

IOBC/WPRS

Working Group “Integrated Plant Protection in Fruit Crops”

Subgroup “Soft Fruits”



**Proceedings of
Workshop on Integrated Soft Fruit Production**

**East Malling (United Kingdom)
24-27 September 2007**

**Editors
Ch. Linder & J.V. Cross**

**IOBC/WPRS Bulletin
Bulletin OILB/SROP Vol. 39, 2008**

The content of the contributions is in the responsibility of the authors

The IOBC/WPRS Bulletin is published by the International Organization for Biological and Integrated Control of Noxious Animals and Plants, West Palearctic Regional Section (IOBC/WPRS)

Le Bulletin OILB/SROP est publié par l'Organisation Internationale de Lutte Biologique et Intégrée contre les Animaux et les Plantes Nuisibles, section Regionale Ouest Paléarctique (OILB/SROP)

Copyright: IOBC/WPRS 2008

The Publication Commission of the IOBC/WPRS:

Horst Bathon
Julius Kuehn Institute (JKI), Federal
Research Centre for Cultivated Plants
Institute for Biological Control
Heinrichstr. 243
D-64287 Darmstadt (Germany)
Tel +49 6151 407-225, Fax +49 6151 407-290
e-mail: horst.bathon@jki.bund.de

Luc Tirry
University of Gent
Laboratory of Agrozoology
Department of Crop Protection
Coupure Links 653
B-9000 Gent (Belgium)
Tel +32-9-2646152, Fax +32-9-2646239
e-mail: luc.tirry@ugent.be

Address General Secretariat:

Dr. Philippe C. Nicot
INRA – Unité de Pathologie Végétale
Domaine St Maurice - B.P. 94
F-84143 Montfavet Cedex (France)

ISBN 978-92-9067-213-5

<http://www.iobc-wprs.org>

Contents

Development of semiochemical attractants, lures and traps for raspberry beetle, <i>Byturus tomentosus</i> at SCRI; from fundamental chemical ecology to testing IPM tools with growers. <i>N. Birch, S. Gordon, T. Shepherd, W. Griffiths, G. Robertson, T. Woodford, R. Brennan</i>	1-3
Mass trapping of raspberry beetle as a possible control method - pilot trials in Norway. <i>N. Trandem, S. Gordon, N. Birch, M. Ekeland, N. Heiberg</i>	5-10
Monitoring raspberry cane midge, <i>Resseliella theobaldi</i> , with sex pheromone traps: results from 2006. <i>J. Cross, C. Baroffio, A. Grassi, D. Hall, B. Łabanowska, S. Milenković, T. Nilsson, M. Shternshis, C. Tornéus, N. Trandem, G. Véték</i>	11-17
Raspberry cane midge – flight dynamics, egg laying and the efficacy of the neonicotinoid insecticide acetamiprid on primocane fruiting raspberry. <i>B. Łabanowska, J. Cross</i>	19-25
Interference between raspberry cane midge (<i>Resseliella theobaldi</i>) sex pheromone traps – A one season trial in a Swedish raspberry plantation. <i>T. Nilsson, C. Tornéus</i>	27-31
Some preliminary investigations into the sex pheromones of mirid soft fruit pests. <i>M. Fountain, J. Cross, G. Jaastad, D. Hall</i>	33-40
Identification of black currant leaf midge <i>Dasineura tetensi</i> (Rübsaamen) female sex pheromone. <i>L. Amarawardana, D. Hall, J. Cross, C. Nagy</i>	41-46
Biological control of the currant clearwing moth <i>Synanthedon tipuliformis</i> by mating disruption. <i>C. A. Baroffio, Ch. Carlen</i>	47-49
Notes on the parasitoids of the raspberry cane midge, <i>Resseliella theobaldi</i> (Barnes, 1927) (Diptera: Cecidomyiidae) and the rose stem girdler, <i>Agrilus cuprescens</i> (Ménétriés, 1832) (Coleoptera: Buprestidae). <i>G. Véték, C. Thuróczy, B. Péntzes</i>	51-64
Open field and laboratory surveys to evaluate the susceptibility of red raspberry genotypes to <i>Tetranychus urticae</i> Koch and <i>Resseliella theobaldi</i> (Barnes). <i>A. Grassi, R. Maines, M. Grisenti, M. Eccher, A. Saviane, L. Giongo</i>	65-70
Harmfulness of raspberry gall midge, <i>Lasioptera rubi</i> Schrank (Diptera, Cecidomyiidae), to some raspberry cultivars. <i>S. Milenković, S. Tanasković</i>	71-75
Patterns in the within-cane distribution of the gall-like swellings caused by <i>Agrilus cuprescens</i> (Coleoptera: Buprestidae) and the rate of raspberry infestation. <i>M. Váňová, P. Tóth, J. Lukáš</i>	77-84

