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Introduction

The Food and Agriculture Organization of the United Nations (FAO), in cooperation with the plant science industry and other international organizations, including NGOs, developed a voluntary International Code of Conduct on the Distribution and Use of Pesticides to provide standards for pesticide activities until countries have developed adequate national regulatory infrastructures for pesticides. The original FAO Code was published in 1985 and was revised with the adoption of the Rotterdam Convention on the Prior Informed Consent procedure in 1998. Following changes in other areas of international policy, and in view of continuing challenges in the management of pesticides in developing countries, a further revision of the FAO Code was developed, which was approved by the FAO Council in November 2002.

A fourth version of the Code, renamed as the International Code of Conduct on Pesticide Management was adopted by FAO in June 2013, and incorporates public health pesticides and vector control, broadening the scope beyond agricultural pesticides. It gives greater attention to health and environmental aspects of pesticides and, for the first time, highlights the risks posed by Highly Hazardous Pesticides (HHPs) and the need for risk management. This version was endorsed by the FAO and the WHO Executive Board and published under the auspices of the Inter-Organisation Programme for the Sound Management of Chemicals (IOMC).

CropLife International has been closely involved in the development of the Code and, along with its members, has committed to abide by its provisions. All CropLife associations require adherence to the Code as a condition of membership.

Abiding by the Code helps to support the human right to safe and affordable food, and to a clean healthy environment and safe working conditions. The pesticide industry has a clear responsibility to initiate

appropriate actions to ensure the Code is being followed within their own companies.

Generally, the Code covers the whole of the pesticide lifecycle from research and development, manufacture and use, to the safe removal and treatment of waste, as shown by the CropLife International Stewardship Arch (Figure 1). Additionally, the Code provides guidance on pesticide registration and responsible marketing.

Figure 1: Pesticide Stewardship



The Code covers the responsibilities of all stakeholders involved in the management of pesticides. This summary, prepared by CropLife International, highlights the particular responsibilities for the pesticide industry. In the first section of this booklet, each article is reproduced in full, along with a simplified summary spelling out the specific responsibilities of the industry.

The second part of this booklet summarizes the available guidance for those involved in specific activities: production, formulation, and packaging of crop protection products; marketing, distribution, and sales; registration; product development; and technical service activities. In addition, the separate responsibilities of traders and formulators are presented. Appendices are provided on relevant international instruments that support the code, FAO/WHO guidelines that underlie the code, as well as guidelines and materials produced by CropLife International.

Article 1: Objectives of the Code

The objectives of the Code are to establish voluntary standards of conduct to be shared by all stakeholders connected with the pesticide management, particularly where there is inadequate or no national legislation or controls to regulate pesticides. The Code addresses the need for a cooperative effort between governments of exporting and importing countries, as well as other stakeholders, including international organizations, pesticide industry, application equipment industry, traders of pesticides, pest control operators, food industry, pesticide users, and public-interest groups such as environmental groups, consumer groups, and trade unions to provide training and promote practices that ensure responsible and effective use, including the promotion of IPM/IVM. One of the basic functions of the Code is to serve as a point of reference for countries until they have established their own national regulatory infrastructures. The Code is designed for use within the context of national regulations and describes the shared responsibility of stakeholders to realise the benefits from pesticide use while mitigating adverse effects on human and animal health or the environment. It also promotes stakeholders to participate in several international agreements, including the Rotterdam Convention on Prior Informed Consent.

Code of Conduct

- 1.1 The objectives of this Code are to establish voluntary standards of conduct for all public and private entities engaged in or associated with the management of pesticides, particularly where there is inadequate or no national legislation to regulate pesticides.
- 1.2 The entities which are addressed by this Code include governments, international organizations, pesticide industry, application equipment industry, traders of pesticides, pest control operators (PCOs), food industry and other industries that use or have an interest in pesticides, pesticide users, and public-interest groups such as environmental groups, consumer groups and trade unions.
- 1.3 The Code is designed for use within the context of national legislation as a basis whereby relevant entities addressed by the Code may determine whether their proposed actions and/or the actions of others constitute acceptable practices.

- Responsible and generally accepted trade practices are employed.
- Training and capacity building to all relevant stakeholders is given a high priority.
- Pesticides are used effectively and efficiently in a manner that contributes to the sustainable improvement of agriculture, public and animal health and the environment.
- A life-cycle approach is adopted where all major aspects related to the development, regulation, management, packaging, labelling, distribution, handling, application, use and control of pesticides, including post-registration activities and disposal of pesticides and used containers are managed.
- Integrated Pest Management (IPM), including integrated vector management (IVM) for public health pests, is supported.
- Members cooperate in information exchange and international agreements, especially the Rotterdam Convention on Prior Informed Consent.

- 1.4 The Code describes the shared responsibility of many sectors of society to work together so that the benefits to be derived from the necessary and acceptable use of pesticides are achieved without significant adverse effects on human and animal health and/or the environment. To this end, all references in this Code to a government or governments shall be deemed to apply equally to regional groupings of governments for matters falling within their areas of competence.
- 1.5 The Code addresses the need for a cooperative effort between governments of pesticide exporting and importing countries to promote practices that minimize potential health and environmental risks associated with pesticides, while ensuring their effective use.
- 1.6 The Code recognizes that relevant training at all appropriate levels is an essential requirement in implementing and observing its provisions. Therefore, entities addressed by the Code should give high priority to relevant training and capacity building activities related to each Article of the Code.
- 1.7 The standards of conduct set forth in this Code:
- 1.7.1 encourage responsible and generally accepted trade practices;
- 1.7.2 assist countries which have not yet established regulatory controls on the quality and suitability of pesticide products needed in that country to promote the judicious and efficient use of such products and address the potential risks associated with their use;
- 1.7.3 promote practices which reduce risks throughout the lifecycle of pesticides, with the aim of minimizing adverse effects on humans, animals and the environment and preventing accidental poisoning resulting from handling, storage, transport, use or disposal, as well as from the presence of pesticide residues in food and feed;
- 1.7.4 ensure that pesticides are used effectively and efficiently and in a manner that contributes to the sustainable improvement of agriculture, public and animal health and the environment;

Focus on Training

CropLife International and its member companies train approximately 10 million farmers per year in IPM and responsible use of pesticides. A number of online resources are available to support this, including:

- IPM Training Manual
- Responsible Use of Pesticides Training Manual
- Retailer Training Manual
- Guidelines on the Safe and Effective Use of Crop Protection Products
- Guideline on the Use of Personal Protective Equipment in Hot Climates
- Infographic on 9 steps for Responsible Use of Pesticides
- Infographic on Personal Protective Equipment
- An online training programme on IPM developed by CropLife International in partnership with the Global Forum for Rural Advisory Services (GFRAS)

Note, these and other materials are linked in Appendix 3.

- 1.7.5 adopt the "life cycle" approach to management of pesticides to address all major aspects related to the development, registration, production, trade, packaging, labelling, distribution, storage, transport, handling, application, use, disposal and monitoring of pesticides and pesticide residues as well as management of pesticide waste and pesticide containers;
- 1.7.6 are designed to promote Integrated Pest Management (IPM) and Integrated Vector Management (IVM);
- 1.7.7 promote participation in information exchange and international agreements identified in Appendix 1, in particular the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. (1)

Article 2: Terms and Definitions

Specific terms used in the Code are defined. For the most part, the definitions will be familiar to those who work with pesticides. However, there are some for which the definitions given are worthy of special note:

ADVERTISING - means the promotion of the sale and use of pesticides by printed and electronic media, signs, displays, gift, demonstration or word of mouth.

BANNED PESTICIDE - means a pesticide for which all uses have been prohibited by final regulatory action, in order to protect human health or the environment. It includes a pesticide that has been refused approval for first-time use, or has been withdrawn by industry, either from the domestic market or from further consideration in the domestic approval process, and where there is clear evidence that such action has been taken in order to protect human health or the environment.

EQUIVALENCE - means the determination of the similarity of the impurity and toxicological profile, as well as of the physical and chemical properties, presented by supposedly similar technical material originating from different manufacturers, in order to assess whether they present similar levels of risk.

GOOD AGRICULTURAL PRACTICE (GAP) - in the use of pesticides, includes the officially recommended or nationally authorized uses of pesticides under actual conditions necessary for effective and reliable pest control. It encompasses a range of levels of pesticide applications up to the highest authorized use, applied in a manner which leaves a residue which is the smallest amount practicable.

HAZARD - means the inherent property of a substance, agent or situation having the potential to cause undesirable consequences (e.g., properties that can cause adverse effects or damage).

HIGHLY HAZARDOUS PESTICIDES - pesticides that are acknowledged to present particularly high levels of acute or chronic hazards to health or environment according to internationally accepted classification systems such as WHO or GHS or their listing in relevant binding international agreements or conventions. In addition, pesticides that appear to cause severe or irreversible harm to health or the environment under conditions of use in a country may be considered to be and treated as highly hazardous.

INTEGRATED PEST MANAGEMENT (IPM) - means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption of agroecosystems and encourages natural pest control mechanisms.

INTEGRATED VECTOR MANAGEMENT (IVM) - means the rational decision-making process for the optimal use of resources for disease vector control. It aims to improve efficacy, cost-effectiveness, and ecological soundness of disease vector control interventions for control of vector-borne diseases;

LIFE CYCLE - means all the stages a pesticide might pass through from production to its degradation in the environment after use, or its destruction as an unused product. The life cycle includes manufacture,

formulation, packaging, distribution, storage, transport, use and final disposal of a pesticide product and/or its container.

PERSONAL PROTECTIVE EQUIPMENT - means any clothes, materials or devices that provide protection from pesticide exposure during handling and application. In the context of this Code, it includes both specifically designed protective equipment and clothing reserved for pesticide application and handling.

PRODUCT STEWARDSHIP - means the responsible and ethical management of a pesticide product from its discovery through to its ultimate use and beyond.

RISK - the probability and severity of an adverse health or environmental effect occurring as a function of a hazard and the likelihood and the extent of exposure to a pesticide.

SEVERELY RESTRICTED PESTICIDE - means a pesticide for which virtually all use has been prohibited by final regulatory action in order to protect human health or the environment, but for which certain specific uses

remain allowed. It includes a pesticide that has, for virtually all use, been refused for approval or been withdrawn by industry either from the domestic market or from further consideration in the domestic approval process, and where there is clear evidence that such action has been taken in order to protect human health or the environment.

TENDER - means request for bids in purchasing of pesticides.

TOXICITY - means a physiological or biological property which determines the capacity of a chemical to do harm or produce injury to a living organism by other than mechanical means.

VULNERABLE GROUPS - means persons that include pregnant and nursing women, the unborn, infants and children, the elderly, HIV/AIDS affected people and, when subject to high exposure to pesticides over the long term, workers and residents.

Article 3: Pesticide Management

Governments have the overall responsibility to regulate the availability, distribution, and use of pesticides in their countries, and should allocate adequate resources for this mandate. Governments of pesticide exporting countries should assist importing countries by ensuring that technical assistance is provided, and good trading practices are followed. Pesticide industry and traders should adhere to the provisions of this Code as a standard for the manufacture, distribution, and advertising of pesticides, particularly in countries lacking appropriate legislation and advisory services. Pesticides requiring the use of personal protective equipment that is uncomfortable, expensive, or is not readily available should be avoided, especially in tropical climates. All relevant entities addressed by the Code should take coordinated action to produce and disseminate relevant and clear educational materials through all available media to extension services, agricultural and public health advisory services, farmers and farmers' organizations, pest control operators, public health workers and other entities providing advice on pesticide management. Users should be encouraged to seek educational materials and be helped to understand and follow its advice before handling and applying pesticides. All stakeholders should proactively develop and promote IPM/IVM; and, governments, with industry and other organizations, should develop and promote resistance management strategies to prolong the useful life of valuable pesticides. Governments and the application industry should develop and promote the use of pesticide application methods and equipment that pose low risks to human health and the environment and conduct practical training in their use.

