

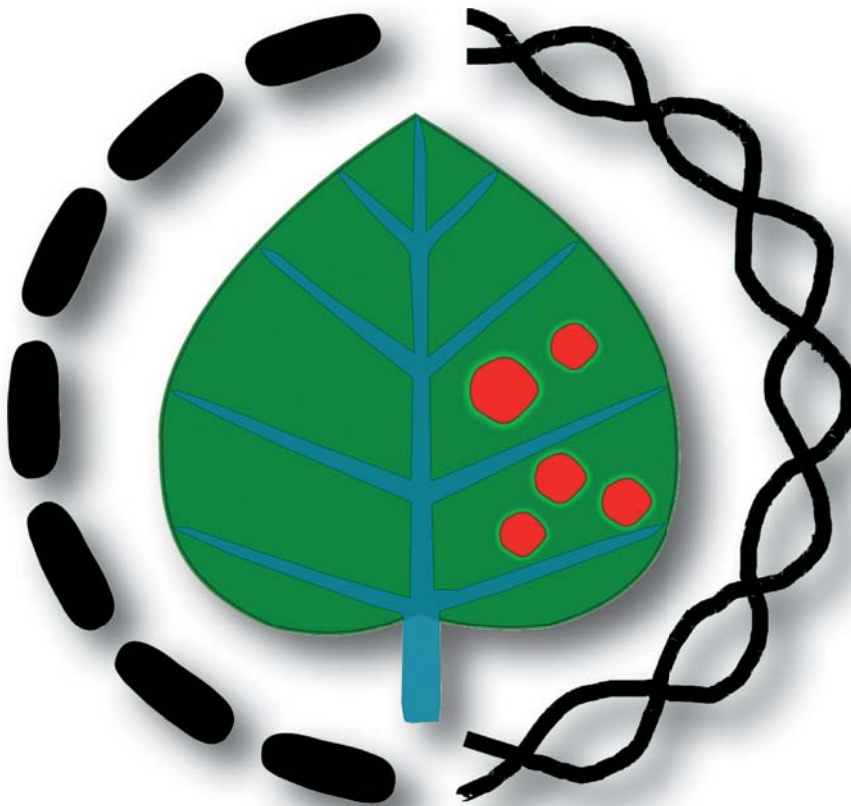


SIPaV
Società Italiana di Patologia Vegetale
Italian Phytopathological Society



UNIVERSITÀ
POLITECNICA
DELLE MARCHE

*XXIV National Congress Italian
Phytopathological Society (SIPaV)*



BOOK OF ABSTRACTS

Ancona, 5-7 September, 2018

UNIVERSITÀ POLITECNICA DELLE MARCHE
Department of Agricultural Food and Environmental Sciences

Edited by

Gianfranco Romanazzi, Lucia Landi, Sergio Murolo, Erica Feliziani, Valeria Mancini, Luisa Rubino



SIPaV
Società Italiana di Patologia Vegetale
Italian Phytopathological Society



UNIVERSITÀ
POLITECNICA
DELLE MARCHE

XXIV National Congress
Italian Phytopathological Society
(SIPaV)

Ancona, 5-7 September, 2018

Aula Azzurra

UNIVERSITÀ POLITECNICA DELLE MARCHE



Scientific Committee	Organising Committee	Congress Secretary
Maria Lodovica Gullino	Sergio Murolo	Lucia Landi
Piero Attilio Bianco	Jonathan Concas	Valeria Mancini
Giuseppe Firrao	Erica Feliziani	
Stefania Loreti	Sandro Nardi	
Michelina Ruocco	Gianfranco Romanazzi	
Luisa Rubino		
Gianfranco Romanazzi		

THE EVENT WAS REALIZED ALSO THANKS TO THE CONTRIBUTION OF:

GOLD SPONSORS



Agriculture Division of DowDuPont



L'innovazione in viticoltura

SILVER SPONSORS



XXIV National Congress
Italian Phytopathological Society (SIPaV)
Ancona, 5-7 September, 2018

