

IOBC/wprs Bulletin Vol. 27(1) 2004

Working Group „Multitrophic Interactions in Soil and Integrated Control”.
Proceedings of a Meeting at Bad Honnef (Germany), June 1-4, 2003 combined
with selected papers from the meetings “Thinking in Lines – From Research to
Market Products” in Einsiedeln (Switzerland), November 2-4, 2000 and
“Biological Mechanisms Affecting Nematode Management” in Reading (England),
September 5-6, 2001. Edited by: Richard A. Sikora, Simon Gowen, Rüdiger
Hauschild and Sebastian Kiewnick. ISBN 92-9067-162-7 [x + 302 pp.].

Investigation of three nematophagous fungi in two potato cyst nematode suppressive soils**	
<i>Simon D. Atkins, D. Sosnowska, V.J. Evans, I.M. Clark, P.R. Hirsch and Brian R. Kerry</i>	1
Fungal molecular diagnostics of nematophagous fungi	
<i>Simon D. Atkins, Ian M. Clark, C. Oliver Morton and Brian R. Kerry</i>	9
Soils suppressive to <i>Rhizoctonia solani</i> AG 2-2IIIB in sugar beet	
<i>Yvette Bakker and Johannes H.M. Schneider</i>	17
Biology and management of a new disease of nursery and small-fruit crops	
<i>A.R. Bennett</i>	23
Management of root-knot nematodes on the agroforestry tree crop <i>Sesbania sesban</i> **	
<i>John Bridge</i>	27
Observations on the biology of <i>Pasteuria</i> parasites and microbial nematode control*	
<i>Aurelio Ciancio and Paola Leonetti</i>	33
Control of Verticillium wilt of cauliflower with crop residues, lignin and microbial antagonists	
<i>Jane Debode, Dakerlia Claeys and Monica Höfle</i>	41
Challenges in the commercialisation of <i>Trichoderma harzianum</i> strain T-22, a new biocontrol agent for Europe.	
<i>Mariës Dissevelt and Willem Ravensberg</i>	47
Antifungal activity of <i>Bacillus subtilis</i> filtrate to control <i>Fusarium oxysporum</i> f.sp. <i>lentis</i> , the causal organism of lentil vascular wilt**	
<i>Said El-Hassan, Simon R. Gowen and B. Bayaa</i>	53
Evaluation of <i>Trichoderma hamatum</i> for antagonistic activity against lentil vascular wilt, <i>Fusarium oxysporum</i> f. sp. <i>lentis</i>	
<i>Said El-Hassan and Simon R. Gowen</i>	59
Biosurfactants and biological control of plant pathogens	
<i>Andrea Ficke, Jorge de Souza, Marjan de Boer, Corrie Geerds and Jos M. Raaijmakers</i>	63
Plant tolerance for managing plant parasitic nematodes**	
<i>Katherine Gierth, Johannes Hallmann, Josef Schlang, Joachim Müller and Richard A. Sikora</i>	67
<i>Pasteuria penetrans</i> and the integrated control of root-knot nematodes	
<i>Simon R. Gowen and Barbara Pembroke</i>	75
Variation of disease severity of bottom rot in field-grown lettuce and possibilities of control	
<i>Rita Grosch, Carmen Feller and Andreas Kofoet</i>	79
Endophytic bacteria and biological control of nematodes	
<i>Johannes Hallmann, Annekathrin Faupel, Annette Krechel, Richard A. Sikora and Gabriele Berg</i>	83
Micro-organisms and broadspectrum induced systemic resistance	
<i>Rüdiger Hauschild, Maina Mwangi, Kerstin Schäfer and Philip Paek</i>	95
Mycofumigation with <i>Muscoder albus</i> for control of soil-borne microorganisms	
<i>Barry J. Jacobsen, Nina K. Zidack, Gary A. Strobel, David Ezra, Eva Grimme and Anna M. Stinson</i>	103
Effect of soil nutrients on the growth, survival and fecundity of insect pests of rice: an overview and a theory of pest outbreaks with consideration of research approaches	
<i>Gary C. Jahn</i>	115
Application of <i>Pochonia chlamydosporia</i> in the integrated control of root-knot nematodes on organically grown vegetable crops in Cuba**	
<i>Brian R. Kerr and Leopoldo Hidalgo-Diaz</i>	123
Variation in <i>Pochonia chlamydosporia</i> and its potential as a biological control agent for root-knot nematodes.	
<i>Brian R. Kerr, Simon D. Atkins, Tim Mauchline, C. Oliver Morton and Penny Hirsch</i>	127
Biological control of plant parasitic nematodes with <i>Paecilomyces lilacinus</i> , strain **	
<i>Sebastian Kiewnick</i>	133
Risk assessment of fungal biocontrol agents	
<i>Sebastian Kiewnick, Christos Roumpos and Richard A. Sikora</i>	137
Biocontrol activity of phenazine-producing rhizobacterium <i>Pseudomonas chlororaphis</i>	
<i>Shiri Klein, Marina Veselova, Angelina Mayatskaya, Inessa Khmel, Ilan Chet and Leonid Chernin</i>	145
Preventive plant health management: Modern horticulture becomes high tech	
<i>Matthew S. Krause, Alfons C. R. C. Vanachter and Tom J. J. De Ceuster</i>	151
Bacterial life inside and outside potato roots and leaves	
<i>Annette Krechel, Michaela Ditz, Andreas Ulrich, Annekathrin Faupel, Johannes Hallmann and Gabriele Berg</i>	157

