

IOBC NEWSLETTER 65

ORGANISATION INTERNATIONALE DE LUTTE BIOLOGIQUE
CONTRE LES ANIMAUX ET LES PLANTES NUISIBLES (OILB)

SUMMER 1997

IOBC/OILB is affiliated to the International Council of Scientific Unions (ICSU)
as the Section of Biological Control of the International Union of Biological Sciences (IUBS)

A NEW PERMANENT SECRETARIAT FOR THE IOBC

During the last General Assembly of the Global IOBC, September 1996, the Executive Committee discussed the proposal to establish a permanent secretariat of IOBC Global (see Global Newsletter 64). This was an unanimous decision and two offers were thoroughly evaluated last winter. The first one came from the Ministry of Agriculture of Austria, through the « Bundesamt und Forschungszentrum für Landwirtschaft » (BFL), the other came from AGROPOLIS, a French organization for science and education located at Montpellier, France. The two offers were very attractive, but a final decision was made, and I am glad to announce that the IOBC Global has now a permanent Secretariat in Montpellier, France.

For this, a multilingual (English, Spanish and French) secretary has been hired on a half-time basis. Her name is Mireille Montes de Oca. She also has a sound knowledge in

accounting and computing. An office has been installed with the latest communication and computing facilities (telephone, fax, e-mail, laser printers, internet, Web browsers, video-conference, etc.)

All costs are covered by AGROPOLIS, including the publication of the Global Newsletter, twice a year.

Under the guidance of the General Secretary, the permanent secretariat will:

✍ Maintain Global and Regional Sections member lists, and other lists relevant to Global IOBC activities, serving as a central point of contact for members and non-members.

✍ Solicit and compile information about biological control and IPM for Global IOBC Newsletter. M. Montes de Oca will be responsible for drafting, printing and distributing the Global Newsletter to all members.

✍ Provide help in collecting member fees, sending

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Past-President: Dr. E.S. Delfosse, National Biological Control Institute, USDA APHIS, 4700 River Road, Unit 5, Riverdale, MD 20737-1229, USA.

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reminders of late dues and

undertaking book-keeping for Global IOBC and Regional Sections. M. Montes de Oca will also be responsible for updating subscription lists for Global IOBC journals to publishers, checking invoices

A number of reasons have caused a delay in the publication of the journal. This delay is now made up and all volumes will now be published on time. Furthermore, according to a decision made by the Executive Committee during the last General Assembly of the Global IOBC, September 1996, the contract with Lavoisier has been terminated, and volume 42 (1997) will be the last one published under the name ENTOMOPHAGA. A new scientific journal to be called « BioControl » will begin publication in 1998 (see Global Newsletter 64, pages 8-11). Its scope is:

BioControl is the official journal of the International Organization for Biological Control. It includes original papers on basic and applied research in all aspects of biological control of invertebrate, vertebrate and weed pests, and plant diseases. Subject areas covered in BioControl comprise biology and ecology of organisms for biological control, and various facets of their use. Interdisciplinary papers with a

against membership lists.

☞ Assist Global Working Group convenors, managing funds distributed to them.

☞ Carry out any other activities relevant to the Global IOBC and Regional Sections.

For any question relating to the activity of our organization, you can now contact

global perspective on the use of biological control in integrated pest management systems are strongly encouraged. Developments in molecular biology and biotechnology that have direct relevance to biological control will also be considered for publication. Organisms covered by BioControl include parasitoids, invertebrate and vertebrate predators of pest animals and plants, mites, plant and insect pathogens, nematodes, and weeds. In addition to original research papers, BioControl also publishes forum papers and reviews (solicited by the Editor-in-Chief), Letters to the Editor on critical issues, and research notes relevant to biological control. A Management Board has been designed, it is constituted by 6 members:

☞ The Editor-in-Chief of the new journal (see below).

☞ The General Secretary of the IOBC: Dr. E. Wajnberg (INRA Antibes, France).

☞ One WPRS representative: Dr. A.K. Minks (IPO-

this permanent secretariat. Address: IOBC Permanent Secretariat, AGROPOLIS, Avenue Agropolis, 34394 Montpellier Cedex 5, France. Tel: 00 33 04 67 04 75 30 Fax: 00 33 04 67 04 75 99 e-mail :IOBC@agropolis.fr.

E.Wajnberg

DLO, Wageningen, The Netherlands).

☞ One NRS representative:

Dr. E.A. Caeron (Pennsylvania State University, USA).

☞ One representative of other Sections: Dr. S. Pruszyński (Plant Protection Institute, Poznan, Poland).

☞ A publisher representative (see below).

An Editor-in chief has been chosen: Dr. H. Hokkanen, Professor, Department of Applied Zoology, University of Helsinki, Finland. Dr. H. Hokkanen is currently the Head of Co-operative Research Programme on Biological Resource Management at OECD Directorate for Agriculture (Paris, France). For any question relating to the new journal (instruction to authors, how to submit papers, etc.), you can contact Dr. H. Hokkanen at the following address: Dr. H. Hokkanen, editor-in-chief of BioControl, Directorate For Agriculture, OECD, 2, rue André Pascal, 75775 Paris Cedex 16, France.

Tel:00 33 01 45 24 95 03 Fax:00 33 01 45 24 18 90

e-mail:
heikki.hokkanen@oecd.org.

The Management Board had a meeting in Paris, France, June 30 - July 1st. An Edito-

rial Board is currently under definition. It will be constituted by 8 scientists covering the 8 following subjects areas: (1) parasitoids, (2) predators, (3) insect pathology and microbial control, (4) nematodes, (5) weeds, (6) plant diseases, (7) semio-

chemicals, and (8) integrated control strategies. A contract is currently under negotiation with the publisher (likely Kluwer, NL).

E. Wajnberg

REGIONAL SECTIONS

rial Board is currently under definition. It will be constituted by 8 scientists covering

chemicals, and (8) integrated

SEARS

SOUTH EAST ASIAN REGIONAL SECTION



This Regional Section has now a new Council, and its headquarter moved to Australia.

President : Rachel E. McFadyen, Alan Fletcher Research Station, PO Box 36, Sherwood Q 4075, Australia, Fax: 00-61-7-3375-0777, e-mail: mcfadyenre@dnr.qld.gov.au.

Vice-Presidents: Dr. R. Wang (China) and Dr. Md.Y. Hussein (Malaysia).

Secretary/Treasurer: Dr. D. Holdom, CRC for Tropical Pest Management, Gehrman Laboratories, University of Queensland, St Lucia, Qld 4072, Australia. Tel: 00-61-7-3896-9397, Fax: 00-61-7-3365-1855, e-mail: d.holdom@ctpm.uq.edu.au.

Past President: R. Muniapan, Agricultural Experimental Station, University of

am, Mangilao, Guam 96923 USA
Fax: 00-1-671-734-6842,
email: rmuni@uog9.uog.edu.

The new President, Dr. Rachel Cruttwell McFadyen, was one of the founding scientists for the Cooperative Research Centre for Tropical Pest Management in 1990-91, and has been Biocontrol Program Leader since 1994. She initiated and teaches in the successful Biocontrol of Tropical Weeds short course run by the CTPM each year since 1993. She is a strong supporter of classical biocontrol, of weeds in particular, and has recently written a review of Biological Control of Weeds for this year's edition of Annual Review of Entomology.

One Newsletter (Vol. 5, Number 1) was released last spring. Ask Dr. McFadyen for copies.

The SEARS is currently organizing Workshops, Semi-

Share your information: Activities and events within IOBC Regional Sections do interest your colleagues outside the Sections as well. They will most probably not be informed if you do not tell them. You may share information by sending any kind of news to the Secretary General (address on first page).

nars, Meetings and International Conferences:

Training Courses from the CRC for Tropical Pest Management:

« Beneficial Organisms in Pest Management Systems »: 17-28 November 1997

« Biological Control of Tropical Weeds »: 23 March - 3 April 1998

« Applied Acarology »: 13-17 July 1998

All courses will be held in Brisbane, Australia. For further information, contact: CRC for Tropical Pest Management, Gehrman Laboratories, University of Queensland 4072 Australia, Tel: 00-61-7-3365-1851, Fax: 00-61-7-3365-1855.