Code of Conduct

- 3.1 Governments have the overall responsibility to regulate the availability, distribution, and use of pesticides in their countries, and should allocate adequate resources for this mandate. (2)
- 3.2 Pesticide industry should adhere to the provisions of this Code as a standard for the manufacture, distribution, sale, and advertising of pesticides. This is particularly important in those countries that have not yet established or are unable to effectively operate adequate regulatory schemes and advisory services.
- 3.3 Governments, industry and other entities addressed by this Code, should ensure that the requirements of relevant international agreements are followed.

- The provisions of the Code are accepted as standard for the manufacture, distribution, and advertising of pesticides.
- The requirements of relevant international agreements are followed.
- Only registered pesticides of adequate quality are packaged and a labelled as appropriate for each specific market.
- The provisions of the FAO guidelines on tender procedures are followed.
- The risk to users and the environment is mitigated as a result of the choice of formulation and its presentation, packaging and labelling.
- Each package of pesticide contains information and instructions in a form and language that promote responsible and effective use.

- 3.4 Governments of pesticide exporting countries should, to the extent possible ensure that good trading practices are followed in the export of pesticides, especially with those countries that have not yet established adequate regulatory schemes.
- 3.5 Pesticide industry and traders should observe the following practices in pesticide management. This is particularly important in those countries that have not yet established or are unable to effectively operate adequate regulatory schemes and advisory services.
- 3.5.1 supply only pesticides of adequate quality, packaged, and labelled as appropriate for each specific market (3);
- 3.5.2 in close cooperation with procurers of pesticides, adhere closely to the provisions of FAO and WHO guidance on procurement and tender procedures (4, 5);
- 3.5.3 pay special attention to the choice of pesticide formulations and to presentation, packaging, and labelling in order to minimize risks to users, the public and the environment;
- 3.5.4 provide, with each package of pesticide, information, and instructions in one or more of the official languages of the country and in a form adequate to ensure effective use, and minimize risks to users, the public and the environment;
- 3.5.5 be capable of providing effective technical support, backed up by full product stewardship to end-user level, including advice on and implementation of mechanisms for the effective management of unused and obsolete pesticides and empty pesticide containers;
- 3.5.6 retain an active interest in following their products through their entire life cycle, keeping track of major uses and the occurrence of any problems arising from the use of their products, as a basis for

- Technical support, backed up by product stewardship, is provided to farmers, extension services and distributors, including advice on disposal of pesticides and used pesticide containers.
- As part of a registration renewal or when managing unexpected events, major uses and problems occurring from use, storage, or disposal are tracked to determine the need for changes in labelling, directions for use, packaging and formulation.
- Use of pesticides is avoided if handling and application require the use of personal protective equipment that is uncomfortable under conditions of use, expensive, or not readily available.
- In collaboration with governments and the application industry, pesticide application methods and equipment that minimize risks, optimize efficiency and cost-effectiveness are developed and supported, and practical training is conducted.
- In collaboration with governments and national and international organizations, strategies to prevent and manage pest resistance to pesticides to prolong the effectiveness of valuable pesticides and reduce the adverse effects of resistance. This includes consideration of the impacts of pesticides used in agriculture on resistance development among disease vectors and public health pests.

determining the need for changes in labelling, directions for use, packaging, formulation or product availability.

- 3.6 Pesticides whose handling and application require the use of personal protective equipment that is uncomfortable, expensive or not readily available should be avoided, especially in the case of small-scale users and farm workers in hot climates (6);
- 3.7 All relevant entities addressed by the Code should take coordinated action to produce and disseminate relevant and clear educational

materials through all available media to extension services, agricultural and public health advisory services, farmers and farmers' organizations, pest control operators, public health workers and other entities providing advice on pesticide management. Users should be encouraged to seek educational materials and be helped to understand and follow its advice before handling and applying pesticides.

- 3.8 Concerted efforts should be made by governments to develop and promote the use of IPM/IVM. Furthermore, lending institutions, donor agencies and governments should support the development of national IPM/IVM policies and improved IPM/IVM concepts and practices. These should be based on strategies that promote increased participation of farmers, (including women's groups), extension agents and on-farm researchers, communities, and relevant entities from the public health and other sectors.
- 3.9 All stakeholders, including farmers and farmer associations, IPM/IVM researchers, extension agents, crop consultants, food industry, manufacturers of biological and chemical pesticides and application equipment, PCOs, public health workers, environmentalists and representatives of consumer groups and other public interest groups should play a proactive role in the development and promotion of IPM/IVM.
- 3.10 Governments, with the support of relevant international and regional organizations, donor agencies and research funds, should encourage and promote research on, and the development of, alternatives to existing pesticides that pose fewer risks such as biological control agents and techniques; nonchemical pesticides and pest control methods; pesticides that are of low risk to human and animal health and the environment, that as far as possible or desirable, are target-specific, and that degrade into innocuous constituent parts or metabolites after use.

Focus on Pesticide Resistance Management

CropLife International has developed pesticide resistance management strategies through four expert groups:

- Fungicide Resistance Action Committee (FRAC)
- Herbicide Resistance Action Committee (HRAC)
- Insecticide Resistance Action Committee (IRAC)
- Rodenticide Resistance Action Committee (RRAC)

Membership of these RACS is open to all stakeholders in the pesticide industry. The websites of the RACs describe how resistance can develop and how it can be managed. The training manuals referenced under Article 1 also summarize resistance management strategies.

The member companies of CropLife International have committed to promoting pesticide Mode of Action classification on their product labels, where appropriate, which is key to effective resistance management.

- 3.11 Governments, pesticide industry and the application equipment industry should develop and promote the use of pesticide application methods (7, 8, 9, 10, 11) and equipment (12, 13, 14, 15, 16) that minimize the risks from pesticides to human and animal health and/or the environment and that optimize efficiency and cost-effectiveness and should conduct periodic practical training in such activities (17). The application equipment industry should also provide users with information on proper maintenance and use of application equipment.
- 3.12 Governments, pesticide industry and national and international organizations should collaborate to develop and promote strategies to prevent and manage pest resistance to pesticides in order to

- prolong the useful life of valuable pesticides and reduce the adverse effects of resistance to pesticides. This should include consideration of the impacts of pesticides used in agriculture on resistance development among disease vectors and public health pests (18, 19).
- 3.13 Governments whose programs for regulating pesticides are well developed should, to the extent possible, provide technical assistance, including training, to other countries in developing their infrastructure and capacity to manage pesticides throughout their life cycle.

Article 4: Testing of Pesticides

Pesticides must be adequately and effectively tested in accordance with recognized procedures to evaluate their efficacy, behavior and fate in the environment, and the hazard and risk associated with anticipated conditions in various countries of use. Reports of such tests should be made available for assessment by responsible government authorities. Each country should be able to control the quality of pesticides offered for sale or export, and to determine the suitability of their formulations according to FAO and WHO specifications. International organizations should assist in the establishment of analytical laboratories in importing countries, and, with exporting governments, assist in training developing country personnel in the interpretation and evaluation of data and risk/benefit analysis.

Code of Conduct

- 4.1 Pesticide industry should:
- 4.1.1 ensure that each pesticide and pesticide product is adequately and effectively tested by recognized procedures and test methods so as to fully evaluate its inherent physical, chemical or biological properties, efficacy (20, 21), behavior, fate, hazard and risk (22, 23) with regard to the various anticipated uses and conditions in regions or countries of use;
- 4.1.2 ensure that such tests are conducted in accordance with sound scientific and experimental procedures and the principles of good laboratory and experimental practice (24);
- 4.1.3 make available copies or summaries of the original reports of such tests for assessment by responsible government authorities in all countries where the pesticide is to be offered for sale or use. If translated documents are provided, their accuracy should be certified;
- 4.1.4 ensure that the proposed use, label claims and directions, packages, safety data sheets, technical literature and advertising truly reflect the outcome of these scientific tests and assessments:

- Each pesticide active ingredient and the formulated product are adequately and effectively tested with recognized test methods and in accordance with the principles of good laboratory practice so as to fully evaluate its inherent physical, chemical or biological properties, efficacy (behavior, fate, hazard and risk) with regard to the various anticipated uses and conditions in regions or countries of use.
- Original reports or summaries of the tests conducted are provided for assessment by government authorities in the countries intended for sale or use. If translated documents are provided, their accuracy (the accuracy of the translation) is certified (normally by an accredited body).
- The intended use pattern for the products, as well as label claims and directions, packages, safety data sheets, technical literature, and advertising accurately reflect the results of the tests and assessments.
- Required analytical standards, as well as advice and assistance in training technical analytical staff, are provided to governments upon request.

- 4.1.5 provide, at the request of a country, methods for the analysis of any active ingredient, co-formulant or relevant impurity or formulation that they manufacture, and provide the necessary analytical standards;
- **4.1.6** provide advice and assistance in the training of technical staff involved in the relevant analytical work. Formulators should actively support this effort;
- 4.1.7 conduct residue trials prior to marketing, at least in accordance with Codex Alimentarius and FAO guidelines on good analytical practice (25) and on crop residue data (26, 27) in order to provide a basis for establishing appropriate maximum residue limits.
- 4.2 Each country should possess or have access to facilities to verify and exercise control over the quality of pesticides offered for sale or export, to establish the quantity of the active ingredient or ingredients and the suitability of their formulation, according to FAO or WHO recommended specifications (28, 29, 30) or national specifications, when available (31). Where a country lacks suitable facilities, access to laboratories in another country should be considered.
- 4.3 International organizations and other interested bodies should, within available resources, consider assisting in the establishment of analytical laboratories, or strengthening existing laboratories, in pesticide importing countries, either on a national or a regional basis. All such laboratories should be set up in a manner that assures their economic and technical sustainability beyond the scope of assistance provided by international organizations and other interested bodies. These laboratories should adhere to sound scientific procedures and guidelines for good laboratory practice, should possess the necessary expertise and should have adequate analytical equipment and supplies of certified analytical standards, solvents, reagents and appropriate, up-to-date analytical methods.

- Residue trials are conducted prior to marketing, as a minimum, in accordance with Codex Alimentarius and FAO guidelines on good analytical practices and on crop residue data in order to provide a basis for establishing appropriate maximum residue limits.
- There is collaboration with governments in post-registration surveillance and conducting monitoring studies to determine the fate of pesticides and their health and environmental effects under operational conditions.

Focus on Pesticide Registration

Through participation in the FAO/WHO Joint Meeting on Pesticide Management (JMPM), CropLife International and other relevant stakeholders have contributed to the development of the Pesticide Registration Toolkit. Available on the FAO website, this toolkit provides comprehensive guidelines for pesticide registrars, in particular in low-income countries, on the requirements for appropriate registration of pesticides.

- 4.4 Exporting governments and international organizations should play an active role in assisting developing countries in training personnel and providing guidance on the design and conduct of trials, the interpretation and evaluation of test data, and risk/benefit analysis. They should also promote maximum availability to, and use by developing countries of, appropriate international, regional, and national assessments and evaluations of pesticide hazards and risks.
- 4.5 Pesticide industry and governments should collaborate in postregistration surveillance and conducting monitoring studies to determine the fate of pesticides and their health and environmental effects under operational conditions (32).

