



**IOBC / WPRS
OILB / SROP**

PROFILE

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Council and Executive Committee**

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

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The Presidents Page

The writing of this takes place at the beginning of the year 2002. Then it is a special opportunity to thank all the members who have done a little or a lot extra for WPRS, as for example Convenors of Working Groups, local organizers of Working Group meetings and members of the Council.

The year 2001 has included the quadriennial General Assembly in Ascona, Swiss, and on the basis of that it is permissible to state that WPRS is in good shape. The budget is in good order and WPRS has capacity to resist some degree of troubles which could occur with the world's slightly insecure economical situation. More important is the fact that our activities are as good as never before among others reflected by the green flow of Bulletins. Even BioControl, over which we do not have the main control, seems to get on track.

Several Working Groups are in a process of reviewing their activities somewhat and new titles and main foci are likely to appear in this year. These elements have been discussed by the Council in full at a meeting in Zürich in the last part of January 2002. This meeting took also a closer look on a lot of the overall matters first handled by the General Assembly during the past September.

As the final part of this very short communication I want to express to all WPRS members and colleges in the other Regional Sections and Global IOBC the best wishes for a prosperous Year

Peter Esbjerg

IOBC/ WPRS
Commissions, Working groups, Study groups
 January, 2002

Commissions	Convener	Liaison-Officer
Publications	BATHON H. TIRRY L.	–
Determination and identification of entomophagous insects	BAUR H.	–
Guidelines for integrated production	AVILLA J.	ALBAJES R.

Working groups

Integrated protection of fruit crops	CROSS J..	MALAVOLTA C
Pesticides and beneficial organisms	VOGT H.	BIGLER F
Breeding for plant resistance to pests and diseases	BIRCH A.	TIRRY L.
Pheromones and other semio-chemicals in integrated production	WITZGALL P.	BATHON H.
Multitrophic interactions in soil	SIKORA R.	KERRY B.
Integrated protection in viticulture	LOZZIA C.	GESSLER C.
Integrated protection of oilseed crops	PAUL V.H.	ALABOUVETTE C
Integrated protection of field vegetables	VIDAL S.	ESBJERG P.
Integrated control in protected crops, temperate climate	ENKEGAARD A.	BLUEMEL S.
Integrated control in protected crops, mediterranean climate	MEXIA A.	BLUEMEL S.
Insect pathogens and entomoparasitic nematods	PAPIEROK B.	HUBER J.
Integrated control of fungal and bacterial plant pathogens	ELAD Y.	ALABOUVETTE C.
Integrated protection in oak forests	VILLEMANT.C.	VIEIRA M.M
Integrated protection of stored products	NAVARRO S.	BATHON H.

Study groups	Convenor	Liaison-Officer
Integrated protection of olive crops	(KALAITZAKI)	MALATHRAKIS N
Integrated protection of citrus crops	(GARCIA-MARI F.)	BESRI M.
Induced resistance in plants against insects and diseases	SCHMITT A.	HUBER J.
GMO's in integrated plant production		BIGLER F.
Landscape management for functional biodiversity	(POEHLING / ROSSING)	VAN LENTEREN J.

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IOBC/wprs WORKING AND STUDY GROUPS

Activities of the working group 'Integrated Plant Protection in Orchards'

FRITZ POLESNY, BFL, Austria, stood down as convener of this working group with effect from October 2001. We are all very grateful to FRITZ for all the work he has done for the group as convener. His successor, JERRY CROSS, HRI East Malling, UK was elected from amongst the membership at the 5th International Conference on Integrated Fruit Production, Lleida, Spain on 22-26 October 2000.

The group as a whole meets every 4 years, the last meeting being at Lleida, Spain in October 2000, superbly organised by JESUS AVILLA and his colleagues. The next meeting of the whole group is to be in Trento, Italy, hosted by CLAUDIO IORIATTI, in autumn 2004. The sub-groups meet every two years in the intervening periods.

Sub-group 'Soft fruits' ***(Scientific Secretary, DARIUSZ GAJEK, Poland)***

The soft fruit sub-group held its third meeting in Dundee, Scotland on 18-20 September 2001. The local organiser was STUART GORDON, Scottish Crops Research Institute (SCRI). The meeting was attended by over 30 delegates from many European countries though it was disappointing that no delegates attended from major soft fruit producing European countries such as France or Italy. In previous meetings there had been a strong focus on IPM on strawberry. There was greater emphasis on raspberry at the Dundee meeting, reflecting the interests of our host institute. There were many interesting papers and posters on a wide range of aspects of pest, disease and weed control in soft fruits. All were impressed to see a spectacular video shown by TREFOR WOODFORD, SCRI, of swarms of raspberry beetle attracted to a synthetic raspberry floral attractant. A useful discussion was had about the changing pesticide availability for soft fruit and ERICH JÖRG, Germany, agreed to collate a data base on pesticide availability for soft fruit crops in Europe. Erich also made an excellent summary of the meeting. The proceedings of the conference are to be published in an IOBC wprs bulletin.

At the end of the meeting, a site seeing tour was made to local beauty spots and places of interest including Glamis castle and a whisky distillery. A collage of photographs of the conference is available from JERRY CROSS, HRI, East Malling (available from jerry.cross@hri.ac.uk). STUART GORDON and his colleagues are to be congratulated on the excellent organisation and warm Scottish hospitality received at this meeting.

CHRISTIAN LINDER, Swiss Federal Research Station for Plant Protection, Changins, Nyon, Switzerland, and his colleagues have agreed to host the next meeting of the sub-group in autumn 2003.

Sub-group 'Arthropod pests'
(Scientific secretary MIKE SOLOMON, HRI, East Malling UK)

The next meeting of the arthropods sub-group is due to take place on 10-14 March 2002 at the Exerziten und Bildungshaus, Vienna, Austria. FRITZ POLESNY (BFL, Austria) is the local organiser. A first circular with a call for papers has been issued (available from fpolesny@bfl.at, information is available also on the IOBC-wprs website under Activities). A wide range of topics is due to be covered including:

- forecasting and monitoring of arthropod pests in pome fruit orchards
- impact and real importance of natural enemies in orchard systems (especially parasitism)
- new problems in aphid control
- economic injury levels in modern IFP systems and in organic production
- importance of secondary pests in IFP and organic orchards
- selectivity and effectiveness of new compounds
- non anthocorid predators of pear psylla
- interaction of different pests and beneficials
- area wide control of tortricid pests and resistance management
- specific problems with animal pests in pear orchards

Sub-group 'Orchard diseases'

(the Scientific secretary is the organiser of next meeting – currently PETER TRILOFF, Germany)

This subgroup had a highly successful, both from the scientific and social aspect, meeting in Fontevraud France in 1999 organized by L. PARISI with ca 70 participants.