First International Conference « Parthenium Management »:

University of Agricultural Sciences, Dharwad - 580 00, Karnataka, India: October 6-8, 1997.

Meeting of SEARS Working Group on « IPM in Glasshouse/Protected Crops »:

« Natural Enemy to Biological Control Agent: Evaluating the Process »: 25-28 January 1999, Sydney, Australia.

For further information, contact: Dr. S. Goodwin, NSW Agriculture, PO Box 581, Gosford NSW 2250, Australia,
Tel: 00-61-43-481900,
Fax: 00-61-43-481910,
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goodwis@agric.nsw.gov.au.

ATRS

AFROTROPICAL REGIONAL SECTION



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Vice-President: Dr. Ouayagode-Bakary, DPR, MESRS, B.P. V151, Abidjan, Ivory Coast.

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Fax: 00-242-831337.

Treasurer: Dr. A. Paraiso, B.P. 12625, Niamey, Niger,
Fax: 00-227-73-22-37

NRS

NEARTIC REGIONAL SECTION



This Regional Section also now has a new Council.

President: Dr. T. Kring, Department of Entomology, Agric. Bldg. 321, University of Arkansas, Fayetteville, AR 72701, USA,
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tkring@comp.uark.edu.

Vice-President: Dr. R. O'Neil, Department of Entomology, Purdue University, West Lafayette, IN 47907-1185, USA
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President Elect: Dr. L. Charlet, USDA-ARS, Northern Crop Science Laboratory, Box 5677, State University Station, Fargo, ND 58105-5677, USA,
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Secretary-Treasurer: Dr. R. Wiedenmann, Center for Economic Entomology, Illinois Natural History Survey, 607 East Peabody, Champaign, IL 61820, USA,
e-mail: r-wiede@uiuc.edu.

Corresponding Secretary: Dr. L. Milbrath, Department of Entomology, 202 Hultz Hall, North Dakota State University, Fargo, ND 58105-5346, USA,
e-mail:

milbrath@prairie.nodak.edu.

Past President: Dr. J. Obrycki, Department of Entomology, 10 Insectary Building, Iowa State University, Ames, IA 50011-3140, USA,
e-mail:
jobrycki@iastate.edu.

Two Newsletters (Vol. 19, Number 1 & 2) were produced this year. Ask Dr. Milbrath for copies.

Meetings organized by the IOBC/NRS:

An IOBC/NRS meeting is held each year in conjunction with the Annual Meeting of the Entomological Society of America (ESA), which typically meets in early to mid December. This year the ESA will be meeting on December 14-18 at Opryland Hotel in Nashville, Tennessee, USA. The date of the IOBC/NRS symposium is tentatively set for the evening of Monday, December 15th. Final information regarding the symposium will be posted by the ESA on their Web site:
<http://www.entsoc.org/annmeet.htm>.

IOBC/NRS meeting Title: « IOBC Honoring Distinguished Biological Control Specialist Vernon M. Stern: « Educational and Outreach Needs for Biological Control ».

Summary Statement: The growth of biological control in the past decade has created the need for more educational and extension mate-

rials and approaches. With an expansion of clientele groups, an explosion of new information, and the availability of new electronic technologies we are being challenged to deliver more information to more people. This meeting will be an opportunity to honour a specialist, Dr. Vernon M. Stern, who has done much improve biological control, and it will also provide a broad overview of how the challenge to educate people about biological control is being met.

Organizer and Moderator: Dr. R.J. O'Neil, Department of Entomology, Purdue University, West Lafayette, IN 47907, USA.

T. Kring, President IOBC/NRS

IOBC/NRS response to APHIS Advanced Notice of Proposed Rulemaking:

The following is a comment regarding the referenced document (Docket No. 95-095-1, Advanced Notice of Proposed Rulemaking) on behalf of the Nearctic Section of the International Organization for Biological Control. The specific issues for which comment was requested have been clearly addressed numerous times previously by various groups of biological control workers, either as a part of their comments to the withdrawn proposed rule (Docket No. 93-026-1) or in documents resulting from the numerous meetings regarding these issues over the past 10 years (e.g., « Regulations and

Guidelines: Critical Issues in Biological Control » Browning & Charudattan, 1992). Accordingly, our comments are relatively minor in nature.

The most significant concern of our organization continues to be the lack of direct interaction between APHIS and its customers in the development of regulatory policy, as clearly mandated by Executive Order 12866 and other memoranda from the White House (4 March, 1995 and 22 March, 1995). These documents state customer involvement before publication in the Federal Register is highly desirable and appropriate. We believe APHIS administration continues to interpret these documents in a much more narrow sense than is their clearly stated intent. All of APHIS « official » documents have been crafted within the agency, without a true interaction among its customers. Only the « Strawman », written by the National Biological Control Institute, was written in a somewhat in-teractive fashion in cooperation with the regulated communities.

Plant Pest Status

These five questions provide a good framework for the decision process in defining a true plant pest. It should be noted that *feeding* on plant tissues should be altered to « develop on » as done in the subsequent sections. This is important as many beneficial insect species feed on plants (nectar, pollen, and on tis-

sues/fluids), particularly the parasitic Hymenoptera and hemipteran predators. However, neither of these groups significantly damage plants, nor can they develop on them as a sole source of food. Particularly well-worded is the 4th question (« Does the organism *develop* as a secondary parasite, pathogen or predator of a primary... »). Many predators can « develop » on various natural enemies, but it is not a requirement. As written, there is an allowance for importation of generalists, which could then be evaluated on a case-by-case basis. However, as worded there would be cause for concern with the many important autoparasitoids (where at least some males develop as parasitoids of females of the same species). This could be taken care of by simply altering the question to: « Does the organism develop as a or predator of another species of a primary natural enemy of a herbivore or plant pathogen ».

Indirect Injury or Damage

The preface to this suggestion notes that some groups would support evaluation of all potential effects of introductions into any food web. This is not a widely held opinion among respected scientists, environmental groups, or even regulatory agencies (including APHIS). Clearly this is a non-starter, as the concept of a food web is of a complexity that no such evaluation would ever be completed. Adoption of

such a standard would completely « hand-cuff » biological control in the United States, and thus be a disservice in the protection of American agriculture. We appreciate the consideration of our outrage at the inclusion of biological control agents as being potentially responsible for indirectly causing plant injury. As summarized, this section and interpretation would fairly define what should and should not be considered as plant pests. However, the ramifications of adoption of this narrow outlook is that APHIS would then maintain no responsibilities over movement of pure cultures of natural enemies other than simple verification. This concern is addressed in the next section.

Voluntary Standards This section is exceedingly vague as to what will be proposed. It recently became clear that selected administrators have become enamoured with the « model » used to voluntarily regulate the poultry industry in prevention of disease spread. Although a clear success, application of this model to the biological control « industry » is wholly inappropriate. We urge APHIS administration to bring experts from both industries together before attempting to implement what we believe is an inappropriate model.