Article 5: Reducing Health and Environmental Risks

Governments have the responsibility to register pesticides; periodically review the acceptability and availability of pesticides marketed in their country; determine the extent of occupational exposure to pesticides and investigate poisoning incidents; and establish poison control centres to provide guidance on first aid and medical treatment. Governments should maintain statistical data on pesticide poisoning and on residues in food and the environment utilising suitably trained personnel with adequate resources. Pesticides should be segregated from foodstuffs in stores and clearly marked as hazardous materials. Poison control centres and doctors should be provided with information on treatment of pesticide poisoning. Production facilities in developing countries should have appropriate engineering standards and operating procedures, as well as protective equipment available for workers. Manufacturing and formulating plants should be properly located in order that wastes and effluents can be adequately controlled. Quality-assurance procedures are maintained during manufacture.

Code of Conduct

- 5.1 Governments should:
- 5.1.1 implement a pesticide policy, and a pesticide registration and control system along the lines set out in Article 6;
- 5.1.2 regularly review the pesticides marketed in their country, their acceptable uses and their availability to each sector of the public, and conduct special reviews when indicated by scientific evidence;
- 5.1.3 carry out health surveillance programs of those who are occupationally exposed to pesticides and investigate, as well as document, poisoning cases;
- 5.1.4 provide guidance and instructions to health workers, physicians and hospital staff on the diagnosis and treatment of suspected pesticide poisoning as well as on the prevention of exposure and poisoning, and the reporting and recording of incidences;
- 5.1.5 establish national or regional poisoning information and control centers at strategic locations to provide immediate guidance on first aid and medical treatment, accessible at all times (33, 35);

- Poison control centres and doctors are provided with information about pesticide hazards and suitable treatment of pesticide poisoning.
- Less toxic formulations are developed, and products are provided in ready-to-use packages when it is reasonable to do so.
- Mixing and loading, application methods, and equipment use recommendations are developed to minimize exposure to pesticides.
- Where container reuse is allowed and/or where container collection systems exist, promote the return and reuse of refillable containers or recycling of non-refillable containers.
- Containers used are not attractive for subsequent (alternative) reuse (and discourage reuse) and are not attractive to children or easily opened.
- Clear and concise labelling is provided.
- Users and environmental authorities are provided with information on appropriate remediation measures in case of spills and accidents.

- 5.1.6 utilize all possible means for collecting reliable data and maintaining statistics on health effects of pesticides and pesticide poisoning incidents, using harmonized tools where available and submit, where appropriate, the Rotterdam Convention Human Health Incident Report Forms on Severely Hazardous Pesticide Formulations (SHPF), to the relevant designated national authority (34). Suitably trained personnel and adequate resources should be made available to ensure the accuracy of information collected;
- 5.1.7 provide extension services, agricultural and public health advisory services, farmers and farmers' organizations, pest control operators, public health workers and other entities providing advice on pest and/or vector management with adequate information about practical IPM/IVM strategies and methods, pesticide risk reduction measures, as well as the range of all methods available for use, including information on risks, hazards and mitigation measures in case of exposure or accident;
- 5.1.8 with the cooperation of the pesticides industry, limit the availability of pesticides that are sold to the general public through non-specialized outlets, to low hazard products (WHO Class U) or low risk and ready to use products that require no dilution or other preparation, and can be applied with limited need for personal protective equipment;
- 5.1.9 require that pesticides be physically segregated from other merchandise to prevent contamination or mistaken identity and where appropriate require that pesticides are clearly marked as hazardous materials. Every effort should be made to publicize the dangers of storing pesticides and foodstuffs together;
- 5.1.10 utilize all possible means for collecting reliable data, maintaining statistics on environmental contamination and adverse effects, and reporting specific incidents related to pesticides. Where

- There is cooperation with governments to limit the availability of pesticides that are sold to the general public through nonspecialized outlets, to low hazard products (WHO Class U) or low risk and ready to use products and can be applied with limited need for personal protective equipment.
- Sale is halted and products are recalled as soon as possible when handling or use pose an unacceptable risk under any use directions or restrictions. The government is notified.
- Appropriate and affordable personal protective equipment is promoted.
- There is cooperation with governments to establish services to collect and safely dispose of used containers and small quantities of left-over pesticides.
- Responsible information dissemination on pesticides and their uses, risks, and alternatives, is undertaken.
- There are practices to protect biodiversity and minimize adverse effects of pesticides on the environment (water, soil, air) and on non-target organisms.
- Awareness and understanding are raised among pesticide users about the importance and ways of protecting health and the environment.
- Production facilities in developing countries adopt engineering standards and operating practices appropriate to the nature of the manufacturing operation and associated hazards; ensure the availability of appropriate protective equipment; take all necessary precautions to protect workers, bystanders, and the surrounding community; and adequately control waste and effluents.
- Products manufactured comply with relevant standards of purity, performance, stability, and safety.

appropriate, governments should submit the Rotterdam Convention Environmental Incidents Reporting Forms on Severely Hazardous Pesticide Formulations (SHPF) to the designated national authority (34). Suitably trained personnel and adequate resources should be made available to ensure the accuracy of information collected;

- 5.1.11 implement a program to monitor pesticide residues in food, feed, drinking water, the environment and habitations where pesticides have been applied.
- 5.2 Even where a control scheme is in operation, pesticide industry should:
- 5.2.1 cooperate in the regular reassessment of the pesticides which are marketed;
- 5.2.2 provide poison-control centers and medical practitioners with information about pesticide hazards, toxicity of active ingredients and co-formulants and on suitable treatment of pesticide poisoning;
- 5.2.3 provide users and environmental authorities with information on appropriate remediation measures in case of spills and accidents;
- 5.2.4 make every reasonable effort to reduce risks posed by pesticides by:
- 5.2.4.1 making less toxic formulations available;
- 5.2.4.2 introducing products in ready-to-use packages;
- 5.2.4.3 developing application methods and equipment that minimize exposure to pesticides;
- 5.2.4.4 using returnable and refillable containers where effective container collection systems are in place;

Focus on Pesticide Container Management

CropLife International and its members and partners have helped to establish empty pesticide container management schemes across the world. Currently 60 countries have well-established, countrywide programmes that collect approximately 143,000 tonnes of used plastic pesticide containers, most of which are recycled.

CropLife International has published a roadmap for establishing Container Management Schemes, which complements the technical guidelines on container management published by FAO/WHO. Training materials are also available on the CropLife International website, which describes how to properly rinse containers and steps for proper container management.

- 5.2.4.5 using containers that are not attractive for subsequent reuse and promoting programs to discourage their reuse, where effective container collection systems are not in place;
- 5.2.4.6 using containers that are not attractive to or easily opened by children, particularly for domestic use products;
- 5.2.4.7 using clear and concise labelling.
- 5.2.5 halt sale and recall products as soon as possible when handling or use pose an unacceptable risk under any use directions or restrictions and notify the government.
- Government and industry should cooperate in further reducing risks by:
- 5.3.1 promoting the use of personal protective equipment which is suitable for the tasks to be carried out, appropriate to the prevailing climatic conditions and affordable (6);

- 5.3.2 making provisions for safe storage of pesticides at wholesale, retail, warehouse and farm level (36);
- 5.3.3 establishing services to collect and safely dispose of used containers and small quantities of left-over pesticides (37);
- 5.3.4 protecting biodiversity and minimizing adverse effects of pesticides on the environment (water, soil and air) and on non-target organisms;
- 5.3.5 raising awareness and understanding among pesticide users about the importance and ways of protecting health and the environment from the possible adverse effects of pesticides.
- 5.4 Entities addressed by the Code should consider all available facts and should promote responsible information dissemination on pesticides and their uses, risks and alternatives.
- 5.5 In establishing pesticide production facilities of a suitable standard in developing countries, manufacturers and governments should cooperate to:
- 5.5.1 adopt engineering standards and operating practices appropriate to the nature of the manufacturing operations and the hazards involved, and ensure the availability of appropriate protective equipment;
- 5.5.2 take all necessary precautions to protect workers, bystanders, nearby communities and the environment;
- 5.5.3 ensure the proper siting of manufacturing and formulating plants as well as their stores and adequately monitor and control wastes, emissions and effluents in accordance with national and regional regulations where available, or in accordance with relevant international guidelines;

5.5.4 maintain quality-assurance procedures to ensure compliance with the relevant standards of purity, performance, stability and safety.

Article 6: Regulatory and Technical Requirements

Governments should introduce legislation and enforce the regulation of pesticides, as well as establish appropriate infrastructures to register products, utilising risk evaluation and risk management decisions, prior to domestic use. The equivalence of pesticides should be determined according to the principles established by FAO and WHO. Re-registration procedures should be established to periodically review registered pesticides. Data should be collected on pesticide import, export, manufacture, formulation, quality, and quantity. Harmonized registration requirements and procedures should be promoted, as well as processes for detecting and controlling counterfeit and illegal pesticides. Regulate and monitor pesticide residues. Establish GAPs. Only permit application equipment and PPE to be marketed if they comply FAO/WHO guidelines (Appendix 2). Prevent use of pesticides by and sale pesticides to children.

Code of Conduct

- 6.1 Governments should:
- introduce the necessary policy and legislation for the regulation of pesticides, their marketing and use throughout their life cycle, and make provisions for its effective coordination and enforcement, including the establishment of appropriate educational, advisory, extension and healthcare services, using as a basis FAO and WHO guidelines and, where applicable, the provisions of relevant legally binding instruments. In so doing, governments should take full account of factors such as local needs, social and economic conditions, levels of literacy, climatic conditions, availability and affordability of appropriate pesticide application and personal protective equipment;
- 6.1.2 as recommended by the International Partnership for Cooperation on Child Labour in Agriculture introduce legislation to prevent the use of pesticides by and sale of pesticides to children. The use of pesticides by children in a work situation should be included in National Hazardous Work Lists for children under ILO Convention No. 182 on the Worst Forms of Child Labour in countries which have ratified it;

- A data assessment is provided for each product, with the necessary supporting data, to facilitate risk assessment that allows for science- and risk-based regulatory decision making.
- Any new or updated information that could change the regulatory status of a pesticide is provided to national regulatory authorities as soon as it becomes available.
- Active ingredients and other ingredients in pesticides are being marketed corresponding to the substances tested, evaluated, and cleared for toxicological and environmental acceptability.
- Active ingredients and formulated products conform to relevant FAO or WHO specifications.
- The quality and purity of pesticides offered for sale is verified.
- Corrective action is taken when problems occur.
- The national governments are provided with clear and concise data on export, import, manufacture, formulation, sale, quality, and quantity of pesticides.