The scientific results are presented in the Bulletin 23(12) 2000 edited by L. PARISI.

The next meeting is due to take place in Lindau/Bodensee, Germany 31 August - 05 September 2002. The local organisers are PETER TRILOFF (e-mail: peter.triloff@t-online.de) and CESARE GESSLER.

All information and registration forms can be found on the

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

under the topic events and activities.

Proposed topics are:

1. Disease control in IPM orchards
2. Disease control in organic orchards
3. Biotechnology impact on orchard disease control
4. Fireblight
5. Disease resistant cultivars in practise and the evolution of the pathogens, experience with new varieties
6. Warning and simulation
7. Monitoring disease severity, role of inoculum
8. Fly speck and sooty blotch
9. Storage diseases and control

Sub-group 'IFP guidelines'

(Scientific secretary JERRY CROSS, HRI East Malling, UK)

The guidelines group met for a half day after the conference in Lleida, Spain in October 2000 to discuss revision of the second edition of the IFP guidelines III for pome fruits. The meeting provoked intense discussion and it was not possible to fully agree a revised guideline. A working draft of the revised guideline was produced by the scientific secretary. The IOBC IP Commission subsequently proposed further revisions and these proposals are to be discussed at a further meeting of the guidelines group in Vienna in March 2002.

Now that JERRY CROSS is the convener of the working group, a new scientific secretary for the IFP guidelines group needs to be appointed.

JERRY CROSS, the new convener of the Orchards group would welcome suggestions for future activities of the group (jerry.cross@hri.ac.uk). If you would like to be kept in touch with the activities of the working group, please e-mail your e-mail address to JERRY CROSS.

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IOBC/wprs Working Group „Pesticides and Beneficial Organisms“

The last meeting of the Working Group took place from 3^d to 6th October 2001 at the "Istituto Agrario San Michele," San Michele All'Adige, Trento, Italy. The first day of the meeting was reserved for subgroup activities, focusing on improvement, harmonization and validation of test methods. The „*Poecilus* group“, convened by Udo Heimbach, is focusing on the validation of the laboratory test method for *P. cupreus* larvae. The group decided to publish ring tested data obtained in 2001 in the IOBC Bulletin and will carry out additional experiments focusing e.g. on other types of application (such as seed applied products, granules). The "Aphidius-group", convened by Stephen Vinall, deputized for Mike Mead-Briggs, is working towards finalising an extended laboratory test guideline and has started developing guidance for semi-field testing.

The full meeting was attended by 76 participants from 10 countries. The presentations covered diverse topics in side-effect research, focusing on different beneficial organisms, different testing tiers (from laboratory to field) and methodical aspects. One session was devoted to the risk of effects to non-target arthropods in off-field areas. Many contributions will be published in an IOBC/wprs Bulletin in 2002. The review process is nearly finished.

A survey with regard to future activities of the WG carried out during the meeting, confirmed that there is a need in further development of higher tier test methodology. Especially questions about test design, evaluation parameters and statistics in field tests need further discussion and elaboration.

A lot of thanks are due to the local organizer Dr. Diego Forti and his team, for the excellent organisation. They made sure that everything went smoothly. The participants enjoyed the warm welcome and the comfortable conference site at San Michele Institute. An excursion to the Val di Non with a technical visit of an apple farm and an apple growers association gave the opportunity to learn more about Integrated Apple Production in this area as well as to get acquainted with the fascinating scenery of this region. It was also a good opportunity to discuss and exchange experience between the participants.

The **next meeting of the WG** will be held in **Avignon, France, 9 - 11 October, 2002**. Sub-group meetings may take place on the 8th October. Local organizers are Margrit Engelhardt and Philippe Coulomb. Further details will be given in due course on the IOBC homepage.

For further information about the Working Group „Pesticides and Beneficial Organisms“ please contact:

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Working Group ”Integrated Protection in Oak Forests”

3rd Meeting of the Working Group,
Oeiras-Lisbon, Portugal, 1 - 4 October, 2001 – Report

The meeting took place in the National Agronomic Station of Oeiras, Portugal. Besides IOBC, the meeting was supported by the Agriculture Ministry, the Lisbon and Oeiras municipalities and several local firms. About 70 participants attended to the meeting: working group members from 7 countries (Algeria, France, Italy, Morocco, Portugal, Spain and Tunisia), representatives of Portuguese research institutions as well as students from the National Agronomic Station of Oeiras and the National Higher Institute of Agronomy. The excursion organized during the last day in the Alentejo province included a guided tour of a cork oak exploitation and a visit of a modern cork factory.

The meeting included oral presentations and poster sessions. They were dealing with phytosanitary status of oak forests, biology and impact of fungi and phytophagous pests, natural enemies, biological and integrated control of phyllophagous insects and forest management. Compared to previous ones, this meeting paid a peculiar attention to phytopathogenous fungi and their noticeable contribution to actual oak decline in Mediterranean region.

The presentations are soon available as IOBC/wprs Bull. 25(5), 2002 (Contents see in this issue of Profile on page 33; you can find Contents + Abstracts on the IOBC/wprs homepage.)

In order to better harmonise their research programs, scientists concerned by similar study topics wished to more intensify their contacts and collaboration. In concrete terms they suggested the following recommendations:

- to assess the actual spreading of oak decline in all the concerned countries (for each country a project responsible was chosen during the meeting);
- to homogenize the evaluation methods of oak phytosanitary status as well as insect and fungi population densities damages. The use of reliable comparison criterions which could be published in IOBC guidelines will be advantageous to induce biological control decision.
- to consolidate the survey grid of oak forest which was already established in Morocco and which should be extended to Algeria and Tunisia.
- to involve a greater number of forest managers in the group in order to implement a sustainable management of these ecosystems wit the perspective of better production, conservation and regeneration without omitting to take into account the needs of the riverain populations.
- to create a web site of our working group.

