

**International Organization for Biological Control  
of Noxious Animals and Plants (Iobc)**

## **IOBC Newsletter 81**

**www.IOBC-GLOBAL.org**

**March 2007**

The IOBC Global Newsletter, which appears as PDF site on the IOBC-Global website, regurly has short summaries of new books/ PhD theses on biological control. Books and PhD theses that have been mentioned in the IOBC Global newsletter can all be found on [www.IOBC-Global.org](http://www.IOBC-Global.org), under "Books, PhD theses and Papers on Biological Control".

The working groups of IOBC-WPRS are producing each year 10-20 bulletins containing the proceedings of their meetings. Bulletins that have appeared since 1993 are listed on the WPRS website, and copies of these bulletins can be ordered with a form available on this website

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(via [www.IOBC-Global.org](http://www.IOBC-Global.org) to WPRS, go to Publications etc.). Summaries of the contents of WPRS bulletins can also be found on this website and in Profile, the newsletter of WPRS available as PDF files on the website.

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### **Appendix 1. An overview of national and regional biological control books**

**This overview is far from complete. Please send us titles, a short summary and a jpeg picture of the front page of books in your language**

International Organization for Biological Control of Noxious Animals and Plants: History of the first 50 Years (1956-2006). Boller, E.F, J.C. van Lenteren and V. Delucchi (Eds.) 2006. IOBC, Zürich, 287 pp. The IOBC promotes the development of biological control and its application in integrated plant protection and production programmes. IOBC coordinates biological control activities worldwide in six Regional Sections and in Working Groups. This book describes the origin and development of the organization, and summarizes its current activities. The book can be ordered at [Joop.vanLenteren@wur.nl](mailto:Joop.vanLenteren@wur.nl) (10 Euro / 15 US\$ including shipment)



## Africa

Neuenschwander, P, C. Borgemeister and J. Langewald, (eds.) 2003. Biological Control in IPM Systems in Africa. CABI Publishing, Wallingford, UK, 414 pp.

A recent overview of all African biological control projects



## Argentina

Lecuona ,R.E. (ed.), 2004. Bioinsumos: Una Contribucion a la Agricultura Sustentable. Ediciones Instituto Nacional de Tecnologia Agropecuaria, 58 pp. Booklet providing information about all categories of natural enemies (predators, parasitoids and pathogens), antagonists of diseases and composting; with illustrations. In Spanish.



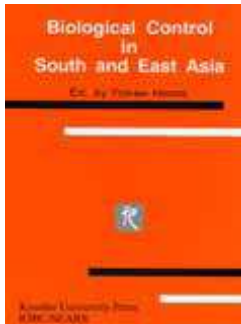
Molinari, A.M., 2005. Control Biologico: Especies entomofagas en cultivos agricolas. Ediciones Instituto Nacional de Tecnologia Agropecuaria, 80 pp. Nicely illustrated booklet giving an overview on beneficial organisms (predators, parasitoids and pathogens). Surprisingly with advertisements of chemical control companies. In Spanish



### Asia Copyright IOBC

Biological Control in South and East Asia. Y. Hirose (Ed.), Kyushu University Press, Kyushu, 1992, 68 pp. Overview of biological control activities in China, India, Japan, Malaysia, Philippines and Thailand in the 1990s.

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### Austria

Nützlinge- Helfer im zeitgemässen Pflanzenschutz", Blümel, S.; Fischer-Colbrie, P & E. Höbaus, 1998 Verlag Jugend&Volk, Wien. pp. 143. New edition to appear in May 2006, same title, same authors.



### Australia

Broadley, R. & M. Thomas, 1995. The good bug book: beneficial insects and mites available in Australia for biological pest control.

Australian Biological Control Inc., Richmond, 53 pp.

Waterhouse, D.F. & D.P.A. Sands, \*\*\*\*. Classical biological control of arthropods in Australia. ACIAR Monograph 77.

Waterhouse, D.F. and Norris, K.R. (1987) *Biological control: Pacific prospects*. Inkata Press, Melbourne, Australia.

Waterhouse, D.F. and Sands, D.P.A. (2001) *Classical biological control of arthropods in Australia*. ACIAR Monograph No. 77, Australian Centre for International Agricultural Research, Canberra, Australia.

Waterhouse, D.F. (1998a) *Biological control of insect pests: Southeast Asian prospects*. ACIAR Monograph No 51. Australian Centre for International Agricultural Research, Canberra, Australia.