The « Strawman », as referred to in the ANPR under this section, is much more

than a voluntary standards document, and encompasses all aspects of movement of organisms for biological control (those considered plant pests for biological control of weeds and those clearly not plant pests). We are in support of the framework described in « Strawman », particularly with reference to the establishment of Technical Advisory Groups to provide additional scientific and customer opinion regarding complex applications or when conflicts of interest arise. There is simply no clear mechanism in place to resolve conflicts of interest regarding biological control of pestiferous arthropods. Similarly, the current APHIS-PPQ-BATS procedure of providing « courtesy permits », while valuable, has resulted in an extreme duplication of efforts by multiple agencies nationally and in each state in order to comply with existing federal regulations (esp. NEPA) relative to release of beneficial organisms into the environment. We urge that APHIS, possibly the National Biological Control Institute, facilitate all customers in complying with the regulatory requirements of the numerous federal regulations regarding releases. This function, i.e. « facilitation », is specifically

the mandate of NBCI and is the stated goal of this third section of the ANPR. It is highly likely that most releases of organisms under newly-issued courtesy permits have not been in compliance with NEPA. APHIS should resume the process of assisting all applicants in preparing Environmental Assessments and should issue the « Finding of No Significant Impact (FONSI) » statements required to comply with NEPA. Duplication of this process in every state is economically unsound.

Releasing Plant Pests

The current mechanisms regulating the importation of plant pests for biological control of weeds provides a more than adequate level of safety for protecting non-target plants. The second through fourth questions seem redundant with the first. Is it possible for an organism which does NOT « feed upon, infect or suppress (or transmit plant pathogens) » non-target plants to be a problem? Some insects « scatter » eggs on non-hosts, and this tactic in and of itself should not be of concern. APHIS should not, as a Federal agency, impose any special restrictions on island releases. Any state, through its Department of Agriculture, has the right to impose regulations which are more strict than those promulgated by APHIS (and this is often done). This is a states-rights issue which APHIS should avoid.

APHIS should not require applicants to submit post-release monitoring data regarding possible attacks on non-target species unless APHIS intends to fully fund such a programme. This « horse out of the barn » investigation has no place in a document with regulatory implications.

Overall we are pleased with the general scope of the Advanced Notice and the apparent movement away from classification of beneficial organisms as plant pests. We continue to urge interactive cooperation among interested parties. We appreciate the opportunity to respond to this Notice.

*prepared by T. Kring,
President IOBC/NRS*

References are made in the article to other documents, e.g. docket no. 95-095-1 (the Advanced Notice of Proposed Rulemaking) as well as the « Strawman » document. Perhaps this could be confusing. These documents are very long. If necessary, interested readers can contact Dr. L. Milbrath, Corresponding Secretary of IOBC/NRS.

NTRS

NEOTROPICAL REGIONAL SECTION



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Fax: 00-54-1-522-8395.

Treasurer: Dr. Vanda Paes Bueno, Departamento de Fitossanidade, Escola Superior de Agricultura de Lavras, Caixa Postal 37, CEP 37200-000, Lavras, MG, Brazil.

Fax: 00-55-35-829-1100.

One Newsletter (Number 10) was produced last December. Ask Drs. Ferrer or Zapater for copies.

Development of a regional standard for the import, export and release of exotic biocontrol agents in Southern America:

COSAVE (Plant Health Committee) is an international committee established by countries of the Southern Cone of South America (*i.e.*, Argentina, Brazil, Chile, Paraguay and Uruguay) to harmonize different regional legislation concerning all aspects of plant health.

COSAVE is composed of the Ministries of Agriculture and the Coordinators of the Plant Health Inspection Services of the participating countries, a technical secretariat and 8 specific work groups, one of which is dedicated to biological control. harmonization of regulations for impor-

tation, quarantine, registration, use and management of biocontrol agents and biopesticides is one of the main objectives of that group. The need for such harmonization became evident with the increased movement of agricultural products across the borders after the establishment of MERCOSUL (Southern Cone Common Market).

The goal of the harmonization is to promote the optimization of the use of regional capability, allowing the establishment of mechanisms to commit the general acceptance of results of evaluations conducted in any of the 5 countries. It should facilitate the implementation of biocontrol in the region, while considering the interests of each country and complying with co-accepted safety standards. In this way, a quarantine laboratory in one country will be allowed to process agents to be used in any country in the region. Also, results of tests of biopesticides conducted in one country will be accepted for registration in other countries, reducing bureaucracy and registration costs.

Information by Dr. E. DeNardo, EMBRAPA, Cx. Postal 69, 13820-000 Jaguariúna S.P., Brazil.

Fax: 00-55-019-867-5225

e-mail: nardo@bdt.org.br.

Biological control against corn pests through a farmer organization. A

way to get a long-lasting agriculture in Venezuela.

The Las Velas valley, located in the centre-west part of Venezuela (State of Yaracruz), regroups about 1500 families of farmers, most of them produce corn, beans, cassava, some others are cattle breeders. Corn production is the main activity, and *Spodoptera frugiperda* Smith and *Mocis* sp. are the main pests observed. Chemical control of these pests represented about 30-40% of the production cost, and the farmers thus decided to switch to an IPM control programme. For this, the laboratory « Servicio Biol.:gico C.A. », in 1991, was the first to release *Telenomus remus* Nixon (Hym.; Scelionidae) to control the eggs of *S. frugiperda*. In 1993, 6000 *Telenomus* units were released (along with some *Trichogramma*) per hectare, over a surface of 43 hectares located at different places in the valley. The parasitism level by *Telenomus* was about 25%, leading to a reduction of 65% of the cost of the pest control. These results were used for an education programme developed by four farmers: J. Lima, R. Urbano, H. Urbano and H. Valera. In return, more than 1000 hectares of corn are now under control using an IPM programme. In the field, technical advice was given by non biological control specialists. Now, farmers are more sensitive to problems related to

the protection of the environment (earth, water and air), to the related social impacts (children education, etc.), and to the scientific researches done in order to find better, economically efficient, agriculture production systems. In 1996, the MECOIVEPAL (« Movimiento Ecologico Cooperativo de Investigacion Las Velas El Palmar ») was created. This is an organization based on the principles developed. Amongst other things, its goal is to build a small-scale laboratory working on *S. frugiperda* in order to produce *Telenomus* adults, and to look for alternative control methods.

Translated from IOBC/NTRS Newsletter number 10.

Meetings organized by the IOBC/NTRS:

First-International Workshop in Biological Control and IPM in the Banana Crop. 11-15 November 1997. Escuela de Agricultura de la Region del Tropico Humedo (EARTH), Guacimo, Costa Rica. The purpose of the workshop would be the formation of a Working Group in IPM of Banana crops. Organized by IOBC/NTRS, Better Bana Project, Fundacion AMBIO, Rainforest, Alliance. For information, contact: Fundacion AMBIO, Apartado Postal # 1487-1002, San Jose, Costa Rica. Tel: 00-506-258-1212, Fax: 00-506-222-3182,

e-mail:
eccook@sol.racsa.co.cr.

Second International Seminar-Workshop: Contributions in Biological Control in the Sustaining Agriculture in Peru. April 20-24, 1998, Lima, Peru. Organized by NOBIV, Pan Para todo el Mundo (PPM). For information, contact: Dr. M. Miller, 2622 Lince, Apartado Postal 11-0581, Lima, Peru. Tel: 00-51-14-421-0826, Fax: 00-51-14-440-4359, e-mail: Postmaster@raaa.org.pe.

F. Ferrer, President of the IOBC/NTRS

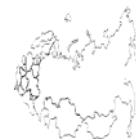
Publications:

El Control Biol.:gico en America Latina. 142 pages, edited by Dr. M.C. Zapater. This book was published recently. Among other things, this book regroups several works presenting the current situation, perspectives and historical aspects of biological control in Latin America. For any further information, contact Dr. M.C. Zapater.

EPRS

EAST PALAEARTIC REGIONAL SECTION

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Vice -President: Dr. S. Pruszynski, Plant Protection Institute, 60-138 Poznan, Miczurina str. 20, Poland.
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General Secretary: Dr. A. Orlinski, Present address: EPPO, 1, rue Lenotre, 75016 Paris, France.

