

**10th INTERNATIONAL VERTICILLIUM
SYMPOSIUM
16-20 NOVEMBER, 2009
CORFU ISLAND, HELLAS**



**PROGRAM
ABSTRACTS OF PLENARY, KEYNOTE, ORAL AND POSTER
PRESENTATIONS
LIST OF PARTICIPANTS**

FRONT COVER PICTURE

A TYPICAL SCENERY OF THE AEGEAN ISLAND ASTYPALAIA DURING SUMMER

**Combination of land and sea
with the messenger Ancient Greek God Hermes**

Symbolic meaning: The ancient Greek God Hermes is carrying the message concerning the solution of controlling Verticillium over the seas and cultivated lands around the world.....

Picture and comments by Eris Tjamos

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CORFU HOLIDAY PALACE HOTEL CORFU ISLAND, HELLAS

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Yaacov Katan (University of Jerusalem, Rehovot, Israel)
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Dear colleagues

The International Verticillium Steering Committee and the Local Organizing Committee of the 10th International Verticillium Symposium are pleased to have fulfilled the organization of the symposium.

Over 80 scientists from 14 countries will attend the symposium.

Ninety-one plenary, keynotes, oral and poster presentations will be given.

You will enjoy staying in one of the most beautiful, picturesque islands of the Mediterranean Sea. You will hear a lot about the history of the people and admire the civilization of the country you are visiting particularly for those coming for the first time in Greece. You will visit the ancient and medieval sites and places, where Greeks lived for thousands of years. You will be also experienced the hospitality of the modern Greeks and enjoy food and drinks. Beyond attending the symposium you will be in a very friendly and creative environment for holding fruitful scientific discussions and creating new acquaintances and links leading to future research cooperation.

For the International Verticillium Steering Committee and the Local Organizers

Eris Tjamos

NON-CHEMICAL CONTROL OF VERTICILLIUM AND NEMATODES IN TREE NURSERY SOILS

G.W. KORTHALS¹, J.H. VISSER¹, B.J. VAN DER SLUIS², A.P. SMITS² AND J.A. HIEMSTRA²

Applied Plant Research PPO, Wageningen University, The Netherlands

¹*Section Arable Farming, Multifunctional Agriculture and Field Production of Vegetables, P.O. Box 430, 8200 AK Lelystad, The Netherlands*

²*Nursery Stock section, P.O. Box 85, 2160 AB Lisse, The Netherlands*

E-mail: jelle.hiemstra@wur.nl and gerard.korthals@wur.nl

Verticillium wilt caused by *V. dahliae* is a serious problem in tree nursery industry in the Netherlands. Total loss of value due to Verticillium wilt recently was estimated to be about 5 million euro annually, mainly in the production of street trees and roses. The only effective control of Verticillium wilt in trees is to prevent the trees from being infected. *V. dahlia*, however, is widely spread in agricultural fields in the Netherlands and many important tree species are susceptible to Verticillium wilt. Therefore effective methods to eradicate the fungus from soil are strongly needed. The recent withdrawal of most soil fumigants due to their negative environmental effects enhanced the interest for new non-chemical techniques in the control of Verticillium and nematodes.

In 2009 PPO started a long-term field experiment to develop new strategies to control *Verticillium dahliae* and the nematode *Pratylenchus penetrans* in tree nursery soils. Biological methods applied are anaerobic biological soil disinfestation, growing marigold (*Tagetes patula*) combined with the application of compost, and growing a green manure crop (Sarepta or Indian mustard, *Sinapis juncea*), which will be incorporated in the soil to cause biofumigation. These treatments will be compared with two control techniques, fallow and chemical soil disinfestation (Metam-Sodium), and with growing white clover (*Trifolium repens*). In the clover treatment it is expected that both *Verticillium dahliae* and the nematode *Pratylenchus penetrans* will increase in the soil, since clover is a good host for both pathogens.

The treatments will be applied during 2009 to experimental plots on two different soil types. In 2010 on these plots roses (on sandy soil) and *Acer platanoides* (on clayey soil) will be grown to investigate the effectiveness of the different methods in the control of *Verticillium dahliae* and the nematode *Pratylenchus penetrans*. Besides growing these test crops, several techniques including plating of soil samples and the use of molecular detection techniques will be used to monitor the population densities of *Verticillium dahliae* and the nematode *Pratylenchus penetrans* in the soil during the whole project.