The next meeting of the group will take place in Tunisia in October 2004. Organisation will be sustained by the INRGREF of Tunis

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Report of the meeting of the *Melolontha* subgroup 24-26 September 2001

The working group "Integrated Control of Soil Pests" subgroup "*Melolontha*" held its third meeting within the frame of IOBC. 39 participants from 8 countries met from 24-26 September 2001 at Aosta, Italy. The meeting was co-organised with the EU-Project BIPESCO FAIR CT98-4105 which held its meeting the two preceding days. The local arrangements and a half-day excursion to *Melolontha* and historical sites in the environment of Aosta were successfully organised by Frédéric Bondaz.

22 oral and 3 poster contributions were presented dealing with the following topics: Population development, biology, surveys, integrated and biological control, current situation and prospects. The problems with *Melolontha* spp. are increasing in central and east Europe with some local exceptions. They are mainly due to *M. melolontha* L. and concern grassland, orchards and reforestation areas, occasionally vineyards and other crops. Two main non-chemical control measures have been developed: the placements of nets to protect expensive crops and the use of the entomopathogenic fungus *Beauveria brongniartii*. Both are successfully used but there are still some open questions concerning the efficacy of *B. brongniartii*. Due to the presence of the BIPESCO members emphasis was put on this fungus with topics like monitoring, dissemination, survival, interactions with soil, production and formulation. Attempts with other pathogens failed, but good control of *Amphimallon* larvae were obtained with nematodes.

A highlight of the meeting was the excursion in the environment of Aosta where white grubs cause severe damages in meadows and orchards. The problems were demonstrated and discussed and partly recorded by the Italian television.

Future work of the group will concentrate on improving the existing control measures and exploring new ones as well as including other soil pest insects. With respect to *B. brongniartii*, the quality of the material and of the application and the efficacy must be improved will take place in close collaboration with BIPESCO. Therefore soil-fungus interactions need to be studied in more details. It was decided that the next meeting will be in Innsbruck, Austria, in 2004.

Siegfried Keller
Convenor of the subgroup

EU-Project CONTROCAM

Since January 1st 2001 an EU-Project about the horse chestnut leafminer, *Cameraria ohridella*, started within the 5th EU-Framework-Program (Quality of live and management of living resources).

Title:

Sustainable control of the horse chestnut leafminer, *Cameraria ohridella* (Lepidoptera, Gracillariidae), a new invasive pest of *Aesculus hippocastanum* in Europe

Acronym: CONTROCAM, Projektnr.: QLRT-1999-31684

Duration: 2001 - 2004

Topic, project objectives

The horse chestnut leafmining moth, *Cameraria ohridella*, causes severe damage to horse chestnut trees (*Aesculus hippocastanum*) in Europe both in urban areas and in endemic stands in the Balkans having spread over vast areas very fast during the last years. Therefore this multidisciplinary project has been initiated to find a solution to control *Cameraria ohridella*.

The **general objectives** of CONTROCAM are:

- The assessment of the impact of *C. ohridella* on the horse chestnut trees and the potential threat to European forestry through host range expansion.
- The development of sustainable, biologically based integrated management strategies against *Cameraria*.
- The invasion and integrated control of *C. ohridella* should be used as a case study to make recommendations on the development of common, European strategies against the increasing problem of biological invasions and to help in developing guidelines at EU level.

The project is divided into 6 workpackages (= WP):

WP 1: Ecology, damage assessment and insect-plant interactions

WP 2: Control methods using sex pheromone

WP 3: Natural enemies and biological control

WP 4: Habitat management

WP 5: Monitoring and dispersal

WP 6: Synthesis

Project partner:

8 contractors from 5 EU countries (Germany, Austria, Greece, France, Italy), two associated non-EU countries (Czech Republic and Switzerland) and Bulgaria (as sub-contractor) are involved in the project.

link: http://www.bfl.at:80/institut/phyto/kastanie/info1_ge.htm

link: <http://www.cameraria.de>

Dr. Christa Lethmayer (CONTROCAM-project-coordinator for Austria and coordination of WP 3)

Federal Office and Research Centre for Agriculture, Vienna

Institute of Phytomedicine

Departement: Biological Control and Horticulture

Spargelfeldstraße 191

A-1226 Vienna



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International Organisation for Biological and Integrated Control of Noxious Animals and Plants
Organisation Internationale de Lutte Biologique et Intégrée contre les Animaux et les Plantes Nuisibles
WPRS / SROP West Palaearctic Regional Section / Section Régionale Ouest Paléarctique

Dr. C. Gessler
Phytomedicine/Pathology
ETH Zentrum/LFW
Universitätstr. 2
CH-8092 Zürich Switzerland

Registration

6th International IOBC/WPRS Workshop on Pome Fruit Diseases

Lindau, Germany, 31. August - 05. September 2002

Participants name: _____

Position: **(Senior scientist, PhD-student,)**

Address: (Please leave blank where not applicable)

PRIVATE:	COMPANY:	INSTITUTION
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Phone:	Fax:	e-mail
_____	_____	_____

I will present a poster with the following title:

I ask the scientific committee to accept an oral presentation with the title:

(Please blowup pages 16-17 to formate A-4 and fill in the data)

Are you covered by an IOBC/WPRS membership? **YES** **NO** (Please tick where applicable)

If yes: (Please fill in where applicable)

INDIVIDUAL

SUPPORTING: (please state the name of the institution)

INSTITUTIONAL: (please state the name of the institution)

WPRS BULLETIN (proceedings) of this meeting: (Please tick where applicable)

I do not need any extra copy/ies since I am already receiving through membership

I need copy/ies of the Bulletin to a price of 15 EURO per copy (please add to the registration fee) and to be send to address indicated above)

Total workshop costs: (Please cancel if not appropriate)

Registration participant	250.00 EURO
Additional fee for late inscription (after 15 April 2002)	70.00
Boat trip participant (Thursday, 5 September)	60.00
Registration accompanying person	340.00
Boat trip accompanying. person (Thursday, 5 September)	60.00
Extra-Bulletin: x 15 EURO per copy

Total **EURO**

Please pay the total by check or direct money transfer to the account nr. **230/517.950.60 F** at the Union Bank of Switzerland, CH-8021 Zurich, SWIFT code UBSWCHZH80A, beneficiary IOBC/WPRS with clearly indicating **your name** and "**pome fruit**" as key word.

