

**Unclassified**

**ENV/JM/MONO(2009)38**

Organisation de Coopération et de Développement Économiques  
Organisation for Economic Co-operation and Development

**23-Oct-2009**

**English - Or. English**

**ENVIRONMENT DIRECTORATE  
JOINT MEETING OF THE CHEMICALS COMMITTEE AND  
THE WORKING PARTY ON CHEMICALS, PESTICIDES AND BIOTECHNOLOGY**

**OECD STRATEGIC APPROACH IN PESTICIDE RISK REDUCTION**

**JT03272747**

Document complet disponible sur OLIS dans son format d'origine  
Complete document available on OLIS in its original format



**ENV/JM/MONO(2009)38  
Unclassified**

**English - Or. English**



**OECD STRATEGIC APPROACH IN PESTICIDE RISK REDUCTION**

OECD Environment, Health and Safety Publications

Series on Pesticides

No. 48

**OECD STRATEGIC APPROACH  
IN PESTICIDE RISK REDUCTION**

**IOMC**

---

INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS

A cooperative agreement among **FAO, ILO, UNEP, UNIDO, UNITAR, WHO and OECD**

**Environment Directorate**

**ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT**

**Paris 2009**

***Also published in the Series on Pesticides***

- No. 1 *Data Requirements for Pesticide Registration in OECD Member Countries: Survey Results* (1993)
- No. 2 *Final Report on the OECD Pilot Project to Compare Pesticide Data Reviews* (1995)
- No. 3 *Data Requirements for Biological Pesticides* (1996)
- No. 4 *Activities to Reduce Pesticide Risks in OECD and Selected FAO Countries. Part I: Summary Report* (1996)
- No. 5 *Activities to Reduce Pesticide Risks in OECD and Selected FAO Countries. Part II: Survey Responses* (1996)
- No. 6 *OECD Governments' Approaches to the Protection of Proprietary Rights and Confidential Business Information in Pesticide Registration* (1998)
- No. 7 *OECD Survey on the Collection and Use of Agricultural Pesticide Sales Data: Survey Results* (1999)
- No. 8 *Report of the OECD/FAO Workshop on Integrated Pest Management and Pesticide Risk Reduction* (1999)
- No. 9 *Report of the Survey of OECD Member Countries' Approaches to the Regulation of Biocides* (1999)
- No. 10 *Guidance Notes for Analysis and Evaluation of Repeat-Dose Toxicity Studies* (2000)
- No. 11 *Survey of Best Practices in the Regulation of Pesticides in Twelve OECD Countries* (2001)
- No. 12 *Guidance for Registration Requirements for Pheromones and Other Semiochemicals Used for Arthropod Pest Control* (2001)
- No. 13 *Report of the OECD Workshop on Sharing the Work of Agricultural Pesticide Reviews* (2002)
- No. 14 *Guidance Notes for Analysis and Evaluation of Chronic Toxicity and Carcinogenicity Studies* (2002).
- No. 15 *Persistent, Bioaccumulative and Toxic Pesticides in OECD Member Countries*, (2002)
- No. 16 *OECD Guidance for Industry Data Submissions for Pheromones and Other Semiochemicals and their Active Substances* (Dossier Guidance for Pheromones and other Semiochemicals) (2003)
- No. 17 *OECD Guidance for Country Data Review Reports for Pheromones and Other Semiochemicals and their Active Substances* (Monograph Guidance for Pheromones and other Semiochemicals) (2003)
- No. 18 *Guidance for Registration Requirements for Microbial Pesticides* (2003)
- No. 19 *Registration and Work sharing, Report of the OECD/FAO Zoning Project* (2003)
- No. 20 *OECD Workshop on Electronic Tools for data submission, evaluation and exchange for the Regulation of new and existing industrial chemicals, agricultural pesticides and biocides* (2003)
- No. 21 *Guidance for Regulation of Invertebrates as Biological Control Agents (IBCA's)* (2004)
- No. 22 *OECD Guidance for Country Data Review Reports on Microbial Pest Control Products and their Microbial Pest Control Agents* (Monograph Guidance for Microbials) (2004)
- No. 23 *OECD Guidance for Industry Data Submissions for Microbial Pest Control Product and their Microbial Pest Control Agents* (Dossier Guidance for Microbials) (2004)
- No. 24 *Report of the OECD Pesticide Risk Reduction Steering Group Seminar on Compliance* (2004)
- No. 25 *The Assessment of Persistency and Bioaccumulation in the Pesticide Registration Frameworks within the OECD Region* (2005)

