



**IOBC / WPRS
OILB / SROP**

PROFILE

**Internal Newsletter issued by the Publication Commission for the
IOBC/wprs Council and Executive Committee**

**International Organization for Biological and Integrated Control of
Noxious Animals and Plants – West Palearctic Regional Section**

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IOBC/wprs homepage: <http://iobc.ethz.ch>

The Presidents Page

Since the last issue of Profile the WPRS Council in full has met in Gent, Belgium. Here the budget for the next two years has been adjusted and approved. The Convenors of Working Groups, Study Groups and Commissions should have received all information from the Treasurer Dr. C. Gessler.

At the same meeting also some WG-issues were discussed, among others change of convenors and bureaucratic papers. Apart from very minor problems created by misunderstandings, the system installed during the last general assembly, and later explained in the Convenors Handbook, is applied. In the connection I have the pleasure of thanking once more the outgoing convenors. I also welcome the new convenors and kindly request their attention for the C.'s Handbook, among others for the registration form for participation in meetings.

Interestingly many people have expressed their satisfaction while a few have expressed consideration on bureaucratic growth. This brings me to point kindly on the most important elements of the registration form.

- Limitation of the loss of effort by repeatedly writing letters about the same questions and issues from convenors and the by producing the same replies from the Exe. Comm.
- Changing from a complicated, time-consuming procedure concerning Bulletin copies to well established orderly system.
- Last but not least preventing an erosion of member paid funding by demanding payment for Bull. copies from non-members and members who want copies in excess of their membership payment.

I hope this explanation may make it more clear to everybody that what may appear as a bureaucratic step is a streamlining of procedures.

In connection to WG activities the Council has also try to clarify some matters with IOBC/ Global. Thus exceptions from the normally strong recommendation to arrange WG-meetings within or very close to the to the region may in particular cases be accepted. For instance there may be mutual interests leading once in a while (eg. once in 5-6 years) to a larger conference-like meeting with participants from 2-3 regional sections placed outside WPRS. In such a case the Council (Exe. Comm.) may decide to support WPRS members through the Convenor of the relevant WPRS WG in the normal way. Besides this Global IOBC has decided to regard this as a global activity which may receive a certain support (mostly within the range of US\$ 1000) to assist people from less wealthy countries.

A last most important and very sad issue is the lacking copies of BioControl. *I personally and the president of Global IOBC very much regret this inconvenience to members.* However, a meeting between Global IOBC, IOBC/WPRS and representatives from Kluwer seems to have sorted out the problems. Kluwer has regretted certain mistakes and some misunderstandings between Global IOBC and WPRS have been cleared.

On this background I do hope that all members will by early year 2000 be up to date with BioControl at least up to Vol. 44, Issue 3, 1999. (Our check-ups have indicated that copies are now streaming out).

With this better promise for year 2000 I also want to express to all members, Convenors and Council members

The very best wishes for the new Millenium.

Peter Esbjerg

Commission "Identification of Entomophagous Insects" Guidelines for preservation, labelling, and shipping of specimens

Convenor: Mr. H. Baur, Department of Invertebrates, Natural History
Museum, Bernastrasse 15, CH-3005 Bern, Switzerland,
E-mail: hannes.baur@nmbe.unibe.ch, Fax: +41 (0)31 350 74 99.

The principal aim of the commission is the compilation of a reliable database of insect pest species and their natural enemies. In close connection with this goal an identification service is provided for researchers who need help with the identification of entomophagous insects. *This service is free for members of the IOBC.*

Diptera (Tachinidae) should be sent directly to:

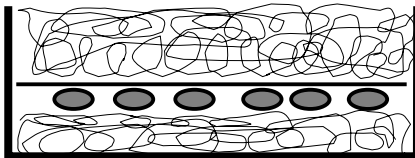
Dr Hans-Peter Tschorsnig, Naturkundemuseum, Rosenstein 1,
D-70191 Stuttgart (Germany).

But parasitic Hymenoptera should be sent to the convenor, where the material will be distributed to the relevant specialist(s). The list of these specialists currently comprises about twenty taxonomists working

on various groups of parasitic Hymenoptera (Chalcidoidea, Ichneumonoidea, Platygastroidea, etc.). With regard to an expected occurrence of more than ten thousand species of hymenopteran parasitoids alone in the West Palearctics, the number of competent systematists is extremely low. Hence, the capacities to cope with the possible amount of identifications are very limited.

Unfortunately, material for identification often arrives in poor condition. This results at best in some delay, but sometimes makes proper identification at species level impossible. In order to facilitate the work of the convenor as well as the taxonomist the following brief guidelines on preservation, labelling, and shipping of specimens should be followed:

- Kill specimens in *vapour* (2-3 drops on some tissue for a vial of 100 ml) of *ethyl acetate* (= Essigsäure-Ethylester, "Essigäther"). Prevent direct contact with any liquid (ethyl acetate, alcohol, water, etc.) at any time.
- Hymenoptera should be stored in a *matchbox* and be spread out on a layer of *cotton wool*. Cover specimens with a sheet of paper *and* another layer of cottonwool. Press layers *very gently*, just to prevent movement of specimens.



Cotton wool layer
Sheet of paper
Specimens
Cotton wool layer

- Diptera should either be *pinned* immediately after killing (the preferable way) or can be *preserved freshly* in 75 % alcohol. Specimens which are found already dead and dry among the host material should carefully be glued in *lateral position* on the tip of a pinned card point.
- Label each matchbox, each vial, or each pinned specimen with the following *minimal data* (if available): country, province, locality, altitude, date of collection of material, collector, and stage of host; host name (including its higher level classification such as order and family); host plant (including plant family); date of eclosion of the parasitoid imago from the host.

Example:

FRANCE, Lozère: Causse noir, 2 km S Aleyrac
845 m, 12.9.1995, leg. H. Baur
ex larva *Tephritis simplex* Loew (Diptera: Tephritidae)
ex flower head of *Crepis albida* (Asteraceae)
eclosion 3.3.1996

- Ship boxes in a *sturdy parcel* using a *thick layer* (at least 8-10 cm on each side) of convenient *stuffing material*.

If these instructions are followed breakage can be avoided and the specimens are easily relaxed and mounted in a suitable way by the specialist. However, if specimens of more than a few species are submitted for identification, then the material should already be mounted. There are many papers dealing with this topic and suitable methods concerning parasitoids can be found in the references below. It should be stressed, finally, that preservation in alcohol results in serious problems with regard to preservation, mounting, and identification, and that Hymenoptera never must be put in alcohol therefore. The preservation of Diptera in alcohol is possible, when there was no other possibility of mounting.