Post harvest control of the eriophyoid mite <i>Phyllocoptes gracilis</i> on raspberries. <i>Ch. Linder, C. Baroffio, Ch. Mittaz</i>	85-87
Biological control of two-spotted spider mite with <i>Phytoseiulus persimilis</i> in ever- bearer strawberry. <i>C.A. Baroffio, Ch. Linder</i>	89-92
Does the presence of multiple phytoseiid species affect biocontrol of <i>Tetranychus</i> <i>urticae</i> on strawberry? <i>J. Fitzgerald</i>	93-96
Field control of strawberry mite <i>Phytonemus pallidus</i> . <i>B. Gobin, E. Bangels</i>	97-100
New generation acaricides for control of two important strawberry pests: The Two- spotted spider mite and the strawberry mite. <i>B. Łabanowska</i>	101-106
Efficacy of 3 neonicotinoid insecticides for the control of the green leafhopper <i>Asymmetrasca (Empoasca) decedens</i> Paoli, a new pest on cultivated red rasp- berry in Trentino, Italy. <i>A. Grassi, R. Maines, A. Saviane</i>	107-113
Integrated Pest Management in protected strawberry crops: Increased returns, fewer pests and reduced pesticide use. <i>C. Sampson</i>	115-120
Integrating biological control measures against strawberry pests – Preliminary results with strawberry tortrix in Denmark. <i>L. Sigsgaard</i>	121-124
Biological control of aphids with <i>Chrysoperla carnea</i> on strawberry <i>M. Turquet, J.-J. Pommier, M. Piron, E. Lascaux, G. Lorin</i>	125-129
Severing damage by <i>Anthonomus rubi</i> populations in the UK. <i>C. Jay, J. Cross, C. Burgess</i>	131-136
Studies on control of the vine weevil, <i>Otiiorhynchus sulcatus</i> using entomopathogenic nematodes. <i>S. Haukeland</i>	137-138
Use of entomopathogenic fungi for vine weevil and thrips control <i>T.M. Butt, F.A. Shah, M.A. Ansari</i>	139
Breeding for durable resistance to the large raspberry aphid, <i>Amphorophora ideai</i> , in field and protected raspberry plantations: Co-evolution and IPDM. <i>N. Birch, S. Gordon, R. Brennan, N. Jennings, C. Mitchell</i>	140
Aphid biology and the development of a programme to manage the spread of <i>Blue-</i> <i>berry scorch virus</i> in south western British Columbia, Canada. <i>D.A. Raworth, S. Mathur, M. Sweeney, V. Brookes</i>	141-147
Advances in IPM for black currant <i>A. Harris, J. Cross</i>	149-154

Sub-lethal exposure of honey bees to crop-protection – Feeding behaviour and flower visits. <i>B. Gobin, K. Heylen, J. Billen, R. Huybrechts, L. Arckens</i>	155-159
Raspberry certification: How it benefits the raspberry sector? <i>C. Eckert, C. Calvin</i>	161-163
Raspberry root rot control in the Scottish raspberry certification scheme. <i>A. Schlenzig</i>	165-167
Biofumigation to control <i>Verticillium</i> wilt of strawberry: Potency and pitfalls. <i>V.V. Michel, S. Dahal-Tscherrig, H. Ahmed, A. Dutheil</i>	169-176
The influence of weed covering on short-day strawberries in the autumn. <i>R. Faby</i>	177-179
Evaluation of alternative chemicals for control of botrytis in raspberry. <i>A. Berrie, T. O'Neill, E. Wedgwood, B. Ellerker</i>	181-187
Efficacy of <i>Metschnikowia fructicola</i> (Shemer®) against post-harvest soft fruit (berries) rots in northern Italy (Trentino). <i>D. Prodorutti, A. Ferrari, A. Pellegrini, I. Pertot</i>	189-192
Low doses of copper control leaf spot diseases caused by <i>Mycosphaerella ribis</i> and <i>Drepanopeziza ribis</i> in black currants. <i>A. Stensvand, A. Dobson, S. Mogan</i>	193-196
Effectiveness of a tryfloxystrobin and tolyfluanid mixture for control of blackcurrant diseases. <i>A. Broniarek-Niemiec, A. Bielenin</i>	197-201
Interactions between isolates of powdery mildew (<i>Podosphaera aphanis</i>) and cultivars of strawberry, <i>Fragaria x ananassa</i> . <i>X. Xu, J. Robinson, D. Simpson</i>	203-209
Potential role of cleistothecia in strawberry powdery mildew. <i>X. Xu, J. Robinson, A. Berrie</i>	211-215
Ontogenic resistance against powdery mildew (<i>Podosphaera macularis</i>) in leaf tissue of strawberry. <i>D.M. Gadoury, A. Stensvand, R.C. Seem, M.C. Heidenreich</i>	217
<i>Colletotrichum acutatum</i> : Survival in plant debris and infection of some weeds and cultivated plants. <i>P. Parikka, A. Lemmetty</i>	219-222
Wild and cultivated <i>Potentilla</i> spp. may serve as alternate hosts and possible reservoirs of strawberry viruses. <i>D. Yohalem, K. Lower</i>	223-224