- No. 26 *Report of the OECD Pesticide Risk Reduction Group Seminar on Minor Uses and Pesticide Risk Reduction* (2005)
- No. 27 *Summary Report of the OECD Project on Pesticide Terrestrial Risk Indicators (TERI)* (2005)
- No. 28 *Report of the OECD Pesticide Risk Reduction Steering Group Seminar on Pesticide Risk Reduction through Good Container Management* (2005)
- No. 29 *Report of the OECD Pesticide Risk Reduction Steering Group Seminar on Risk Reduction through Good Pesticide Labelling* (2006)
- No. 30 *Report of the OECD Pesticide Risk Reduction Steering Group: The Second Risk Reduction Survey* (2006)
- No. 31 *Guidance Document on the Definition of Residue* (2006)
- No. 32 *Guidance Document on Overview of Residue Chemistry Studies* (2006)
- No. 33 *Overview of Country and Regional Review Procedures for Agricultural Pesticides and Relevant Documents* (2006)
- No. 34 *Frequently Asked Questions about Work Sharing on Pesticide Registration Reviews* (2007)
- No. 35 *Report of the OECD Pesticide Risk Reduction Steering Group Seminar "Pesticide Risk Reduction through Better Application Technology"* (2007)
- No. 36 *Analysis and Assessment of Current Protocols to Develop Harmonised Test Methods and Relevant Performance Standards for the Efficacy Testing of Treated Articles/Treated Materials* (2007)
- No. 37 *Report on the OECD Pesticide Risk Reduction Steering Group Workshop "Pesticide User Compliance"* (2007)
- No. 38 *Survey of the Pesticide Risk Reduction Steering Group on Minor Uses of Pesticides* (2007)
- No. 39 *Guidance Document on Pesticide Residue Analytical Methods* (2007)
- No. 40 *Report of the Joint OECD Pesticide Risk Reduction Steering Group EC-HAIR Seminar on Harmonised Environmental Indicators for Pesticide Risk* (2007)
- No. 41 *The Business Case for the Joint Evaluation of Dossiers (Data Submissions) using Work-sharing Arrangements* (2008)
- No. 42 *Report of the OECD Pesticide Risk Reduction Steering Group Seminar on Risk Reduction through Better Worker Safety and Training* (2008)
- No. 43 *Working Document on the Evaluation of Microbials for Pest Control* (2008)
- No. 44 *Report of Workshop on the Regulation of BioPesticides: Registration and Communication Issues* (2009)
- No. 45 *Report of the Seminar on Pesticide Risk Reduction through Education / Training the Trainers* (2009)
- No. 46 *Report of the Seminar on Pesticide Risk Reduction through Spray Drift Reduction Strategies as part of National Risk Management* (2009)
- No. 47 *OECD Survey on Countries' Approaches to the Collection and Use of Agricultural Pesticide Sales and Usage Data: Survey Results* (2009)

***Published separately***

*OECD Guidance for Country Data Review Reports on Plant Protection Products and their Active Substances-Monograph Guidance* (1998, revised 2001, 2005, 2006)

*OECD Guidance for Industry Data Submissions on Plant Protection Products and their Active Substances-Dossier Guidance* (1998, revised 2001, 2005)

*Report of the Pesticide Aquatic Risk Indicators Expert Group* (2000)

*Report of the OECD Workshop on the Economics of Pesticide Risk Reduction* (2001)

*Report of the OECD-FAO-UNEP Workshop on Obsolete Pesticides* (2000)

*Report of the OECD Pesticide Aquatic Risk Indicators Expert Group* (2000)

*Report of the 2nd OECD Workshop on Pesticide Risk Indicators* (1999)

*Guidelines for the Collection of Pesticide Usage Statistics Within Agriculture and Horticulture* (1999)

*Report of the [1st] OECD Workshop on Pesticide Risk Indicators* (1997)

*Report of the OECD/FAO Workshop on Pesticide Risk Reduction* (1995)

© OECD 2009

*Applications for permission to reproduce or translate all or part of this material should be made to: Head of Publications Service, OECD, 2 rue André-Pascal, 75775 Paris Cedex 16, France.*

## ABOUT THE OECD

The Organisation for Economic Co-operation and Development (OECD) is an intergovernmental organisation in which representatives of 30 industrialised countries in North America, Europe and the Asia and Pacific region, as well as the European Commission, meet to co-ordinate and harmonise policies, discuss issues of mutual concern, and work together to respond to international problems. Most of the OECD's work is carried out by more than 200 specialised committees and working groups composed of member country delegates. Observers from several countries with special status at the OECD, and from interested international organisations, attend many of the OECD's workshops and other meetings. Committees and working groups are served by the OECD Secretariat, located in Paris, France, which is organised into directorates and divisions.