- 6.1.3 establish regulatory schemes such as licenses or permits for pest control operators;
- 6.1.4 establish pesticide registration schemes and infrastructures under which each pesticide product is registered before it can be made available for use;
- 6.1.5 conduct risk evaluations and make risk management decisions based on all relevant available data and information, as part of the pesticide registration process (40, 41);
- 6.1.6 as part of the registration process establish Good Agricultural Practices in line with the definition of GAP in article 2, for each pesticide that is registered for agricultural use;
- 6.1.7 use the principles described in the Manual on Development and Use of FAO and WHO Specifications for Pesticides for determining equivalence of pesticides (28);
- 6.1.8 promote the advantages of, and cooperate with other governments in, the establishment of harmonized (regionally or by groups of countries) pesticide registration requirements, procedures and evaluation criteria, taking into account appropriate, internationally agreed technical guidelines and standards, and where possible incorporate these standards into national or regional legislation (40, 41);
- 6.1.9 Allow for re-evaluation and establish a re-registration procedure to ensure the regular review of pesticides, thus ensuring that prompt and effective measures can be taken if new information or data on the performance or risks indicate that regulatory action is needed;
- 6.1.10 improve regulations in relation to collecting and recording data on import, export, manufacture, formulation, quality and quantity of pesticides (42);

- 6.1.11 collect and record data on the import, export, manufacture, formulation, quality, quantity and use of pesticides in order to assess the extent of any possible effects on human and animal health and/or the environment, and to monitor trends in pesticide use for economic and other purposes;
- 6.1.12 permit pesticide application equipment and personal protective equipment to be marketed only if they comply with established standards (7, 8, 9, 13);
- 6.1.13 detect and control counterfeiting and illegal trade in pesticides through national inter-agency and intergovernmental cooperation and information sharing;
- 6.1.14 Regulate and monitor pesticide residues in food in accordance notably with the recommendations of the Codex Alimentarius. In the absence of Codex standards, national or regional standards should be used. This should be done in a manner that is consistent with WTO requirements and will not lead to technical barriers in trade.
- 6.2 Pesticide industry should:
- 6.2.1 provide an objective assessment together with the necessary supporting data on each product, including sufficient data to support risk assessment and to allow a risk management decision to be made (43);
- 6.2.2 provide national regulatory authorities with any new or updated information that could change the regulatory status of the pesticide, as soon as it becomes available;
- 6.2.3 ensure that the active ingredient and co-formulants of pesticide products being marketed correspond in identity, quality, purity and composition to the ingredients of the registered pesticide product

- that have been tested, evaluated and cleared for toxicological and environmental acceptability;
- 6.2.4 ensure that technical grade and formulated pesticide products conform with applicable national standards or FAO recommended specifications for agricultural pesticides, and with WHO recommended specifications for public health pesticides, when available;
- 6.2.5 verify the quality and purity of pesticides offered for sale;
- 6.2.6 when problems with pesticides occur, voluntarily take corrective action and, when requested by governments, help find solutions to difficulties;
- 6.2.7 provide their national governments with clear and concise data on export, import, manufacture, formulation, sales, quality and quantity of pesticides;
- 6.3 Relevant international organizations and bilateral agencies should be encouraged to give high priority to requests for assistance from developing countries which do not yet have the facilities and expertise for pesticide management and control systems;

Article 7: Availability and Use

Each government should determine its own rules and regulations on availability of pesticides, compatible with national circumstances and levels of user training and expertise. Where appropriate, governments should use the GHS classification and labelling of chemicals or WHO classification of pesticides by hazard as the basis for their classification for regulatory purposes, together with well-recognized hazard symbols. The availability of a product may be restricted to certain groups as a result of the assessment of the hazards involved in the use of the product. Prohibition of import, sale and purchase of highly toxic and hazardous products may be considered if, based on risk assessment, risk mitigation measures or good marketing practices are insufficient to ensure that the product can be handled without unacceptable risk to humans and the environment. Available pesticides should be packaged and labelled in accordance with relevant regulations and FAO/WHO guidelines.

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- 7.1 Responsible authorities should give special attention to drafting legislation on the availability and use of pesticides. These should be compatible with existing levels of user training and expertise. The parameters on which decisions on the availability and use of pesticides are based vary widely and should be left to the discretion of each government.
- 7.2 When determining the risk and degree of restriction appropriate to the product, the responsible authority should take into account the type of formulation, method of application and its uses. Governments should, where appropriate, take note of and may consider using the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (45) or the WHO Recommended Classification of Pesticides by Hazard (44) as the basis for their regulatory measures and associate the hazard class with well recognized hazard symbols.
- 7.3 Availability of pesticides may be restricted by the responsible authority in different ways, such as not registering a product or, as a condition of registration, restricting the availability to certain groups

The industry has the responsibility to promote that:

- Pesticides are packaged and labelled in a manner consistent with FAO/WHO guidelines and national regulations.
- Pesticides are not offered for sale unless they are suitable for the situations in which they are distributed and used.
- GHS classification is understood and used.

of users or certain uses in accordance with a national assessment of the hazards involved in the use of the product.

- 7.4 Governments and industry should ensure that all pesticides made available to the general public are packaged and labelled in a manner which is consistent with FAO/WHO or other relevant guidelines on packaging and labelling (3) and with appropriate national or regional regulations.
- Prohibition of the importation, distribution, sale and purchase of highly hazardous pesticides may be considered if, based on risk assessment, risk mitigation measures or good marketing practices are insufficient to ensure that the product can be handled without unacceptable risk to humans and the environment (68).

Article 8: Distribution and Trade

Distributors should be capable of providing buyers with sound advice on effective product use and ways to reduce potential risk. Repackaging or decanting pesticides into food or beverage containers should be prohibited and violations rigidly enforced. Encourage a demand-driven supply process that government purchases are based on FAO/WHO tender procedures to reduce the accumulation of excessive stocks. Ensure pesticide subsidies or donations do not lead to unnecessary or excessive use.

Code of Conduct

- 8.1 Governments should:
- develop legislation and implement licensing procedures relating to the sale of pesticides, so as to ensure that those involved are capable of providing buyers with sound advice on risk reduction, as well as judicious and efficient use;
- 8.1.2 encourage, to the extent possible, a market-driven supply process, as opposed to government purchasing, to reduce the potential for accumulation of excessive stocks. However, when governments, parastatals, aid programs or other agencies purchase pesticides, the procurement should be based on FAO and WHO guidance on tender and procurement for pesticides (4, 5);
- 8.1.3 ensure that any pesticide subsidies or donations do not lead to excessive or unjustified use which may divert interest from more sustainable alternative measures.
- 8.2 Pesticide industry should:
- 8.2.1 take all necessary steps to ensure that pesticides traded internationally conform at least to:
- 8.2.1.1 relevant international conventions and regional, sub-regional or national regulations;

- Pesticides entering international trade conform to relevant international conventions and regional, sub-regional or national regulations as well as FAO or WHO specifications, comply with the principles in the relevant FAO guidelines on classification, packaging and labelling, and follow international rules and regulations on transport of dangerous goods.
- Pesticides manufactured for export meet the quality requirements and standards of comparable domestic products.
- Pesticides manufactured or formulated by a subsidiary company meet quality standards of the host country and of the parent company.
- Importing agencies, national or regional formulators and the respective trade organizations cooperate to achieve fair marketing and distribution practices and assist in the elimination of unethical practice within the industry.
- Persons involved in the sale of pesticides are adequately trained and hold appropriate licenses.
- A range of pack sizes and types is provided to meet the needs of small-scale users and local farmers and to avoid build up of pesticide waste and obsolete pesticide stocks.
- Restricted pesticides are not knowingly supplied to unauthorized users.

- **8.2.1.2** relevant FAO or WHO recommended specifications, where such specifications have been developed;
- 8.2.1.3 principles embodied in GHS and relevant FAO, and/or WHO guidelines on classification and labelling;
- 8.2.1.4rules and regulations on packaging, marking and transportation laid down by the UN Recommendations on the Transport of Dangerous Goods (48), and by international organizations concerned with specific modes of transport (e.g. International Civil Aviation Organization (d), International Maritime Organization (e), RID (regulations concerning the international carriage of dangerous goods by rail)(f), ADR (European agreement concerning the international carriage of dangerous goods by road)(g), and International Air Transport Association (h).
- 8.2.2 ensure that pesticides manufactured for export are subject to the same quality requirements and standards as those applied to comparable domestic products;
- 8.2.3 ensure that pesticides manufactured or formulated by a subsidiary company meet appropriate quality requirements and standards. These should be consistent with the requirements of the host country and of the parent company;
- 8.2.4 encourage importing agencies, national or regional formulators and their respective trade organizations to cooperate in order to achieve fair practices as well as marketing and distribution practices that reduce the risks posed by pesticides, and to collaborate with authorities in stamping out any unethical practice within the industry;
- 8.2.5 recognize that a pesticide may need to be recalled by a manufacturer and distributor when its use, as recommended, represents an unacceptable risk to human and animal health or the environment, and act accordingly;

Focus on Manufacturing Quality

As part of its commitment to ensuring availability of good quality pesticides, CropLife International has published two guidelines for use by the entire industry, including toll manufacturers:

- <u>Contamination Prevention in the Manufacture of Crop</u>
 Protection Products
- Prevention and Control of Microbial Contamination in Crop Protection Products
- 8.2.6 endeavor to ensure that pesticides are traded by and purchased from reputable traders, who should preferably be members of a recognized trade organization;
- 8.2.7 ensure that persons involved in the sale of pesticides are trained adequately, hold appropriate government permits or licenses (where they exist) and have access to sufficient information, such as safety data sheets, so that they are capable of providing buyers with advice on risk reduction as we I as judicious and efficient use;
- 8.2.8 provide, consistent with national, sub-regional or regional requirements, a range of pack sizes and types that are appropriate for the needs of small-scale farmers, household and other local users, in order to reduce risks and to discourage sellers from repackaging products in unlabeled or inappropriate containers;
- 8.2.9 not knowingly supply pesticides that are restricted for use by particular groups of users, for sale to unauthorized users.
- 8.3 Procurers of pesticides should establish purchasing procedures to prevent the oversupply of pesticides and consider including requirements relating to pesticide storage, distribution and disposal services in a purchasing contract (4, 5).

Article 9: Information Exchange

Governments should promote the establishment or strengthening of information exchange network on pesticides and IPM/IVM and facilitate the exchange of information between regulatory authorities. Governments are encouraged to provide information to the public, provide transparency, and facilitate public participation in the regulatory process. All parties should encourage cooperation between stakeholders to ensure countries are provided with the information they need to meet the objectives of the Code. This includes regulatory information and actions, availability of resources and expertise, cases of counterfeit and illegal pesticides being traded and poisoning, and environmental contamination incidents.

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- 9.1 Governments should:
- 9.1.1 promote the establishment or strengthening of networks for information exchange on pesticides and IPM/IVM through national institutions, international, regional and sub-regional organizations and public interest groups;
- 9.1.2 facilitate the exchange of information between regulatory and implementing authorities to strengthen cooperation. The information to be exchanged should include:
- 9.1.2.1 actions taken to ban or severely restrict a pesticide in order to protect human health or the environment, and additional information upon request;
- 9.1.2.2 scientific, technical, economic, regulatory and legal information concerning pesticides including toxicological, environmental and safety data;
- 9.1.2.3 the availability of resources and expertise associated with pesticide regulatory activities;
- 9.1.2.4 cases of counterfeit and illegal pesticides being traded;
- 9.1.2.5 poisoning and environmental contamination incidents data.