## Belgium

Vandersteen, W., 1987. Suske en Wiske: de Woeste Wespen. Standaarduitgeverij, Antwerpen, 54 pages (in Dutch).



Sterk, G., 1991. De geïntegreerde bestrijding in de fruitteelt. IWONL. Opbouwwerk Interleuven. OVG, 225 pp.

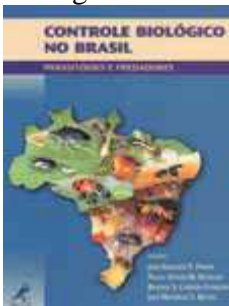


## Brazil

Bueno, V.H.P. (Ed.), 2000. Controle Biológico de Pragas: Produção Massal e Controle de Qualidade. Editora UFLA, Lavras.



Parra, J.R.P., P.S.M.Botelho, B.S.Corrêa-Ferreira and J.M.S.Bento (eds.) 2002. Controle Biológico no Brasil. Parasitóides e Predadores. Ed. Manole, Sao Paulo, 635p.



## Canada

Vincent, Ch. & Coderre, D. (ed.), 1992 . La lutte biologique. Lavoisier, 702 pp. L'ouvrage regroupe les contributions de 37 spécialistes canadiens. Les intitulés des chapitre sont : Introduction ; Lutte contre les insectes nuisibles ; Utilisation des prédateurs ; Utilisation des parasites; Lutte contre les mauvaises herbes ; Résistance des plantes et méthodes culturales; Phytopathologie; Lutte biologique et vertébrés; Lutte biologique et composés chimiques; Conclusion.



## Chile

Rojas, S., 2005. Biological Pest Control in Chile: History and Future. Libros INIA 12, Ministry of Agriculture, Instituto de Investigaciones Agropecuarias, 125 pp. ISBN 956-7016-19-41 ; ISSN 0717-4713. (In Spanish). This very well composed book was written by one of the senior researchers of biological control in Chile, Dr. Sergio Rojas P, and contains many beautiful colour illustrations of insects made by Dr. Renato Ripa S.



## Colombia

Guía de insumos biológicos para el manejo integrado de plagas. Corporación para el Desarrollo de insumos y Servicios Agroecológicos Harmonia (only available in Spanish). Gives information about pests and natural enemies commercially available in Colombia.

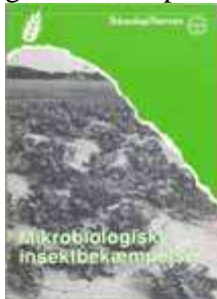


## Denmark

Borregaard, S., 1998. **Sund have - på naturlig vis**. Aschehoug forlag. En omfattende håndbog for alle haveejere. I bogens første del finder man sygdoms-symptomerne beskrevet, og i anden del de forskellige nyttedyr og midler, der kan genoprette balancen. I bogen finder man tillige angivelser af de forskellige skadedyrs livscyklusser (på hvilken tid af året de lægger æg, bliver til larver, forpupes og bliver voksne individer). Bogen er rigt illustreret med over 100 farvebilleder.



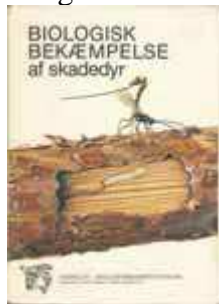
Eilenberg, J.; Philipsen, H.; Steenberg, T.; Øgaard, L. 1992. Mikrobiologisk Insektbekæmpelse [Microbial control of insect pests]. Teknologinævnet, Copenhagen, 55 pp. The book is a part of a series produced by the Danish board of Technology with the purpose to stimulate a public discussion on biotechnology. In this book the authors describe, what is microbial control of insects and which methods are needed for the development and implementation. The emphasis is on biotechnology, for example mass production and genetic manipulation.



Hansen, L. Stengård, O.C. Pedersen & J. Reitzel (1983): Skadedyr og nyttedyr - håndbog om biologisk bekæmpelse i drivhuset ("Pests and beneficials - handbook on biological control in glasshouses" in Danish). De Danske Haveselskaber. Copenhagen, Denmark. 110 pp. The book is directed at hobby-growers and deals with practical application of biological control in small glasshouses. Initial chapters describe insect biology and population development, principles of pest control, and the philosophy behind biological control. Then practical application of beneficials against spidermites, whiteflies and aphids is described in detail. The final chapters illustrate other pests and beneficials to be found in glasshouses and as well as information on the potential of biological control in other sectors, e.g. field crops and forestry. An appendix describes how the grower can propagate his own beneficials and maintain a colony over winter. The book is richly illustrated.