Your registration will be valid as soon as we have registered your payment of _____ EURO (please enter total from above)

Date _____ Signature _____

Please note that the latest time of inscription at a registration fee of 250 EURO is April 15, 2002. (For later inscription please add 70 EURO to the regular fee)

The registration fee includes conference lunches, dinners, gala dinner, coffees and the non scientific activities as mentioned in the program (except the boat trip on Thursday which is 60 EURO extra), and the abstract book. Full papers will be published as IOBC/WPRS-Bulletin. The abstract book of the presentations and posters as well as other information material you will get handed out at your arrival.

Accommodation:

Accommodation for all regular participants is at the "Hotel Bayerischer Hof", Lindau, with the address on the right. Prices are 100 EURO per day including breakfast for single occupancy. and 151 EURO for double occupancy. When calling from outside Germany, please do not dial (0).

<p>Hotel Bayerischer Hof Seepromenade D-88131 Lindau Tel: ++49 / (0)8382 / 9150 Fax: ++49 / (0)8382 / 915591 e-mail: bayerischerhof-lindau@t-online.de Internet: http://www.bayerischerhof-lindau.de</p>

Accommodation has to be paid **directly** to the hotel.

The workshop will be held in the congress facilities of the hotel.

Accompanying persons:

A true vacation from Sunday to Thursday in one of the most fascinating areas of the Bodensee (Lake Constance)!

Registration fee is 340 EURO and includes all lunches, dinners and trips as mentioned in the program except the boat trip on Thursday which is 60 EURO extra.

Students:

To students (including PhDs) we can offer close by hotels at a cheaper price. Sorry, that we can not extend this offer to the regular participants! Additionally we can offer a subsidy from IOBC/WPRS to a limited number of students. Please contact us by e-mail if you are a student and would like a hotel at about 40 to 50 EURO and if you need a subsidy from IOBC/WPRS.

Abstract:

Please note that contrary to most congresses and workshops we do not press you at this moment to deliver an abstract as we do not want any sentences as "the results will be presented and discussed".

However we need your abstract by **Monday, 1 July 12:00 pm** in electronic format (MS-Word, if possible) to the e-mail address cesare.gessler@ipw.agrl.ethz.ch attached to an e-mail in which you define the format specifications of your abstract. Please name your file(s) with your name.

What do we define as an "abstract"? Almost anything from the classic abstract up to the full publication. If you have your publication which you are going to present at the workshop already prepared we accept this in the "Abstract book" too. However a reduced version may serve for the same purpose which is to give the participants sufficient information to follow your presentation (tables?) and remember its highlights.

Please note that we will not be able to accept any late entry. So if we do not have your abstract by **Monday 1 July 12:00 pm**, only your name and the title of the presentation as indicated in this registration form will appear in the "Abstract book".

Please also check our web site for the preliminary programme, tourist information on the workshop and links to tourist web sites.

<http://www.iobc-wprs.org>, "Events & Activities"

<http://www.bayerischerhof-lindau.de>

<http://www.lindau-tourismus.de/>

IOBC/WPRS Study Group

“Integrated Control in Citrus Fruit Crops”

Valencia, Spain 6-8 November 2002

Dear Colleagues:

In the last ten years, the Citrus working group “Integrated Control in Citrus Fruit Crops” has organised three meetings (Catania 1992, Antibes 1994 and Florence 1996). These meetings have offered a good opportunity to exchange experiences and strategies in Citrus Pest management, to encourage cooperation between the participants and to develop various scientific research projects.

The next Citrus working group meeting will be organised in Valencia, Spain, on 6-8 November, 2002.

The main topics of the meeting are:

- Situation of the Citrus leafminer
- Biological control in Citrus orchards
- New problems in Citrus pest control
- Sampling and monitoring pests and natural enemies
- Insecticides: Efficacy, selectivity and resistance
- Citrus pest management in specific areas
- Fruit flies of economic importance

On the next page you will find a pre-registration form. This form should be sent to the local organiser, Dr Ferran Garcia-Mari, preferably by e-mail, before May 30.

The location of the meeting and other informations such as accommodation, registration fees, instructions for the abstract preparation and scientific excursion will be reported in the second circular

Sincerely yours,

F. Garcia-Marí

Ferran Garcia-Marí, Dept. Ecosistemes Agroforestals, E.T.S.
Enginyers Agrònoms, Universitat Politècnica de València,
Camí de Vera 14 , 46022 Valencia, Spain
Tel: 34-9638-79250, Fax: 34-9638-79269,
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Organisation Internationale de Lutte Biologique et Intégrée contre les Animaux et les Plantes Nuisibles
WPRS / SROP West Palaearctic Regional Section / Section Régionale Ouest Paléarctique*

IOBC/WPRS Working Group “Integrated Control in Citrus Fruit Crops” Valencia, Spain 6-8 November 2002

Pre-registration Form

Name: First name:

Position (Senior scientist, PhD-student,) :

Address:

Phone:

Fax:

e-mail:

I intend to present an oral presentation with the title (orientative):

.....
.....
.....

Accompanying person:

The pre-registration form should be sent before May 30, preferably by e-mail, to the local organiser:

Ferran Garcia-Marí
Dept. Ecosistemes Agroforestals, E.T.S. Enginyers Agrònoms
Universitat Politècnica de València
Camí de Vera 14 , E-46022 Valencia, SPAIN
Tel: 34-9638-79250, Fax: 34-9638-79269
e-mail: fgarciam@eaf.upv.es

IOBC/wprs Commission “Integrated Production, Guidelines & Endorsement”

Dear Colleagues,

this is to inform you that the IOBC Commission on IP Guidelines and Endorsement has now put a TOOL-BOX for IP-ORGANISATIONS SEEKING IOBC ENDORSEMENT on the website of the Commission (www.admin.ch/sar/faw/iobc.html).