The effect of certain bacteria and fungi on the biology of the root-knot nematode <i>Meloidogyne</i> spp.** Stefanos Leontopoulos, Ioannis Vagelas, Fotios Gravanis and Simon R. Gowen	165
Resistance induced by soil biocontrol application and soil solarization for the control of foliar pathogens Neta Okon Levy, Yigal Elad, Nadia Korolev and Jaacov Katan	171
Survival and activity of the <i>Ralstonia solanacearum</i> antagonist <i>Pseudomonas chlororaphis</i> 24-4 in the rhizosphere of tomato and its impact on the indigenous bacterial community Annett Milling, Antje Lembke, Jens Schönfeld and Kornelia Smalla	177
Biological variation in <i>Verticillium chlamydosporium</i> isolated from different nematode hosts** C. Oliver Morton, Penny Hirsch, John Peberdy and Brian R. Kerry.....	187
Dissecting the tri-trophic interaction between <i>Pochonia chlamydosporia</i> , root-knot nematodes and their plant hosts. C. Oliver Morton, Simon D. Atkins, Penny Hirsch and Brian R. Kerry.....	193
Strategies in developing an efficient commercial product for biological control of soil borne fungal pathogens by <i>Serratia plymuthica</i> HRO-C48 Henry Müller, Stefan Kurze, Irina Richter and Gabriele Berg	199
Can fungal endophytes control soilborne pests in banana? Björn Niere, Clifford S. Gold and Danny Coyne	203
Soil organic matter** Stephen Nortcliff.....	211
Monitoring gfp-tagged bacterial antagonists in the rhizosphere of tomato plants Raquel Peixoto, Monika Götz, Annett Milling, Gabriele Berg, Rodrigo Costa, Alexandre Rosado, Leda Mendonça-Hagler and Kornelia Smalla.....	219
<i>Pasteuria penetrans</i> - friend, tease or distraction?** Barbara Pembroke and Simon R. Gowen	225
<i>Pasteuria penetrans</i> : a tritrophic interaction? Barbara Pembroke, Daim Ali Darban and Simon R. Gowen	229
The effect of application of <i>Trichoderma viride</i> B35 (Pers. ex S.F. Grey) with iprodione on the rhizoplane microflora of <i>Allium porrum</i> (L.) and its infection with <i>Pyrenopeziza terrestris</i> ((Hansen) Gorenz, Walker et Larson) Stanisław J. Pietr, Marta Stankiewicz , Elżbieta Wojtkowiak – Gebarowska , Krzysztof Matkowski and Anita Biesiada	235
Pathogen defense against biological control Jos M. Raaijmakers, Henk-Jan Schoonbeek, Alexander Schouten and Maarten de Waard.....	241
Biocontrol of plant-parasitic nematodes by <i>Trichoderma harzianum</i> Edna Sharon, Alfredo –Errera Estrella, Ilan Chet and Yitzhak Spiegel	247
Suppressive soils, the edge of chaos and multitrophic strategies for biocontrol of pests and diseases in soil ecosystems Richard A. Sikora and Stephan Reimann	251
Impact of organic amendments on soil suppressiveness to diseases Christian Steinberg, Véronique Edel-Hermann, Cécile Guillemaut, Ana Pérez-Piqueres, Puneet Singh and Claude Alabouvette	259
Perspectives and challenges of breeding towards resistance to soil-borne pathogens – sugar beet as an example Ralf Tilcher, Bernd Holtschulte and Werner Beyer	267
Antifungal activity of a bacterium symbiotically associated with <i>Steinerinema abbasi</i> towards <i>Fusarium oxysporum</i> * Ioannis K. Vagelas, Fotios T. Gravanis and Simon R. Gowen	271
Soilborne fungi and bacteria symbiotically associated with <i>Steinerinema</i> spp. acting as biological agents against <i>Fusarium</i> wilt of tomato** Ioannis K. Vagelas, Fotios T. Gravanis and Simon R. Gowen.....	279
Biological control of <i>Rhizoctonia solani</i> Damping-off with a bacterium symbiotically associated with <i>Steinerinema abbasi</i> ** Ioannis K. Vagelas, Apostolos Kapsalis, Fotios T. Gravanis and Simon R. Gowen.....	285
Disease suppression in potting mixes amended with Dutch yard waste composts Dirk Jan van der Gaag, Etienne van Rijn and Aad Termorshuizen	291
Impact of application of biocontrol agents to plant root on the natural occurring microbial community Arite Wolf, Katja Scherwinski, Henry Müller, Anja Golly, Kornelia Smalla and Gabriele Berg.....	297

* papers presented at the Einsiedeln-meeting, Switzerland, 2000;

** papers presented at the Reading-meeting, England, 2001