

VIII Simpósio Nacional de OLIVICULTURA

7 a 9
Junho de 2018
SANTARÉM



LIVRO DE RESUMOS

7 a 9 de junho, 2018
CNEMA, Santarém

Organização



Apoio



Characterization of the endophytic fungal communities associated to *Coleostephus myconis*: looking for potential repellent/attractant compounds towards *Philaenus spumarius*

Cristina Cameirão¹, Gisela Fernandes¹, Fátima Martins¹, José Alberto Perreira¹ & Paula Baptista¹

¹ Centro de Investigação de Montanha (CIMO), Instituto Politécnico de Bragança Campus de Santa Apolónia, 5300-253 Bragança, Portugal. pbaptista@ipb.pt

Abstract

Philaenus spumarius is a xylem feeding insect identified so far as the only vector involved in the first European outbreak of the phyto bacterium *Xylella fastidiosa*, affecting and devastating olive groves in Italy. One approach to reduce *X. fastidiosa* transmission could rely in the vector control through the use of baits to attract and/or repel de insect. Fungal endophytes inhabiting plants provide a source of candidate repellent/attractant compounds. In this work, the endophytic fungi community associated to the weed *Coleostephus myconis*, was studied in order to identified potential fungi that can be used as attractants or repellents of *P. spumarius*. *Coleostephus myconis* is common in olive groves and preferentially used by *P. spumarius* for the nymph development. Fungi were isolated from the stems, leaves and inflorescences from plants with three levels of *P. spumarius* infestation (i.e. no infestation, moderate and high infestation). The fungal isolates obtained were identified by sequencing the ITS region of rDNA and the partial *tef1*. Overall, was obtained 138 taxa belonging to 37 different genera. The endophytic community composition differs between infested and non-infested plants, solely at stems level, where the *P. spumarius* foam nests are present. The fungal genera, *Cytospora*, *Diaporthe* and *Penicillium*, which are well-known with producers of volatiles compounds repellent activity against insect, were found only on non-infested plants. *Botrytis* was restricted to infested plants. The behavioral responses and preferences of *P. spumarius* for *C. myconis* plants colonized by these endophytes should be investigated in the future.

Key words: xylem-feeding insect; *Xylella fastidiosa*; plant organ; volatile compounds

Acknowledgements: This work is funded by national funds through the Foundation for Science and Technology - FCT - in the scope of the project PTDC/AGR-PRO/0856/2014 “XF-FREEOLIVE: Multifunctional study of xylem-sap of Portuguese olive cultivars and its relation with susceptibility to infection by *Xylella fastidiosa*”, and by European funds in the scope of the project H2020-SFS-2016-3 “XF-ACTORS - *Xylella fastidiosa* active containment through a multidisciplinary-oriented research strategy”.