The Sixth International Symposium on Olive Growing

Resumos

Évora, PORTUGAL

9 – 13 September 2008

UNIVERSIDADE DE ÉVORA

ASSOCIAÇÃO PORTUGUESA DE HORTICULTURA

www.olivegrowing.uevora.pt

ISHS

Held under the aegis of the International Society for Horticultural Science

ENTOMOPHATOGENIC FUNGI ASSOCIATED WITH THE MAIN INSECT PESTS IN THE NORTHEAST OF PORTUGAL: PRELIMINARY RESULTS

Paula Baptista[1]; Eric Pereira[1]; Liliana Nogueira[1]; Albino Bento[1]; Cándido Santiago-Álvarez[2]; Enrique Quesada-Moraga[2]; José Alberto Pereira[1]

[1] CIMO/Escola Superior Agrária, Instituto Politécnico de Bragança, *Campus* Sta Apolónia, Apartado 1172, 5301-855 Bragança, Portugal, jpereira@ipb.pt

[2] Department of Agricultural and Forestry Sciences, ETSIAM, University of Cordoba. *Campus* de Rabanales. Building C4 "Celestino Mutis". Cordoba 14071. Spain.

Abstract

Due to the problems caused by the use of chemical insecticides for humans and environment alternative pest control methods are an important topic of research. The use of microbial insecticides especially fungal agents are an attractive and promising alternative for biological control of insect pests. The aim of this work was to identify naturally occurring entomophatogenic fungi on the olive moth, *Prays oleae* Bern., in the northeast of Portugal, as first step to select biological control agent again this olive pest. The experimental work was carried out during 2007 in the three generation of the insect (phyllophagous, anthophagous and carpophagous generation). In each generation *P. oleae* larvae and pupae were collected in different groves and were put in glass vials in a climatic chamber with a photoperiod of 12h light:12h dark, 22ºC (light): 16ºC (dark) and 60% relative humidity, until emergency of the adults. From dead larvae, fungi were isolated on PDA plates and incubated at room temperature. Pure cultures were morphological and molecularly identified based on the ITS region of the rDNA. From the identified species *Beauveria bassiana* Vuill. and *Cordyceps sinensis* (Berk.) Sacc. were the most promising being *B. bassiana* the most abundant one.

Keywords: Entomopathogenic fungi; *Prays oleae* Bern.; *Beauveria bassiana* (Bals.) Vuill..

This work was partially financed by the project INTERREG IIIA Pirefi