



PRODUCT STEWARDSHIP

POLICY AND KEY REQUIREMENTS OF
THE CROP SCIENCE DIVISION





CONTENT

| | |
|---------------------------------|----|
| Introduction | 4 |
| Policy | 6 |
| Implementation | 8 |
| Overview of the Principles | 10 |
| Principles and Key Requirements | 12 |
| Definitions | 40 |
| Key Contacts | 46 |
| Abbreviations | 48 |
| References | 49 |

INTRODUCTION

Product Stewardship is the responsible and ethical management of a product throughout its life-cycle, from its invention through to its ultimate use and beyond. Product Stewardship ensures the availability of high quality products and best practices for the product use in order to maximize product potential and to minimize any risks to human health and the environment.



Bayer's Crop Science Division, later referred to as Bayer, has adopted a life-cycle approach that addresses all major aspects of responsible product management. This covers research, development, registration, plant breeding, production, packaging, labeling, marketing, branding, sales, distribution, handling, application, storage and transport, and finally the management of empty product containers and product/waste disposal. Bayer's Product Stewardship activities include: extensive investment in safety and quality testing of its products; the development of improved packaging solutions and crop production techniques; the development of new technologies for improved seed varieties; the provision of support services to promote responsible product use and initiatives against production, import, trade and use of counterfeit and illegal Crop Protection products.

This document outlines Bayer's Product Stewardship Policy and Key Requirements throughout the life-cycle

of **all of its products** world-wide. The policy is based on the International FAO Code of Conduct on the Distribution and Use of Pesticides (revised version of 2014), the CropLife International Plant Biotechnology Code of Conduct, the "Excellence Through Stewardship" program and the Responsible Care Charter of the Chemical Industry.

This Bayer Product Stewardship Policy and Key Requirements document is intended to support all Bayer employees who have to ensure the responsible and ethical management and use of our products. It forms the basis for securing our business operations, based on high quality standards. Through implementation of stewardship measures and by demonstrating our quality management along a product life cycle it will help us in strengthening relations and partnerships with our stakeholders and in gaining public confidence.



POLICY

Bayer, as an industry leader, is committed to Product Stewardship as an integral part of its activities, in line with the principles of Sustainable Development and Responsible Care.

Bayer fully endorses the International FAO Code of Conduct on the Distribution and Use of Pesticides and the CropLife International Plant Biotechnology Code of Conduct together with the “Excellence Through Stewardship” program, and has used these guidance documents as the basis for its Product Stewardship Principles.

Bayer is committed to:

- ▶ Adopt the life-cycle approach to stewardship, ensuring that a stewardship program is in place for each of the following phases: research, development, commercialization and product discontinuation.
- ▶ Comply with all relevant legislation and regulations in individual countries affecting research, development, registration, plant breeding, production, packaging, labeling, marketing, branding, sales, distribution, commercial conditions, use and transport as well as management of empty containers and disposal of obsolete stocks.
- ▶ Before selling a product, start an open dialogue with key stakeholders during the development of any product, taking into account for example import and export regulations in order to minimize potential trade disruptions.
- ▶ Develop and sell only those products that do not pose an unacceptable risk to human and environmental safety when applied in an appropriate manner and for the intended uses as described on the product label.
- ▶ Prevent and combat the production and formulation, export and import, any kind of transport, distribution, sale and use of counterfeit and illegal Crop Protection products.
- ▶ Develop quality seed varieties and traits that deliver solutions to help farmers to protect crops against weeds, insects, diseases and stresses such as drought and heat, to enhance yields by boosting their productivity sustainably and to improve the quality characteristics of harvested crops.
- ▶ Manufacture products in compliance with Bayer AG’s Sustainable Development Principles regarding the use of efficient and environmentally-sound production processes.
- ▶ Maintain quality and genetic integrity via quality assurance and quality control of products.
- ▶ Promote the adoption of an Integrated Management System by setting up company-wide applicable frame procedures.

- ▶ Promote the adoption of appropriate Product Stewardship by its contract or toll manufacturers and all Licensees of Bayer genes and/or traits.
- ▶ Support and promote the implementation of Sustainable Agriculture, in particular Integrated Crop and Pest Management (ICM/IPM), including resistance management and Integrated Vector management (IVM) through the provision of appropriate products, techniques and services.
- ▶ Apply ethical sales and marketing practices that

meet the standards set by external regulations and applicable codes of practice.