The IOBC/EPRS had its 7th General Assembly, in Poznan (Poland) May, 12-17 1997. This General Assembly was an occasion to organize a symposium entitled « 20 years of cooperation. Achievements and perspectives ». Dr. J. Waage was there, representing the Global IOBC Council. On Thursday, May 15, a new council was elected. Besides the new President, Vice-President and General Secretary, the Executive Committee has four new members: Dr. I. Eke (Ministry of Agriculture, Budapest, Hungary), Dr. N. Atanasov (Institute of Plant Protection, Sofia, Bulgaria), Dr. V.F. Samersov, Belorussian Institute of Plant Protection, Minsk, Belorussia), and Dr. V.A. Pavliushin, All-Russian Institute of Plant Protection, St. Petersburg, Russia). IOBC welcomes the new officers of EPRS. We hope that the new duties will give you satisfaction and success.

WPRS

WEST PALEARCTIC REGIONAL SECTION



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Treasurer: Dr. J. Huber, Institute for Biological Pest Control, Heinrichstr. 243, 62287 Darmstadt, Germany.
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One Newsletter (PROFILE number 23) was produced last December. A new one is now in preparation and should be distributed soon. Ask Dr. A.K. Minks for copies: Dr. A.K. Minks, Research Institute for Plant Protection (IPO-DLO), P.O. Box 9060, 6700 GW Wageningen, The Netherlands.
Fax: 00-31-317-41-0113,
e-mail: a.k.minks@ipo.dlo.nl.

Organization of the next

General Assembly:

The General Assembly of the IOBC/WPRS, organized every 4 years, is a way to have meetings for the council and all working groups of the Regional Sections. During the General Assembly, the activity of the Regional Section for the 4 previous years is presented with the proposed programme for the 4 coming years. Moreover, a new council is elected. The 7th General Assembly was held in Lisbon, Portugal (October 1993). The next one, the 8th, will be organized in Vienna, Austria, end of September 1997. The local organizer will be Dr. H.K. Berger, the Treasurer of the Global IOBC. Before the beginning of the General Assembly, the Executive Committee and the council will meet on Sunday 28 September. On Monday 29 September, another meeting will include convenors of IOBC/WPRS Working Groups. The General Assembly itself will be organized September 30, and October 1st. The first day will be devoted to scientific conferences and to the election of the new council. During the second day, the activities of the different working groups will be presented. On October 2nd, a sightseeing tour will be organized in the Wachau valley.

S.H. Poitout, Secretary General of the IOBC/SROP

WORKING GROUPS (WG)

WG QUALITY CONTROL of MASS-REARED ARTHOPODS

Chairman: Dr. N.C. Leppla, University of Florida, Institute of Food and Agricultural Sciences, 2807 Binion Road, Apopka FL 32703, USA.
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Fax: 00-01-352-392-9359,
e-mail: ncl@icon.apk.ufl.edu.

Co-chairman: Dr. M. Benuzzi, INTRACHEM Italia SRL., Via XXV Aprile 44, 24050 Grasso bio (Bergamo), Italy.
Fax: 00-39-35-33-53-34.

The next International meeting will be held in Cali, Colombia, March 1-4, 1997. This will be a joined meeting with the 5th International symposium on « Egg Parasitoids » (see WG on *Trichogramma* and other egg parasitoids, below). The meeting will have sessions on (1) the importance of quality control in the current medfly eradication programmes in California and Florida, USA, (2) international

biological control industry quality standards and procedures, (3) biological control of arthropod pests in protected culture, (4) food industry-driven quality control standards for natural enemies, and (5) the screwworm eradication programme's final push into Panama. Contact : Dr. N. Leppla for more information.

The WG is currently considering a new structure that would incorporate *in vitro* rearing of natural enemies.

This should be discussed soon by the Global IOBC council.

WG BIOLOGICAL CONTROL of PLUTELLA

Co-chairman: Dr. A.M. Shelton, Department of Entomology, Cornell University, New York State Agricultural Experimental Station, Geneva, NY 14456, USA.
Fax: 00-1-315-787-2453,
e-mail: ams5@cornell.edu.

Co-chairman: Dr. A. Sivapragasam, Strategic, Environment and Natural Resources Centre, MARDI, GPO Box 12301, 50774, Kuala Lumpur, Malaysia.
Fax: 00-60-3-948-7639,
e-mail: sivasam@mardi.my.

Co-chairman: Dr. D.J. Wright, Department of Biology, Imperial College at Silwood Park, Ascot, Berkshire SL5 7PY, UK.
Fax: 00-441-34-429-4339,
e-mail : d.wright@ic.ac.uk.

The Third International Workshop on The Management of Diamondback Moth and Other Crucifer Pests took place in Kuala Lumpur, Malaysia from Oct. 29 to Nov. 1, 1996. The Workshop was organized by the Malaysian Agricultural Research and Development Institute and the Malaysian Plant Protection Society in collaboration with CAB International (Regional Office of Asia), International Institute of Biological Control,

Department of Agriculture Malaysia and the Silwood Centre for Pest Management. The meeting consisted of lead papers for the day, individual papers and posters. Specific sessions dealt with biological control of the diamondback moth (DBM). An overview of the parasitoids was presented for South Africa (R. Kfir), Hangzhou, China (SS. Liu *et al.*), the Philippines (O. D. Ventura) and Malaysia (Syed A. R. *et al.*). Kfir's paper noted that the large number of parasitoid and hyperparasitoid species associated with DBM in South Africa indicated a very long association between the parasitoids and the pest in the region. In addition, the fact that 175 species of Brassicas have been recorded in South Africa is further indication that DBM might have evolved in southern Africa. Based on these thoughts, Kfir indicated that a search for effective parasitoids might best focus on this region.

Sessions on biologically-based technologies for DBM contained presentations on the host specificity of *Cotesia plutella* (P. J. Cameron *et al.*), the effect of nectar producing plants on *Diadegma insulare* (A. B. Idris and E. Grafius), and characteristics of parasitism by *Oomyzus Jokolowskii* (N. S. Talekar and W. J. Hu). A discussion of the present status of *Bacillus thuringiensis* (Bt) in India was reported by G. Shankar *et al.*, and the occur-

rence of a granulosis virus of DBM in India was reported by R. J. Rabindra . A. M. Shelton reported on the status of resistance to the various Bt toxins by DBM throughout the world while S. S. Liu and G. M. Zhang reported results of toxicity studies of Bt on DBM eggs. The pre-mortality effects of *Zoophthora radicans* infection on the diamondback moth was presented by M. J. Furlong *et al.* and A. M. Shelton presented results indicating that *Beauvaria bassiana* can be an effective control agent against DBM in both the greenhouse and field. M. J. Furlong and J. K. Pell described recent studies on the use of pheromone traps as a method of disseminating *Z. radicans* as a control agent against DBM.

Experiences in managing DBM in various countries were presented. P. Ooi presented a lead paper describing the need to bring low-technology, applied science for biological control to the farmers in the tropics. S. Heisswolf *et al.* discussed the role of farmer participation in the development of an IPM programme in southern Queensland, while W. Loke *et al.* (Malaysia), J. Eusebio (Philippines), M. Shepard (Indonesia), B. Loehr (Central Kenya), G. Kibata (Kenya), L. Trinh (Vietnam) K. Biever (United States) discussed the status of IPM programmes for DBM in their respective countries. R. Verkerk and D. Wright

noted the need for a better understanding of the multi-trophic interactions of DBM, its enemies and hosts if we are to have a more sustainable management of DBM in the future. In addition to discussions of using more traditional biological control methods, papers were also presented on some of the new 'natural' insecticides derived from bacterial fermentations as well as antifeedants derived from plants and use of the sterile insect techniques.

This meeting was the Third Workshop on DBM and other pests. The Fourth Workshop is scheduled in 5 years and will be hosted by the Australians. The hundreds of attendants at this workshop were grateful to our Malaysian hosts for their efforts in running this excellent meeting.

Tony Shelton

WG FRUIT FLIES of ECONOMIC IMPORTANCE

Chairman: Dr. M. Aluja, Instituto de Ecologia, A.C., Departamento de Ecologia y Comportamiento Animal, Apartado Postal 63, Xalapa, Veracruz, Mexico 91000. Fax: 00-52-28-186000, Fax: 00-52-28-121897, e-mail: alujam@sun.ieco.conacyt.m.