References

- Gauld, I. & Bolton, B. (eds.) 1988: The Hymenoptera. – Oxford University Press, Oxford, England.
- Herting, B. 1961: Präparation der entomophagen Dipteren. – Entomophaga 6: 115-116.
- Martin, J.E.H. 1977: The insects and arachnids of Canada, Part 1. Collecting, preparing, and preserving insects, mites, and spiders. – Biosystematic Research Institute, Ottawa.
- Noyes, J.S. 1982: Collecting and preserving chalcid wasps (Hymenoptera: Chalcidoidea). – Journal of Natural History 16: 315-334.
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IOBC/wprs WORKING AND STUDY GROUPS

Report of the Meeting of IOBC/wprs Working Group "Use of pheromones and other semiochemicals in integrated control", Hohenheim, Germany, 10 – 12 November, 1999

The annual meeting of the IOBC-WPRS Working Group "Use of pheromones and other semiochemicals in integrated control", was held at Hohenheim near Stuttgart, Germany, November 10 - 12, 1999. The topic of this meeting was restricted to the practical use of pheromones in orchards and vineyards, with an emphasis on the situation in Germany, Italy and Switzerland. The next meeting covering a wider range of topics will be held on Samos, September 2000. The Hohenheim meeting gathered ca. 60 attendees from academic research institutions, plant protection industry and extension services. The list of participants, abstracts and the programme are available at our website (<http://phero.net/iobc>).

Background

The development of new pest control methods is a necessity, also because the use of a number of well-established insecticides has been restricted or banned within the past few years, leaving the growers with but a few efficient compounds. Even for conventional fruit- and wine-growers, alternative methods will become increasingly important over the next couple of years.

Conclusions

Mating disruption by pheromones. The mating disruption technique is close to a commercial breakthrough, but must become more economic and more reliable. Especially at high population densities, most species cannot be controlled by mating disruption alone.

Today, the most important work is done by growers and pest control experts who coordinate and survey the practical use of pheromones. Successful use of mating disruption requires basic knowledge of dispenser materials, active ingredients and their effect on insect behaviour, as well as the population dynamics of the pest species. Another crucial issue is the assessment of damage during the season.

For future developments, we must put stronger emphasis on a multidisciplinary approach. This can only be achieved if we succeed in intensifying communication and collaboration between research institu-

tions, the chemical industry and extension organizations. The Working Group has traditionally been a forum for the exchange of information between these groups, but we need to establish and reinforce active collaborations.

A speaker from North America, who regularly attends our Working Group meetings, gave an account of the largest single application of mating disruption against codling moth. The area-wide management programme in the Northwestern USA covers ca. 30 000 ha. This project benefits from a strong involvement of local universities (Washington State University, Oregon State University). The combined use of pheromone and a reduced insecticide programme is, at present, considered as a satisfactory solution. The stakes in Europe are often higher, plant protection experts and researchers involved in pheromone applications clearly aim to avoid insecticide use altogether. However, taking two steps at once may have a negative effect on the motivation for continued work if problems are encountered. Where current pheromone blends and dispensers do not allow control without additional insecticide treatments, projects are all too soon considered as a failure or are not initiated at all.

Other biological techniques. The mating disruption technique is available only for key species and must become more reliable at high population densities. Insect pathogens, parasites and predators are efficient antagonists for a range of insects, and will certainly complement and enhance the efficacy of pheromonal methods.

Pheromone lures for detection and monitoring. Pheromone traps are an efficient, inexpensive tool to specifically detect the presence of insects and to monitor their flight periods. Pheromone traps are commercially available for virtually all economically important lepidopteran species, from a number of companies - but these lures vary greatly in efficacy. This is due to a varying degree of purity of the starting. In addition, inadvertent changes in dispenser materials, lure composition and dose from one year to the other excludes the use of these traps for monitoring population levels. The Working Group is engaged in the quality control of pheromone lures and is trying to advocate the principle of "batch certification": batches of synthetic pheromones formulated on a specific dispenser material must be field-tested before they are marketed. New lures containing a new batch of chemicals, or formulated on different dispensers, must be compared to the previously used lures, and the user must be given access to this data (<http://phero.net>).

Upcoming meeting of the WG Pheromones

The upcoming meeting at Samos, September 25-29, 2000 marks the 25th anniversary of the Pheromone Working Group. The meeting covers

research on the biology and chemistry of behaviourally active compounds of plant and insect origin. An emphasis is placed on practical applications, but even basic studies, opening new strategies for safe insect control, will be considered.

WG Integrated Control in Cereals Report on the WPRS and EPRS Joint Meeting in Gödöllő, 9-12 September, 1999

The local organizer was Dr. József Kiss from Gödöllő University, Czech Republic. A total of thirtythree scientists – 13 from IOBC/wprs and 20 from IOBC/eprs – of twelve countries attended the meeting and contributed to the meeting discussions with 19 oral presentations and 13 posters. They dealt mainly with the following topics: Situation of IPM in cereal crops; natural enemies of aphids and other cereal pests; cereal resistance to aphids and other arthropods; aphid morphology and development, description and management of cereal arthropod biocenosis.

Ramon Albajes, liaison officer

IOBC/WPRS Study Group „Induced resistance in plants against insects and diseases“ First meeting, 26-28 April 2001

Recently, the organising committee of the newly formed study group „Induced resistance in plants against insects and diseases“ had its first gathering. It was decided that the first meeting organised by this study group will be held in Wageningen, The Netherlands, on 26-28 April 2001. Aim of the meeting is to bring together researchers working on fundamental and applied aspects of induced resistance (IR) or tolerance, in order to

- i) gain a better understanding of the general and causal processes involved in induced defence reactions of plants, against both, insects and plant pathogens, and
- ii) to discuss the applicability of IR in practical plant protection.

To meet these goals, the sessions will cover the two main topics:

1. Cross-talk among herbivore- and pathogen-induced signal cascades
2. Risks and benefits of induced resistance and tolerance

Besides these, contributions related to other aspects of IR or tolerance will be accepted for further sessions (see pre-registration form, point 3). Scientists and Ph.D. students working on entomological and phytopathological aspects of IR or tolerance in plants are hereby invited to pre-register their interest to participate (see attached form).

Pre- and final registration forms, and all up-coming information will soon be available on the IOBC/WPRS homepage: <http://iobc.ethz.ch>

Please send your pre-registration to

Dr. Annegret Schmitt,
Federal Biological Research Centre for Agriculture and Forestry,
Institute for Biological Control, Heinrichstr. 243, D-64287 Darmstadt,
Germany
e-mail: anne.schmitt.biocontrol.bba@t-online.de
Tel. 0049 6151 407241
Fax 0049 6151 407290

If the number of registrants exceeds the capacity of the meeting facilities, priority will be given to participants making a contribution.

