SCIENTIFIC AND SOCIAL PROGRAM

ORAL PRESENTATIONS

SUNDAY 12th June 2016

18:30-20:30 Registration. Poster set up

20:30 Walk to the Reception Cocktail place

21:00-24:00 Welcome Reception

MONDAY 13th June 2016

MORNING

8:00-9:00. Registration. Poster set up

9:00-10:00 OPENING LECTURE:

IS01. Tomato diseases in the genomics era. *Yuling Bai* (*Wageningen Agric. University, The Netherlands*)

Session 1 - GENETICS AND BREEDING FOR RESISTANCE

CHAIRS: DR. YULING BAI / RAFAEL FERNÁNDEZ-MUÑOZ

10:00-10:15. O01. Investigating the Molecular Basis of Tomato Resistance to The Fusarium Wilt Fungus *Fusarium oxysporum* f. sp. *lycopersici*. *D. Jones, Y. González-Cendales, H. Do and A.-M. Catanzariti*.

10:15-10:30- O02. Cell Death Triggering and Effector Recognition by Sw-5 CC-NB-ARC-LRR Proteins from *Tomato spotted wilt virus* Resistant and Susceptible Tomato Isolines. *A. S. Oliveira, L.S. Boiteux, O. F. Caldararu, A.J Petrescu, R.O. Resende and R. Kormelink*.

10:30-10:45. O03. A New mlo Mutant in Tomato Conferring Resistance to Powdery Mildew. *A.-M. A. Wolters, A. van Tuinen, D. Schipper and Yuling Bai*.

10:45-11:00. O04. Fruit Size in Large-Fruited, Fresh Market Tomato can be Negatively Affected by the I-3 and Frl Genes for Resistance to Fusarium Wilt Race 3 and Fusarium Crown Rot, Respectively. *S. Hutton, R. Shekaste Band*.

11:00-11:30 Coffee break

11:30-12:15 KEYNOTE LECTURE:

IS02. Tomato disease resistance; a look at the past and some possibilities for the future. *John W Scott* (*University of Florida, USA*)

12:15-12:30. O05. Searching for Proteins Associated with Resistance and Susceptible Tomato Genotypes to Late Blight. *J. Henriques da Silva, B. Laurindo, R. Laurindo and C. Pereira.*

12:30-12:45. O06. A new strain of *Pepper Huasteco yellow vein virus* (PHYVV) breaks geminivirus tolerance in tomato (S. lycopersicum) commercial lines. *J. Mendez, M.L. Moreno-Felix, E.A. Rodriguez-Negrete, N. Melendrez-Bojorquez, E. Camacho-Beltran, N.E. Leyva-Lopez.*

12:45-13:00. O07. Current Status of the Fusarium Wilt Disease of Tomatoes in Brazil: Pathogen Variability, Geographical Distribution of the Physiological Races, and Field Performance of Resistant Sources. *A. de Melo Gonçalves, H. Costa, M. E. Noronha Fonseca, L. Silva Boitex, C. A. Lopes and A. Reis.*

13:00-13:15. O08. Preliminary Test of a Local Tomato Variety as a Rootstock Against Two Important Soil-Borne Plant Pathogens. *T. Arwiyanto, B. Triman, S. Sulandari, S. Suryanti.*.

13:15-13:30. O09. Agroinfection of cDNA Clone of *Tomato chlorosis virus* BJ Isolate. *T. Zhou, R. Zhao, N. Wang, M. Chai and Z. Fan*.

13:30-15:00 Lunch

AFTERNOON

Session 2 - HOST-PATHOGEN INTERACTION

CHAIRS: DR. BRIAN STASKAWICZ / DR. CARMEN BEUZÓN

15:00-15:45 KEYNOTE LECTURE:

IS03. Genomic strategies for the durable control of plant diseases in tomato. *B. Staskawicz* (University of California, Berkeley, USA).