Co-chairman: J. Piedade-Guerreiro, Div. Luta Biol., Inst. Invest. Cient. Trop., Junquiera 14, 1300 Lisboa, Portugal,

Fax: 00-351-364-20-08.

Co-chairman: B.A. McPherson, Dept. Entomology, Pennsylvania State University Univ. Park, PA 16802, USA, Fax: 00-1-814-856-30.

Meetings to be organized:

« **Evolution of Fruit Fly (Diptera :Tephritidae) Behaviour** ». Xalapa, Veracruz, Mexico, February 16-21,1998. 27 invited speakers coming from 14 countries will discuss on recent advances on fruit fly classification, phylogeny, evolution and behaviour.

Publications:

The IOBC Fruit Fly Working Group Newsletter is now under preparation and should be distributed during the second semester of 1997. Contact Dr. M. Aluja for any further information.

M. Aluja

WG ECOLOGY of APHIDOPHAGA

Chairman: Dr. D. Horn, Department of Entomology, Ohio State University, 1735 Neil Ave., Columbus OH 43210-1220, USA. Fax: 00-1-614-292-2180.

Co-chairman: Dr. R. Chambers, Entom., AFRC Inst. Hort. Res., Worthing Road, Littlehampton, W. Sussex BN 17 6 LP, UK.

Co-chairman: Dr. I. Hodek, Inst. of Entomology, Czech Academy of Sciences, Branisovska 31, 37005, České Budejovice, Czech Republic.

**WG CHROMOLAENA
ODORATA**

Chairman: Dr. R. Muniappan, Agricultural Experimental Station, University of Guam, Mangilao, Guam 96923 USA,
Fax: 00-1-671-734-6842,
e-mail: rmuni@uog9.uog.edu.

The Fourth International Conference on Biological Control and Management of *Chromolaena odorata* was held at the Atria Hotel, Bangalore, India, October 14-18, 1996. This workshop was sponsored by the International *Chromolaena* network, IOBC Global Working Group on *Chromolaena* and the Association for Advancement of Pest Management in Horticultural Ecosystems (AAPMHE).

The purpose of this workshop was to provide a forum for the scientists working on various aspects of *Chromolaena* including its spread, ecology, allelopathy, management, and different types of control. It was also planned to develop a global project on the management of this weed. A Newsletter (Number 11) was produced by Dr. Muniappan. The recommendations of this Fourth International Conference are presented. Ask Dr.

Muniappan for copies. A Web site is also available on the subject : <http://www.ctpm.uq.edu.au/Programs/Chromolaena/siamhome.html>.

R. Muniappan

**WG TRICHOGRAMMA AND
OTHER EGG PARASITIDS**

Co-Chairman: Dr. S.A. Hassan, Institute for Biological Pest Control, Heinrichstr. 243, 64287 Darmstadt, Germany, Tel: 00-49-6151-407223, Fax: 00-49-6151-407290, e-mail : biocontrol.bba@t-online.de.

Co-Chairman: Dr. E. Wajnberg, INRA, Unité de Biologie des Populations, 37 Blvd. du Cap, 06600 Antibes, France.
Tel: 00-33-04-93-67-88-92,
Fax: 00-33-04-93-67-88-97,
e-mail: wajnberg@antibes.inra.fr.

This WG was created 15 years ago, on May 6, 1982. At that time, most of the people concerned were working mainly on *Trichogramma*. This is the reason why this group was entitled « *Trichogramma* and other egg parasitoids ». Now, a lot of different laboratories, all over the world, are working on several interesting aspects of different parasitoid families attacking lepidopterous eggs (e.g., Scelionidae, Mymaridae) including systematics, biochemistry, ecology, rearing, field application, etc. Thus, the former name progressively appeared to give

too much emphasis on Trichogrammatidae.

Therefore, from now on, the WG will have a new, more simple and convenient name: « Egg Parasitoids ».

5th International symposium on « Egg Parasitoids »

This International meeting will be organized in Cali, Colombia, March 4-7, 1998. It will be held in conjunction with the next International Meeting of the IOBC WG on Quality Control of Mass-Reared Arthropods. Overlapping sessions are planned between these two meetings on March 4, 1998. 7 topics will be covered: (1) biosystematics and genetics, (2) host relation and biology, (3) physiology and behaviour, (4) ecology and population dynamics, (5) rearing (both *in vivo* & *in vitro*), production and release, (6) compatibility (environmental, biological, and chemical), and (7) effectiveness and assessment. Abstracts (200 words max.) should be sent, before November 30, 1997, to Dr. S.A. Hassan, Germany (see address above). Presentations will be in English and no longer than 15 min. The publication of the proceedings is still under discussion. Instructions for the manuscript will be sent two months before the meeting only to those participants who have registered. For registration, contact Dr. S.A. Hassan.

E. Wajnberg

Trichogramma News

The 9th issue of *Trichogramma News* was distributed late in 1996. Copies are still available, Ask Dr. Hassan for copies. The issue includes (1) the first announcement of the 5th international symposium (see above), (2) abstracts of current research projects on egg parasitoids, and (3) short contributions on problems related to research. The newsletter also includes a table on the occurrence of egg parasitoids, address list of about 200 colleagues in about 50 countries working in this field as well as a list of recently published articles on the subject. A « Questionnaire » to be completed by the members is also included, colleagues returning this completed Questionnaire are included in the mailing list of the Working Group.

S.A. Hassan

WG IWGO - OSTRINIA AND OTHER MAIZE PESTS

Chairman: Dr. H.K. Berger, Federal Office and Research Center for Agriculture, Institute for Phytomedicine, Spargelfeldstr. 191, P.O.B. 400, 1226 Vienna, Austria, Fax: 00-43-1-28816-5225, e-mail: hberger@relay.bfl.gv.at.

After having just a selected number of members and several « associate » and « guest members », the In-

ternational Working Group on *Ostrinia* (IWGO) is now open to all scientists dealing with pests in maize. The European Corn Borer (*Ostrinia nubilalis* Hbn.) is not only the main task but also any other pest occurring in maize. Within the last years, *Diabrotica virgifera virgifera* has become the most important pest IWGO is dealing with.

Organized Meetings and Workshops:

After the last meeting (*i.e.*, the XVIIIth IWGO General meeting) in Turda, Romania, in 1995, two more meetings took place:

- « IIIrd joint IWGO Workshop and EPP0 ad hoc Panel on *Diabrotica virgifera virgifera* », held in Zagreb, Croatia, October 14 -15 1996. 50 participants were present coming from 12 countries.

- « Joint IWGO/FAO meeting », held in Vienna, Austria, January 20 -21, 1997. The goal was to establish a FAO Research Program in order to control *Diabrotica virgifera virgifera* in Europe. 16 participants were present coming from 7 countries (Serbia, Croatia, Bosnia & Herzegovina, Hungary, Romania, Austria and SA) and from FAO and APHIS.

Two other meetings should be organized this year:

- « XIXth IWGO meeting ». Planned to take place in Braga, Portugal, August 30 until September 5, 1997.

- « IVth joint IWGO Workshop and EPP0 ad hoc Panel on *Diabrotica virgifera virgifera* ». This meeting will take place in Gödöllő, Hungary, October 29-30, 1997.

Publications:

Several publications are regularly produced and issued by the WG. The last IWGO Newsletter (Vol. 16, number 2, 34 pages) was issued in November 1996. Ask Dr. Berger for copies.