- ▶ Closely analyze human, farm and domestic animal and environmental incidents and complaints related to our products and ensure that effective measures are implemented to limit re-occurrence and any future liability.
- ▶ Work in partnership with various stakeholder groups, e.g., extension services and advisors, to promote the responsible use of our products.



Liam Condon
Member of the Board of Bayer AG and
President of the Crop Science Division



Bernd Naaf
Head Business Affairs and Communications
of the Crop Science Division



IMPLEMENTATION

Bayer will bring Product Stewardship to the attention of all employees within the Company and external partners.



It is the responsibility of all Bayer employees to promote the correct use of our products.

Bayer will require all employees to follow the Product Stewardship Policy and Key Requirements and to promote them within their field of activity.



Individual responsibility of employees for specific aspects of Product Stewardship that apply to their field of activity is clearly demanded by management.

Independent of any measures taken with respect to compliance with this guidance document, all relevant binding statutes, laws, ordinances, rules, regulations, orders or codes of any governmental entities that deal with product safety, occupational health/safety, consumer protection, conservation of landscape, pollution control and other related subjects, must be applied.

The content of this document covers the basic commitment of Bayer to Product Stewardship. In order to continuously improve its Product Stewardship approach,

Bayer will monitor compliance with the defined Key Requirements, and will review progress. This monitoring and progress review will be done by the Product Stewardship functions.

The relevance and applicability of the Key Requirements will be periodically reviewed. They are considered to be a dynamic system that must be adapted as required, taking into account technical, economic, regulatory and social changes.

INFORMATION:

Throughout this document a colored background highlights the **PRODUCT STEWARDSHIP PRINCIPLES**. The **KEY REQUIREMENTS** are indicated by an arrow and are numbered (e.g., KR 1.6) giving the number of the principle and the running number of the key requirement.



OVERVIEW OF THE PRINCIPLES



1 RESEARCH & DEVELOPMENT

Bayer will make every reasonable effort to develop products with further improved efficacy, toxicological, eco-toxicological and environmental profiles. Bayer will test products adequately and effectively in accordance with sound scientific procedures and applicable regulatory requirements and will obtain product authorizations in the country where the product is to be sold, as well as import tolerances/authorizations as required by the regulatory systems.



2 PRODUCTION

Bayer's production facilities and sites will be of a suitable standard in all countries in which product is manufactured/seeds are produced. Where third parties produce on behalf of Bayer, contractual agreements will impose stewardship requirements on par with Bayer's own requirements.



3 PACKAGING, TRANSPORT AND STORAGE

Bayer will organize qualified packaging, storage and transport of its products in accordance with applicable legal requirements, the respective FAO Guidelines and the Bayer Quality, Health, Safety and Environment Handbook.



4 MARKETING, BRANDING, INTELLECTUAL PROPERTY, SALES AND DISTRIBUTION

Bayer will adhere to ethical sales & marketing practices that meet the standards set by applicable regulations as well as company-specific regulations. Responsible Marketing and Sales also involves monitoring the implementation of procedures, systems and processes by all Bayer legal entities.



5 INTEGRATED PEST MANAGEMENT/RESISTANCE MANAGEMENT

Bayer will support the implementation of Integrated Pest Management (IPM) measures, including resistance-management tools, for the whole product portfolio.



6 RESPONSIBLE USE

Bayer will ensure that appropriate programs are implemented in order to train, instruct and, as necessary, update our own staff and customers in all aspects of the responsible management of our products during their entire life-cycle, from research to product discontinuation.



7 CONTAINER MANAGEMENT

Bayer will actively support programs to recycle and, where this is not possible, safely dispose of empty packages and containers.



8 PRODUCT DISCONTINUATION/ DISPOSAL OF OBSOLETE STOCKS

Bayer will have policies and procedures in place to ensure safe discontinuation and disposal of its obsolete stocks of products.



1. PRINCIPLE

Research & Development

Bayer will make every reasonable effort to develop products with further improved efficacy, toxicological, eco-toxicological and environmental profiles. Bayer will test products adequately and effectively in accordance with sound scientific procedures and applicable regulatory requirements and will obtain product authorizations in the country where the product is to be sold, as well as import tolerances/authorizations as required by the regulatory systems.