15:45-16:00. O10. Deciphering the Mechanisms of Biochar Induced Suppression of Fusarium Crown and Root Rot in Tomato. *A. K. Jaiswal, Y. Elad, E. Graber, E. Cytryn and O. Frenkel.*

16:00-16:15. O11. Physiological and Biochemical Response of Tomato Plants Treated with *Trichoderma harzianum* T-22 and Infected by *Cucumber mosaic virus*. *A. Sofo, A. Vitti, E. Pellegrini, C. Nali, S. Lovelli, M. Valrerio, A. Scopa and M. Nuzzaci.*

16:15-16:30. O12. Transcriptome associated resistance mechanisms in Tomato against *Ralstonia solacearum*. *M. Dasgupta, M. R. Sahoo, H. K. Patel, N. Prakash, S. V. Ngachan and R. V. Sonti*

16:30-17:00 Coffee break

17:00-17:15. O13. Functional analysis of *Ralstonia solanacearum* Type 3 Effectors and search for tomato plant targets. *N. Peeters, A. Morel, F. Lonjon, C. Sabbagh, P. Barberis, S. Genin, F. Vailleau.*

17:15-17:30. O14. Spatial and Temporal Effect of Pathogen Attack on Gene Transcriptional Level. J. Fahrentrapp, *B. Duffy, P. Nicot, F. Rezzonico.*

17:30-17:45. O15. Suppression of HopZ-effector triggered defence responses. *C.R. Beuzón, J.S. Rufián, A. Lucía, C. M. Guevara, A.P. Macho, J. Ruiz-Albert.*

17:45-18:00. O16. Mitogen-activated protein kinases activation post effector recognition in tomato. *V. Ntoukakis, A.H. Sheikh*.

18:00-18:15. O17. Plant response to biotic and abiotic stresses: mechanisms involved in Arabidopsis thaliana defense response modulation to *Ralstonia solanacearum* in a global warming context. *L. Tauleigne, E. Berges, R. Sambou, D. Tremousaygue, L. Deslandes, F. Roux, R. Berthomé.*

18:15-18:30. O18. Innate Immunity responses in Tomato against Pathogen. *M. Ranjan Sahoo, M. Dasgupta, N. Prakash, S. V. Ngachan*

18:30-21:00 Visit to Malaga city

TUESDAY 14th June 2016

TECHNICAL VISIT to FRUNET and IHSM La Mayora UMA-CSIC Experimental Station

9:00 Buses departure

10:00 Arrival to FRUNET company. Visit to fruit and vegetable managing and processing facilities and tomato production greenhouses

12:00 Arrival to the Experimental Station La Mayora. Refresments.

12:30-14:30 Visit to tomato germplasm resources grenhouse and subtropical fruit tree orchards

14:30-16:00 Lunch in La Mayora garden

17:00 Arrival to hotel. Free afternoon.

WEDNESDAY 15th June 2016

MORNING

Session 3 - DISEASE MANAGEMENT

CHAIRS: DR. YIGAL ELAD / DR. MARÍA D. GARCÍA-PEDRAJAS

9:00-9:45 KEYNOTE LECTURE:

IS04. Disease management: Disease suppression by cultural means and through bio-control. *Yigal Elad* (*ARO - The Volcani Center, Israel*)

9:45-10:00. O19. Recent advances in the development and evaluation of nanomaterials for management of bacterial spot of tomato. *A. Strayer, I. Ocsoy, Y. Y. Liao1, M. L. Paret, J. Jones, W. Tan, M. Young, S. Santra, J. Freeman, O. Stephen, L. Ritchie and D. Clark*

10:00-10:15. O20. The use of biocontrol plants to manage the bacterial wilt of tomato in the tropics. *P. Deberdt, P. Fernandes, R. Coranson-Beaudu, S. Minatchi, and A. Ratnadass*

10:15-10:30. O21. Dimethyl Disulfide (DMDS) for Management of Root-Knot Nematode in Protected Tomatoes. *A. Myrta, A. Santori, M.J. Zanon, N. Tsimboukis*

10:30-10:45. O22. Biological control of Fusarium diseases and whiteflies with two fungal biopesticides. *A. M. Cotes Prado, C. A. Moreno, C. Espinel, L. Villamizar, M. Gomez,*

10:45-11:00. O23. Biocontrol potential and plant growth promoting effects of *Bacillus amyloliquefaciens* MBI 600 against *Fusarium oxysporum* f.sp. *radicis-lycopersici* on tomato. *A. Samaras, G. Karaoglanidis, K. Efthimiou and E. Roumeliotis*

11:00-11:30 Coffee break

11:30-13:30 POSTER SESSION

13:30-15:00 Lunch

AFTERNOON

Session 3 - DISEASE MANAGEMENT (CONTINUATION)