Yours sincerely,
Ernst F. Boller

Dr. Ernst F. Boller
Swiss Federal Research Station for Fruit Growing, Viticulture & Horticulture
CH-8820 Wädenswil / Switzerland
e-mail: ernst.boller@faw.admin.ch
Phone +41 (1) 7836330, Fax: +41 (1) 7836379

New IOBC/wprs Publications

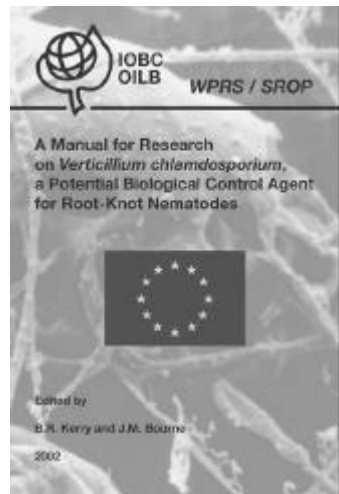
We are glad to announce an important new IOBC/wprs book

B.R. KERRY & J.M. BOURNE (2002):

A Manual for Research on *Verticillium chlamydosporium*, a Potential Biological Control Agent for Root-Knot Nematodes.

XIII + 84 pp., 14 fig., 4 fig. in colour, Gent, IOBC/wprs, ISBN 92-9067-138-2. Price: € 15,00. You may order the book by letter, fax or e-mail from:

Dr. Horst Bathon (IOBC/wprs), Institute for Biological Control,
Heinrichstrasse 243, D-64287
Darmstadt, Germany
Fax +49-6151-407290, e-mail:
h.bathon.biocontrol.bba@t-online.de



From the Preface

This Manual was produced following a Workshop Meeting at the University of Reading, UK, in 1998, which marked the beginning of a European Community funded project FAIR5-PL97-3444. The project is entitled "Development of a sustainable strategy for the management of root-knot nematodes in vegetable crops in southern Europe – an alternative to the use of methyl bromide". The research aims to incorporate applications of the nematophagous fungus, *Verticillium chlamydosporium* Goddard, with other control measures to manage root-knot nematodes on vegetable crops. The control of these nematodes will become a major problem in southern Europe and elsewhere when the general soil sterilant, methyl bromide, is withdrawn from the market in 2005, because of its effects as a depleter of ozone. In southern Europe, root-knot nematodes are major pests in field vegetable crops and in protected crops. These nematodes cannot be eradicated and growers apply large amounts of methyl bromide to manage populations below damaging levels. There is, therefore, an urgent need in southern Europe to find alternative methods to the widespread use of methyl bromide, which are practical and sustainable. A biomanagement strategy, which combines the use of a biological agent with cultural methods, including the use of partially resistant/non-host cultivars, may provide such an alternative, which will reduce nematicide applications. The strategy is being evaluated in commercial situations in southern Europe, where pests are damaging a wide range of crops throughout the Mediterranean region. The project has three specific objectives:

- To evaluate the efficacy of a biomanagement strategy in commercial production systems in southern Europe. This strategy involves the application of *V. chlamydosporium* applied to soil before planting poor hosts for root-knot nematodes in the cropping cycle, to reduce populations before susceptible tomatoes are grown. This strategy has been compared with conventional nematode control (use of methyl bromide) and an integrated management strategy that replaces methyl bromide with other pesticides, including oxamyl for nematode control:
- To develop immunological and molecular methods to monitor the fungus after its release.
- To measure the impact of the fungus on soil microbial biodiversity and non-target organisms.

The project provides a model for the practical application of a soil applied biological control agent and the development of a rational policy relating to such releases. The methods described for *V. chlamydosporium* could be used for a range of fungi isolated from nematode females and eggs that have a similar mode of action. The work described has addressed a number of the problems involved in the scale-up of testing of biological control agents from experiments in controlled conditions to small-scale field trials. Information has been collected on the distribution and variation in isolates of the fungus collected in southern Europe and other parts of the world. The mass-production of chlamydospores for inoculation remains a problem.

The project has brought together a group of nematologists with interests in the management of nematodes and molecular biologists developing new methods to study microorganisms in the rhizosphere. The leaders of the participating research teams have written different sections of this Manual. I have much enjoyed the interactions involved in coordinating the programme and gratefully acknowledge the hard work, research innovation and friendship of my colleagues involved in the project and the production of this Manual.

Brian Kerry

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

IOBC/wprs Bulletin Vol. 24(2) 2001

Pheromones and other biological techniques for insect control in orchards and vineyards. Working group "Use of pheromones and other semiochemicals in integrated control", Proceedings of the meeting in Hohenheim (Baden-Württemberg, Germany), 10-12 November, 1999. Edited by: P. Witzgall. IV + 123 pp. ISBN 92-9067-130-0.

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Working Group „Integrated Protection in Oak Forests“, Proceedings of the meeting at Oeiras - Lisbonne (Portugal), 1-4 octobre 2001. Edited by: C. Villemant & E. Sousa. ISBN 92-9067-142-2 [xvi + 177 pp.]

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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: Dr. Cesare Gessler, Phytomedicine / Pathology
Universitätsstr. 2, CH-8092 ETH Zürich (Switzerland)

IOBC/wprs Commission “Identification Service of Entomophagous Insects”

The “Determination List of Entomophagous Insects”, No. 14 will be published as *IOBC wprs Bulletin* in 2002. The list is edited by Hannes Baur, who succeeded Stephan Vidal as Convenor of the Commission. The Determination List No. 13 had been published in 1997 as *IOBC wprs Bulletin* 20(2).

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Other interesting publications brought to attention of Profile

AMARO, P. (ed., 2001): A protecção integrada da vinha na Região Norte. – 148 pp., 122 Colour-Fig., Projecto PAMAF 6077, Edições ISA (Distribution: ISA/SAPI, Tapada da Ajuda, 1399, Lisboa Codex, Portugal, Tel +21-3653221, Fax +21-3653430) (ISBN 972-8669-009-3).

AMARO, P. (ed., 2000): A produção integrada da pêra rocha. – 145 pp., 133 Colour-Fig., Projecto PAMAF 6040, Edições ISA (Distribution: ISA/SAPI, Tapada da Ajuda, 1399, Lisboa Codex, Portugal, Tel +21-3653221, Fax +21-3653430) (ISBN 972-98085-8-9).