Scientific committee members

ANNEGRET SCHMITT (convenor)
Federal Biological Research Centre for Agriculture and Forestry,
Darmstadt, Germany
IAN T. BALDWIN
Max Planck Institute for Chemical Ecology, Jena, Germany
MARCEL DICKE
Wageningen University, Wageningen, The Netherlands
ERKKI HAUKIOJA
University of Turku, Turku, Finland
BRIGITTE MAUCH-MANI
University Fribourg, Fribourg, Switzerland
VIGGO SMEDEGAARD-PETERSON
Royal Veterinary and Agricultural University, Copenhagen,
Denmark

Preliminary Registration Form

„Induced resistance in plants against insects and diseases“

Name: _____

Address: _____

e-mail: _____

Fax: _____

Phone: _____

- ! I would like to attend the IOBC meeting in Wageningen, 26 – 28 April 2001 and wish to receive further information
- ! I intend to present a paper or poster in one of the following sessions

1. Cross-talk among herbivore- and pathogen-induced signal cascades

2. Risks and benefits of induced resistance and tolerance

! 3. Others, please specify:

Presentation of the IOBC/wprs Working Group “Biological Control of Fungal and Bacterial Plant Pathogens”

Convenor:

Yigal Elad, Dept of Plant Pathology, The Volcani Center, Bet Dagan
50250, Israel, e-mail: elady@netvision.net.il Tel. +972 3 9683580, Fax
+972 3 9683688

Group Management Committee:

C. ALABOUVETTE, Inra, Dijon, France; G. DEFAGO, ETH-Zurich; Y.
ELAD, VC, Bet Dagan, Israel; D. FUNK-JENSEN, RVAU,
Copenhagen, Denmark; J. KÖHL, IPO-DLO, Wageningen, The
Netherlands; J.M. WHIPPS, HRI, Wellesbourne, UK

Aim:

The goal of this Working Group is to promote cooperation between scientists involved in biocontrol of plant pathogens and to exchange expertise on biological control in the West Palaeartic Region in order to support the implementation of biocontrol in agriculture.

Active members:

Scientists and students at all levels, extension and field experts and people involved in production and testing biologicals.

The management:

The group is associated with the working group “Biological Control” of the *European Foundation for Plant Pathology* (EFPP) through a joint management committee. For the *IOBC/wprs* it consists of Y. Elad, VC, Bet Dagan, Israel; C. Alabouvette, INRA, Dijon, France and; J. Köhl, IPO-DLO, Wageningen, The Netherlands and for the *EFPP* G. Defago, ETH-Zurich, Switzerland; D. Funk-Jensen, RVAU, Copenhagen, Denmark; and J.M. Whipps, HRI, Wellesbourne, UK.

Activities:

Organization of workshops for scientists, students, field and extension personnel, producers and users of biocontrol agents and methods aimed at fungal and bacterial biocontrol. The workshops focus on specific subjects related to biocontrol and on biocontrol of specific groups of plant pathogens. Some examples to the interest of the group are:

- Biocontrol of foliar pathogens (necrotrophs, biotrophs)

- Biocontrol of soil-borne diseases
- Modes of action of biocontrol agents
- Combination of biocontrol with other disease control measures
- Improving biocontrol activity
- Commercial biocontrol products
- Molecular techniques to monitor, improve or study biocontrol agents and their interaction with pathogens and plants

Participants in workshops present information in form of scientific presentations. The information is published.

If you wish to be informed about the future activities of the group send your details (as new participant or for updating) by email to the convenor. Details needed: Full name (underlining last name), Affiliation and address of institute, fax, phone and email address.

Future communication will be carried out by email.

Yigal Elad

* * * * *

IOBC/wprs WG “Biological Control of Fungal and Bacterial Plant Pathogens”

First Announcement of a Workshop:
 Biocontrol Agents Modes of Action and Their Interaction
 with Other Means of Control
 Seville, Spain, 1-4 December 2000

SCIENTIFIC COMMITTEE: E. Monte, A. Llobell, T. Benitez, R. Jimenez-Diaz, C. Santiago, Y. Elad

INTERNATIONAL ADVISORY: C. Alabouvette, G. Defago, Y. Elad, D. Funk-Jensen, J. Köhl, J.M. Whipps

Bet Dagan, Salamanca, Sevilla, November 1999

Dear Colleagues,

Our working group will have a meeting in **Seville on 1-4 December 2000**. It will be organized by our colleagues ENRIQUE MONTE (Salamanca) and ANTONIO LLOBEL (Sevilla) in Sevilla. The workshop will take place in

El Monte Conference Hall in Sevilla and accommodation will be in city hotels.

Sevilla is easily accessed from outside Spain. It has pleasant weather during December. Apart from being a tourist attraction by itself it is situated near the Coto Donana Park (the most important bird reserve in Europe) and places associated with Christopher Columbus in Huelva that we may visit.

The themes of the workshop will be: "Biocontrol agents modes of action and their interaction with other means of control". The aim of the workshop is double: i. to present research and discuss potential modes of action of biocontrol agents and preparations that are effective against fungal and bacterial diseases. ii. Study their interaction with other plant disease control means. The general aim is to bring together students, researchers and implementers of biocontrol of plant diseases to discuss potential improvements of biocontrol activity. Presentations will be carried out orally or as posters, in English, and ample amount of time will be devoted to discussions.

We expect up to 150 participants from Europe and Mediterranean countries to participate in the workshop, as was the case in our earlier workshops. It is too early to give you precise information about the duration and time schedule of the workshop, however, we expect that it will last 3 days and one extra day will be devoted to a field trip. As was done in the past, we expect to publish short papers of the presentations in the frame of the IOBC/wprs Bulletin, however, this matter is not finalized yet. The second information circular will be out on April 2000. At that time you will be informed regarding time, costs, publication etc.

We look forward to seeing you in Sevilla, Spain next year.

Yigal Elad, Enrique Monte and Antonio Llobel

Pre-registration Form (next page).

Please respond until March 2000 (preferably by E-mail) and pass to colleagues that may be interested in attending our workshops. The second circular will be sent to those responded to the first circular. Information on the working group and updates about workshops:

<http://www.agri.gov.il/Depts/IOBCPP/IOBCPP.html>

PRE-REGISTRATION FORM

IOBC/wprs Working Group
Biological Control of Fungal and Bacterial Plant Pathogens

Workshop Biocontrol Agents Modes of Action
and Their Interaction with Other Means of Control
Sevilla, Spain, December 1-4, 2000

Name: First name and initial(s):

Address:

.....

*

Email (important):

Phone Fax.....

I wish to attend the workshop and would like to receive the second circular

I wish to give the following presentation

Tentative title of presentation:

I will not be able to attend the December2000 workshop

but wish to be informed about future activities.

I suggest to include the following person(s) in the mailing list:

Name:

Address:.....

.....

.....

Email (important):

Please fill in the form and mark the empty squares where appropriate.