15:00-15:15. O24. B-Fast ELISA: application of a new ELISA technique for the rapid detection of PepMV. *W. Menzel and S. Winter*

15:15-15:30. O25. Screening of spontaneous streptomycin-resistant strains in *Clavibacter michiganensis* subsp. michiganensis. *Q. Lv, N. Jiang, Y. Kan, S. Han, J. Li, and L. Luo*

15:30-15:45. O26. Novel Small Molecule Inhibitors of *Clavibacter michiganensis* subsp. michiganensis. *G. Rajashekara, X. Xu, A. Kumar, L. Deblais, R. Pina-Mimbela, C. Nislow, J. Fuchs and S. Miller*

15:45-16:00. O27. Isolation and Characterization of Bacteriophages Infecting *Ralstonia solanacearum* in Thailand. *A. Bhunchoth, N. Phironrit, C. Leksomboon, T. Kawasaki, T. Yamada, and O. Chatchawankanphanich*

16:00-16:15. O28. Efficacies of some fungicides on fusarium crown and root rot (*Fusarium oxysporum* f.sp. *radicis-lycopersici* jarvıs & shoemaker) of Tomato. *N. Tosun and G. Küçükkaya*

16:15-16:30. O29. Approaches to management of bacterial wilt of tomato in South Asia. *N. Subedi, C. Taylor, P. Paul, and S. Miller*

16:30-17:00 Coffee break

17:00-17:15. O30. Development of advanced Cu formulations for combating Cu resistant plant pathogens. *M. Young, S. Santra, A. Strayer, Y. Y. Liao, M. L. Paret, J. Jones*

17:15-17:30. O31. Management of bacterial speck disease of tomato grown under four individual polythene glazing greenhouses. *M. M. Kirli, S. Horuz, Y. Aysan, and S. Topcu*

17:30-17:45. O32. The prospects of non-chemical control of plant parasitic nematodes in Isfahan, Iran. *M. Nasr Esfahani*

17:45-18:00. O33. New tools to study Torradovirus molecular biology and epidemiology. I. Ferriol, *M. Turina, M. Vallino, E.J. Zamora-Macorra, J.C. Nigg, B.W. Falk.*

18:00-19:00 ISHS Business meeting

21:00-24:00 Conference dinner

THURSDAY 16th June 2016

MORNING

Session 4 - ECOLOGY AND EPIDEMIOLOGY

CHAIRS: DR. MIGUEL A. ARANDA / DR. JUAN ANTONIO DÍAZ-PENDÓN

9:00-9:45 KEYNOTE LECTURE:

IS05. Diversity and control of the emerging *Pepino mosaic virus* (PepMV). *P. Gómez, R. N. Sempere, M. Juárez, C. Alcaide, E. Méndez-López, F. Ruiz-Ramón, M. A. Aranda*. (*CEBAS - CSIC, Spain*).

9:45-10:00. *O34. Xanthomonas cynarae shares its host range with a closely related species, Xanthomonas gardneri*. *S. Kara, S. Tilmisina, M.A. Jacques, N. Potnis, G. Vallad, J. Jones, and M. Fischer-Le Saux*

10:00-10:15. O35. Comparison of the emergence, spread and generation of interspecific reassortants of tospoviruses in tomatoes cultivated under different environmental conditions. *M. Almeida, A. Orílio, F. Melo, M. Leastro, L.S. Boiteux and R.O. Resende*

10:15-10:30. O36. *Parietaria mottle virus*: a potential threat for tomato crop?. *F. Aparicio, M.C. Herranz, J. Aramburu, V. Pallas and C. Lopez*

10:30-10:45. O37. Bacterial canker severity during the nursery stage is affected by fertigation. *O. Frenkel, L. Chalupowicz, R. Shulhani, M. Bornstein, F. Moch, M. Sofer, S. Manulis-Sasson and D. Shtienberg*

10:45-11:00. O38. Coconut fiber growth bags as a source of primary inoculum of *Fusarium oxysporum* f. sp. *radicis-lycopersici* on greenhouse tomato crops in Almería (Spain). *A. Boix Ruiz, M. A. Gómez Tenorio, C. Ruiz Olmos, J. I. Marín Guirao, F. Toresano Sánchez, J. Tello Marquina, F. Camacho Ferre and M. De Cara García*

