New Book from The Royal Society of Chemistry


Pesticide chemistry has seen many remarkable changes and advances in recent years. Further challenges must be faced to advance the field, and this book, produced as a result of the 9th IUPAC International Congress of Pesticide Chemistry (held in London 2–7 August 1998) and written by leading international experts, reports on the need to produce high-quality food while satisfying environmental concerns. Including new material on natural products, chemical synthesis, mode of action, metabolism, resistance, regulation, and risk assessment, Pesticide Chemistry and Bioscience updates all of the key areas in pesticide chemistry and related activities. Together, the contents outline the revolution in approaches to crop protection and in our abilities to develop complex, environmentally acceptable strategies for weed, pest, and disease control.

This collection of current expert views and findings will be of immense interest to researchers and professionals working in the field of pesticide chemistry.

To order, contact Sales and Customer Care, The Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, England CB4 0WF, UK; E-mail: sales@rsc.org; Tel.: +44 1223 420066; Fax: +44 1223 423429; Web site: http://www.rsc.org/metpath or http://www.chemsoc.org/.

New Publications from the World Health Organization

Principles for the Assessment of Risks to Human Health from Exposure to Chemicals, Environmental Health Criteria No. 210

1999, xx + 110 pages (English with summaries in French and Spanish), ISBN 92-4-157210-8, CHF 29.-/USD 26.10; In developing countries: CHF 20.30, Order No. 1160210. WHO Marketing and Dissemination, CH-1211 Geneva 27, Switzerland; E-mail: bookorders@who.ch; Tel.: +41 22 791 24 76; Fax: +41 22 791 48 57.

This book provides a state-of-the-art review of methods and procedures for assessing the risks to human health posed by environmental chemicals. Addressed to regulatory authorities, risk managers, and other decision-makers, the book aims to demystify the principles of risk assessment and thus to encourage wider use of this powerful tool for protecting populations.

Because the detection of chemical hazards may have socioeconomic and political consequences, the book gives particular attention to methods for the accurate identification of risks and determination of their severity. Details range from an alert to sources of uncertainty in scientific evidence, through an explanation of the distinction between individual and population risks, to a list of questions commonly addressed during risk characterization. Practical advice on various options for risk elimination or reduction is also provided in this comprehensive guide.

The book has four chapters covering each logical step in the process of risk assessment. The first, on hazard identification, explains how data on a chemical’s toxicity and mode of action can be used to determine whether the chemical will cause adverse effects on health. The strengths and limitations of different types of data are discussed, together with criteria commonly used to establish causality. Methods for assessing dose-response relationships are reviewed in Chapter 2, which explains how to characterize the relationship between the dose administered or received and the incidence of an adverse effect. Methods for assessing nonneoplastic, or threshold, effects and neoplastic, nonthreshold effects are described in detail.

Exposure assessment is covered in the next chapter, which describes methods for determining the nature and extent of contact with chemical substances and discusses the special characteristics of exposure in the general environment, in the workplace, and from consumer products. The final chapter explains the procedure of risk characterization as a decision-making tool that brings together estimates of exposure levels and risks and summarizes sources of uncertainty in the scientific data. Practical options for risk management are presented as a range of regulatory, nonregulatory, economic, advisory, and technological measures.

Monitoring Ambient Air Quality for Health Impact Assessment (WHO Regional Publications, European Series, No. 85), WHO Regional Office for Europe, Copenhagen, Denmark

1999, 196 pages (available in English only), ISBN 92-890-1351-6, CHF 62.-/USD 55.80, Order No. 1310085.

Air quality assessment is frequently driven by the need to determine whether a standard or guideline has
been exceeded, but it should also provide the information needed to estimate population exposure to air pollution and the effects on the health of the population. Most air quality monitoring systems do not fully address population exposure to toxic air pollution. Health impact assessment combines estimates of population exposure with information on toxicity.

Given the importance of the availability of valid information on population exposure to air pollutants, the WHO European Centre for Environment and Health organized a working group to define the features of monitoring networks that allow their use in assessing the potential exposure of the population to air pollution from ambient air. This work resulted in this book. The principles outlined are intended to promote progressive modification of the networks monitoring air quality to improve their usefulness for health impact assessment.

This book is directed specifically to network managers, to those who design new networks or modify existing ones, to policy-makers, and to those who influence policy.


This book is a revised and expanded edition of the first internationally agreed guidelines covering the minimum drug safety information that should be communicated by manufacturers to physicians and other prescribers. Originally published as the CIOMS Working Group III report, the “Core Safety Information” specified in the guidelines has been widely endorsed as a standard for the preparation of all official national data sheets, package inserts, product labels, and other official statements issued by manufacturers.

The original guidelines were produced in response to the need to harmonize drug safety information. As their principal objective, the guidelines aim to ensure that data sheets contain the information most needed to help prescribers balance a product’s risks against its benefits, and thus make good therapeutic decisions.

The book also includes the new report of CIOMS Working Group V. This report extends the original guidelines to include recommended safety information on drugs undergoing investigation. Intended to guide the content of company investigators’ brochures, this “Development Core Safety Information” then forms the basis for the core safety information eventually issued for the marketed product.

The report of Working Group V is published as an additional set of proposals for the assessment and presentation of safety information in investigators’ brochures. Proposals, which follow the same practical approach used to produce core clinical safety information, are intended to provide researchers with all relevant clinical and nonclinical information and to assist pharmaceutical companies in meeting their reporting obligations. In addition, guidance is provided on the global distribution to investigators of new safety information, such as 7-day and 15-day alerts to serious, unexpected adverse reaction. The proposals should also facilitate the work of ethics review committees when assessing the benefits and risks to participants in clinical trials.

The book concludes with the text of the European Summary of Product Characteristics and a summary of the U.S. FDA Requirements, examples of illustrative drug scenarios used by the working group, and a model of Core Safety Information proposed for a fictitious drug.

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Letter to the Editor

Prof. Donald Weaver wrote an interesting article (Chemistry International, January 2000, Vol. 22, No. 1, pp. 11–13), wherein he took to task a number of alternative medicine practices. In particular, he cited a number of instances from his own experience where patients ignored standard medical treatment for alternatives that led to their death or serious complications. In the cases he wrote about, it was clear that the patients made very poor choices. However, there are two areas of what some may consider alternative medical practices where the evidence of their benefit is quite clear.

The first of these is the research by David Spiegel, MD, who showed unequivocally that psychotherapeutic support groups can have beneficial effects on both the mental and physical well-being of the patient. Because the readers of CI may not be aware of Spiegel’s research, even though his seminal paper was published over eleven years ago, I will briefly summarize the work of his group and its outcomes. Spiegel’s initial thesis was that a psychotherapy support group would probably be helpful in easing the burdens of cancer, but would have no effect on the physical outcomes of the disease. They enrolled 87 women who had fourth-stage metastatic breast cancer. Fifty women were in the in-