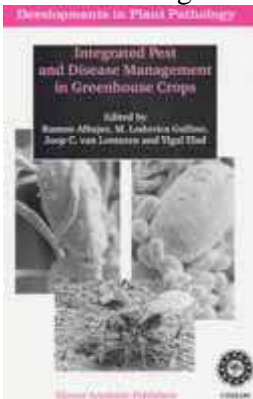


Holm, E. (ed.) 1977. Biologisk bekæmpelse af skadedyr [Biological control of insect Kaskelot, Gedved, 144 pp. The book was the first in Danish to compile information about biological control of pest insects. The main emphasis is thus on Danish conditions. Scientists involved in biological control wrote chapters dealing with specific topics, for example integrated control, microbial control, predators and parasitoids. Further, the book contains information about other methods, which are relevant for biological control, for example attractants, hormones and physical control



## Europe

Albajes, R., Gullino, M.L., van Lenteren, J.C. & Elad, Y. (eds.), 1999. Integrated Pest and Disease Management in Greenhouse Crops. Kluwer Publishers, Dordrecht: 568 pp.





Regnault-Roger, C., 2005. Enjeux phytosanitaires pour l'agriculture et l'environnement pesticides et biopesticides, agriculture durable, OGM, lutte intégrée et biologique. Lavoisier, ISBN 2-7430-0785-0



See also Canada

### Germany

Fortmann, M., 1993. Das grosse Kosmosbuch der Nützlinge. Neue Wege der biologischen Schädlingsbekämpfung. Franckh-Kosmos, 320 pp. ISBN 3-440-06588-X.

Hassan, S.A., R. Albert & W.M. Rost, 1993. Pflanzenschutz mit Nützlingen. – im Freiland und unter Glas. 1993. 192 S., 43 Farbf., 50 sw-Fotos, 22 Tab., geb. ISBN 3-8001-5138-3.

Krieg, A. & J.M. Franz, 1989. Biologische Schaedlingsbekaempfung. Parey, Hamburg: 302 pp. The best German textbook on biological control, but only available second hand

Pschorn-Walcher, H. & Heitland, W, 2002. Parasitoide Online: Eine Einführung in die Welt der Parasitoide. <http://www.faunistik.net/PONLINE/ponline.html> (last accessed at 31 January 2006)

Schmutterer, H. & J. Huber, 2005. Natürliche Schädlingsbekämpfungsmittel. Ulmer Verlag, Stuttgart, 2005; 263 Seiten. ISBN 3-8001-4147-7. In 10 Kapiteln werden die Eigenschaften und die praktische Anwendung sämtlicher, in Deutschland und anderen europäischen Ländern verfügbarer, natürlicher Schädlingsbekämpfungsmittel übersichtlich dargestellt. Besonders eingegangen wird auf Herkunft, Gewinnung und Lagerfähigkeit, Wirkungsweise, chemische Struktur, Anwendung und Zielorganismen, Kombination mit anderen Bekämpfungsverfahren, Warmblüttoxizität, Phytotoxizität, Verhalten in der Umwelt, Nebenwirkungen und Resistenz



## Hungary

Balazs, K., Meszaros, Z., 1989. Biological control using natural enemies, Mezogazdasagi Kiado, Budapest, 210 pp. Richly illustrated basic book.



## Italy

Biological and Integrated Control for Protected Cultivation (Lotta Biologica e Integrata nelle Colture Protette). M. Benuzzi & G. Nicoli. Biolab, Cesena, 1988, 167 pp. (only available in Italian). Well illustrated book about biological and integrated control in greenhouses. Pests and their natural enemies for a variety of greenhouse crops are described.



Benuzzi, M, Vacante, V., 2004. Difesa fitosanitaria in agricoltura biologica. Edagricole, Bologna, 297 pp. This book is about crop protection in biological agriculture. First, the technical methods and crop protection products available for biological production are summarized (natural enemies, microbial products, plant produced pesticides, pheromones, other chemical products). Next, pest and disease management methods for all major Italian crops are discussed (e.g. apple, pear, peach, grape, vegetables, olive, potatoes, strawberries).



Microbial Control of Herbivores (Lotta Microbiologica Contro i Fitofagi). K.V. Deseö Kovács & L. Rovesti. Edagricole, Bologna, 1992, 296 pp. (only available in Italian). A very thorough treatment, both practically and theoretically, of microbial control agents including nematodes. Deserves to be translated in English.