- Information on residues in food, drinking water and the environment, on non-food product uses, IPM/IVM, pesticide efficacy and alternatives to HHPs is readily available.
- There is cooperation in the information exchange process as necessary to assist all parties to meet the objectives of the Code.
- There is active participation in relevant international bodies dealing with pest and pesticide management, e.g. CODEX Alimentarius, the Joint Meeting on Pesticide Management, the Joint Meeting of Pesticide Specifications, and the Joint Meeting on Pesticide Residues.
- 9.2 In addition, governments are encouraged to develop:
- 9.2.1 legislation that permits public access to information about pesticide risks and the regulatory process, while safe-guarding intellectual property;
- 9.2.2 administrative procedures to provide transparency and facilitate the participation of the public in the regulatory process, while safeguarding intellectual property;

- 9.3 International organizations should, within available resources, provide information on specific pesticides (including guidance on methods of analysis) through the provision of criteria documents, fact sheets, training and other appropriate means.
- 9.4 All entities addressed by this Code should:
- 9.4.1 support the process of information exchange and facilitate access to information on matters including pesticide hazards and risks, residues in food, drinking water and the environment, the use of pesticides in or on non-food products, IPM/IVM, pesticide efficacy, alternatives to highly hazardous pesticides (68) and related regulatory and policy actions;
- 9.4.2 encourage collaboration between public interest groups, international organizations, governments and other interested stakeholders to ensure that countries are provided with the information they need to meet the objectives of the Code.

Article 10: Labelling, Packaging, Storage and Disposal

All pesticide containers should be clearly labelled in line with relevant regulations or GHS and/or FAO/WHO guidelines on good labelling practice for pesticides All pesticide containers should be clearly labelled in accordance with applicable guidelines, such as those of the FAO. In international trade, the appropriate WHO hazard classification, or the hazard classification required by national dangerous goods labelling regulations, should be shown on the label, if applicable. Packaging, storage and disposal should conform to relevant FAO, UNEP, WHO or other applicable international guidelines. Governments, with the assistance and cooperation of other stakeholders, should inventory obsolete stocks of pesticides, dispose of such stocks and used containers in an environmentally sound manner, and implement policies to prevent the accumulation of obsolete stocks and used containers in the future.

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- 10.1 All pesticide containers should be clearly labelled in line with relevant regulations or GHS (45) and/or FAO/WHO guidelines on good labelling practice for pesticides (3).
- 10.2 Pesticide Industry should use labels that:
- 10.2.1 comply with registration requirements and include recommendations consistent with those of the relevant authorities in the country of sale;
- 10.2.2 include appropriate symbols and pictograms whenever possible, with their signal words or hazard and risk phrases, in addition to written instructions, warnings and precautions in the appropriate language or languages;
- 10.2.3 comply with national labelling requirements or, in the absence of more detailed national standards, with the GHS, the FAO/WHO guidance on pesticide labelling, and other relevant international labelling requirements;

- Labels comply with registration requirements and recommendations, the requirements being consistent with those of the relevant authorities in the country of sale, or in the absence of detailed national standards with GHS, FAO/WHO and another relevant international requirement.
- Appropriate symbols and pictograms are included on the label in addition to written instructions, warnings and precautions in the appropriate language(s).
- A warning against the reuse of containers and instructions for the safe disposal and decontamination of containers are included on the label in the appropriate language(s).
- Products are identified by easily understood batch references.
- Labels contain the release date and/or expiration date of the formulation as well as relevant information on storage stability.
- Packaging and repackaging are carried out only on licensed premises where the staff is adequately protected against exposure to hazardous substances.

- 10.2.4 include, in the appropriate language or languages, a warning against the reuse of containers and instructions for decontamination and the safe disposal of used containers;
- 10.2.5 identify each lot or batch of the product in numbers or letters that can be understood without the need for additional code references;
- 10.2.6 clearly show the release date (month and year) of the lot or batch (28), expiry date (as appropriate) and contain relevant information on the storage stability of the product.
- 10.3 Pesticide industry, in cooperation with government, should ensure that:
- 10.3.1 packaging, storage and disposal of pesticides conform in principle to the relevant FAO, UNEP, WHO guidelines or regulations (36, 37, 38, 49, 51, 53, 54, 55) or to other international guidelines, where applicable;
- 10.3.2 packaging or repackaging is carried out only on licensed premises that comply with safety standards where the responsible authority is satisfied that staff are adequately protected against toxic hazards, that adequate measures are in place to avoid environmental contamination, that the resulting product will be properly packaged and labelled, and that the content will conform to the relevant quality standards.
- 10.4 Governments should take the necessary regulatory measures to prohibit the repackaging or decanting of any pesticide into food, beverage, animal feed or other inappropriate containers and rigidly enforce punitive measures that effectively deter such practices.
- 10.5 Governments, with the help of pesticide industry and with multilateral cooperation, should inventory (54) obsolete or unusable stocks of pesticides and used containers, establish and implement

Focus on Pesticide Labels

The information that is presented on the pesticide label is described in CropLife International's training manuals and guidelines:

- Responsible Use of Pesticides
- Safe and Effective Use of Crop Protection Products

These reflect the detailed guidelines developed by the FAO/WHO JMPM, and to which CropLife International contributed to their development. In all training by CropLife International, it is emphasized that the instruction and guidance on the label shall be carefully read, understood, and followed.

an action plan for their disposal, or remediation in the case of contaminated sites (55), and record these activities.

- 10.6 Governments should ensure that the treatment and disposal of hazardous pesticide waste are carried out in an environmentally sound manner that complies with national and regional regulations, relevant international standards and Multinational Environmental Agreements, in particular the Basel Convention (52).
- 10.7 Pesticide industry should, with multilateral cooperation, assist in disposing of any banned or obsolete pesticides and of used containers, in an environmentally sound manner, including reuse or recycling, with minimal risk where approved and appropriate.
- 10.8 Governments, pesticide industry, international organizations, the agricultural community and vector control programs should implement policies and practices to prevent the accumulation of obsolete pesticides and used containers (49).

Article 11: Advertising

Governments should approve and implement legislation to regulate advertising of pesticides. Advertising of pesticides in all media must be consistent with label directions and precautions, especially in reference to proper maintenance of application equipment, use of personal protective equipment, special precautions for vulnerable groups and dangers of re-using containers.

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- 11.1 Governments should approve and implement legislation to regulate the advertising of pesticides in all media to ensure that it is in line with the conditions of registration as regards label directions and precautions, particularly those relating to proper maintenance and use of application equipment, appropriate personal protective equipment, special precautions for vulnerable groups and the dangers of reusing containers (47).
- 11.2 Pesticide industry should ensure that:
- 11.2.1 all statements used in advertising are technically justified;
- 11.2.2 advertisements do not contain any statement or visual presentation which, directly or by implication, omission, ambiguity or exaggerated claim, is likely to mislead the buyer, in particular with regard to the "safety" of the product, its nature, composition or suitability for use, official recognition or approval;
- 11.2.3 pesticides which are legally restricted to use by trained or registered operators are not publicly advertised through journals other than those catering for such operators, unless the restricted availability is clearly and prominently shown;

- All statements made in advertisements are correct in a technical sense.
- Advertisements do not contain any statements or visual presentations which could mislead the buyer as to the safety of the product, its composition or suitability for use, or the status of its registration or approval.
- Pesticides restricted to use by trained or registered/licensed operators are advertised only in journals catering to such operators unless the restricted availability is clearly and prominently communicated.
- No company or individual in a country simultaneously advertises and/or markets different pesticide active ingredients or combinations of ingredients under the same brand name.
- Advertisements encourage purchasers and users to read the label and promote only those uses which are on the approved label.
- Promotional material includes recommendations consistent with national regulatory decisions and those of recognized research and advisory agencies.
- Advertisements do not misuse research results, quotations from technical and scientific literature, or jargon to make claims appear to have a scientific basis which they do not possess.

- 11.2.4 no company or individual in any one country simultaneously markets different pesticide active ingredients or combinations of ingredients under a single brand name;
- 11.2.5 advertising does not encourage uses other than those specified on the approved label;
- 11.2.6 promotional material does not include recommendations at variance with national regulatory decisions;
- 11.2.7 advertisements do not misrepresent research results, quotations from technical and scientific literature or scientific jargon to make claims appear to have a scientific basis they do not possess;
- 11.2.8 claims as to safety, including statements such as "safe", "non-poisonous", "harmless", "non-toxic", "environmentally friendly" or "compatible with IPM/ IVM," are not made on labels, pamphlets, or other publicity material, with or without a qualifying phrase such as "when used as directed". [However, reference to use within specified IPM/IVM programs may be included if validated by the regulating authority, and the claim is qualified accordingly];
- 11.2.9 statements comparing the risk, hazard or "safety" of different pesticides or other substances are not made;
- 11.2.10 no misleading statements are made concerning the effectiveness of the product;
- 11.2.11 no guarantees or implied guarantees, such as "more profits with..." or "guarantees high yields," are given unless definite evidence to substantiate such claims is available;
- 11.2.12 advertisements do not contain any visual representation of potentially dangerous practices, such as mixing or application without sufficient protective clothing, use near food or use by or in the vicinity of children;

- Claims such as "safe," "non-poisonous," "harmless," "non-toxic," and "compatible with IPM" are not used.
- No statements comparing the risk, hazard or safety of different pesticides or other substances are made.
- No guarantees, such as increased profits or higher yields, are stated unless definitive evidence to substantiate the claims is available.
- Advertisements do not contain visual representations of potentially dangerous practices.
- Advertisements and promotional literature draw attention to appropriate warning phrases and symbols.
- Technical literature provides information on recommended application rates, frequency of application, and pre-harvest intervals that are consistent with the product label.
- No false or misleading comparisons with other pesticides are made.
- Staff involved in sales promotion is adequately trained to present complete, accurate and valid information on the products sold.
- Advertisements and promotional activities do not include inappropriate incentives or gifts to encourage the purchase of pesticides.
- 11.2.13 advertising or promotional material draws attention to the appropriate warning phrases and symbols as laid down in the GHS and FAO/WHO labelling guidelines (3);
- 11.2.14 technical literature provides adequate information on correct practices, including the observance of recommended application rates, frequency of applications and preharvest intervals in language that is understandable to end users;

- 11.2.15 false or misleading comparisons with other pesticides are not made;
- 11.2.16 all staff involved in sales promotion are adequately trained and possess sufficient technical knowledge to present complete, accurate and valid information on the products offered for sale;
- 11.2.17 advertisements encourage purchasers and users to read the label carefully, or have the label read to them if they cannot read;
- 11.2.18 advertisements and promotional activities should not include inappropriate incentives or gifts to encourage the purchase of pesticides.
- 11.3 International organizations and public interest groups should call attention to departures from this Article.

Article 12: Monitoring and Observance of the Code

The Code should be brought to the attention of all stakeholders associated with the distribution and use of pesticides. Stakeholders should observe the Code and the principles and ethics expressed in the Code, regardless of the ability of other parties to do so. Independently of any measure in the Code, all legal rules dealing with liability, consumer protection, conservation, pollution control and other related subjects should be strictly followed. Governments and other stakeholders are encouraged to observe the provisions of international instruments to which they are a party, and to join, ratify or accede to such instruments if relevant and if they have not already done so. Governments should monitor the observance of the Code. Industry is invited to provide reports on its product stewardship activities. The Code should be considered a dynamic text, which must be brought up to date as required to reflect technical, economic and social progress.

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- 12.1 The Code should be published by FAO, WHO and UNEP and should be observed through collaborative action by all entities addressed by this Code.
- 12.2 The Code should be brought to the attention of all concerned in the regulation, manufacture, distribution and use of pesticides, so that governments, pesticide industry and other entities addressed by this Code that are in a position to promote sustainable pest and vector management practices, understand their shared responsibilities in working together to ensure that the objectives of the Code are achieved.
- 12.3 All entities addressed by this Code should promote the principles and ethics expressed by the Code, irrespective of other entities' ability to observe the Code. Pesticide industry should cooperate fully in the observance of the Code and promote the principles and ethics expressed by the Code, irrespective of a government's ability to observe the Code.