GAUGLER, R. (2002): Entomopathogenic Nematology. – 400 pp., Wallingford (CABI Publishing), £ 75.00 (ISBN 0-85199-567-5).

Agriculture, Ecosystems and Environment 89(1-2), 2002. Special Issue: The Ecology of Field Margins in European Farming Systems (Selected papers from the Workshop at the Eureco'99 Conference, Halkidiki, Greece, September 1999). – 148 pp., Amsterdam (Elsevier Science b.v.), ISSN 0167-8809.

IWGO Newsletter 23 (1), February 2002, 34 pp.

This newsletter contains abstracts of papers presented at the XXIst IWGO-Meeting in Venice. The papers of the *Diabrotica* Subgroup Meeting have been published in the IWGO Newsletter 22(1-2), December 2001. More Information: Harald K. Berger, c/o BFL, Spargelfeldstr. 191, P.O.B. 400, A-1226 Vienna (Austria; e-mail: hberger@bfl.at)

BCPC (ed., 2001): The Biopesticide Manual. 2nd revised and updated edition. – 528 pp., BCPC, £ 105.00 (ISBN 1-901396-29-0). BCPC Publication Sales, Bear Farm, Binfield, Bracknell, Berks RG42 5ZE, UK, e-mail: publications@bcpc.org , <http://www.bcpc.org/bookshop/ref>.

273 biocontrol agents are listed that are used in over 1,000 commercial products. Each product in the manual is listed in one of five categories: micro-organisms, macro-organisms, semiochemicals, natural products, genes.

WATERHOUSE, D.F. & D.P.A. SANDS (2001): Classical Biological Control of Arthropods in Australia. – 559 pp., Victoria - Australia (ACIAR), \$ 60.00 (ISBN 0 642457093).

LOCKWOOD, J.A., M.F. PURCELL & F.G. HOWARTH (eds., 2001): Balancing Nature: Assessing the Impact of Importing Non-native Biological Control Agents (An International Perspective). – 130 pp. (Entomological Society of America: Thomas Say Publications), \$ 43.75, Sales-ESA, 9301 Annapolis Rd., Ste 300, Lanham, MD 20706, USA, e-mail: sales@entsoc.org.

International travel and commerce have contributed to a greater rate of introduction of non-native pest species. Reuniting these pests with their natural enemies is seen by some as natural and safe pest control. But is it? This book explores both sides of this controversial and important debate. A decision to introduce a predator or parasite invariably poses risks that potentially will impact the well-being of many stakeholders and may change the flora and fauna of a state, nation, or continent. The authors engage in a respectful dialogue regarding facts and values, and use their differences and commonalities to try to develop mutually acceptable compromises, or at the very least, discern the least damaging alternatives.

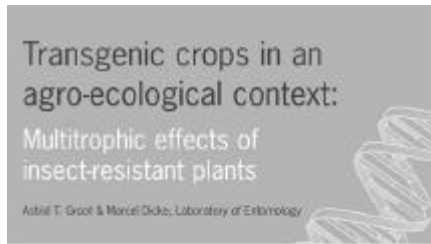
GROOT, Astrid T. & Marcel DICKE (2001): Transgenic crops in an agro-ecological context: Multitrophic effects of insect-resistant plants. – Wageningen (Wageningen University, Laboratory of Entomology, Binnenhaven 7, 6707 PD Wageningen, The Netherlands) (ISBN: 90-6754-652-6).

The report can be ordered by transferring NLG 30.= to: Postbank Arnhem, The Netherlands, account number 9099907 of Entomology – Wageningen UR - Wageningen, mentioning: Report “Transgenic crops” plus your address.

Summary

Commercial use of transgenic crops is rapidly expanding. During the five-year period 1996 to 2000, the global area of transgenic crops increased by more than 25-fold. Also, during this period the number of countries growing transgenic crops more than doubled, increasing from 6 in 1996 to 13 in 2000. Of the top four countries that grew 99% of the global transgenic crop area, the USA grew 68%, Argentina 23%, Canada 7%, and China 1%. The other 1% was grown in the remaining 9 countries, with South Africa and Australia being the only countries in that group growing more than 100,000 hectares or a quarter million acres of transgenic crops. In 2000, the estimated global area of transgenic crops was 44.2 million hectares, which is equivalent to almost twice the area of the United Kingdom (James 2000). Around 75% of the transgenic crops are herbicide tolerant crops. About 10 million hectares (23%) are planted with insect resistant transgenic crops (see for detailed information: James 2000).

In this report, we review possible as well as established effects of insect-resistant transgenic crops in an ecological context. As such commercialized transgenic plants only contain genes from *Bacillus thuringiensis* (Bt) coding for δ -endotoxins, our major focus will be on the effects of these plants. The transgenic plants will not only be encountered by the pest insects against which the plants were developed, but also by non-target organisms, below ground as well as above ground. Below-ground organisms that may encounter the roots of the plants are for example Collembola, nematodes, fungi and bacteria. Above-ground organisms include herbivorous insects as well as carnivorous insects, snails, vertebrate grazers and even humans. As these transgenic plants have been developed specifically to be protected against insects, most likely not only target insects, but also non-target herbivorous insects and beneficial non-target insects are influenced by these plants. From past applications of broad-spectrum chemical control agents we have learned that negative influences on natural enemies can induce population growth of new, even more harmful pest species that had no pest status prior to the pesticide treatment. Therefore, determination of (possible) effects of insect-resistant transgenic plants on non-target insects is of utmost importance for the development of sustainable pest control.



After an introduction on multitrophic interactions in an agro-ecosystem and the history of control of herbivorous insect pests (chapter 2), and a short explanation on molecular plant breeding and the mode of action of Bt-toxins (chapter 3), the following main questions will be addressed:

- What are the (possible) direct and indirect effects of Bt-toxins applied as spray or in a transgenic plant on non-target insects that are present in the same food web as target insects? (chapter 4)
- What is the chance of resistance development in insects to Bt-plants or to Bt-sprays? (chapter 5)

Published studies addressing questions in these areas will be evaluated in detail. Based on the results of these studies, we draw a number of conclusions, that are summarized in chapter 6. In chapter 7 we conclude with a checklist of questions that should be addressed to determine (possible) effects of insect-resistant transgenic crops in an agro-ecosystem.