Biological Control (Lotta Biologica). M. Ferrari, E. Marzon, A. Menta, Edagricole, Bologna, 2000, 355 pp. (4<sup>th</sup> Edition, only available in Italian). General introduction to biological control and IPM, includes biological control.



Biological and Integrated Control (Lotta Biologica e Integrata). E. Viggiani, Liguori Editore, Napels, 1994, 517 pp. (only available in Italian). The first and largest part concerns a systematic overview of arthropod natural enemies. An introduction to biological control is given in the second part.



## Mexico

Badii, M.H., A.E. Flores & L.J. Glan Wong (eds.) 2000. Fundamentos y Perspectivas de Control Biologico. Universidad Autonom de Nuevo Leon, Mexico, 462 pages ISBN: 970-694-033-2

A very complete book of biological control in Spanish. The 34 chapters cover the basis scientific aspects of biocontrol (ecology, taxonomy) as well as applied aspects and case studies.

## Latin America

Coulson J.R. & Zapater M.C. (editors) 1992. Opportunities for Implementation of Biocontrol in Latin America. IOBC-Global & IOBC-SRNT, Buenos Aires, 71 pages.



Zapater M.C. (editor) 1996. *El control biológico en América Latina*. IOBC-SRNT, Buenos Aires, 142 pages. In Spanish



## The Netherlands

Anonymous, 1969. *Leven met insecten: het onderzoek naar een geïntegreerde bestrijding van plagen*. Pudoc, Wageningen, 177 pp. Overview of the first ten years of research on biological control and integrated pest management of the Working Party on Integrated Control of Pests. (only available in Dutch)



Anonymous, 1980. Landbouw zonder spuit: geïntegreerde bestrijding van insektenplagen in de landbouw. Pudoc, Wageningen, 54. A richly illustrated book for layman explaining biological control and IPM. Overview of the first twenty years of research on biological control and integrated pest management of the Working Party on Integrated Control of Pests. (only available in Dutch)



Klomp, H. & Wiebes, J.T. (eds.) 1979. Sluipwespen in relatie tot hun gastheren. Pudoc, Wageningen, 198 pp. Overview of research on parasitoids in The Netherlands, including a chapter on biological control of pests with parasitoids. (only available in Dutch)



Malais, M.H. & W.J. Ravensberg, 2002. Kennen en herkennen: levenswijzen van kasplagen en hun natuurlijke vijanden. Reed Business Information, Doetinchem, 288 pp. Also available in English



Minks, A.K. & Gruys, P. (eds) 1980. Integrated control of insect pests in The Netherlands. Pudoc, Wageningen, 304 pp. Over view of all the research projects of the first twenty years of research on biological control and integrated pest management of the Working Party on Integrated Control of Pests. (only available in English)



### Norway

There is no specific book on biological control in Norwegian. There are two Norwegian books on IPM with sections on biological control.

Heggen, H.E., Hofsvang, T. & Orpen, H.M., 2003. Plantevern i veksthus: Integrert bekjempelse, Tomat, Agurk. Landbruksforlaget, Oslo, 70 pp.

[http://www.bioforsk.no/dok/senter/phelse/aas/ipv/grs\\_vh.pdf](http://www.bioforsk.no/dok/senter/phelse/aas/ipv/grs_vh.pdf) Heggen, H.E. & Toppe, B.,

2003. Plantevern i veksthus: prydplanter: Integrert bekjempelse. Landbruksforlaget, Oslo, 163 pp. [http://www.bioforsk.no/dok/senter/phelse/aas/ipv/prydpl\\_vh.pdf](http://www.bioforsk.no/dok/senter/phelse/aas/ipv/prydpl_vh.pdf)



### Portugal

Amaro, P., 2003. A protecção integrada. Instituto Superior de Agronomia, Univ. Técnica de Lisboa, 446 pp. ISBN 972-8669-10-10. large section on biocontrol



see also Brazil

## Russia

Pristavko, V.P. (ed.) 1975. Insect behavior as a basis for developing control measures against pests of field crops and forests. Naukova Dumka Publishers, Kiev, 238 pp. (Original version in Russian, translated in 1981 by USDA, Washington)



Shternshis M.V., F.S. Djalilov, I.V. Andreeva & O.G. Tomilova. Biologicheskaya zashchita rastenii (Biological plant protection) (Ed. M.V. Shternshis). 2004. Koloss, Moscow: 264 pp. (In Russian). This Russian textbook contains information on general and special aspects of biological control of plant pests. It starts with a background of biological control based on natural interaction of organisms and with main strategies of biocontrol. Next are the chapters on the description of beneficial insects and mites and their use in biocontrol. This is followed by chapters on insect pathogens and related formulations developed mainly in Russia. Then the similar information is presented on biological control of plant disease and weeds. The release of sterilized insects and application of some preparations based on natural biologically active compounds are also described. The last chapter is devoted to the examples of biological protection of some crops. The textbook is illustrated and supplied with the glossary of terms in biological control.