The Environment, Health and Safety Division publishes free-of-charge documents in ten different series: Testing and Assessment; Good Laboratory Practice and Compliance Monitoring; Pesticides and Biocides; Risk Management; Harmonisation of Regulatory Oversight in Biotechnology; Safety of Novel Foods and Feeds; Chemical Accidents; Pollutant Release and Transfer Registers; Emission Scenario Documents; and the Safety of Manufactured Nanomaterials. More information about the Environment, Health and Safety Programme and EHS publications is available on the OECD's World Wide Web site (<http://www.oecd.org/ehs/>).

*This publication was developed in the IOMC context. The contents do not necessarily reflect the views or stated policies of individual IOMC Participating Organizations.*

**The Inter-Organisation Programme for the Sound Management of Chemicals (IOMC) was established in 1995 following recommendations made by the 1992 UN Conference on Environment and Development to strengthen co-operation and increase international co-ordination in the field of chemical safety. The participating organisations are FAO, ILO, UNEP, UNIDO, UNITAR, WHO and OECD. The World Bank and UNDP are observers. The purpose of the IOMC is to promote co-ordination of the policies and activities pursued by the Participating Organisations, jointly or separately, to achieve the sound management of chemicals in relation to human health and the environment.**



**This publication is available electronically, at no charge.**

**For this and many other Environment,  
Health and Safety publications, consult the OECD's  
World Wide Web site ([www.oecd.org/ehs/](http://www.oecd.org/ehs/))**

**or contact:**

**OECD Environment Directorate,  
Environment, Health and Safety Division**

**2, rue André-Pascal  
75775 Paris Cedex 16  
France**

**Fax: (33-1) 44 30 61 80**

**E-mail: [ehscont@oecd.org](mailto:ehscont@oecd.org)**

## FOREWORD

The OECD Pesticide Risk Reduction Steering Group (RRSG), a sub-group of the Working Group on Pesticides (WGP) that oversees that OECD Pesticide Programme ([www.oecd.org/env/pesticides](http://www.oecd.org/env/pesticides)), agreed to prepare this **OECD Strategic Approach** considering the fact that different experiences and situations in OECD countries needed more strategic discussions to exchange ideas and to facilitate the development and implementation of risk reduction options, policies and practices. Germany led the preparations of this document.

This OECD Strategic Approach has summarized the main outcomes from relevant RRSG Seminars since 2003 which focused on single components in pesticide risk reduction (e.g. container management, application technology or spray drift). Also, the Approach has targeted national action plans or programmes to accelerate IPM implementation as the leading instrument to reduce risks arising from pesticides.

The preparation of this document was directly linked to the risk reduction activity of developing a “Strategic approach in Pesticide Risk Reduction” (also referred to as preparing a “Compilation of the risk reduction measures recommended by the RRSG”) that is included in the RRSG work programme for 2009-2012 under the objective to “*Create strategic opportunities that facilitate risk reduction nationally and in other arenas*”. It is also based on the *RRSG terms of reference* (see Annex 1).

It is expected that the OECD Risk Reduction Steering Group will revisit this document in the future, once the OECD Pesticide Programme has addressed some new topics and has developed recommendations in more pesticide risk reduction areas.

The draft Strategic Approach was approved by the 24<sup>th</sup> meeting of the Working Group on Pesticides that took place on 29-30 June 2009.

The Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology of the OECD agreed that this document be unclassified and made available to the public. It is being published on the responsibility of the Secretary-General of the OECD.