Return (preferably by E-mail) to:

Dr. Yigal Elad E-mail: elady@netvision.net.il

(Dept. of Plant Pathol., The Volcani Center, Bet Dagan 50250, Israel)

With a copy to:

Prof. Enrique Monte, Dept. of Microbiology and Genetics, University of Salamanca, Avenida del Campo Charro, 37007 Salamanca, Spain

E-mail: monte208@www-micro.usal.es

Fax +34 923 22 4876 Tel +34 923 294532

You may produce copies of this form for the benefit of other people interested in the workshop or in the group activities.

WG “Integrated Control in Glasshouses Northern Section”, last Meeting

The working group Integrated Control in Glasshouses Northern Section has held its last meeting in Brest (France) from 25-29 May 1999. About 100 persons took part in this meeting. The meeting was organised by J.C. MAISONNEUVE (Brest) and J.C. VAN LENTEREN. Topics addressed at the meeting included among other things intraguild predation, registration of microbial and macrobial natural enemies, IPM in vegetables and ornamentals, biological control of various glasshouse pests, decision support and modelling in IPM, and quality control. For details, see STING No. 19 and IOBC/WPRS Bull. 22 (1), 1999. Dr. ANNIE ENKEGAARD, Danish Institute of Agricultural Sciences, was appointed as new convenor to replace J.C. VAN LENTEREN. The next meeting in the WG, to be jointly organised by WPRS and NRS, will take place in BC, Canada in 2002.

WG “Protected Crops, Mediterranean Climate” Next meeting

GT “Cultures Protégées, Climat Méditerranéen”
Prochaine réunion

As announced in the last issue of Profile, next meeting of the working group will be held in Antalya, Turkey between 24 and 28 of April 2000. Although deadline for submitting papers to be published in the IOBC/WPRS Bulletin is already closed, oral presentations and posters can be exceptionally accepted. Colleagues – both entomologists and plant pathologists, and both researchers and implementers- who are

interested in attending and contributing to the meeting, please contact urgently the convenor's or local organizer's addresses.

Ramon Albajes, *convener*
Universitat de Lleida, Centre UdL-IRTA,
Rovira Roure 177, 25006 Lleida, Spain
Fax: +34.973.238301, e-mail: Ramon.Albajes@irta.es

Erdal Sekeroglu, *local organizer*
Dept. of Plant Protection, Cukurova University, Agricultural Faculty
01330 Adana, Turkey
Fax: +90.322.3386369, e-mail: seker@pamuk.cu.edu.tr

IOBC/wprs WG “Plant Protection in Orchards” and WG “Plant Protection in Stone Fruit”

International Conference on Integrated Fruit Production
Lleida (Spain), October 22-26, 2000

The next biennial meeting of the Working group coincide with the International conference on Integrated Fruit Production that IOBC WGs Integrated Plant Protection in Orchards and Integrated Plant Protection in Stone Fruit organizes together with ISHS WG Integrated Fruit Production every 5 years. The meeting will be held in Lleida (E) from October 22nd to 26th 2000. Local organizer will be Jesus Avilla. Spain has always shown a great interest in stone fruits so we could compare results achieved and common problems.

It will be the occasion to discuss subjects of integrated production with a more complete participation and to verify the situation in the protection of the other fruit crops, too.

In Gödöllő we could enriched with researchers from East and North Europe and I hope that this attention will be maintained also for this new initiative. This will make possible to continue the discussion besides on peach also on subjects concerning plum and cherry that in the last meeting aroused lot of interest.

The expiry date to present papers has been fixed in January 31st 2000.

To have more information you can contact the local organizer, Dr Jesus Avilla or the convenor of the WG Stone Fruit Prof. Piero Cravedi – Istituto di Entomologia e Patologia vegetale – Facoltà di Agraria – Via Emilia Parmense, 84 – 29100 Piacenza – Italy
fax: ++39-523-599235; e-mail: entomo@pc.unicatt.it

WG "Integrated Protection of Stored Products"

Report on the International Conference on Integrated Stored Product Protection at the BBA Berlin, 1999

From August 22-24, 1999 the IOBC-Working Group „Integrated Protection of Stored Products“ met at the Federal Biological Research Centre for Agriculture and Forestry (BBA) in Berlin (Dahlem), Germany. This meeting attracted scientists from 16 countries of which quite a number were from countries outside the WPRS like Turkey, Bangladesh, Ghana, Ethiopia, Camerun, Sri Lanka and Brasil. In part this is the result of the intensive international exchange of the Institute for Stored Product Protection, that hosts since many years students and scholars from periods of a few months to several years. Dr. Cornel Adler is deputy director of this institute and convenor of the working group.

Compared to the last meeting that was held in Zurich, Switzerland, in August 1997 the number of participants nearly doubled from 36 to 64. Most of the participants were scientists from governmental or international institutes, universities, or organisations for technical cooperation, a number also works for private industry.

A total of 36 oral presentations were given on topics like traditional stored product protection in various tropical countries, the biology of pest organisms, biological control techniques, the use of phytochemicals and traps as well as physical and other control methods. Because many registrations came in after the official deadline, additional presentations were squeezed into the two-day program. This is why a tight time management had to be enforced. The coming meeting will be organised for at least 3-4 days in order to allow sufficient time for discussion and excursions.

Costs and the feasibility of certain methods in comparison to conventional pest control were discussed. Of course the feasibility of a technique depends also on the question whether this method is used in a food producing plant in an industrialised country or by a subsistence farmer who has little other choice than the use of local plants and

traditional techniques. The question what comprises integrated stored product protection in certain storage situations will be on the agenda of the next meeting, as well.

BBA-products like wine and tomatoes were offered during the opening reception. Large bunches of sunflowers added to the splendid atmosphere. All who had part in the organisation are thanked at this point, and of course all participants who helped to make this meeting a success.

A journalist of a Berlin newspaper was present during the first day and completed her impression of new trends in stored product protection in an interview. A tour through the laboratories of the Institute for Stored Product Protection and an excursion to a bakery using integrated pest management and working with the philosophy of the Demeter corporation were also part of the program. This bakery avoids problems with stored product pests under the advice of two former students of the Institute for Stored Product Protection.

Touristic highlights of the meeting were a river cruise through the new center of Berlin and a visit to the Reichstag. Good weather and the Berlin beergardens added to intensify international contacts long after the official program ended.

It was agreed that the next meeting should take place in 2001 in Portugal which will mean a welcome trip for Northern Europeans and less travel costs for Mediterranean colleagues.

C. Adler, convener

Study Group „Integrated Control of Soil Pests”

Announcement of the Meeting of the SG „Pathology of Nematodes”

The next meeting of the Subgroup „Pathology of Nematodes” will take place the 2-5, November 2000 in Einsiedeln (Switzerland) near Zurich. The meeting arrangements will be coordinated by Dr. JUERG GRUNDER, Swiss Federal Research Station, Waedenswil, Switzerland. An attempt will be made at the next meeting to attract nematologists working in other areas of integrated management that influence directly or indirectly biological management of plant parasitic nematodes.

