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

10th INTERNATIONAL VERTICILLIUM SYMPOSIUM

16-20 NOVEMBER 2009

CORFU HOLIDAY PALACE HOTEL
CORFU ISLAND, HELLAS

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 accountancies and links leading to future research cooperation.

For the International Verticillium Steering Committee and the Local Organizers

Eris Tjamos

VERTICILLIUM RESISTANCE IN MAPLE

JELLE A. HIEMSTRA

Nursery Stock section, Applied Plant Research PPO, Wageningen University.
P.O. Box 85, 2160 AB Lisse, The Netherlands
E-mail: jelle.hiemstra@wur.nl

Norway maple (*Acer platanoides*) mainly grown as cultivars grafted on seedling rootstocks is a major species in Dutch tree nursery industry. Both cultivars and seedlings are susceptible to *Verticillium dahliae* and annual losses are substantial. The only effective control method today is prevention of infection. With Verticillium being widely spread this strategy in practice is difficult and not very reliable. The use of resistant rootstocks would provide a much more reliable protection. This paper summarises more than ten years of research into developing a Verticillium resistant rootstock for *Acer platanoides* cultivars.

Research started in 1993 with development of efficient methods to select and screen for Verticillium resistance in maple. Following large-scale selection experiments resulted in selection of about 300 plants out of a total of nearly 20.000 seedling plants. Selected plants were propagated vegetatively (production of clones) to enable repeated testing of the same individual. During this stage many plants were lost because of failure to propagate. A first field experiment in 2000 showed a clear selection response with disease incidence (DI) in plants of the selected clones being 50% less than in the seedlings and randomly chosen clones. Also mortality in selected clones was about 50% less than that in non-selected clones. It was concluded that selection for resistance to Verticillium wilt in Norway maple is possible. Vegetative propagation was continued and in the period 2000-2003 three successive field tests with new plants of about 30 selection lines were performed with similar results.
Then in the period 2003-2007 the 8 best performing selections were tested as rootstocks for 3 commercial cultivars (Royal Red, Emerald Queen en Cleveland) in several experiments on the same experimental field. The same cultivars on seedling rootstocks served as control. Again two selections performed considerably better than the standard seedling rootstocks with a DI from 13-16% for the selections compared to 36% for the seedling rootstocks. Complete resistance however has not been found. Even in the cultivars on the best performing selections infection occurs (although considerably less) as was demonstrated by the presence of foliar symptoms and discoloration in the stem of some plants. The results of these experiments will be presented and the value and perspectives of the selections as a rootstock will be discussed.