neves, D[1]; Caetano, P.[2].; Horta, M.[2]; Sousa, N.[2]; Pó, L.[2]; Magan, N.[3]; Cravador, A.[2]

[1] Universidade do Algarve, Instituto Transfronteiriço Universitário para a Ciência, a Cultura e o Ambiente (ITUCCA), Campus de Gambelas, 8005-139 Faro, Portugal
[2] Universidade do Algarve, Campus de Gambelas, Faculdade de Engenharia dos Recursos Naturais, 8005-139 Faro, Portugal
[3] Institute of Biosciences and Technology, Cranfield Univ., Silsoe, Bedford, MK45 4DT, UK
Corresponding author e-mail: dneves@ualg.pt

The effect of ethanol extracts of *Arbutus unedo* (Ericaceae*)*, *Helichrysum stoechas* (Compositae) and *Phlomis purpurea* (Labiatae) were evaluated against *Phytophthora cinnamomi* mycelial growth. All plant extracts exhibited anti- *P. cinnamomi* activity. The most effective extract was from roots of *P. purpurea*, with a maximum percentage of inhibition of 78.3% at 1 mg/ml. *P. purpurea* is a non- *P. cinnamomi* host that was shown to significantly protect *Quercus ilex* from *P. cinnamomi* infection, in a glasshouse trial. This spontaneous plant reduces the soil inoculum potential suggesting a possible protection of other hosts against *P. cinnamomi*. This plant is endemic from the south of Iberian Peninsula and Morocco and is present in the understorey of *Q. suber* and *Q. ilex* habitat, severely affected by this oomycete pathogen. *Phlomis purpurea* is a potential candidate to control *P. cinnamomi*, but further research is required, including field trials.