Astrid T. Groot & Marcel Dicke,
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Wageningen University
Binnenhaven 7
6709 PD Wageningen, The Netherlands

MORITZ, G., D. MORRIS & L. MOUND (2001): ThripsID. Pest Thrips of the World.
– CD-ROM, Victoria - Australia (ACIAR and CSIRO Publ.), \$ 80.00 (ISBN 1-86320296-X).

ISPI Pest Directory

The International Society for Pest Information (ISPI), a recently established non-profit organization, has published a *Pest Directory* database for installation on PCs. The database aims at providing information to scientists working with pests, diseases or weeds. It contains more than 10,000 addresses, obtained mainly from scientific articles, lists of about 9,000 pests and natural enemies, as well as titles of more than 20,000 recent publications, many with abstracts. These lists are also arranged by categories as data trees.

The data are inter-linked which allows the user, for example, to retrieve the natural enemies of a pest, the pests attacking a given crop in a specific region, or the recent publications of a scientist. The database requires about 80 megabytes of disk space and Windows 95 or higher. Many scientists listed in the database have registered with ISPI and have provided literature. The Society is inviting all other professionals active in pest management research to register their names and affiliations and to provide updated and additional information. The Society is planning to issue yearly updates of the database.

Copies of the *Pest Directory*, priced US\$ 55 (including shipping and other costs), can be obtained from the

International Society for Pest Information
c/o B. Zelazny,
Eulerweg 3, D-64347 Griesheim, Germany
e-mail: ispi@pestinfo.org
See also <http://www.pestinfo.org/pestdir.htm>.

Time-Table of forthcoming events

For the Meetings of the IOBC/wprs Working and Study Groups see also the IOBC/wprs homepage:

<http://iobc-wprs.org>

2002

- 11 - 17 August, 2002: 26th International Horticultural Congress & Exhibition, Toronto, Canada. – IHC2002 c/o Congress Canada, 49 Bathurst St., Suite 100, Toronto, Ontario, CANADA; M5V 2P2. Tel +416/504-4500, e-mail: IHCreg@congresscan.com, Web: www.ihc2002.org.
- 11 - 17 August, 2002: 7th International Mycological Congress, Oslo, Norway. – L. Ryvarden, e-mail: leif.ryvarden@bio.uio.no, Web: www.uio.no/conferences/imc7/imc7/intro.html
- 18 - 23 August 2002: 8th International Colloquium on Invertebrate Pathology and Microbial Control / 35th Annual Meeting of the Society for Invertebrate Pathology / 6th International Conference on *Bacillus thuringiensis*, Fos do Iguassu, Brasilien. – <http://www.sipweb.org>.

- 26 - 30 August, 2002: 3rd World Congress on Allelopathy, Tsukuba, Japan.
 – Y.Fujii, National Institute for Agro-Environmental Sciences, Tsukuba Science City, Ibaraki 305-8604, Japan. e-mail: yfujii@affrc.go.jp, Web: iasj.ac.affrc.go.jp
- 27 - 30 August, 2002: International Workshop: Resistance Induction and Clean Technologies Utilization of Plant Pest Management, Turrialba, Costa Rica. – Training, CATIE, 7170 Turrialba, Costa Rica, e-mail: capacita@catie.ac.cr, Web: www.catie.ac.cr
- 31 August - 05 September, 2002: 6th International **IOBC/wprs Workshop** of Pome Fruit Diseases, Lindau/Bodensee, Germany. – Local organizer, non-scientific programme: Peter Triloff, Marktgemeinschaft Bodenseeobst, Albert Maierstr. 6, 88045 Friedrichshafen, Germany: Tel:+49/(0)7541/501030; Mobile 41/(0)7541/501088, Fax:+49/(0)171/8298032, e-mail: peter.triloff@t-online.de
 Scientific programme, abstract book, proceedings: Cesare Gessler, Institute of Plant sciences Universitätsstr. 2 CH -8092 ETH-Zürich Tel: +41/1/6323871 e-mail: cesare.gessler@ipw.agrl.ethz.ch
- 09 - 14 September, 2002: 6th Conference of the European Foundation for Plant Pathology “Disease and Resistance in Plant Pathology”, Prague, Czech Republic. – EFPP 2002, Czech Phyto. Soc., Research Institute of Crop Production, Div. of Plant Medicine, Drnovska 507, 16106 Prague 6, Ruzyně, Czech Republic, e-mail: EFFPP2002@vurv.cz, Web: www.efpp.net/PDF/2%20page.pdf
- 15 - 18 September, 2002: Egg Parasitoids for Biocontrol of Insect Pests, 6th International Symposium, Perugia, Italy. – 6th Symposium, Dept. of Arbor. and Plant Protection - Entom., Borgo XX Giugno 74, 06121 Perugia, Italy. e-mail: eggpar@unipg.it, Web: www.unipg.it/eggpar/
- 15 - 19 September, 2002: 6th International Conference on *Pseudomonas syringae* Pathovars and Related Pathogens, Maratea, PZ, Italy. – N.S. Iacobellis, e-mail: pseudomonassyringae@unibas.it, Web: www.unibas.it/utenti/pseudomonassyringae
- 22^o - 27 September, 2002: Meeting of the **IOBC/wprs Working Group** “Pheromones and other semiochemicals in Integrated Control”, Erice (Sicily: Italy). – Stefano Colazza, Agricultural Entomology Institute, University of Palermo - 13, viale delle Scienze, 90128 Palermo, Italy, Fax: +39(0) 91 423410, e-mail: colazza@unipa.it; Ericelab - laboratory for advanced studies, Via Albertina degli Abati n. 13, 91016 Erice (Trapani) Italy, Tel +39 (0) 923 25999, Fax +39 (0) 923 27293, e-mail: ericelab@trapaniweb.it