11:00-11:30 Coffee break

11:30-11:45. O39. Molecular, serological and biological characterization of the emerging *Tomato mottle mosaic virus* on tomato. *K.-S. Ling, X. Sui, R. Li and C. Padmanabhan*

11:45-12:00. O40. Occurrence and distribution of tospovirus and thrips species infecting tomato crops in Thailand. C. Seepiban, S. Charoenvilaisiri, N. Warin, A. Bhunchoth, O. Chatchawankanphanich and O. Gajanandana

12:00-12:15. O41. Emergence of two new variants of the torradovirus, *Tomato necrotic dwarf virus*, in California. *W.M. Wintermantel, O. Batuman, L.L. Hladky, M. Vasquez, and R.L. Gilbertson*

12:15-12:30. O42. The prevalence, aggressiveness and survival of *Clavibacter michiganensis* subsp. *michiganensis* strains belonging to different genetic groups in Israel. *D. Shtienberg, O. Frenkel, Y. Rekah, O. Dror, F. Abu-Moch, and S. Manulis-Sasson*

12:30-12:45. O43. White Mold and Leaf Mold: Two Emerging Diseases of Tomatoes in Illinois. *M. Babadoost*

13:00-13:30 ISHS Student Award

13:30-14:30 Concluding remarks / Closing meeting

14:30-15:30 Lunch

POSTER SESSION

GENETICS AND BREEDING FOR RESISTANCE

01. Sources of resistance to bacterial wilt in accessions of tomato germplasm. *O. Hur, H. C. Ko, S. G. Kim, K. Y Ryu, Y. Choi, B. P. Luitel, M. S. Yoon, H. Baek, J. Rhee, S. Lee and D. Y. Hyun*
02. Preliminary results of resistance of ten tomato accessions to late blight (*Phytophthora infestans* (Mont.) de Bary). *S. Medic-Pap, S. Masirevic, J.Petrovic, A. Takac, A. Stojanovic and D. Danojevic*
03. Potential of wild *Solanum stramonifolium* accessions as rootstock resistant to soil-borne pathogens in tomato crops. *R. B. Pereira, J. B. Pinheiro, J. L. Mendonça, J. A. Guimaraes and G. C. Lucas*
04. Evaluation of resistance of *Solanum scuticum* accessions to soilborne pathogens in tomato crops in Brazil. *R. B. Pereira, J. B. Pinheiro, J. L. de Mendonça, J. A. Guimarães and G. C. Lucas*
05. Disease resistance in tomato crops produced in Spain. *D. Janssen, C. García, L. Ruiz, M. de Cara, A. Simón and A. Martínez*
06. Regulation of gene expression in tomato lines resistant and susceptible to viruses inducing the Tomato yellow leaf curl disease. *N. Tousi, L. Miozzi, O. Eini, M. Pegoraro, G.P. Accotto and E. Noris*
07. Exploiting wild tomato genetic diversity for resistance against Tomato yellow leaf curl disease. *Z. Yan, M. Caro, A-M.A. Wolters, R.G.F. Visser, J. Li and Y. Bai*
08. Resistance evaluations of tomato inbred lines and cultivars using five infectious DNA clones of *Tomato yellow leaf curl virus* Korean isolates and their whitefly vectors. *S.-K. Choi, J.-Y. Yoon, B-N. Chung and G.-S. Choi*
09. *Ty-1*: a resistance gene against Geminiviruses. *C. Voorburg and R. Kormelink*
10. Reaction to whitefly transmitted Geminivirus of tomato genotypes influenced by insect resistance and by the genes *Mi, Ty-1, Ty-2* and *Ty-3/Ty-4*. *J. F. Rezende, C. A. Aoun, W. R. Maluf, J. V. Nomura and B. T. Gouveia*
11. New sources of tolerance to *Tomato chlorosis virus* in *Solanum* (section *Lycopersicon*) germplasm. *M. González-Arcos, A. Arruabarrena, M. E. N. Fonseca, D. Zandonadi, L. Rubio and L. S. Boiteux*
12. Characterization of a genetic factor controlling attenuated *Tomato chlorosis virus* symptoms in tomato (*Solanum lycopersicum* L.). *M. González-Arcos, A. Arruabarrena, M. E. N. Fonseca, D. Zandonadi, L. Rubio and L.S. Boiteux*
13. Validation of molecular markers systems for race discrimination in a collection of *Fusarium oxysporum* f. sp. *lycopersici* isolates infecting tomatoes in Brazil. *A. Melo Gonçalves, A. Reis, M. E. N. Fonseca and L. S. Boiteux*
14. Reaction of *Solanum* (section *Lycopersicon*) germplasm to an array of *Phytophthora capsici* isolates. *A. Reis, R. Petry, M. Paz-Lima, L. Boiteux and A. C. Filho*
15. Cloning of functional late blight resistance gene, *Rpi-amr5* from *Solanum americanum. H.S. Karki, K. Witek and J. D. Jones*