The industry has the responsibility to promote and take action that:

- The Code is observed, and the principles and ethics presented in the Code are furthered, irrespective of a government's ability to observe the code.
- Reports are provided to the Directors-General of FAO and WHO and the Executive Director of UNEP on its product stewardship activities related to observance of the Code.

Focus on Promotion and Reporting

CropLife International reports on the progress of its stewardship activities on its <u>website</u>. It has also published summaries of its stewardship activities and impact which are shared with FAO, WHO and other stakeholders, e.g. the Stewardship Strategy 2025, as well by the annual JMPM meeting organized by WHO and FAO.

This current guidance is aimed at informing the industry of its responsibilities and an e-learning module on the Code of Conduct that is available on the CropLife International website (Appendix 3).

- 12.4 Independently of any measures taken with respect to the observance of this Code, all relevant legal rules, whether legislative, administrative, judicial or customary, dealing with liability, consumer protection, conservation, pollution control and other related subjects, should be strictly applied.
- 12.5 Governments and other entities concerned:
- 12.5.1 are encouraged to observe the provisions laid down in any relevant international instruments concerning chemical management, environmental and health protection, sustainable development and international trade, relevant to the Code (Appendix 1);
- 12.5.2 are encouraged, if they have not yet joined, ratified or acceded to such instruments, to evaluate the appropriateness of so doing as soon as possible.
- 12.6 FAO, WHO, UNEP and other relevant international organizations should give full support to the observance of the Code.
- 12.7 Governments, in collaboration with FAO WHO and UNEP, should monitor the observance of the Code and report on progress made to the Directors-General of FAO and WHO and the Executive Director of UNEP (56).
- 12.8 Pesticide industry is invited to provide reports to Directors-General of FAO and WHO and the Executive Director of UNEP on its product stewardship activities related to observance of the Code (56).
- 12.9 NGOs and other interested entities are invited to monitor activities related to the implementation of the Code and report these to Directors-General of FAO and WHO and the Executive Director of UNEP (56).
- 12.10 Governing Bodies of FAO, WHO and UNEP should periodically review the relevance and effectiveness of the Code. The Code should be

considered a dynamic text which must be brought up to date as required, taking into account technical, economic and social progress.

References

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Checklists

Checklist for Advertising

Article 11 of the Code lists industry's obligations relating to advertising of pesticides. These are divided in the checklist below into Product Information, Safety Aspects, and Education and Training elements. Advertising is defined in the Code as "the promotion of the sale and use of pesticides by printed and electronic media, signs, displays, gifts, demonstrations or word of mouth." The Code's obligations, therefore, apply to promotional activities of all kinds.

Product Information

As part of their responsibility, industry should ensure that:

- 11.2.1 all statements used in advertising are technically justified;
- 11.2.2 advertisements do not contain any statement or visual presentation which, directly or by implication, omission, ambiguity or exaggerated claim, is likely to mislead the buyer, in particular with regard to the "safety" of the product, its nature, composition or suitability for use, official recognition or approval.
- 11.2.4 no company or individual in any one country simultaneously markets different pesticide active ingredients or combinations of ingredients under a single brand name.
- 11.2.5 advertising does not encourage uses other than those specified on the approved label.
- 11.2.6 promotional material does not include recommendations at variance with national regulatory decisions.

- 11.2.7 advertisements do not misrepresent research results, quotations from technical and scientific literature or scientific jargon to make claims appear to have a scientific basis they do not possess.
- 11.2.10 no misleading statements are made concerning the effectiveness of the product.
- 11.2.11 no guarantees or implied guarantees, such as "more profits with..." or "guarantees high yields," are given unless definite evidence to substantiate such claims is available.
- 11.2.14 technical literature provides adequate information on correct practices, including the observance of recommended application rates, frequency of applications and preharvest intervals in language that is understandable to end users.
- 11.2.15 false or misleading comparisons with other pesticides are not made.

Safety Aspects

As part of their responsibility, industry should ensure that:

- 11.2.3 pesticides which are legally restricted to use by trained or registered operators are not publicly advertised through journals other than those catering for such operators, unless the restricted availability is clearly and prominently shown.
- 11.2.8 claims as to safety, including statements such as "safe", "non-poisonous", "harmless", "non-toxic", "environmentally friendly" or "compatible with IPM/ IVM," are not made on labels, pamphlets or other publicity material, with or without a qualifying phrase such as "when used as directed". [However, reference to use within specified IPM/IVM programs may be included if validated by the regulating authority, and the claim is qualified accordingly].

- 11.2.9 statements comparing the risk, hazard or "safety" of different pesticides or other substances are not made.
- 11.2.12 advertisements do not contain any visual representation of potentially dangerous practices, such as mixing or application without sufficient protective clothing, use near food or use by or in the vicinity of children.
- 11.2.18 advertisements and promotional activities should not include inappropriate incentives or gifts to encourage the purchase of pesticides.

Education and Training

As part of their responsibility, industry should ensure that:

- 11.2.13 advertising or promotional material draws attention to the appropriate warning phrases and symbols as laid down in the GHS and FAO/WHO labelling guidelines.
- 11.2.16 all staff involved in sales promotion are adequately trained and possess sufficient technical knowledge to present complete, accurate and valid information on the products offered for sale.
- 11.2.17 advertisements encourage purchasers and users to read the label carefully, or have the label read to them if they cannot read.

Checklist for Management

As part of their responsibility, industry should ensure that:

- it gives high priority to relevant training and capacity building activities related to each Article of the Code.
- they adhere to the provisions of this Code as a standard for the manufacture, distribution, sale, and advertising of pesticides. This is particularly important in those countries that have not yet established or are unable to effectively operate adequate regulatory schemes and advisory services.
- 3.3 [...] the requirements of relevant international agreements are followed.
- 3.5.1 it supplies only pesticides of adequate quality, packaged, and labelled as appropriate for each specific market.
- 3.5.2 in close cooperation with procurers of pesticides, adhere closely to the provisions of FAO and WHO guidance on procurement and tender procedures.
- 3.5.3 it pays special attention to the choice of pesticide formulations and to presentation, packaging, and labelling in order to minimize risks to users, the public and the environment.
- 3.5.4 it provides, with each package of pesticide, information, and instructions in one or more of the official languages of the country and in a form adequate to ensure effective use, and minimize risks to users, the public and the environment.
- 3.5.5 it is capable of providing effective technical support, backed up by full product stewardship to end-user level, including advice on and implementation of mechanisms for the effective management of unused and obsolete pesticides and empty pesticide containers.

- 3.5.6 it retains an active interest in following their products through their entire life cycle, keeping track of major uses and the occurrence of any problems arising from the use of their products, as a basis for determining the need for changes in labelling, directions for use, packaging, formulation or product availability
- 3.6 pesticides requiring the use of personal protective equipment that is uncomfortable, expensive, or is not readily available should be avoided, especially in tropical climates.
- 3.7 it takes coordinated action to produce and disseminate relevant and clear educational materials through all available media to extension services, agricultural and public health advisory services, farmers and farmers' organizations, pest control operators, public health workers and other entities providing advice on pesticide management. [...]
- 3.9 [...] it plays a proactive role in the development and promotion of IPM/IVM.
- 3.11 it develops and promote the use of pesticide application methods and equipment that minimize the risks from pesticides to human and animal health and/or the environment and that optimize efficiency and cost-effectiveness and should conduct periodic practical training in such activities (17). [...]
- 3.12 it develops and promotes strategies to prevent and manage pest resistance to pesticides in order to prolong the useful life of valuable pesticides and reduce the adverse effects of resistance to pesticides. This should include consideration of the impacts of pesticides used in agriculture on resistance development among disease vectors and public health pests.

- 5.2.3 it provides users and environmental authorities with information on appropriate remediation measures in case of spills and accidents.
- 5.2.5 it halts sale and recalls products as soon as possible when handling or use pose an unacceptable risk under any use directions or restrictions and notify the government.
- 9.4.2 it encourages collaboration between public interest groups, international organizations, governments and other interested stakeholders to ensure that countries are provided with the information they need to meet the objectives of the Code.
- 10.5 Governments, with the help of pesticide industry and with multilateral cooperation, should inventory obsolete or unusable stocks of pesticides and used containers, establish and implement an action plan for their disposal, or remediation in the case of contaminated sites, and record these activities.
- 10.7 with multilateral cooperation, assist in disposing of any banned or obsolete pesticides and of used containers, in an environmentally sound manner, including reuse or recycling, with minimal risk where approved and appropriate.
- 10.8 [...] it implements policies and practices to prevent the accumulation of obsolete pesticides and used containers.
- the Code should be brought to the attention of all concerned in the regulation, manufacture, distribution and use of pesticides, so that governments, pesticide industry and other entities addressed by

this Code that are in a position to promote sustainable pest and vector management practices, understand their shared responsibilities in working together to ensure that the objectives of the Code are achieved.

- it cooperates fully in the observance of the Code and promote the principles and ethics expressed by the Code, irrespective of a government's ability to observe the Code.
- independent of any measures taken with respect to the observance of this Code, all relevant legal rules, whether legislative, administrative, judicial, or customary, dealing with liability, consumer protection, conservation, pollution control and other related subjects, should be strictly applied.
- 12.5.1 [...] it observes the provisions laid down in any relevant international instruments concerning chemical management, environmental and health protection, sustainable development, and international trade, relevant to the Code.
- 12.8 Pesticide industry is invited to provide reports to Directors-General of FAO and WHO and the Executive Director of UNEP on its product stewardship activities related to observance of the Code.

Checklist for Product Safety and Registra- tion/ Product Development/ Technical Service

As their responsibility, industry should ensure that:

- 4.1.1 each pesticide and pesticide product is adequately and effectively tested by recognized procedures and test methods so as to fully evaluate its inherent physical, chemical or biological properties, efficacy, behavior, fate, hazard and risk with regard to the various anticipated uses and conditions in regions or countries of use.
- 4.1.2 such tests are conducted in accordance with sound scientific and experimental procedures and the principles of good laboratory and experimental practice.
- 4.1.3 it makes available copies or summaries of the original reports of such tests for assessment by responsible government authorities in all countries where the pesticide is to be offered for sale or use. If translated documents are provided, their accuracy should be certified.
- the proposed use, label claims and directions, packages, safety data sheets, technical literature and advertising truly reflect the outcome of these scientific tests and assessments.
- 4.1.5 it provides, at the request of a country, methods for the analysis of any active ingredient, co-formulant or relevant impurity or formulation that they manufacture, and provide the necessary analytical standards.

- 4.1.6 it provides advice and assistance in the training of technical staff involved in the relevant analytical work. Formulators should actively support this effort.
- 4.1.7 it conducts residue trials prior to marketing, at least in accordance with Codex Alimentarius and FAO guidelines on good analytical practice (25) and on crop residue data (26, 27) in order to provide a basis for establishing appropriate maximum residue limits.
- 4.5 it collaborates with governments in post-registration surveillance and conducting monitoring studies to determine the fate of pesticides and their health and environ-mental effects under operational conditions.
- 5.2.1 it cooperates in the regular reassessment of the pesticides which are marketed.
- 5.2.2 it provides poison-control centers and medical practitioners with information about pesticide hazards, toxicity of active ingredients and co-formulants and on suitable treatment of pesticide poisoning.
- 5.2.4.3 it develops application methods and equipment that minimize exposure to pesticides.
- 5.2.4.4 the use of returnable and refillable containers where effective container collection systems are in place.
- 5.2.4.7 there is use of clear and concise labelling.
- 5.2.5 it halts sale and recalls products as soon as possible when handling or use pose an unacceptable risk under any use directions or restrictions and notify the government.