For more information on the program contact the convener of the subgroup, Dr. SIMON GOWEN, Reading University, UK.

IOBC/wprs WG

„Pesticides and Beneficial Organisms“

Report on the Meeting in Versailles, October 27-29, 1999

The last meeting was held in Versailles, France, at the „Institut National de la Recherche Agronomique“ (INRA), centre Versailles-Grignon, October 27-29, 1999. The number of participants was very high with 93 (from 13 countries) revealing once again the importance and actuality of the subject. There were more than 30 presentations dealing with side effects of pesticides. The participants discussed about test methods and results (laboratory, extended laboratory, semi-field, field) with numerous predator and parasitoid species, about assessment criteria, the evaluation of sublethal effects, e.g. on behaviour, statistical questions, especially with regard to LD50 determination etc.. The abstracts of the meeting are available at the homepage of the Federal Research Centre for Agriculture and Forestry (BBA):

<http://www.bba.de> (see English version, publications).

Besides the main meeting seven expert groups from the „Joint Initiative for validation of methods for regulatory testing of effects of pesticides on non-target arthropods“ of IOBC, EPPO and BART discussed the results and progress: *Aleochara*, *Aphidius*, *Chrysoperla*, *Pardosa*, *Poecilus*, *predatory mites* - *field test Trichogramma*. It is intended to publish the revised and validated methods in the year 2000 in an IOBC Bulletin.

With the participation of members of the IOBC Working Group a two days meeting was held before the beginning of the IOBC meeting which had as objective to work out guidance documents for semi-field and field trials as basis for the harmonization of guidelines within the EU directive 91/414. These documents are needed for the workshop on „European Standard Characteristics of Non-Target Regulatory Testing: Risk evaluation“, to be held at Wageningen, The Netherlands, from 21st to 23rd March 2000 under the participation of about 60 invited experts, including members of the IOBC WG „Pesticides and Beneficial Organisms“. This workshop has as its objective to put in concrete terms and to improve further criteria given in the EU directive 91/414 for non-target arthropods in the registration process of plant protection products.

The group emphasized again the importance of the Joint Pesticide Testing Programmes, which give most valuable informations for integrated pest management purposes. The 7th programme has been published in 1999 (BioControl 44, 99-117), the 8th is nearly finished and

the publictaion is being prepared. Unfortunately, there was a considerable delay in acquiring and distributing the test products of the 9th programme due to a number of unforeseen obstacles. In the meantime most testing members have received the substances and testing has started. In order to guarantee a faster coming out of the results in future, new testing members are needed. It was also emphasized, that it is most important to complete the sequential testing scheme as far as possible for all products, which have revealed to be harmful in the laboratory test. Also persistence test should be included more often.

The proceedings of the meeting will be published in an IOBC Bulletin.

The next meeting of the WG will be held in Spain,
16-20 October, 2000.

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Study Group „Integrated Control of Soil Pests”

Report on the Meeting on
Tri-Trophic Interactions in the Rhizosphere,
Bad Honnef, November 3-5, 1999

The Study Group Meeting *Tri-trophic interactions in the rhizosphere and root-health* took place in the German Physikzentrum in Bad Honnef near Bonn between the 3rd and 5th of November 1999.

The meeting was designed to look at concepts, strategies and methodologies for working with soil-borne microbial antagonists as they relate to overall root health. The meeting was attended by 50 participants from 13 countries. They were successful in presenting papers targeted at generating discussion on a broad array of multi-disciplinary topics – the

ultimate goal of the meeting. Scientists and graduate students presented 40 papers on topics related to the importance of rhizosphere bacterial and fungal antagonists in pathogen and nematode control; the influence of unique mutualistic bacterial and fungal endophytes for root health management; the concepts of measuring and management of microbial communities for biocontrol purposes and commercial considerations required when setting research priorities. The meeting was attended by scientists working in a wide range of fields and from industry – the goal of the multi-disciplinary nature of the meeting from the start. The papers presented at the meeting will be published as an IOBC/wprs Bulletin.

The participants agreed that a future meeting was highly desirable. Plans were tentatively made to meet again in Bad Honnef in the year 2002. For more information on the next meeting please contact:

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Working Group „Insect Pathogens and Insect Parasitic Nematodes“

Report on the Meeting in Vienna, 22-26 March, 1999

The last meeting of the Working Group, entitled „Capturing the Potential of Biological Control“, was held in Vienna, Austria, 22-26 March 1999, together with COST 819 „Entomopathogenic Nematodes“, at the Hotel IBIS and at the *Institut für Forstentomologie, Forstpathologie und Forstschutz, Universität für Bodenkultur, Wien*. RUDOLF WEGENSTEINER was the leader of the local organizing team. A total of 161 participants from 32 different countries attended. The programme included welcome addresses, plenary talks, contributed papers (60) and posters (45) sessions, and several workshops. The proceedings are going to be published in the IOBC/WPRS Bulletin.

The convener of the Working Group, PETER SMITS, from the *Instituut voor Planteziektenkundig Onderzoek, Binnenhaven 12, Postbus 9060,*

6700 GW Wageningen (The Netherlands) retired and handed over to BERNARD PAPIEROK, Laboratoire des Bactéries et Champignons entomopathogènes, Institut Pasteur, 25, rue du Dr Roux, 75015 Paris (France).

Since the Vienna meeting, two symposia dedicated to biological control were held in Europe:

- „Biological Control Agents in Crop and Animal Protection“, August 24-28, 1999, University of Wales, Swansea (Wales),
- „Evaluating Indirect Ecological Effects of Biological Control“, IOBC Symposium, October 17-20, 1999, Agropolis, Montpellier (France).

On the occasion of the symposium in Swansea the „'99 Directory of Specialists Involved in the Development of Fungi as Biocontrol Agents“ (Eds : T.M. BUTT, M.S. GOETTEL and B. PAPIEROK) was published. This directory is partly based on the „Directory of Entomo-Mycologists / Répertoire des Entomo-Mycologistes“ established by B. PAPIEROK in November 1998 in the framework of the activities of the subgroup „Fungi“ within the Working Group. Extra copies of the '99 Directory are available on request from the convener.

The next meeting of the Working Group will be held in Greece in May 2001 where the local organizer will be MARIE ANAGNOU-VERONIKI, Benaki Phytopathological Institute, Delta Street, Kifissia (Greece).

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***Echinothrips americanus* in Emilia-Romagna (Italy)**

During spring 1999, high infestations of *Echinothrips americanus* were observed on *Impatiens* plants grown in glasshouses near Bologna, Emilia-Romagna, Italy. These plants had been imported from the Caribbean region. Infestations have also been observed on *Senecio cruentus* and beet grown under glasshouses. The authors discuss the possible spread of *E. americanus* in Italy and noted that studies will be carried out on biological control using the predator thrips (*Franklinothrips* spp.) and predator mites.