HOST-PATHOGEN INTERACTION

16. Comparative analysis of ET-regulated genes expression in response to *Clavibacter michiganensis* subsp. *michiganensis* infection in tomato plants. *K. Abdu, B. Cakir, H. Ilbi, D. Erogul, Y. Aysan, A. Kabas, and S. Horuz*
17. The molecular basis of TAL effector induced water soaking in bacterial spot of tomato. *A. Schwartz and B. Staskawicz*
18. Determining tomato apoplast responses to *Ralstonia solanacearum* by activity-based protein profiling. *M. Planas, J. Paulus, R. A. L. van der Hoorn, M. Vall and N. Sánchez-Coll*
19. A miRNA-regulated NB-LRR-encoding gene acts as a negative regulator of the plant defence against *Pseudomonas syringae* pv. *tomato*. *C. R. Beuzón, D. López-Márquez, E. A. Rodríguez-Negrete and E. R. Bejarano*
20. The functional analysis of distinct Tospovirus Movement Proteins (NSm) reveals different capacities in tubule formation, cell-to-cell and systemic virus movement among the Tospovirus Species. *R.O. Resende, M. Leastro, V. Pallás and J. Sánchez-Navarro*
21. The P22 RNA silencing suppressor of the crinivirus Tomato chlorosis virus is a determinant of systemic infection and can modulate synergistic interactions. *Y. Landeo-Rios, J. Navas-Castillo, E. Moriones and M.C. Cañizares*
22. Role of RNA2-encoded ORF1 of the Torradovirus, *Tomato marchitez* virus strain M (synonymous of *Tomato apex necrosis virus*), in Plant Infection. *I. Ferriol, M. Turina, M. Vallino, E. Zamora-Macorra, J. C. Nigg and B.W. Falk*
23. Co-infection of *Tomato yellow leaf curl virus* and *Tomato chlorosis virus* results in disease synergism and alteration of the salicylic acid signalling pathway. *F. Villanueva, S. Sánchez-Campos, J.J. López-Moya and J.A. Díaz-Pendón*

DISEASE MANAGEMENT

24. Methods of diagnostic of *Pepino mosaic virus* in Russian Federation. *Y. Shneyder, O. Morozova, M. Tikhomirova, E. Karimova and Y. Prikhodko*
25. Transcriptomic studies of *Bemisia tabaci*, the whitefly vector of *Tomato chlorosis virus* and management of whitefly through RNAi. *N. Kaur, W. Chen, Y. Zheng, D. Hasegawa, K.-S. Ling, Z. Fei and W.M. Wintermantel*
26. In-vitro biocontrol of fungi associated with leaf diseases of tomato (*Lycopersicon esculentum* Mill.) using *Trichoderma* species. *T. S. Ewekeye, O. A. Oke, O. B. Seriki and A. T. Bello*
27. Rapid and sensitive isothermal detection of *Clavibacter michiganensis* subsp. *michiganensis*. *B. Davenport, K. Schuet, and C. Kurowski*
28. Bacterial diseases of tomatoes in Illinois: occurrence and management. *M. Babadoost and J. M. Yu*
29. Aqueous plant extracts as seed treatments on tomato bacterial speck disease. *F. Karabuyu and Y. Aysan*
30. Copper tolerance of *Pseudomonas syringae* pv. *tomato* strains in Queensland Australia contributes to reduced field control of bacterial speck in tomatoes. *K. Bennett, C. Gambley and P. Brown*