- 5.3.1 it promotes the use of personal protective equipment which is suitable for the tasks to be carried out, appropriate to the prevailing climatic conditions and affordable.
- 5.3.2 it makes provisions for safe storage of pesticides at wholesale, retail, warehouse and farm level.
- 5.3.3 it establishes services to collect and safely dispose of used containers and small quantities of left-over pesticides.
- 6.2.1 it provides an objective assessment together with the necessary supporting data on each product, including sufficient data to support risk assessment and to allow a risk management decision to be made.
- 6.2.2 it provides national regulatory authorities with any new or updated information that could change the regulatory status of the pesticide, as soon as it becomes available.
- 6.2.3 the active ingredient and co-formulants of pesticide products being market-ed correspond in identity, quality, purity and composition to the ingredients of the registered pesticide product that have been tested, evaluated and cleared for toxicological and environmental acceptability.
- 6.2.6 when problems with pesticides occur, voluntarily take corrective action and, when requested by governments, help find solutions to difficulties.
- 6.2.7 it provides their national governments with clear and concise data on export, import, manufacture, formulation, sales, quality and quantity of pesticides.
- 9.4.1 it supports the process of information exchange and facilitate access to information on matters including pesticide hazards and risks, residues in food, drinking water and the environment, the use

- of pesticides in or on non-food products, IPM/IVM, pesticide efficacy, alternatives to highly hazardous pesticides and related regulatory and policy actions.
- 10.1 All pesticide containers should be clearly labelled in line with relevant regulations or GHS and/or FAO/WHO guidelines on good labelling practice for pesticides.
- 10.2.1 it complies with registration requirements and include recommendations consistent with those of the relevant authorities in the country of sale.
- 10.2.2 it includes the appropriate symbols and pictograms whenever possible, with their signal words or hazard and risk phrases, in addition to written instructions, warnings and precautions in the appropriate language or languages.
- 10.2.3 it complies with national labelling requirements or, in the absence of more detailed national standards, with the GHS, the FAO/WHO guidance on pesticide labelling, and other relevant international labelling requirements.
- 10.2.4 it includes, in the appropriate language or languages, a warning against the reuse of containers and instructions for decontamination and the safe disposal of used containers.
- 10.5 [...] it inventories obsolete or unusable stocks of pesticides and used containers, establish, and implement an action plan for their disposal, or remediation in the case of contaminated sites, and record these activities.
- 10.7 with multilateral cooperation, assists in disposing of any banned or obsolete pesticides and of used containers, in an environmentally sound manner, including reuse or recycling, with minimal risk where approved and appropriate.

10.8 [...]it implements policies and practices to prevent the accumulation of obsolete pesticides and used containers.

Checklist for Production/ Formulation/ Packaging

As their responsibility, industry should ensure that:

- 4.1.5 it provides, at the request of a country, methods for the analysis of any active ingredient, co-formulant or relevant impurity or formulation that they manufacture and provide the necessary analytical standards.
- 4.1.6 it provides advice and assistance in the training of technical staff involved in the relevant analytical work. Formulators should actively support this effort.
- 5.2.3 it provides users and environmental authorities with information on appropriate remediation measures in case of spills and accidents.
- 5.2.4.1 it makes less toxic formulations available.
- 5.2.4.2 it introduces products in ready-to-use packages.
- 5.2.4.4 it uses returnable and refillable containers where effective container collection systems are in place.
- 5.2.4.5 it uses containers that are not attractive for subsequent re-use and promotes programs to discourage their reuse, where effective container collection systems are not in place.
- 5.2.4.6 it uses containers that are not attractive to or easily opened by children, particularly for domestic use products.
- 5.2.4.7 it uses clear and concise labelling.

- 5.5.1 it adopts engineering standards and operating practices appropriate to the nature of the manufacturing operations and the hazards involved and ensure the availability of appropriate protective equipment.
- 5.5.2 it takes all necessary precautions to protect workers, bystanders, nearby communities and the environment.
- it ensures the proper siting of manufacturing and formulating plants as well as their stores and adequately monitor and control wastes, emissions and effluents in accordance with national and regional regulations where available, or in accordance with relevant international guidelines.
- 5.5.4 it maintains quality-assurance procedures to ensure compliance with the relevant standards of purity, performance, stability and safety.
- 6.2.3 the active ingredient and co-formulants of pesticide products being marketed correspond in identity, quality, purity and composition to the ingredients of the registered pesticide product that have been tested, evaluated and cleared for toxicological and environmental acceptability.
- 6.2.4 technical grade and formulated pesticide products conform with applicable national standards or FAO recommended specifications for agricultural pesticides, and with WHO recommended specifications for public health pesticides, when available.
- 6.2.5 it verifies the quality and purity of pesticides offered for sale.
- 6.2.6 when problems with pesticides occur, voluntarily takes corrective action and, when requested by governments, helps find solutions to difficulties.

- 6.2.7 it provides their national governments with clear and concise data on export, import, manufacture, formulation, sales, quality and quantity of pesticides.
- 8.2.1 it takes all necessary steps to ensure that pesticides traded internationally conform at least to:
- **8.2.1.1** relevant international conventions and regional, sub-regional or national regulations.
- **8.2.1.2** relevant FAO or WHO recommended specifications, where such specifications have been developed.
- 8.2.1.3 principles embodied in GHS and relevant FAO, and/or WHO guidelines on classification and labelling.
- 8.2.1.4 rules and regulations on packaging, marking and transportation laid down by the UN Recommendations on the Transport of Dangerous Goods (48), and by international organizations concerned with specific modes of transport.
- 8.2.2 pesticides manufactured for export are subject to the same quality requirements and standards as those applied to comparable domestic products.
- 8.2.3 pesticides manufactured or formulated by a subsidiary company meet appropriate quality requirements and standards. These should be consistent with the requirements of the host country and of the parent company.
- 8.2.8 it provides, consistent with national, sub-regional or regional requirements, a range of pack sizes and types that are appropriate for the needs of small-scale farmers, household and other local users, in order to reduce risks and to discourage sellers from repackaging products in unlabeled or inappropriate containers.

- all pesticide containers should be clearly labelled in line with relevant regulations or GHS and/or FAO/WHO guidelines on good labelling practice for pesticides.
- 10.2.5 it identifies each lot or batch of the product in numbers or letters that can be understood without the need for additional code references;
- 10.2.6 it clearly shows the release date (month and year) of the lot or batch (28), expiry date (as appropriate) and contain relevant information on the storage stability of the product.
- 10.3.1 packaging, storage and disposal of pesticides conform in principle to the relevant FAO, UNEP, WHO guidelines or regulations (36, 37, 38, 49, 51, 53, 54, 55) or to other international guidelines, where applicable.
- 10.3.2 packaging or repackaging is carried out only on licensed premises that comply with safety standards where the responsible authority is satisfied that staff are adequately protected against toxic hazards, that adequate measures are in place to avoid environmental contamination, that the resulting product will be properly packaged and labelled, and that the content will conform to the relevant quality standards.

Checklist for Traders and Formulators

It is very important that the spirit, as well as the letter, of the FAO/WHO Code of Conduct, be observed by traders and formulators. Industry should, therefore, initiate appropriate actions to ensure that the Code is being followed by traders and formulators who obtain products and materials from manufacturers.

Although these trader and formulator customers should be requested to study the complete Code, CropLife International has attempted to summarize those measures which are particularly applicable to their segment of the industry.

As part of their responsibility, traders and formulators should ensure that they:

- 1.6 [...] give high priority to relevant training and capacity building activities related to each Article of the Code.
- adhere to the provisions of this Code as a standard for the manufacture, distribution, sale, and advertising of pesticides. This is particularly important in those countries that have not yet established or are unable to effectively operate adequate regulatory schemes and advisory ser-vices.
- 3.5.1 supply only pesticides of adequate quality, packaged, and labelled as appropriate for each specific market.
- 3.5.2 in close cooperation with procurers of pesticides, adhere closely to the provisions of FAO and WHO guidance on procurement and tender procedures.
- 3.5.3 pay special attention to the choice of pesticide formulations and to presentation, packaging, and labelling in order to minimize risks to users, the public and the environment.

- 3.5.4 provide, with each package of pesticide, information, and instructions in one or more of the official languages of the country and in a form adequate to ensure effective use, and minimize risks to users, the public and the environment.
- 3.5.5 be capable of providing effective technical support, backed up by full product stewardship to end user level, including advice on and implementation of mechanisms for the effective management of unused and obsolete pesticides and empty pesticide containers.
- 3.5.6 retain an active interest in following their products through their entire life cycle, keeping track of major uses and the occurrence of any problems arising from the use of their products, as a basis for determining the need for changes in labelling, directions for use, packaging, formulation or product availability.
- 5.2.5 halt sale and recall products as soon as possible when handling or use pose an unacceptable risk under any use directions or restrictions and notify the government.
- 8.2.4 encourage importing agencies, national or regional formulators and their respective trade organizations to cooperate in order to achieve fair practices as well as marketing and distribution practices that reduce the risks posed by pesticides, and to collaborate with authorities in stamping out any unethical practice within the industry.
- 8.2.6 endeavor to ensure that pesticides are traded by and purchased from reputable traders, who should preferably be members of a recognized trade organization.
- 8.2.7 ensure that persons involved in the sale of pesticides are trained adequately, hold ap-propriate government permits or licenses (where they exist) and have access to sufficient information, such

- as safety data sheets, so that they are capable of providing buyers with advice on risk reduction as we I as judicious and efficient use.
- 8.2.9 not knowingly supply pesticides that are restricted for use by particular groups of users, for sale to unauthorized users.
- 8.3 should establish purchasing procedures to prevent the oversupply of pesticides and consider including requirements relating to pesticide storage, distribution and disposal services in a purchasing contract (4,5).
- 10.2.3 comply with national labelling requirements or, in the absence of more detailed national standards, with the GHS, the FAO/WHO guidance on pesticide labelling, and other relevant international labelling requirements.

In addition, refer to the Checklist for Advertising and the industry responsibilities listed.

Checklist for Marketing/ Distribution/ Sales

As part of their responsibility, industry should ensure that they:

- in close cooperation with procurers of pesticides, adhere closely to the provisions of FAO and WHO guidance on procurement and tender procedures (4,5).
- 5.1.8 limit the availability of pesticides that are sold to the general public through non-specialized outlets, to low hazard products (WHO Class U) or low risk and ready to use products that require no dilution or other preparation and can be applied with limited need for personal protective equipment.
- 5.1.9 require that pesticides be physically segregated from other merchandise to prevent contamination or mistaken identity and where appropriate require that pesticides are clearly marked as hazardous materials. Every effort should be made to publicize the dangers of storing pesticides and foodstuffs together.
- 5.2.1 cooperate in the regular reassessment of the pesticides which are marketed.
- 5.2.2 provide poison-control centers and medical practitioners with information about pesticide hazards, toxicity of active ingredients and co-formulants and on suitable treatment of pesticide poisoning.
- 5.2.3 provide users and environmental authorities with information on appropriate remediation measures in case of spills and accidents.
- 5.2.5 halt sale and recall products as soon as possible when handling or use pose an unacceptable risk under any use directions or restrictions and notify the government.