Shumakov, E.M., Gusev, G.V. & Fedorinchik, N.S. (eds.) 1974. Biological agents for plant protection. Moscow, Kolos, 490 pp. (Original version in Russian, translated in 1974 by USDA, Washington). This book was written by scientists of the USSR and other members of the SEV (Council of Economic Mutual Assistance), devoted to biological agents for plant protection. In it are presented the results of works on the utilitions of entomophages, pathogenic agents, and phytophages in combatting insect pests, diseases, and weeds of agricultural crops. The effectiveness of individual biological agents in the control of harmful organisms is shown. Principal attention is given to the practical use of entomophages and biopreparations and to the integrated method of plant protection. IPM is extensively addressed in this book.



## Spain

Jacas, J., P. P. Caballero & J. Avilla (Eds.). 2005. El control biológico de plagas, enfermedades y malas hierbas y la sostenibilidad de la agricultura mediterránea. Publicacions de la Universitat Jaume I. Castelló de la Plana, 223 pp. (In Spanish). This book provides a wide overview of biological control. It starts with an introduction of the principles of biological control. Next biological control of pests and diseases is discussed. This is followed by chapters on biological control of pests and diseases in citrus and greenhouses, and of post-harvest pests and diseases. The book finishes with a chapter on the future of biological control. Much information about microbial control is presented.



Quintana, P. & I. Massaguer, 2003. En vermelló i en llargarut. Selmar, Barcelona (in Catalan)

How to find natural enemies is explained in this book for children.



## Sweden

Sandskär, B. (translator) 1999. Biologisk bekämpning av skadedjur. Jordbruksverket. ISBN-91 88 264-22-X, 72 pp

This biological control book in Swedish is a translation of the German "Biologische Schädlingsbekämpfung - Arbeitshilfe für Beratung und Betriebsführung" Stuttgart. It contains information about greenhouse pests and natural enemies and recommendations for IPM in selected crops



## Switzerland

Boller, E., Häni, F. & Poehling, H.-M., 2004. Ecological Infrastructures: Ideabook on Functional Biodiversity at the Farm Level. ISBN 3-906776-07-7. 230 pp. EURO 25.-. Can be ordered at [www.iobc.ch](http://www.iobc.ch)

Multifunctional agriculture, functional biodiversity, conservation biological control and ecological infrastructure are recent terms reflecting a change to a new philosophy in agricultural production. The IOBC Commission on Integrated Production Guidelines and Endorsement prepared this practical ideabook. Under the guidance of Dr. Ernst Boller, this Ideabook that contains a wealth of until now unavailable information, and may fill important gaps in common knowledge about Integrated Production. With tools like provided in this ideabook, IOBC pursues as international scientific organisation the traditional objective to make new, field-tested and sustainable knowledge available to the farmers' community



## Uruguay

Basso C. & Ribeiro A. (ed.) 2002. Enemigos naturales como reguladores de poblaciones de insecto: biodiversidad, conservación y manejo. Facultad de Agronomía, Montevideo. 182 p. Este libro contiene las conferencias dictadas en el marco del curso de posgrado: “*Enemigos naturales como reguladores de poblaciones de insectos: biodiversidad, conservación y manejo*” desarrollado en la Facultad de Agronomía de la Universidad de la República de Uruguay, 2001. Los autores de las conferencias incluyen especialistas de Francia (B. Pintureau y D. Rousse), de Argentina (E. Botto) y de Uruguay (C. Basso, J. Franco y G. Grille).



Basso C. & Grille G. 2001. Tecnología de producción masiva y liberación de *Trichogramma* (Hymenoptera, Trichogrammatidae) en los cultivos. Universidad de la República (Facultad de Agronomía) - Galosol SA. Montevideo. 36 p. En este libro incluye una breve presentación de la historia y realidad de la utilización de los parasitoides oófagos *Trichogramma* (Hymenoptera, Trichogrammatidae) en el mundo, y se describe la metodología de su producción en Uruguay, a partir de su hospedero alternativo *Ephestia kuehniella* Zeller (Lepidoptera, Pyralidae). Se mencionan las principales experiencias de utilización en este país, y los diferentes dispositivos de liberación empleados.



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