Major results, progress achieved:

One of the most outstanding events for IWGO, within the last years, was the appearance of a new maize pest in Europe: the Western Corn Root Worm (WCR) *Diabrotica virgifera virgifera* IWGO found for the first time in Europe in 1992 by Dr. F. Baca. IWGO reacted with several measures: (1) Drs. Baca and Berger published several papers on this topic in order to make this problem known throughout Europe (and the world), (2) EPP0 was informed and put *Diabrotica* on the A1 list, and (3) several meetings, workshops and Panels took place in order to start as soon as possible a working programme to fight against this pest. In the meantime, a FAO

project was approved by FAO and the concerned governments (Hungary, Croatia, Romania and Bosnia & Herzegovina) will start this summer (1997). The project is supported not only by FAO but also by the USDA, US, by universities and by several European governments.

Dr. R. Edwards, Purdue University, La Fayette, Indiana, USA was designated chairman of the *Diabrotica* subgroup of IWGO.

H.K. Berger

PROPOSAL FOR A NEW WG ON WATER HYACINTH

Water hyacinth (*Eichhornia crassipes*) remains the most widespread and important aquatic weed in Africa. It is causing widespread severe degradation of aquatic ecosystems and limiting their utilization. Although integrated control has had considerable success in many parts of the tropical world, and there are numerous initiatives to implement them in many parts of Africa, infestations of water hyacinth on the continent are increasing. Information on new infestations is also being received

include: (1) lack of awareness on the part of the authorities in national programs of the scale of the problem, (2) the low priority given to water hyacinth control in the face of other socio-economic problems, (3) lack of information on the latest and most suitable control methods, and (4) lack of resources and infrastructure to respond to the problem.

A number of the problems highlighted should be alleviated by coordinating the research effort on water hyacinth control and improving the dissemination of results. This would prevent duplication of time consuming and costly research efforts on water hyacinth control. A Water Hyacinth WG is thus proposed to be entrusted with this responsibility. It is suggested that the venue for a meeting of the WG be near a river or lake with a typical water hyacinth problem.

During a recent meeting in Washington, DC, USA, Dr. Zimmermann was elected to discuss issues related to the biological control of water hyacinth. Dr. K. Harley (CSIRO, Brisbane, Australia) and Dr. T. Center (USDA, FL, USA) were co-elected to

be evaluated and discussed on a continuous basis and where new priorities can be identified. The aims of the WG can thus be listed as follows:

- To promote the exchange of information and experience on the biological control of water hyacinth on a global level.
- To identify shortcomings in research.
- To organize regular working group meetings and to publish the results of the meetings in edited proceedings.
- To promote biological control as a viable option for sustainable control of water hyacinth.
- To publish information and guidelines on the biological control of water hyacinth that will lead to its wider application, particularly in developing countries.
- To use the proposed meetings for the election of WG Committee members.
- To publish a water hyacinth newsletter.

Please direct comments and suggestions to: H.G. Zimmermann, President of the IOBC/ATRS. Agricultural Research Council, Plant

SCIENTIFIC EVENTS

on a regular basis. The necessary urgency for implementing water hyacinth control programmes in Africa has not matched the rapid colonization of aquatic ecosystems. Reasons for this

assist Dr. Zimmermann in managing a WG on this subject. The proposed Global IOBC WG could be considered as a forum where progress on research on the biological control of water hyacinth can

Protection Research Centre, Weeds Research Division, Private Bag X134, Pretoria 0001, South Africa, Tel: 00-27-12329-3276, Fax: 00-27-12329-3278, email: riethgz@plant2.agric.za

« 9th Workshop of the Main Subject Area Biological Weed Control of the European Weed Research Society (EWRS) »

Held 17 and 18 February 1997, Meeting Hall, Technical University of Braunschweig, Germany.

The EWRS Workshop was organized at the request of Prof. Dr. H. Müller-Schärer, « Institut de Biologie Végétale », University of Fribourg, Switzerland, by Dr. C. Boyle, Institute of Microbiology, Technical University of Braunschweig, and Dr. T. Eggers, Weed Research Institute, Federal Biological Research Centre for Agriculture and Forestry (BBA), Braunschweig, Germany. The organizing committee was pleased to welcome 65 participants from 12 nations. A brochure containing the programme, abstracts of the contributions, and an address list of the participants is available.

A third of the one-and-a-half day Workshop was devoted to the perspective of biological control of weeds belonging to the genera *Orobanche* and *Striga*. Parasitic plants such as these are gaining significance as weeds, due to the growing intensification of Mediterranean and subtropical plant cultivation. For this reason, the European working group has taken up work on this subject. The introduction was held by the FAO Weed Officer Dr. R.E. Labrada. Under the chairmanship of Dr. J. Sauerborn, University of Giessen, and Dr. J. Kroschel, University of

Hohenheim, 7 reports concerning pathogens and phytophagous fauna attacking these weed species were presented. Among the general contributions about biological weed control, attention was particularly focused on the presentation by Dr. E. Bode (Biology Division, BBA Department for Plant Protection Products and Application Techniques) on regulations (e.g., FAO « Code of Conduct ... Biological Control Agents ») and laws governing import and release of agents for biological control of pathogens. Special attention was drawn to the proposal of the European Council concerning recommendations covering biodiversity. This proposal could seriously limit the possibility of introducing biological agents.

Eight oral presentations and 5 posters concerned European investigations of classical biological weed control overseas: *Parthenium hysterophorus*, *Salsola kali* and *Tripleurospermum perforatum* in North America, *Hieracium pilosella* in New Zealand and North America, *Cynoglossum officinale* in Canada and the United States, as well as *Chondrilla juncea* and *Cytisus scoparius* in Australia. Investigations of native weeds and their antagonists in central European crops were the topic of 7 further presentations (amongst others *Chenopodium album* / *Ascochyta caulina*, *Amaranthus* spp., *Convolvulus arvensis* / *Phomopsis convolvulus*, *Rumex obtusifolius*). Possible

uses of control agents (as well as formulation of biological pesticides with bioencapsulation) were discussed.

Dr. P. Hatcher, Department of Agricultural Botany, University of Reading, was elected as the new chairman of the EWRS Main Subject Area.

A visit to the BBA (Institute for Plant Protection of Field Crops and Grassland, Institute for Plant Protection in Horticulture, Institute for Weed Research) met with great interest among the participants. After the workshop, at least 30 colleagues, currently working on the biology and ecology of *Cirsium arvense*, followed the invitation of Dr. A. Gassmann, International Institute of Biological Control, Delémont CH, to meet for an exchange of experiences and ideas.

After closing of the workshop, the working groups *Chenopodium album*, *Orobanche* spp., and *Senecio vulgaris* of the COST Action 816 Biological Weed Control in Europe met at the BBA to discuss their working programmes.

The programme of the meeting and additional information on projects of biological control of weeds are available on Internet: <http://www.unifr.ch/plantbio/cost816>. For a written version of this report please contact: heinz.mueller@unifr.ch.

*Drs Christine Boyle
and Thomas Eggers
Braunschweig, Germany
March 1997*

« **10th European Weed Research Society Symposium** », Poznan, Poland, 22-26 June 1997. Contact: EWRS, symposium '97 c/o Bba. Inst. F. Unkrautforschung, Messeweg 11-12, 38104 Braunschweig, Germany.

Tel: 00-49-531-999-3903,
Fax: 00-49-299-3010.

« **3rd International Scientific Seminar of Plant Protection** ». Palacio de las Convenciones, Ciudad de la Habana, Cuba, 23-27 June 1997. In this forum, scientists, extension workers, professors and administrators from different areas of the world will discuss the most recent results and problems and the current trends in the field of plant protection. For information, contact: Dr. L.M.D. Rodriguez, Executive Secretary, CENSA, Apdo. 10, San José de las Lajas, La Habana, Cuba, CP 32700.
Tel & Fax: 00-53-64-6-3206 (ext. 45),
e-mail: censa@cenai.cu.

« **Management Development in the Agricultural Sector in Arab Countries** ». Bradford, UK, 24-26 June 1997. For information, contact: Dr. M.J. Alawi, Convenor, Arab Management Unit, University of Bradford Management Centre, Emm Lane, Bradford, West Yorkshire, BD9 4JL, UK
Tel: 00-441-274-384335,
Fax: 00-441-274-481993.