# **OECD Strategic Approach in Pesticide Risk Reduction**

**OECD Pesticide Risk Reduction Steering Group**

**TABLE OF CONTENTS**

**BACKGROUND**.....13

    Different International Strategic Approaches .....13

    Key Elements Contributing to Pesticide Risk Reduction .....13

    The “Necessary Minimum” in Pesticide Use.....13

    OECD and EU Pesticide Risk Indicators to Control Progress and Success .....14

    National plans .....14

**INSTRUMENTS FOR RISK REDUCTION IN GENERAL** .....15

**NATIONAL ACTION PLANS OR PROGRAMMES**.....17

**ANNEX 1 - Terms of Reference of the OECD RRSR**.....18

## BACKGROUND

### Different International Strategic Approaches

1. Pesticides are widely used in agriculture and have considerable benefits, but pesticides also present risks to human and animal health and to the environment. Therefore, high standards in their registration and sustainable use and an expansion of Integrated Pest Management (IPM) strategies are necessary. To reach these objectives worldwide, different internationally acting driving forces support or initiate relevant policy decision-making processes, e.g.:

- **OECD** with its *Policy principles* in general, and its Environment Directorate with meetings and documents *SERIES ON PESTICIDES* in particular;
- **FAO** with the *International Code of Conduct on the Distribution and Use of Pesticides*; or
- the **European Union**'s activities to implement the *Thematic Strategy on the Sustainable Use of Pesticides* published in July 2006 to achieve environmental objectives set out in the 6<sup>th</sup> European Environmental Action Programme.

### Key Elements Contributing to Pesticide Risk Reduction

2. There are four core elements identified which contribute to the reduction of risks arising from the use of pesticides, in particular to human and animal health and to the environment:

- (1) **high standards** in legally based registration and placing on the market of active substances and products,
- (2) a package of **mandatory and voluntary provisions** and requirements for proper use of pesticides,
- (3) **promotion of alternative methods** such as non-chemical plant protection measures, wherever possible, and
- (4) **control and monitoring** through implementation of risk indicators to describe progress of risk reduction programmes.

### The “Necessary Minimum” in Pesticide Use

3. Based on different sets in a scientific evaluation, pesticides are only registered and placed on the market provided that - when properly used - they have no adverse effects on human and animal health and only acceptable effects on the environment. Sustainable use of pesticides contributes to further risk reduction especially aiming at a significant reduction of misuses, better compliance with the existing regulations and uses only at the *necessary minimum*. The *necessary minimum* can be described as pesticide use intensity where optimum efficacy is combined with the minimum quantity necessary. It depends on application parameters (pesticide selected, dosage, time, application equipment available), local conditions and using alternatively reliable non-chemical measures.

## **OECD and EU Pesticide Risk Indicators to Control Progress and Success**

4. To measure the status-quo of risks and the progress in risk reduction programmes, risk indicators have been developed and used in many countries. In this context, since 1995 the OECD Pesticide Programme has published a series of publications about pesticide risk indicators, such as the reports of the projects on Aquatic Risk Indicators (ARI) and on Terrestrial Risk Indicators (TERI), the report of the joint OECD/EC Seminar on HARmonised environmental Indicators for pesticide Risk (HAIR). The EU HAIR project (<http://www.rivm.nl/rvs/overige/risbeoor/Modellen/HAIR.jsp>) to harmonize risk indicators in the EU built on these activities and developed a series of new pesticide risk indicators, which now have to be validated.

## **National Plans**

5. With regard to development and implementation of national plans or programmes for risk reduction, many countries have already gained good experiences and impressive results. In March 2007, an expert meeting about national action plans or programmes in the EU, where examples of different Member States were presented, took place in Berlin (for documents: <http://www.jki.bund.de/>).

6. National action plans or programmes as strategic instruments take into consideration that non-compliance with the existing legal framework for registration and use of pesticides is observed and MRLs are exceeded.

7. National action plans or programmes that have been already implemented or planned in several OECD countries are aiming at setting targets, measures and timetables to reduce risks and impacts of pesticide uses to human health and to the environment and at encouraging the development and introduction of IPM as well as alternative approaches or techniques.

## INSTRUMENTS FOR RISK REDUCTION IN GENERAL

8. Some possible measures for a significant reduction of risks arising from the use of pesticides can be identified as follows:

