



Working Group Report
Activities 2001-2005



**WG Integrated Control in
Protected Crops, Temperate Climate**



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Introduction



- Increase in implementation of biocontrol of pests in protected crops
 - Vegetable area under biocontrol increases worldwide
 - Ornamentals under biocontrol/IPM in many countries
- WG has played, and still plays, an important role
 - fundamental and applied research
 - development of IPM-programs
 - advisory work
 - beneficial producers are WG members



Scientific topics – now and in the future



- Protected crops very **WIDE** range of cultures !
 - Vegetables (tomato, pepper, cucurbits, etc.)
 - Ornamentals (cut, pots, bedding plants, green foliage, etc).
 - more than 500 species grown as ornamentals
 - Herbs, berries, medicine plants, etc.
- Consequently:
 - equally many pests and diseases (WG focus mainly on pests)
 - equally many beneficials of possible use
 - equally many tailor-made IPM-programs for each culture needed



Types of investigations



- Fundamental research
- Applied research
- Large field-trials
- Demonstration projects
- Commercially applicable IPM programs



Scientific topics



- Basic biology
 - old and new pests
 - existing and new beneficials
- Efficacy, mass rearing, quality control of beneficials
- Intraguild predation/interactions in multi-species systems
- Influence of abiotic and biotic factors on biocontrol
- Strategies for use of biocontrol agents
 - banker plants, push-pull, alternative food, vectoring with pollinators etc.
- and their integration
 - selective pesticides, plant extracts, netting, host plant resistance, etc.
- Manipulation of direct and indirect plant defence
- Registration, environmental risks



WG keeps up with the present ..



- Add to the knowledge needed for e.g.
 - Evaluation / marketing of new beneficials
 - Adaptation of IPM-programs to the newest technologies
 - new climate control strategies
 - photosynthesis enhancement
 - Development of biocontrol/IPM for additional cultures
 - leafy salad
 - strawberries
 - herbs
 - organic ornamentals





New topic in the WG

- **Biocontrol/IPM in outdoor and hardy nursery stock**
 - Nursery stock
 - under protection
 - in pots and containers
 - outdoor (fruiting trees, forest/public garden plants, ornamental shrubs, etc.)
 - Increasing interest among nursery stock growers
 - Experience from protected crops can be expanded
 - Releases of beneficials are already used in some countries
 - Outdoor stock – conservation/augmentation needed
 - Spin-off to protected crops, e.g. new beneficials
 - Topic is kept within the WG
 - mutual benefits





Activities 2001-2005



- 11th full meeting 2002, CA, together with NRS Greenhouse Group
- 12th full meeting 2005, FI
- 120-125 participants at meetings, ca. 200 WG members
 - WPRS + North, South America, NZ, Australia, Japan, Russia, Lithuania, Iran
 - beneficiary for all
- “Joop van Lenteren Student Research Award”
- Cooperation with
 - WG on Plant Pathogens and WG Protected Crops, Mediterranean Climate



Activities 2001-2005

- List server GoodBugs-L – web.agrsci.dk/plb/iobc/goodbugs-l.htm
 - discussion/info exchange between meetings
 - biological and integrated control in protected crops (and outdoor ornamentals)
 - 180 subscribers, 25 countries worldwide
- Newsletter Sting – at least once / year
- Publications
 - IOBC/WPRS Bull. 25(1), 2002, 308 pp., IOBC/WPRS Bull. 28(1), 2005, 328 pp.
 - STING 22, 2001, 24 pp., STING 23, 2002, 23 pp., STING 24, 2002, 35 pp., STING 25, 2003, 14pp., STING 26, 2004, 13 pp., STING 27, 2005, 27 pp., STING 28, 2005 (All issues of Sting available on WG homepage)
- Re-election of Annie Enkegaard as convenor
- 13th full meeting in 2008, NL