« **XI International Entomophagous Insects Workshop** ». University of Wisconsin, Madison, Wisconsin USA, July 12-16, 1997. Contact: Dr. M. Strand, e-mail: mrstrand@facstaff.wisc.edu.

« **American Phytopathological Society** ». Annual Meeting, Rochester, NY, USA, 9-13 August, 1997. Contact: APS, 3340 Pilot Knob Road, St. Paul, MN 55121-2097, USA.
Tel: 00-1-612-454-7250,
Fax: 00-1-612-454-0766,
e-mail: zzz6882@vz.cis.umn.edu.

« **Society for Invertebrate Pathology** ». Annual Meeting, Banff, Alberta, Canada, August 24-29, 1997. The 30th annual meeting of the Society for Invertebrate Pathology will take place at the Banff Centre, Alberta, Canada. The majority of the Symposia and Contributed Papers will deal with many aspects of the development of pathogens as microbial control agents on insects. For information, contact: Dr. M. Goettel, AAPC, Lethbridge Research Center, P.O. Box 3000, Lethbridge, AB T1J 4B1, Canada.
Tel: 00-1-403-317-2264,
Fax: 00-1-403-382-3156,
e-mail: goettel@em.agr.ca.

« **Protection des Cultures et Qualité de l'Alimentation. Répondre aux Attentes des Consommateurs** ». University of Kent, Canterbury, UK, 17-19 September 1997. For information, contact: Con-

ference Associated and Services International Limited, 4 Cavendish Square, London, W1M 0BX, UK.

Tel: 00-441-71-499-0900,
Fax: 00-441-71-629-3233.

« **16th Asian-Pacific Weed Science Society Conference** ». Kuala Lumpur, Malaysia. September 1997. Contact: B.H. Bakar, Botany Dept., University of Malaya, 59100, Kuala Lumpur, Malaysia.
Tel: 00-60-3-759-4351,
Fax: 00-60-3-759-4178,
e-mail: baki@botany.um.edu.my.

« **Beneficial organisms in pest management systems** ». Brisbane, Australia, 17-28 November 1997. This is an intensive, international short course that aims to provide participants with an understanding of the theory and value of beneficial organisms in pest management. For further information, contact Dr. L. Grbin, CRC for Tropical Pest Management, Gehrman Laboratories, The University of Queensland 4072, Australia.
Tel: 00-61-7-3365-1874,
Fax: 00-61-7-3365-1855,
e-mail: L.Grbin@ctpm.uq.edu.au.

« **5th International Conference on Plant Disease** ». Tours, France, December 2-5, 1997. Management of resistance genes, Plant disease control, Advances in fungicidal control. For information, contact: ANPP, 6

Blvd. de la Bastille, 75012
Paris, France.
Tel: 00-01-43-44-89-64,
Fax: 00-01-43-44-29-19.

« **5th International Symposium on Fruit Flies of Economic Importance** ».

Penang, Malaysia, June 1-5, 1998. Among the topics to be discussed: Biosystematics and biodiversity, semiochemicals and behaviour, molecular biology, genetics and biotechnology, natural enemies, postharvest and quarantine, control and management, ecology, biochemistry and physiology, beneficial fruit flies. For information, contact: 5th International Symposium on Fruit Flies of Economic Importance, School of Biological Sciences, University Sains Malaysia, 11800 Penang, Malaysia,
Tel: 00-60-4-8603961,
Fax: 00-60-4-6565125,
e-mail: fruitfly@usm.my.

« **2nd International Conference on Bemisia and Geminiviral Diseases** ». San Juan, Puerto Rico, 7-12 June, 1998. The goal of the conference is (1) to improve scientific understanding of whitefly vectors and geminiviruses, (2) to improve scientific understanding of vector-pathogen-host plant interactions, (3) to stimulate interaction between scientists, regulatory officials, industry, growers and other interested parties, (4) to share advances in whitefly and disease management strategies, (5) to support global food security and environmental protection, and (6) to discuss

new emerging problems associated with *Bemisia* and geminiviral diseases. For information, contact: Mrs. D. Guy, Secretary-Treasurer, 2nd International Workshop on *Bemisia* and Geminiviral Diseases, 2120 Manden Road, Orlando, FL 32803-1419, USA.

Tel: 00-1-407-897-7304,
Fax: 00-1-407-987-7337,
e-mail:
rmayer@ix.netcom.com.

« **International Conference of Integrated Pest Management (IPM) - Theory & Practice, Developing Sustainable Agriculture** ». June 15-20, 1998, Guangzhou, China. This conference will be devoted to recent achievements and developments in the integrated pest management (IPM) for developing sustainable agriculture. The conference will emphasize exchange of experience in both theoretical research and technological implementation. This will be addressed within the general frame of IPM, to include noxious animals, plants, microorganisms of agriculture, horticulture and forestry. For information, contact: Organizing Secretariat, Guangdong Science & Technology Exchange Centre with Foreign Countries, Guangdong Science Hall, DongFeng, Middle Road, Guangzhou 510033, China.

« **10th International Congress of Acarology** ». 5-10 July 1998, Canberra, Australia. For further information, contact: 10th Int. Cong. of

Acarology, Australian Convention & Travel Services Pty Ltd., GPO Box 2200, Canberra ACT 2601, Australia.
Tel: 00-61-6-257-3299,
Fax: 00-61-6-257-3256,
email: acarology@acts.ccmil.compuserve.com

« **XIVth International Plant Protection Congress** ». Jerusalem, Israel, July 25-30, 1999. Plant protection towards the third millennium - Where chemistry meets ecology. The congress will be dedicated to the memory of Prof. David Rosen. For information, contact: XIVth International Plant Protection Congress, Congress secretariat, P.O. Box 50006, Tel Aviv 61500, Israel.
Tel: 00-972-3-514-0000,
Fax: 00-972-3-514-0077,
e-mail: IPPC@Kenes.com.

« **XXI International Congress of Entomology 2000** ». Foz do Iguacu, Brazil. For further information, contact: c/o Dr. D.L. Gazzoni, Caixa Postal 231, 86001-970 Londrina-PR, Brazil.

Tel: 00-55-43-3716213,
Fax:00-55-43-3716100,
e-mail: gazzoni@cnpso.embrapa.br.

« **Vedalia II** » meeting is being planned and will try to coincide with the Western

Hemisphere Biological Control meeting. Meeting tentatively planned for 2000 in Bozeman, MT, USA. Contact: Dr. T. Kring, President of the IOBC/NRS, for more information

BOOKS

Biological Control of Weeds in the West. Rees N.E., P.C. Quimby Jr., G.L. Piper, E.M. Coombs, C.E. Turner, N.R. Spencer & L.V. Knutson (eds.). This 342 page book, illustrated with colour photographs, profiles 32 noxious rangeland weeds and 90 natural enemies. The book is published in a loose-leaf binder format for incorporation of updated pages. Published by the Western Society of Weed Science, in cooperation with USDA-ARS, Montana Dept. of Agriculture, and Montana State University. US\$20, Shipping US\$5. Order from: Western Society of Weed Science, P.O. Box 10342, Helena, MT 59604, USA.

Biological Control Introductions: Opportunities for Improved Crop Production. Proceedings of a symposium held at the Brighton Metro-pole Hotel, November 18, 1996. (Symposium Proceedings no 67, British Crop Protection Council). The symposium was chaired by Dr. J.K. Waage, President of the Global Iobc. Order from: BCPC Publications Sales, Bear Farm, Binfield, Berks, RG42 5QL, UK.
Tel: 00-441-118-934 2727,
Fax: 00-441-118-934-1998.