Marullo, R. & A. Pollini: *Echinothrips americanus*, a new pest of the Italian greenhouses. – *Informatore fitopatologico* 6, 61-64 (1999).

New IOBC/wprs Publications

New Brochure

Monitoring Populations of the Carrot Fly *Psila rosae*. VIII + 108 pp., 27 Figures, 28 Tables. Edited by: S. Finch, J. Freuler & R.H. Collier. Dijon (ISBN 92-9067-110-6), paperback SFR 25,00.

This Brochure can be ordered with your membership-form which you will receive in the next few weeks. Distribution: Dr. Horst Bathon, Institut für biologischen Pflanzenschutz, Heinrichstr. 243, D-64287 Darmstadt (Germany), Fax 06151/407290, e-mail: h.bathon.biocontrol.bba@t-online.de.

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Monitoring practices established in different countries (J. Freuler, H. den Ouden, B. Jönsson, G. Taskdal & K. Wiech)

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Various experiments (J. Freuler, C.P. Dufault & E. Städler)

Discussion (J. Freuler)

Appendix: List of traps used for experimental and monitoring purposes

Delay in delivery of the 1999 IOBC/wprs Bulletins

The Publication Commission apologizes for the delay in production and delivery of the 1999 IOBC/wprs Bulletins. For a long lasting sickness the Bulletins could not be printed in the regular time. Most of the following Bulletins have been dealt with in the last two months. Within the next two months we hope to issue all the Bulletins mentioned as "in print" or "in preparation" in the following part of Profile.

The finished Bulletins will be mailed to the IOBC-Members in February.

Individual Members: Important !

Individual members receive the Bulletins produced by 5 Working or Study Groups of their choice. They may order additional Bulletins by the treasurer:

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The regular prices for the Bulletins are
– up to 100 pages: 10 EURO,
– up to 300 pages: 15 EURO,
> 300 pages: 30 EURO per copy.

The Publication Commission has issued the following Bulletins in 1999 (including the Contents of the Bulletins)

Vol. 22(1) 1999

Working Group “Integrated Control in Glasshouses”. Proceedings of the Meeting at Brest (France), 25-29 May 1999. VII + 294 pp.
Edited by: J.C. van Lenteren. ISBN 92-9067-105-X.

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Present Status of Integrated Pest Management in Greenhouse Vegetable Production in Hungary
Z. Ilovai, Cs. Budai, E. B. Ceglarska, E. Dormanns- Simon & I. Kajati

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Evaluating indirect ecological effects of biological control. Abstracts of the Global IOBC International Symposium co-organized with CILBA, Agropolis International, Montpellier (France), 17-20 October 1999. VIII + 79 pp. ISBN: 92-9067-106-8.

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Commission on "IP Guidelines and Endorsement". Integrated
Production. Principles and Technical Guidelines. 2nd edition. 38 pp.
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Malavolta. ISBN 92-9067-108-4.

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Guidelines for Integrated Production of Grapes. IOBC Technical Guidelines III, 2nd edition. 75 pp., Edited by: C. Malavolta & E.F. Boller. ISBN 92-9067-113-0.

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Working Group "Integrated Plant Protection in Orchards. Pome Fruits". Proceedings of the Workshop at Einsiedeln (Switzerland), November 30 - December 3, 1997. X + 215 pp. Edited by: F. Polesny. ISBN 92-9067-112-2 (in print).

Vol. 22(9)1999

Working Group „Use of Pheromones and Other Semiochemicals in Integrated Control“. Scents in Orchards – Plant and Insect Semiochemicals from Orchards environments. Dachau (Bavaria, Germany), September 21-24, 1998. Edited by: P. Witzgall & Ashraf El-Sayed. ISBN 92-9067-114-9 (in preparation).

Vol. 22(10) 1999

Breeding for Resistance to Insects and Mites. Proceedings of a Meeting at Dundee, Scotland, 14-17 September 1998. Edited by: P.R. Ellis, S. Derridj. ISBN 92-9067-115-7 (in preparation).

Vol. 22(11) 1999

Working Group “Integrated Plant Protection in Stone Fruit”. Proceedings of the Meeting at Gödöllő (Hungary), 19-21 August 1998. Edited by: P.Cravedi, E. Mazzoni. ISBN 92-9067-116-5 (in preparation).

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Working Group “Integrated control of soil pests, Melolontha Subgroup”. Proceedings of the Meeting at Sion (Switzerland), 19 – 21 October 1998. Edited by: S. Keller (in preparation).

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Working Group “Integrated control in viticulture”. Proceedings of the Meeting at Florence (Italy), March 1999. Edited by: C. Lozzia (in preparation).

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Working Group „Integrated control in oilseed crops“, Proceedings of the Meeting at Prague (Czech Republic), 31 May – 2 June 1999. Edited by: V.H. Paul (in preparation).

New IOBC/global Publications

IWGO Newsletter 19(2), 39 pp., 1999. Editor & Publisher: Dr. Harald K. Berger, c/o BFL, Spargelfeldstrasse 191; P.O.B. 400, A-1226 Wien, Austria
Contents: List of participants and abstracts of 20th IWGO (International Working Group on Ostrinia and other Maize Pests) Meeting in Adana, Turkey.

Egg Parasitoid News, No. 11, 53 pp., October 1999. Edited by: Dr. Sherif A. Hassan, Institute for Biological Control, Heinrichstrasse 243, D-64287 Darmstadt, Germany. Printed and published by the Federal Biological Research Centre for Agriculture and Forestry, Messeweg 11/12, D-38104 Braunschweig, Germany

– Included is a list of research workers on egg parasitoids from 54 countries, pages 39-53.

You may find the contributions of *Egg Parasitoid News* as pdf-files in the following homepage:

<http://www.bba.de/eggpara>

STING, Newsletter on Biological Control in Greenhouses, No. 19, 32 pp., August 1999. Edited by: Joop C. van Lenteren, Laboratory of Entomology, P.O. Box 8031, 6700 EH Wageningen, The Netherlands, Tel: + 31 317 482327, Fax: + 31 317 484821, e-mail: Joop.vanLenteren@users.ento.wau.nl

– Included are the abstracts of papers from the meeting of the Working Group “Integrated Control in Glasshouses”, Brest (France), 25-29 May 1999 (see also IOBC/wprs Bull 21(1), 1999 on page 27 of this issue of Profile).

Other interesting publications brought to attention of Profile

Ben-Dov, Y. & C.J. Hodgson, eds., 1997: Soft scale insects. Their biology, natural enemies and control. 2 vol. – Amsterdam (Elsevier: World crop pests, 7A, 7B), hardbound. 7A: 476 pp., \$ 284,00 (ISBN 0-444-89303-2), 7B: 458 pp., \$ 277.50 (ISBN 0-444-82843-5).