- ~30 September - 5 October 2002 (about 2½ days): 9th Meeting of the *Diabrotica* Subgroup of IWGO, Belgrade, Yugoslavia. – e-mail: hberger@bfl.at
- 07 - 13 October, 2002: 7th European Congress of Entomology, Thessaloniki, Greece. – Secretariat, Lab. of Applied Zoology and Parasitology, Aristotle University of Thessaloniki, 540-06 Thessaloniki, Greece, e-mail: matilda@agro.auth.gr
- 09 - 11 October, 2002: Meeting of the **IOBC/wprs Working Group** "Pesticides and Beneficial Organisms", Avignon, France. – Dr. Heidrun Vogt, BBA, Institute for Plant Protection in Fruit Crops, Schwabenheimerstr. 101, D-69221 Dossenheim, Germany, Tel. +49 (0) 6221/8680530, Fax +49 (0) 6221/ 8680515, e-mail: Heidrun.Vogt@urz.uni-heidelberg.de
- 14 - 16 October, 2002: Meeting of the **IOBC/wprs Working Group** "Integrated Plant Protection in Stone Fruit" Biennial Meeting in Opatija, Croatia. – W.G. Convenor: Prof. Piero Cravedi, Istituto di Entomologia e Patologia vegetale, Facoltà di Agraria, Via Emilia Parmense, 84, 29100 Piacenza - ITALY, tel. +39-0523-599234, fax: +39-0523-599235, e-mail: entomo@pc.unicatt.it
Local Organiser: Prof. Ivan Ciglar, Faculty of Agriculture, Department of Agricultural Zoology, Svetošimunska cesta 25, 10 000 Zagreb, Croatia, tel: ++ 385 1 2393858 Fax: ++385 1 2393970, e-mail: iciglar@agr.hr
- 14 - 16 October, 2002: The Role of Genetics and Evolution in Biological Control, Montpellier, France. – E. Wajnberg, INRA, 37 Boul. du Cap, 06600 Antibes, France. e-mail: wajnberg@antibes.inra.fr, Web: www.iobc.agropolis.fr/ symposium2002/
- 21 - 24 October, 2002: International Symposium "Improving Biocontrol of *Plutella xylostella*", Montpellier, France. – C. Lyonnet, CIRAD-DS/midec, TA 179/02, Ave. Agropolis, 34398 Montpellier Cedex 5, France. e-mail: dbm2002@cirad.fr, Web: dbm2002.cirad.fr
- 06 - 08 November, 2002: Meeting of the **IOBC/wprs Study Group** "Integrated Control in Citrus Fruit Crops", Valencia, Spain. – Ferran Garcia-Marí, Dept. Ecosistemes Agroforestals, E.T.S. Enginyers Agrònoms, Universitat Politècnica de València, Camí de Vera 14 , 46022 Valencia, Spain, Tel. 34-9638-79250, Fax. 34-9638-79269, e-mail: fgarciam@eaf.upv.es
- 18 - 21 November, 2002: Brighton Crop Protection Conference 2002 „Pests and Diseases“, Brighton, UK. – BCPC Ltd., 49 Downing St., Farnham, Surrey GU9 7PH, UK, e-mail: md@bcpc.org, Web: www.bcpc.org

04 - 06 December, 2002: 6th International Conference on Pests in Agriculture, Montpellier, France. – S. Kreiter, Directeur de l'UFR Ecologie Animale & Zoologie Agricole, Campus Agro. M /INRA - Unit 9 d'Acarologie, 2 Place Pierre Viala, 34060 Montpellier Cedex 01, France, e-mail: kreiter@ensam.inra.fr

2003

02 - 08 February, 2003: 8th International Congress of Plant Pathology, Christchurch, New Zealand. – ICPP2003 Conference Secretariat, PDG, POBox 84, Lincoln University, Canterbury, New Zealand, e-mail: icpp2003@lincoln.ac.nz, Web: www.lincoln.ac.nz/icpp2003/

17 - 20 March, 2003: 3rd International *Bemisia* Workshop, Barcelona, Spain. – R. Gabarra, Dept. de Proteccio Veg., IRTA-Centre de Cabrils, 08348 Cabrils, Barcelona, Spain, e-mail: rosa.gabarra@irta.es, Web: www.irta.es

02 - 06 June, 2003: New **IOBC/wprs Working Group**: "Multitrophic interactions in soil for integrated plant protection", The Physikzentrum, Bonn-Bad Honnef. – Prof. Dr. Richard A. Sikora, Soil-Ecosystem, Phytopathology and Nematology, Institut für Pflanzenkrankheiten, Universität Bonn, Nussallee 9, D-53115 Bonn, Germany, Fax: +49 (228) 732432, e-mail: rsikora@uni-bonn.de

14 - 16 October, 2003: **IOBC/wprs Working Group** "Integrated Plant Protection in Fruit Crops; Sub-group Soft Fruits": Workshop on Integrated Pest and Disease Management in Soft Fruit Crops, Centre d'arboriculture et d'horticulture des Fougères, CH-1964 Conthey, Switzerland. – Local organizer: Christian Linder, Station fédérale de recherches agronomiques de Changins, CH-1260 Nyon, Switzerland, e-mail: christian.linder@rac.admin.ch;

Scientific secretary of the sub-group: Dariusz Gajek, Research Institute of Pomology and Floriculture, Laboratory of Biological Pest Control, Pomologiczna, 18 str., 96-100 Skierniewice, Poland, e-mail: dgajek@insad.pl

Convenor of IOBC/WPRS Working Group: Jerry Cross, Entomology and Plant Pathology, Department, Horticulture Research International, East Malling, West Malling, Kent, ME19 6BJ, UK, e-mail: jerry.cross@hri.ac.uk

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 33) will be edited in August 2002. Please send your contributions for this issue of *Profile* to me at the latest:

15 July, 2002,

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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Germany

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Fax ++49-6151-407290

In Future: *Profile* only in the Internet

In future *Profile* will be provided mainly on the website of IOBC/wprs. All members of the IOBC/wprs with an e-mail address will get a note at any time when a new issue of *Profile* has been put on the website of IOBC/wprs. This change became necessary because of the high costs for finishing the newsletter *Profile* and mailing it to you. We hope that we will have to print only relatively few copies from the future issues of *Profile*

Therefore, visit the IOBC/wprs website:

<http://iobc-wprs.org>

All of you without an e-mail address and/or access to the Internet should send a note to our treasurer, Cesare Gessler, telling him that you are interested to get a hard copy of *Profile* also in the (next) future. His address:

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