- **Registration**
  - ✓ approval of a pesticide is granted only after comprehensive and satisfactory scientifically-based evaluation
  - ✓ proper uses of pesticides have no adverse effects on human and animal health, risks to the environment are acceptable
  - ✓ new findings or knowledge related to risk can lead to re-evaluation
- **Compliance**
  - ✓ full compliance with all regulation issues is crucial for safe handling and use of pesticides
- **Integrated Pest Management (IPM)**
  - ✓ the key strategy for a sustainable use of pesticides worldwide
  - ✓ implementation of general principles of IPM as minimum requirement
  - ✓ voluntary implementation of crop or sector specific guidelines of IPM supported by establishing appropriate incentives and supporting systems to encourage users at national level
  - ✓ anti-resistance strategies for pesticides are very important part of IPM strategies
- **Training and certification schemes for users, advisors and distributors**
  - ✓ only well educated and informed users in the whole field of plant protection are able to handle and use pesticides as sustainable as possible
  - ✓ implementation of mandatory/voluntary training programmes for safe handling and sustainable use of pesticides, remnants, waste and application equipment as well as pertinent knowledge on IPM
  - ✓ easily accessible information and transfer of appropriate updated knowledge
  - ✓ safeguarding of secure compliance with national regulations
- **Application technology and inspection of spraying equipment**
  - ✓ mandatory/voluntary certification of new equipment
  - ✓ mandatory/voluntary inspection of spraying equipment in use at regular intervals
  - ✓ development and use of better application technology and equipment
- **Extension services**
  - ✓ maintenance and enhancement of independent advisory services supporting users of pesticides in particular with emphasis on IPM strategies
  - ✓ systems for education and training of advisors and extension officers
- **Hot-spot management**
  - ✓ protection of sensitive crops or areas by better monitoring and specific risk management strategies (e.g. specific buffer zones, restrictions for the use of certain pesticides, special training for users)
  - ✓ enhanced dissemination and use of monitoring results

- **Record keeping**
  - ✓ records of pesticide use on farm scale and national statistics are an important tool for all kinds of measures in national action plans and compliance programmes
- **Obsolete pesticides and used containers**
  - ✓ implementation of waste treatment systems to collect obsolete pesticides and empty containers
- **Research & development**
  - ✓ development of technologies and implementation of programmes to support innovative technologies especially aiming at IPM measures and the reduction of risks
  - ✓ expansion of international co-operation, joint research activities and spreading of excellence (e.g. [www.iobc-wprs.org](http://www.iobc-wprs.org), [www.endure-network.eu](http://www.endure-network.eu))
  - ✓ scientific support of governance processes
- **Information programmes**
  - ✓ implementation of systems to inform the general public and experts about risks and benefits of pesticide uses
  - ✓ information about research and development in plant protection and about sustainability of IPM strategies.



## NATIONAL ACTION PLANS OR PROGRAMMES

9. National action plans or programmes are directed to support the implementation of IPM strategies, compliance with existing regulations and a sustainable use of pesticides. Such plans or programmes should balance between economic, ecological and socio-ecological interests of all stakeholders in society. Nevertheless, they should primarily be considered as an umbrella for concerted actions to implement risk reduction strategies and measures as well as control and communication tools.

10. Development and implementation of such plans or programmes should consider the following key elements ensuring the widespread adoption throughout society:

- ***Implementing the instruments***  
Implementation of key elements for risk reduction, such as Integrated Pest Management (IPM) as common practice, compliance programmes, inspection of application equipment
- ***Defining targets and setting milestones***  
Identification and agreement about goals, priority objectives, milestones and measures for risk reduction and progress indicators
- ***Supporting research***  
Identification of limitations and main questions for research and development of innovative technologies and measures (e.g. decision support systems and precision farming);  
Plans and programmes to initiate or support such research
- ***Controlling and monitoring***  
Use of information and knowledge generated in a network of demonstration and reference farms
- ***Encouraging stakeholder participation***  
Participation of stakeholders (e.g. farmers, industry, retailers, extension services, research institutes, authorities, consumer protection and environment NGOs) should be ensured from the beginning to the end of the process.

## ANNEX 1

### Terms of Reference

#### OECD Pesticide Risk Reduction Steering Group (Sub-group of the OECD Working Group on Pesticides)

**Goal:** to promote pesticide risk reduction

#### Objectives

The Steering Group will provide a forum for countries to learn from one another, contribute their experience, and work together in order to accomplish the following objectives:

- create strategic opportunities that facilitate risk reduction nationally and in other arenas
- give international credibility to risk reduction tools and measures
- reach out to other groups in order to share information, identify areas of common interest and encourage risk reduction
- promote communication on risk reduction

#### Activity Areas

The Steering Group will:

1. organise discussions, seminars or workshops on topics related to risk reduction
2. explore options and create opportunities for outreach to important stakeholders and fora
3. propose strategic options for risk reduction
4. work on ways to evaluate progress in risk reduction

#### Participation

The Steering Group will be comprised of representatives of the OECD countries, the European Commission, and invited experts. The Group will be headed by a chairman and vice-chairman.

The Steering Group will maintain links within OECD and with other international groups that work in related areas.

The Steering Group will meet approximately once a year.