- 5.3. cooperate with government in further reducing risks by:
- 5.3.1 promoting the use of personal protective equipment which is suitable for the tasks to be carried out, appropriate to the prevailing climatic conditions and affordable.
- 5.3.2 making provisions for safe storage of pesticides at wholesale, retail, warehouse and farm level (36);
- 5.3.3 establishing services to collect and safely dispose of used containers and small quantities of left-over pesticides.
- 5.3.5 raising awareness and understanding among pesticide users about the importance and ways of protecting health and the environment from the possible adverse effects of pesticides.
- 5.4 consider all available facts and should promote responsible information dissemination on pesticides and their uses, risks and alternatives.
- 8.2.4 encourage importing agencies, national or regional formulators and their respective trade organizations to cooperate in order to achieve fair practices as well as marketing and distribution practices that reduce the risks posed by pesticides, and to collaborate with authorities in stamping out any unethical practice within the industry.
- 8.2.5 recognize that a pesticide may need to be recalled by a manufacturer and distributor when its use, as recommended, represents an unacceptable risk to human and animal health or the environment, and act accordingly.
- 8.2.6 endeavor to ensure that pesticides are traded by and purchased from reputable traders, who should preferably be members of a recognized trade organization.
- ensure that persons involved in the sale of pesticides are trained adequately, hold appropriate government permits or licenses

- (where they exist) and have access to sufficient information, such as safety data sheets, so that they are capable of providing buyers with advice on risk reduction as we I as judicious and efficient use.
- 8.3 establish purchasing procedures to prevent the oversupply of pesticides and consider including requirements relating to pesticide storage, distribution and disposal services in a purchasing contract.

In addition, refer to the Checklist for Advertising and the industry responsibilities listed.

Appendix 1

International Instruments in the Field of Chemical Management, Environmental and Health Protection, Sustainable Development, and International Trade, Relevant to the Code

International policy instruments which address one or more aspects of the lifecycle of a pesticide include, but are not limited to the ones listed below. Some have direct operational implications for pesticide distribution and use, while others provide a more general policy context. Dates of entry into force are given for those instruments that were legally binding at the time of adoption of the revision of this Code.

A. International policy instruments with direct operational implications for pesticide management

- The Codex Alimentarius, and more specifically the Codex Committee on Pesticide Residues, operational since 1966 (57).
- The Montreal Protocol on Substances that Deplete the Ozone Layer, adopted in 1987 and entered into force in 1989, and its subsequent amendments (58).
- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, adopted in 1989 and entered into force in 1992 (52).
- The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, adopted in 1998 and entered into force in 2004 (1, 39).

• The Stockholm Convention on Persistent Organic Pollutants, adopted in 2001 and entered into force in 2004 (59).

B. International policy instruments that provide a general policy context for pesticide management

- The Convention concerning Safety and Health in Agriculture. ILO, adopted in 2001 and entered into force in 2003 (46).
- The Convention concerning Safety in the Use of Chemicals at Work, adopted in 1990 and entered into force in 1993 (60).
- Convention concerning the prohibition and immediate action for the elimination of the worst forms of child labor, ILO, Geneva, 1999.
- The Rio Declaration on Environment and Development, pro-claimed by the United Nations Conference on Environment and Development in 1992 (61).
- Agenda 21 Global Programme of Action on Sustainable Development, and more specifically chapters 14 (Promoting Sustainable Agriculture and Rural Development) and 19 (Environmentally Sound Management of Toxic Chemicals, Including Prevention of Illegal International Traffic in Toxic and Dangerous Products), adopted in 1992 (62).
- The Convention on Biological Diversity, adopted in 1992 and entered into force in 1993 (63).
- The Convention concerning the Prevention of Major Industrial Accidents, adopted in 1993 and entered into force in 1997 (64).
- The Rome Declaration on World Food Security and The World Food Summit Plan of Action, adopted in 1996 (65).
- The World Health Declaration and Health-for-all in the 21st Century, adopted in 1998 (66).
- The Strategic Approach to International Chemicals Management, adopted in 2006 by the International Conference on Chemicals Management (67).
- The Globally Harmonised System for the classification and labelling of chemicals (GHS) (45).

Appendix 2

List of Guidelines Supporting the Code

The following technical guidelines serve to provide further guidance on the implementation of specific aspects of the Code of Conduct and are aimed at governments, pesticide industry and other stakeholders. They are developed by the FAO/WHO Joint Meeting on Pesticide Management (JMPM).

All available guidelines are listed below and can found on the FAO website.

Legislation

Guidelines on pesticide legislation - Second edition [2020]

Policy

- Guidance on Pest and Pesticide Management Policy Development
 [2010] English, French, Spanish
- Guidelines on Highly Hazardous Pesticides [2016] English, French,
 Spanish
- Guidance on management of household pesticides [2020] English

Registration

- Guidelines for the registration of microbial, botanical and semichemical pest control agents for plant protection and public health uses [2017] - English (Superseding guidelines on the registration of biological pest control agents [1988])
- Guidelines for the Registration of Pesticides [2010] English, French,
 Spanish, Russian, Arabic
- Guidelines on data requirements for the registration of pesticides
 [2013] English
- Guidelines on efficacy evaluation for the registration of plant protection products [2006] - Arabic, English

Guidelines on good labelling practice for pesticides [2015] - English,
 Chinese

Compliance and Enforcement

- Guidelines for quality control of pesticides [2011] English, French, Spanish, Russian, Arabic
- Guidelines on compliance and enforcement of a pesticide regulatory programme [2006] English
- Guidance for inspection of pesticide producers, importers, distributors and retailers [2020] English

Distribution and Sales

- Guidelines on Pesticide Advertising [2010] English, French, Spanish,
 Chinese
- Provisional guidelines on tender procedures for the procurement of pesticides [1994] - English
- Guidelines for retail distribution of pesticides with particular reference to storage and handling at the point of supply to users in developing countries [1988] - English

Use

- Guidelines on good practice for ground application of pesticides
 [2001] English, French, Spanish, Russian
- Guidelines on good practice for aerial application of pesticides [2001] English, French, Spanish, Russian, Arabic, Chinese
- Guidelines for personal protection when handling and applying pesticides- [2020] - English

Application Equipment

- Guidelines on procedures for the registration certification and testing of new pesticide application equipment [2001] - English, French, Spanish, Russian
- Guidelines on minimum requirements for agricultural pesticide application equipment, vol. 1 [2001] English, French, Spanish
- Guidelines on minimum requirements for agricultural pesticide application equipment, vol. 2 [2001] - English, French, Spanish
- Guidelines on minimum requirements for agricultural pesticide application equipment, vol. 3 [2002] English, French, Spanish
- Guidelines on minimum requirements for agricultural pesticide application equipment, vol. 4 [2004] - English
- Guidelines on standards for agricultural pesticide application equipment and related test procedures, vol. 1 [2001] - English, French, Spanish, Russian
- Guidelines on standards for agricultural pesticide application equipment and related test procedures, vol. 2 [2001] - English, French, Spanish, Russian
- Guidelines on organization and operation of training schemes and certification procedures for operators of pesticide application equipment [2001] - English, French, Spanish, Russian, Arabic, Chinese
- Guidelines on the Organization of Schemes for Testing and Certification of Agricultural Pesticide Sprayers in Use [2001] -English, Russian

Prevention & disposal of obsolete stocks

- Guidelines on management options for empty containers [2008] -English, French, Spanish
- Prevention of accumulation of obsolete stocks [1995] English,
 French, Spanish
- Pesticide storage and stock control manual English

- Disposal of bulk quantities of obsolete pesticides in developing countries [1996] - English, French, Spanish
- Guidelines for the management of small quantities of unwanted and obsolete pesticides [1999] - English, French, Spanish
- Assessing soil contamination: A reference manual English
- FAO Training Manual for inventory taking obsolete pesticides -English
- Country guidelines English
- Environmental Management Tool Kit for Obsolete Pesticides -Volume 1 [2009] - English
- Environmental Management Tool Kit for Obsolete Pesticides -Volume 2 [2009] - English
- Environmental Management Tool Kit for Obsolete Pesticides -Volume 3 [2011] - English
- Environmental Management Tool Kit for Obsolete Pesticides -Volume 4 [2011] - English
- Environmental Management Tool Kit for Obsolete Pesticides -Volume 5 [2020] - English
- Environmental Management Tool Kit for Obsolete Pesticides -Volume 6 [2020] - English

Post registration surveillance

- Guidelines on Prevention and Management of Pesticide Resistance
 [2012] English, French, Spanish, Arabic
- Guidelines on developing a reporting system for health and environmental incidents resulting from exposure to pesticides [2009] - English, French, Spanish
- Guidelines on post-registration surveillance and other activities in the field of pesticides [1988] - English

Monitoring and observance of the Code of Conduct

 Guidelines on monitoring and observance of the Code of Conduct [2006]

Appendix 3

CropLife International Materials Supporting Pesticide Stewardship and the International Code of Conduct

General

Code of Conduct eLearning tool

Research and Development

Framework for Assessing the Environmental Safety of Microbial Pesticides

Manufacturing

- Chemical Exposure and Risk Assessment During the Manufacturing Process
- Pollution Prevention in Crop Protection Product Manufacturing
- Contamination Prevention in the Manufacture of Crop Protection Products, Guidelines and Best Practices
- <u>Prevention and Control of Microbiological Contamination in Crop</u> Protection Products

Warehousing, Transport and Storage

- <u>Guidelines for the Safe Warehousing of Crop Protection Products</u>
- How to Store Pesticides

Integrated Pest Management

• Integrated Pest Management

- Introduction to Integrated Pest Management Facilitators Manual
- IPM Trainee Manual
- GFRAS IPM Training Course
- IPM E-learning Course

Responsible Use of Pesticides

- Responsible Use
- Responsible Use Manual
- Pesticide Retailer Course
- Be Smart, Be Safe, Wear the Correct PPE
- Pesticide Labels
- Poster on Pollinators (Bees)
- Counterfeit and Illegal Pesticides
- Treated Seeds
- Maintenance of Sprayers
- Stewardship Guidance for Drones for Application of Pesticides
- <u>Recommendations for Building a Standard Operating Procedure</u> (SOP) for Pesticide Application by Drone
- First Aid for Pesticide Contamination

Resistance Management

- Insecticide Resistance Management
- Mode of Action Labelling Guidance

Empty Container Management

- Roadmap for Establishing a Container Management Program
- Set of Guidance Documents on Container Management
- Poster on Container Management
- <u>Triple Rinse Poster</u>

Management of Obsolete Pesticide Stocks

• Obsolete and Unwanted Pesticide Stocks: Practical Guidance on Safeguarding, Disposal and Prevention

Infographics: Key Activities on Chemical Management

- Overview of Highly Hazardous Pesticides (HHPs)
- Commitment to Sound Management of HHPs
- Overview of Global Anit-Counterfeiting Activities
- Plastic Container Management
- Prevention and Disposal of Obsolete Pesticides

Examples from the Field

- IPM in Vietnam: https://croplife.org/case-study/biologicals-and-digital-tech-driving-sustainability-in-agriculture-2/
- Pesticide Applicator Training in Brazil: https://croplife.org/case-study/croplife-brazils-stewardship-advocacy-prompts-pesticide-applicator-training-regulations/
- Pesticide Resistance Management in Africa:
 https://croplife.org/case-study/croplife-africa-middle-east-leads-resistance-management-strategy-for-cotton-production-2/
- Container Management Expanding Worldwide: https://croplife.org/case-study/container-management-makes-major-progress-as-china-joins-the-initiative-2/
- Working together on obsolete pesticide management: https://croplife.org/case-study/industry-government-ngos-and-farmers-all-work-together-to-help-address-the-challenges-of-obsolete-stocks/

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