31. Biological control of tomato bacterial wilt disease by *Spirulina platensis. C. Y. Yigenoglu, O. Isik, Y. Aysan, B. Ak and L. Uslu*
32. Chemical and physical seed treatments for bacterial speck disease management of tomato. *S. Horuz, A. Ocal and Y. Aysan*
33. Efficacy of combinations of some plant activators, disinfectant and fungicide on powdery mildew disease of tomato. *N. Tosun and Y. Sinan*
34. Ultraviolet B (UV-B) radiation using a compact fluorescent lamp for control of tomato diseases. *T. Kanto, K. Watanabe, K. Uchihashi, M. Nishino, F. Sato and M. Arii*
35. Contribution to a study of the antifungal activity of aqueous extract of henna (*Lawsonia inermis* L.) against some fungal diseases of tomatoes. *B. Keltoum and M. Belhamra*
36. Tomato organic management and improvement project. *L. Hoagland, M. Colley, J. Dawson, J. Davis, D. Egel, S. Gu, T. Mengiste, J. Myers and J. Zystro*
37. New approaches to management of Fusarium wilt of tomato in Florida. *E. Russkopf, J. Hong, N. Kokalis-Burelle, M. Ozores-Hampton, F. Di Gioia, N. Roe, X. Zhao, B. Booker and F. Sances*
38. A New cold-adaptive antagonistic yeast against postharvest grey mould on tomatoes. *D. Zhang, Ting Liu, T. Zhang, D. Liu and W. Liu*
39. Solarization to control *Fusarium oxysporum* f. sp. *radicis-lycopersici* on different substrates. *A. Boix Ruiz, M. Ibáñez, P. García Raya, C. Ruiz Olmos, M. A. Gómez Tenorio, J. I. Marín Guirao, F. Camacho Ferre and J. Tello Marquina*
40. Biological control protect tomato Fusarium wilt with bio-fungicide (*Bacillus amyloliquefaciens*) B1619. *C. Zhiyi*
41. An efficient way for controlling the root knot nematode on tomato at protected field. *J. Qiu, T. Liu, W. Liu and T. Zhang*
42. Management of crop residues and their involvement in the control of *Meloidogyne* sp. on tomato crop. *M. A. Gómez Tenorio, B. Lupión Rodríguez, A. Boix Ruiz, C. Ruiz Olmos, J. I. Marín Guirao, J. Tello Marquina, F. Camacho Ferre and M. De Cara García*
43. Side effects of biostimulants against root-knot nematodes on tomato. *S. Laquale, V. Candido and T. D'Addabbo*
44. Evaluation of nitrogen amendments for anaerobic soil disinfestation. *J. Hong, K. Martin, D. Butler, J. Albano, N. Kokalis-Burelle and E. Rosskopf*
45. Netting for controlling *Cucumber mosaic virus* (CMV) in commercial tomato greenhouses. *R. Peiró, A. Alfaro-Fernández, D. Hernández, M.I. Font and J.M. Estévez-Caparrós*
46. Evaluation of chemical seed disinfection treatments efficacy to eliminate *Pepino mosaic virus* (PepMV) from infected cherry tomato seeds. *R. Bosch, L. Blanco, A. Alfaro-Fernandez, J.M. Estévez-Caparrós and M.I. Font*
47. Location of *Southern tomato virus* (STV) in infected tomato seeds and evaluation of disinfection treatments. *L. Blanco, R. Bosch, A. Alfaro-Fernández, J. Manuel Estévez-Caparrós, L. Galipienso, L. Rubio and M.I. Font*
48. AbioProtect®: cross-protection against *Pepino mosaic virus*. *J. Agüero, J. García-Villalba, R.N. Sempere, P. Gómez, A. Casado, A. Méndez, Y. Hernando and M.A. Aranda*
49. Evaluation of PCR and non-radioactive molecular hybridization techniques for the routine diagnosis of *Tomato leaf curl New Delhi virus*, *Tomato yellow leaf curl virus* and

Tomato yellow leaf curl Sardinia virus. A. Alfaro-Fernández, J. Sánchez-Navarro, M. Landeira,M.I. Font, D. Hernández and V. Pallás