CONFERENCE PROGRAMME

Wednesday 5th September

1.30-2.30 pm: Registration of participants and posters set up

2.30-3.00 pm: Opening of the SIPaV 2018 Congress and welcome address

3.00-4.30 pm: I Session – Phytoplasma diseases (*Chairs* Piero Attilio Bianco and Rita Musetti)

3.00-3.30 pm: Invited talk

Variability and function of Vmp adhesion related proteins give insight into the emergence of phytoplasma epidemics. S. Malembic-Maher, D. Desque, P. Salar, J.L. Danet, S. Duret, M.P. Dubrana, B. Batailler, J. Jović, S. Krnjajić, E. Angelini, L. Filippin, M. Monticone, D. Bosco, I. Ember, M. Kolber, M. Della Bartola, A. Materazzi, M. Maixner, L. Beven, J. Renaudin, N. Arricau-Bouvery, X. Foissac

3.30-4.30 pm

Detection of ‘*Candidatus Phytoplasma solani*’ in roots from Bois noir symptomatic and recovered grapevines. L. Landi, S. Murolo, G. Romanazzi

Clues on the epidemiology of 16SrV-C phytoplasma on *Spartium junceum* in Sicily. S. Rizza, D. Di Pietro, V. D’Urso, C. Marzachi, M. Tessitori

Metagenome analyses reveal microbiota changes in *Citrus sinensis* affected by citrus decline disease in Iran. A. Passera, H. Alizadeh, M. Azadvar, F. Quaglino, A. Alizadeh, P. Casati, P.A. Bianco

Influence of chitosan on the antioxidant status of tomato plants infected by cucumber mosaic virus

N. Rendina¹, M. Nuzzaci¹, A. Scopa¹, A. Sofo¹, A. Cuypers², M. Manfra³

¹University of Basilicata, School of Agricultural, Forestry, Food and Environmental Sciences (SAFE), Viale dell'Ateneo Lucano 10, 85100 Potenza, Italy; ²Universiteit Hasselt, Centrum voor Milieukunde (CMK), Agoralaan Gebouw D, 3590 Diepenbeek, Belgium; ³University of Basilicata, Department of Sciences (DiS), Viale dell'Ateneo Lucano 10, 85100 Potenza, Italy. E-mail: nunzia.rendina@unibas.it

Fruit quantity and quality loss represents a huge problem for farmers and more generally for human nutritional needs. Viruses are dangerous phytopathogens, that cannot be faced using agrochemicals. Hence, they are responsible for severe crop and quality losses. In such a scenario, chitosan is an interesting eco-friendly solution. The strong decrease of the load of cucumber mosaic virus strain Fny (CMV-Fny) in *Solanum lycopersicum* plants, treated with the combination of *Trichoderma harzianum* T-22 and chitosan, has been previously reported. The present research was aimed to investigate the influence of chitosan on the antioxidant status of CMV-inoculated tomato plants. The transcript amounts of the genes encoding peroxidase, phenylalanine ammonia lyase (PAL) and phytoene synthase 2 (PSY2), were analyzed in leaves. Lutein, lycopene, β -carotene, vitamin C and polyphenols as rutin and naringenin, were determined in ripe fruits. Results show that chitosan treatment, both before CMV and alone, downregulated peroxidase- and PSY2-related transcripts, while upregulated PAL-related transcripts, compared to only infected plants. Fruits harvested from plants treated with chitosan alone had the highest lutein, lycopene and β -carotene contents. The same fruits also contained more caffeoyl glucoside and less naringenin chalcone, compared to the fruits of control plants. Furthermore, the fruits of control plants had the lowest vitamin C level. In conclusion, chitosan was able to enrich fruits with nutraceuticals, as carotenoids, and it controlled CMV infection likely through phenylalanine-derived products, such as salicylic acid, by affecting the plant antioxidant status.