Brown, M.W., ed., 1999: Ecosystem approaches to managing insect pests of fruits. – 80 pp., Amsterdam (Elsevier): Agriculture, Ecosystems & Environment, 73(2), ISSN 0167-8809.

Canard, M. & V. Beyssat-Arnaouty, eds. (1999): Applied Biological Control in Mediterranean Countries. Proceedings of the first regional symposium for applied biological control in mediterranean countries. Cairo, Egypt, October 25-29, 1998. – 271 pp., Toulouse, Euro 78 (hardback), Euro 62 (paperback). Distribution: Dr. Michel Canard, 47 chemin Flou de Rious, F-31400 Toulouse, France, Fax +33-5-61558444, e-mail michel.canard@wanadoo.fr

Collins, W.W. & C.O. Qualset, eds., 1999: Biodiversity in agroecosystems. – 334 pp., Boca Raton, Lewis Publishers, £ 41.50 (ISBN 1-56670-290-9).

Gustafsson, L. & J.O. Weslien, eds., 1999: Biodiversity in managed forests – Concepts and solutions. – 196 pp., Amsterdam (Elsevier): Forest Ecology and Management, 115(2/3), ISSN 0378-1127.

Hazell, P., ed., 1998: Agricultural growth, poverty and environment. Food security, diversification, and resource management: Refocusing the role of agriculture. – 268 pp., Amsterdam (Elsevier): Agricultural Economics, 19(1/2), ISSN 0169-5150.

- Hooykaas, P.J.J., M.A. Hall & K.R. Libbenga, eds., 1999: Biochemistry and molecular biology of plant hormones. – 564 pp., Amsterdam (Elsevier: New comprehensive biochemistry, 33), hardbound USD 210,50 (ISBN 0-444-89825-5).
- Inderjit, K.M.M. Dakshini & C.L. Foy, eds., 1999: Principles and practices in plant ecology. Allelochemical interactions. – 589 pp., Boca Raton, CRC Press, £ 67.50 (ISBN 0-8493-2116-6).
- Ishaaya, I. & D. Degheele, eds., 1998: Insecticides with novel modes of action. – 289 pp., 40 figs., Heidelberg, Springer-Verlag, £ 71.00 (ISBN 3-540-63058-9).
- Julien, M.H. & M.W. Griffiths, eds., 1998: Biological control of weeds: A World catalogue of agents and their target weeds, 4th edition. – 240 pp., Wallingford, CABI Publishing, £ 27.50 (ISBN 0-85199-234-X).
- Makeschin, H.F., ed., 1999: Short rotation forestry in Central and Northern Europe. – 152 pp., Amsterdam (Elsevier): Forest Ecology and Management, 121(1/2), ISSN 0378-1127.
- Pailotin, G., ed., 1998: European agricultural research in the 21st century. Which innovations will contribute most to the quality of life, food and agriculture? – 333 pp., Heidelberg, Springer-Verlag / INRA, £ 76.00 (ISBN 3-540-64414-8).
- Paoletti, M.G., ed., 1999: Invertebrate biodiversity as indicators of sustainable landscapes. Practical use of invertebrates to assess sustainable land use. – 444 pp., Amsterdam (Elsevier): Agriculture, Ecosystems & Environment, 74(1/3), ISSN 0167-8809.
- Perry, A.S., I. Yamamoto, I. Ishaaya & R.Y. Perry, 1998: Insecticides in agriculture and environment. Retrospects and prospects. – 261 pp., 57 figs., Heidelberg, Springer-Verlag, £ 71.00 (ISBN 3-540-62729-4).
- Rodà, F., J. Retana, C.A. Gracia & J. Bellot, eds., 1999: Ecology of Mediterranean evergreen oak forests. – 373 pp., 84 figs., Heidelberg, Springer-Verlag, £ 84.00 (ISBN 3-540-65019-9).
- Stanhill, G. & H.Z. Enoch, eds., 1999: Greenhouse ecosystems. – 436 pp., Amsterdam (Elsevier), hardbound: \$ 174,50 (ISBN 0-444-88267-7).
- The European Environment Agency, 1999: Europe's environment: the second assessment. – 304 pp., Amsterdam (Elsevier), hardbound: \$ 115,00 (ISBN 0-08-043204-2).
- Tirri, R., J. Lehtonen, R. Lemmetyinen, S. Pihakaski & P. Portin, 1998: Elsevier's dictionary of biology. – 768 pp., about 10,000 terms, Amsterdam (Elsevier), hardbound: \$ 201.00 (ISBN 0-444-82525-8).
- Wai Hong, Loke, ed., 2000: Biological control in the tropics. – 155 pp., Wallingford, CABI Publishing, £ 27.50 (ISBN 0-85199-462-8).

Zunke, Ulrich & J.D. Eisenback (eds., 1999): Entopix Vol. 1. A Journal of Entomological Images. Plant-Parasitic Arthropods and their Natural Enemies. – CD-ROM with more than 1.000 photographs (each image is approximately 640 x 480 pixels) at highest quality JPEG-formate. The species are described with an informative legend and can be searched by key words. An additional seven digitized video clips of insects are also included on the CD-ROM.

Price: The single user institutional price for Entopix is \$ 260.00; Individual purchases may be made for \$ 160,00 provided that the CD-ROM is shipped to a private address. The CD may be ordered by: Entopix, 3510 Indian Meadow Drive, Blacksburg, VA 24060, USA

Additional informations:

Dr. Ulrich Zunke, Institute for Applied Botany, University of Hamburg, Marseiller Str. 7, D-20355 Hamburg, Germany, e-mail: uzunke@iangbot.uni-hamburg.de

Dr. Jonathan D. Eisenback, Department of Plant Pathology, Virginia Tech, Blacksburg, VA 24060, USA.