Proceedings of the Cornell Community Biological Control Conference, Held on 11-13 April 1996, are now available on the Web at the following URL:
<http://www.nysaes.cornell.edu/ent/bcconf/>

Pure and Applied Research in Neuropterology. Edited by Canard M., H. Aspöck & M.W. Mansell, 341 pages. This book, published recently, is the proceedings of the 5th International Symposium on Neuropterology, held in Cairo, Egypt, 2-6 May, 1994. Eight subject areas were covered: Phylogeny, Systematics, Ecology, Faunistics, Behaviour, Ecobiology, Distribution, Biology. Order from: Dr. M. Canard, 47, Chemin Flou de-Rious, 31400 Toulouse, France.

Lutte Intégrée Contre les Ravageurs des Cultures Perennes Tropicales / Ingrated Control of Tropical Tree Crop Pests. 200 pages (with 40 colour photographs), edited by D. Mariau. FF230, Shipping FF25. In French but an English version should be available soon. Contact: CIRAD-CP, Service Information et

communication, BP 5035, 34032 Montpellier Cedex 1, France.

« **Manual of techniques in Insect Pathology** ». 409 pages, edited by Dr. L. Lacey. This manual describes the broad array of techniques that are used in insect pathology. It will provide biologists, insect pathologists, entomologists, and those interested in biological control, with the necessary information to work on a variety of pathogen groups. US\$110 Published by: Academic Press, Marketing Department, 24-28 Oval Road, London NW1 7DX, UK. Tel: 00-441-71-267-0362,
Fax:00-441-81-300-3322,
e-mail:pjones@apuk.co.uk

« **A Field Guide to Predators, Parasites and Pathogens Attacking Insect and Mite Pests of Cotton** », 1997. Ruberson, J. & A. Knutson. A 128 page, 4 x 7 inch field guide with 100 colour photos of over 50 natural enemies of cotton pests found across the Cotton Belt. \$5 check or money order payable to Texas Agricultural Extension Service, Acc 233205 and addressed to: Publication and Supply, Texas Ag. Extension

MISCELLANEOUS

A new whitefly listserver

A new e-mail listserver was recently installed to provide quick communication among workers interested in all aspects of whiteflies (Aleyrodidae). The server is an initiative established by two groups: the Western Coordinating Committee (WCC)-87: «Fundamental Biology and Management of

the *Bemisia tabaci* Complex and Associated Geminivirus Diseases and Disorders », and the IOBC/NRS Working Group on Biological Control of Whiteflies. Dr. W.A. Jones (e-mail:wjones@pop.tamu.edu) was elected to get it up and going. If you are interested in participating, you first have to subscribe. For this, simply

address an e-mail message to listserv@listserv.tamu.edu (Do not type a subject). In the body, type: SUBSCRIBE whitefly l your-firstname your lastname. Additional information will be automatically provided upon successfully subscribing.

W.A. Jones

OBITUARIES

We are sorry to announce that:

- Dr. David Rosen (IOBC/WPRS) passed away on 8 January 1997.
- Dr. Ken Hagen (IOBC/NRS) passed away on 10 January 1997.
- Dr. Danny Degheele (IOBC/WPRS) passed away on 1st May 1997.

These three scientists are a great loss to biological control, and on behalf of all of us I express my sincerest sympathies to their families.

David Rosen, The Vigevani Professor of Agriculture and Professor of Entomology at the Faculty of Agriculture of the Hebrew University of Jerusalem, and world leader in Chalcidoid taxonomy and biological control of insect pests, died on 8 January 1997 after a brave struggle with cancer. David was born in Tel Aviv, Israel, in 1936. He pursued his scientific

studies at the Hebrew University where he obtained his M.Sc. degree summa cum laude in 1959 and his Ph.D. in agricultural entomology in 1965. David remained a staff member of the Faculty of Agriculture throughout the rest of his life, rising quickly from the rank of Lecturer in 1967 to Full Professor in 1978. In 1990 he became the first appointee of the Vigevani Chair in Agriculture. He chaired the Department of Entomology first as acting chairman (1974) and then as elected chairman, from 1977 to 1980 and from 1992 on, resigning from his second term after discovering his illness in 1995. In addition to his duties as chairman, David was very involved in University life. He was active on numerous committees as well as being Director of the Research Center for Integrated Pest Management from 1988 on. He was also

deeply involved in teaching, both at the administrative level, where he contributed immeasurably to the shaping of future teaching curricula in plant protection; and at the personal level where he was known as an outstanding teacher and lecturer at home and abroad. His death came only a few days before he would have been awarded the M. Millikan Prize for Distinction in Teaching in recognition of his excellence.

Throughout his Career, David devoted a large part of his time to improving Israeli agriculture. He contributed immeasurably to the introduction and improvement of methods of biological and integrated pest control. His awareness to environmental problems culminated in heading a committee appointed by the chief scientist for the ministry of agricul-

ture, to examine the possibilities of reducing the use of poisonous pesticides in agriculture. The committee's report that was published in 1990 after almost 2 years of deliberations, reflected his leadership, excellent ideas and superb penmanship, and served as an important landmark in plant protection in Israel.

On the international level, David was well known as one of the proponents and leaders in biological pest control. He was an active member of the IOBC and a member of the IOBC/WPRS Council, leaving his mark on many of its decisions. He also served as a member of the FAO/UNEP International Panel of Experts on Integrated Pest Control. His active participation in the International Plant Protection Congresses led the organizing committee to elect him chairman for the next (14th) meeting in 1999, to be held in Israel. David took also an important part every Interna-

Newsletter contributions: I would like to thank all those members who are taking time to send items for this IOBC Newsletter. If you have not previously sent anything, please consider doing so. Remember, this is your opportunity to let others know what is going on in biological control. Take a few minutes and mail fax or (even better) e-mail items on biological control to E. Wajnberg (address on first page), so they can be included in the next issue. Deadline for submitting items for the Winter 1997-1998 issue of IOBC Newsletter is 15 November 1997.

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Congress

of Entomology, in which, for the last 20 years, he organized symposia and participated as an invited speaker in numerous forums. During the 20th Congress, held last summer (1996) in Firenze, Italy, he was elected to replace Prof. R. Galun as a member of the organizing committee for the 21st Congress.

He travelled extensively in the Americas, Europe, the CIS, the Far East and Australia. David Rosen served as a visiting Professor of Entomology in Berkeley and Riverside, USA, the Universities of Ankara and Adana in Turkey, the University of Maryland in College Park, Texas A&M University in College Station, and the University of Florida in Gainesville, USA.

He has published widely in Hebrew and English. His scientific contributions include 164 refereed articles, two books that he co-authored with Paul DeBach and five books that he edited. Two additional books edited by him are about to appear. Many of these publications can be considered as important landmarks in the science

This is the first issue of the IOBC Newsletter I am editing. Any comments or remarks on this Newsletter are welcomed. Do not hesitate to contact me if there is some information you would like to see here on biological control. I would like to express my deep gratitude to the past General Secretary (Dr. F. Bigler) for his valuable and continuous contribution to our Organization.

and practice of biological control. His contributions in Hebrew have also been of great importance in facilitating the understanding and utilization of biological control and pest management in Israel. David was a proud Israeli, believing in the right of all peoples to live freely in their homeland. He will also be remembered as speaking up, on many occasions, in favour of separating science from politics. He was a family man, a good husband to his wife, and father to his three children. During the last few years, he could often be seen in the company of his wife, Mazal, in many professional meetings. The many students and scientists whom he supervised for both MSc. and Ph.D. degrees, as well as his colleagues in Israel and abroad, will always remember David as an exemplary family man, a true friend and a brilliant colleague who was ready to contribute and help with his wisdom, humour and scientific insight. We shall sorely miss him.

Dan Gerling, Tel Aviv University, Israel - January 1997

Editor: E. Wajnberg, General Secretary of the IOBC, with assistance of M. Montes de Oca. This Newsletter is dedicated to Jean-Michel (Gaston) Piroird. We miss him.