50. Detection of *Southern tomato virus* (STV) by hybridization with a digoxigenine labelled riboprobe. *L. Galipienso, A. Puchades, A. Alfaro-Fernández, M.I. Font-San-Ambrosio, A.I. Espino, P. Benito, J. Serra, J. Roselló and L. Rubio*
51. Evaluation of some rhizospheric antagonists and plant extracts on the growth of *Ralstonia solanacearum* the causal organism of tomato bacterial wilt. *A Tawfik and H. Seif El Yazel*
52. Nationwide survey and molecular analysis of powdery mildew isolates infecting the adaxial tomato leaf blade surface in Brazil. *A. Reis, M. E. N. Fonseca, L. S. Boiteux and A. de Melo Gonçalves*
53. Evaluation of acybenzolar-S-methyl effect, alone or combined with Azoxystrobin, on the control of blossom end root in tomato industry cultivated in two different water regimes. *A. Crescenzi, M. Giuliani, E. Nardella, N. Prencipe, A. Fanigliulo and G. Gatta*
54. In vitro sensitivity of *Corynespora cassiicola* isolates from different hosts and geographic regions of Brazil, to fungicides. *F. M. Aguiar, G. Vallad and A. Reis*
55. Chemical control of powdery mildew of tomato caused by *Leveillula taurica* and *Oidium lycopersici*. *B. Aegerter*
56. Evaluation of biopesticides and biorationals on bacterial canker and bacterial spot disease levels in tomato fresh market production in North Carolina. *F. J. Louws*
57. Integrating grafting and emerging products to manage soilborne diseases of tomato. *F. J. Louws, D. Suchoff, J. Kressin, D. Panthee and C. Gunter*
58. Transgenic resistance for management of tomato bacterial wilt in Florida. *S. Kunwar, E. E. da Silva, F. Iriarte, L. Ritchie, D. Clark, J. H. Freeman, R. E. Stall, J. B. Jones, J. Minsavage, C. Zipfel, D. Horvath and M. L. Paret*
59. Chitosan protects tomato plants against *Botrytis cinerea* by priming defence responses. *D. de Vega Perez, E. Luna, N.H. Holden, I. Hein, P. Hedley and A.C. Newton*

ECOLOGY AND EPIDEMIOLOGY

60. Complex populations of the Begomovirus *Tomato leaf curl New Delhi virus*: risk for infection of tomato crops in Spain. *I.M. Fortes, S. Sánchez-Campos, E. Fiallo-Olive, J.A. Díaz-Pendón, J. Navas-Castillo and E. Moriones*
61. Tomato bacterial diseases in plastic greenhouses and fields in Mersin, Turkey. *M. Gunes and Y. Aysan*
62. Spreading pattern of *Clavibacter michiganensis* subsp. *michiganensis* (Cmm) in different tomato genotypes. *M. M. M. Nadzir, F. M. V. Lelis, J. M. van der Wolf and A. W. van Heusden*
63. Two complementary techniques allow detection of *Fusarium oxysporum* f.sp *radicis-lycopersici* in soils from two different tomato cultivated areas of Chile. *R. Elizondo Pasten, A. Boix Ruiz, M. A. Gómez Tenorio, C. Ruiz Olmos, J. I. Marín Guirao, J.Tello Marquina and F. Camacho Ferre*
64. Identification of plant pathogens in high tunnel tomato production in Minnesota, U.S.A. *M. Grabowski and A. Orshinsky*

65. *Tomato yellow leaf curl virus*: a seed-transmissible Geminivirus in tomatoes. *E.-J. Kil, Y.-J. Lee, H.-S. Byun, J. Park, H. Seo, E.-Y. Choi, C.-S. Kim, J.-K. Shim, J.-H. Lee, J.-K. Kim, G.-S. Lee, K.-Y. Lee, H.-S. Choi and S. Lee*
66. *Pepino mosaic virus* (PepMV) on tomato in Russia. *A. Khovrin, T. Tereshonkova, K. Alekseeva, I. Borisova, A. Kornev and V. Leunov*
67. Widespread occurrence of *Tomato chlorosis virus* (genus *Crinivirus*) in fresh-market tomatoes and associated weeds in Uruguay and Subtropical Brazil. *A. Arruabarrena, M. E. N. Fonseca, M. González-Arcos, L. Rubio, D. Maeso and L. S. Boiteux*
68. Potential spread of *Fusarium oxysporum* via equipment. *G. Miyao and R. M. Davis*
69. Prevalence of three emerging virus affecting tomato crop in the north of Chile. *C.Rojas. Bertini, J. Navas-Castillo, K. Plaza Gómez, P. Sepúlveda Ramírez and M. Rosales Villavicencio*

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