New Journal

Agricultural and Forest Entomology, Allan Watt & Keith Walters, eds. (ISSN 1461-9555) – Blackwell Science (published for the Royal Entomological Society). Subscription rates in Europe for Volume 1 (1999) with four issues per year: Institutions £ 212.00, Personal £ 60.00, Airmail included. Further information on the web site:

<http://www.blackwell-science.com/online>

Time-Table of forthcoming events

24 – 28 April, 2000: Meeting of the WG “Protected Crops, Mediterranean Climate, Antalya, Turkey. – Dr. R. Albajes, Universitat de Lleida, Centre UdL-IRTA, Rovira Roure 177, 25006 Lleida, Spain, Fax: +34.973.238301, e-mail: Ramon.Albajes@irta.es; Erdal Sekeroglu, Dept. of Plant Protection, Cukurova University, Agricultural Faculty 01330 Adana, Turkey, Fax: +90.322.3386369, e-mail: seker@pamuk.cu.edu.tr

09 May, 2000: 52nd International Symposium on Crop Protection, Gent, Belgium. (Deadline for the submission of abstracts: January 31, 2000) – Prof.Dr. ir. P. De Clercq, Dept. of Crop Protection, Faculty of

- Agricultural and Applied Biological Sciences, University of Gent, Coupure Links 653, B-9000 Gent, Belgium, Tel +32-92646158, Fax +32-92646239, e-mail: patrick.declercq@rug.ac.be, <http://allserv.rug.ac.be/~hvanbost/symposium>
- 22 – 24 May, 2000: International Symposium on Plant Health in Urban Horticulture, Braunschweig, Germany. – Dr. G.F. Backhaus, Biologische Bundesanstalt für Land- und Forstwirtschaft, Institut für Pflanzenschutz im Gartenbau, Messeweg 11-12, D-38104 Braunschweig, Fax ++49-531/2993009, e-mail: g.f.backhaus@bba.de
- 20 – 26 August, 2000: 21th International Congress of Entomology, Foz do Iguaçu, Brazil. – c/o Dr. D.L. Gazzoni, Caixa Postal 231-86001-970 Londrina-PR, Brazil. Tel: ++55-43-3716213, FAX: ++55-43-3716100, (for registration etc.: Fax ++55-41-3721177), e-mail: gazzoni@cnpso.embrapa.br, Web: <http://www.embrapa.br/ice>
- 18 – 22 September, 2000: 5th Congress of the European Foundation for Plant Pathology, Taormina and Giardini-Naxos, Sicily, Italy. – EFPP 2000 Secretariat, Institute of Plant Pathology, University of Catania, Via Valdisavoia 5, I-95123 Catania (Italy), Tel +39-95-234416, fax +39-95-234421, e-mail: efpp2000@mbox.fagr.unict.it
- 25 – 29 September, 2000: 25th Meeting of the WG “Use of Pheromones and other Semiochemicals in Integrated Control”, Samos, Greece. – Dr. P. Witzgall, e-mail: peter.witzgall@phero.net; Correspondence: Maria Konstantopoulou, Institute of Biology, NCSR “Demokritos”, POBox 60228, GR-15310 Aghia Paraskevi Attikis, Tel +301-6503577, -6503556, Fax +301-6511767, e-mail: mkonstan@mail.demokritos.gr, Web: <http://phero.net/iobc>
- 02 – 05 November, 2000: Meeting of the SG “Pathology of Nematodes” of the Study Group “Integrated Control of Soil Pests”, Einsiedeln, Switzerland. – Dr. Juerg Grunder, Swiss Federal Research Station, CH-8820 Wädenswil, Switzerland, Tel +41-1-783-6336, -6111, Fax +41-1-783-6434, e-mail: juerg.grunder@wae.faw.admin.ch
- 01 – 04 December, 2000: Workshop of the WG “Biological Control of Fungal and Bacterial Plant Pathogens” Biocontrol agents modes of action and their interaction with other means of control. Sevilla, Spain. – Dr. Y. Elad, Dept. of Plant Pathology, The Volcani Center, Bet Dagan 50250, Israel, Tel +972-3-9683580, Fax +972-3-9683688, e-mail: elady@netvision.net.il

2001

- 26 – 28 April, 2001: Meeting of the Study Group „Induced Resistance in Plants Against Insects and Diseases“, Wageningen, The Nether-

lands. – Dr. Annegret Schmitt, Federal Biological Research Centre for Agriculture and Forestry, Institute for Biological Control, Heinrichstr. 243, D-64287 Darmstadt, Germany, Tel +49 (0) 6151-407241, Fax +49 (0) 6151-407290, e-mail: anne.schmitt.biocontrol.bba@t-online.de.

May, 2001: Meeting of the WG “Insect Pathogens and Insect Parasitic Nematodes”, Benaki Phytopathological Institute, Kifissia, Greece. – Dr B. Papierok, Institut Pasteur, 25, rue du Dr. Roux, F-75015 Paris, France, Tel +33-145688226, Fax +33-140613044, e-mail: papierok@pasteur.fr

02 – 05 August, 2001: IOBC/NRS International Symposium “The Practice of Biological Control: Importation and Management of Natural Enemies in the New Millenium”, Bozeman (Montana State University), Montana, USA. – Tim Kring (University of Arkansas), Tel ++1-575-3186, e-mail: tkring@comp.uark.edu

14 – 18 September, 2001: General Assembly IOBC/wprs, Switzerland.

Printing-Errors in IOBC/wprs Bulletin 22(1) 1999: p. 193

Referring to PC-problems Table 1 of the paper of S. Pleininger & S. Blümel “Implementation and development of IPM in greenhouse crops in Austria” has a couple of printing errors. Please glue **the enclosed correct table** over Table 1 on page 193 !

Below you find the corrected Table 1 reduced to the formate of *Profile*.

Table 1. Extent of BC/IPM Advisory Service in Austrian greenhouse production from 1996 to 1998

Year	1996	1997	1998
Number of growers	57	60	51
Area:			
vegetables	51.990 m ²	77.700 m ²	75.500 m ²
ornamentals	41.260 m ²	47.160 m ²	39.000 m ²
indoor	13.702 m ²	24.400 m ²	26.000 m ²
total	106.950 m ²	149.260 m ²	140.500 m ²

Next Issue of Profile

***Profile* depends on your contributions. It is your opportunity to let others know what is going on in your special field of interest in biological and integrated control, in your Working Group or Study Group. Take a few minutes and mail, fax or even better e-mail to the Editor. Your contributions especially should refer to**

- forthcoming events (e.g. meetings of the working groups). Because *Profile* is issued only twice a year, please let me know the dates of meetings at an very early stage of planning and preparing!
- reports on IOBC/wprs meetings (these are of special interest to those members not attending the meetings)
- informations on new books related to biological and integrated control and basic research in these fields
- biocontrol news (e.g. new pests in the IOBC/wprs region, new introductions and releases of beneficials, important news on commercial biocontrol products)
- new research activities

The summer-issue of *Profile* (number 29) will be edited in July 2000. Please send your contributions for this issue of *Profile* to me at the latest:

15, June 2000,

but don't hesitate to contact me long before this deadline!

Please send your contributions by e-mail (preferably), mail or fax to:

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Institute for Biological Control
Heinrichstrasse 243
D-64287 Darmstadt
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Fax ++49-6151-407290
E-mail: h.bathon.biocontrol.bba@t-online.de

Für Profile 29

Ruberson, J.R., ed., 1999: Handbook of pest management. – Marcel Dekker, Inc., New York.

Chadwick, D.J. & J. Goode, eds., 1999: Insect-plant interactions and induced plant defence. – Chichester, Wiley: Novartis Foundation Symposium 223.