*Food, Timber, Biomass & Energy in Europe*

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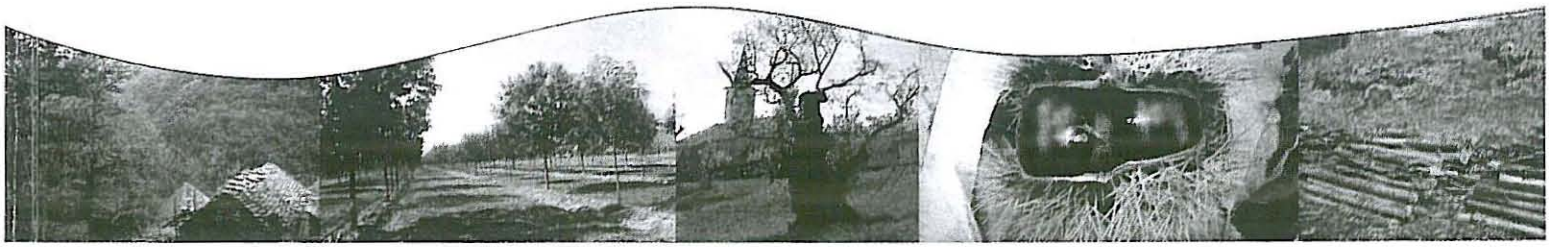
# Castanea 2009

**1st European Congress on Chestnut**
**5° Convegno Nazionale Castagno**

# ABSTRACTS



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## EFFECTS OF WILD PLANT ESSENTIAL OILS IN THE GROWTH CONTROL OF *PHYTOPHTHORA CINNAMOMI* AND OF THE HOST *CASTANEA SATIVA* MILL.

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*Plant diseases caused by this genus are difficult to control chemically, and the perspective of active natural product agent has a great importance especially in regions that have chestnut as main natural resource.*
*The essential oils are natural compounds with bactericide, fungicide and allelopathic effects, these characteristics can be a very interesting tool to fifth or control the infections produced by* Phytophthora cinnamomi.
*Essential oils from wild plants growing in the Northeast region of Portugal were tested in vitro in is effect on the growth of* Phytophthora cinnamomi.
*The essential oils were tested in different concentrations from 100% to 2% dilutions were made with alcohol 10%, and were tested in mycelium after 1, 2, 3, and 4 weeks in culture.*
*Simultaneously in vitro chestnut plants were tested in their growth in the presence of imbibed paper filter with the same essential oils and concentrations in order to understand if the essential oil can affect the development of the plants.*
*Preliminary results show that essential oils from plants of Mentha genus can reduce the* P. cinnamomi *growing without affect drastically the* C. sativa in vitro *development.*

## EFFETTI DEGLI OLI ESSENZIALI DI PIANTA SELVATICA NEL CONTROLLO DELLA CRESCITA DI OF *PHYTOPHTHORA CINNAMOMI* E DELL'OSPITE *CASTANEA SATIVA* MILL.

Malattie causate dal genere *Phytophthora* sono difficili da controllare chimicamente e il potenziamento degli agenti naturali svolge un ruolo importante specialmente nelle aree che edono il castagno coem principale risorsa naturale. Gli oli essenziali sono composti con effetti battericidi, fungicidi e allelopatici. Pertanto possono rappresentare una via di controllo naturale per le infezioni di *Phytophthora cinnamomi*. Oli essenziali di piante spontanee della regione del nord-est del Portogallo sono state testate in vitro nell'inibizione della cresita di *Phytophthora cinnamomi*. Il lavoro presenta i primi risultati.