KEY REQUIREMENTS:

Strive in research and development for improved products and technologies

- ▶ Bayer's Business Operations Units Crop Protection and Environmental Science must make every reasonable effort to develop new products with improved biological profiles. [KR 1.1]
- ▶ Bayer's Business Operations Unit Seeds must make every reasonable effort to strive in their research and development activities for improvements to plants that can enhance crop production methods, maintain product genetic integrity. [KR 1.2]
- ▶ Bayer's Business Operations Unit Seeds must make every reasonable effort to minimize the risk of unintended release. [KR 1.3]
- ▶ Bayer's Business Operations Units Crop Protection and Environmental Science must make every reasonable effort to substitute higher risk-profile formulants with materials with lower risk profiles. [KR 1.4]
- ▶ Preference must be given to products whose use requires personal protective and application equipment that is more readily available and affordable and to procedures that are well matched with user education and abilities in the country of sale. [KR 1.5]
- ▶ Bayer will make every reasonable effort to develop and support improvement of application technologies and implementation of best practice in application technologies with the aim of minimizing operator and environmental exposure. [KR 1.6]

Test adequately and effectively, ensuring quality and genetic integrity

- ▶ It must be ensured that every product is adequately tested, using recognized procedures and test methods so as to fully evaluate efficacy, crop tolerance, environmental behavior and fate, hazard and risk with regard to the various anticipated conditions in the countries of use as well as its fit for integrated crop solutions according to the principles of Integrated Pest Management. [KR 1.7]
- ▶ It must be ensured that such tests are conducted in accordance with sound scientific procedures and legal requirements (e.g., the principles of Good Laboratory Practice or Good Experimental Practice). [KR 1.8]



1. PRINCIPLE

Research & Development



- ▶ Procedures must be in place when performing trials to prevent seed derived from new technologies and crops treated with non-registered products, from directly or indirectly entering the human food chain, unless appropriate regulatory approvals are in place to allow this. [KR 1.9]
- ▶ Experimental product samples/seed samples must be appropriately labeled including information on safe handling. [KR 1.10]
- ▶ All safe handling requirements must be followed for new molecules, micro-organisms, and formulations. These include personal protective equipment and bio-safety considerations (such as use in appropriate containment or confinement facilities) when handling material derived from new seed technologies. [KR 1.11]
- ▶ Research and development of seed technologies, microbial technologies and the application of experimental formulations in trials must only be done by trained personnel. Where required, country-specific import regulations and Experimental Use Permits (EUPs) for non-registered compounds have to be followed. [KR 1.12]
- ▶ Care must be taken to avoid comingling and cross-pollination of seeds and traits. [KR 1.13]
- ▶ Crops and harvests from trials with non-registered products and uses must be destroyed, if not otherwise stated by law. [KR 1.14]

Have registrations where the product is sold and import tolerances or import authorizations for all key import countries with functioning regulatory systems

- ▶ A regulatory data package must be developed and submitted to satisfy national and international regulatory requirements before commercialization. [KR 1.15]
- ▶ Bayer prefers to conduct studies in countries where high testing standards are in place. Otherwise, the International FAO Code of Conduct (for plant protection products), or regulatory standards of OECD countries (for biotechnology products) must be applied. [KR 1.16]
- ▶ Bayer must consider the potential impact on global import and export trade by ensuring that key import country import tolerances or import authorisations are obtained to minimize trade disruptions arising from commercialisation of its products [KR 1.17]

- ▶ Bayer must work with relevant stakeholders to ensure that information concerning product authorizations in other countries is communicated appropriately. [KR 1.18]
- ▶ Residue trials for crop protection products must be conducted in accordance with national/regional regulatory requirements prior to marketing. These tests must at the minimum be in accordance with Codex Alimentarius and FAO guidelines on good analytical practice and crop residue data in order to provide a basis for establishing appropriate maximum residue limits. [KR 1.19]
- ▶ Methods for the analysis of any active ingredient or formulation and the identity of traits, once validated, as well as the respective analytical standards, will be made available to regulatory authorities on request. [KR 1.20]
- ▶ The methods for analysis used in the testing of micro-organisms must ensure identity and confirm key attributes. [KR 1.21]
- ▶ Analytical standards/samples of Bayer compounds must be supplied only to third parties conducting relevant research and development, where the content of the

activities is known to Bayer, e.g., official residue trials, environmental monitoring or authorized customers formulating products of Bayer. [KR 1.22]

- ▶ Only seed and/or traits confirmed to be of a quality fit for its intended purpose, must be supplied to third parties conducting relevant research and/or development known to and under contract with Bayer e.g., for analytical testing by regulatory authorities or commercial testing partners. [KR 1.23]
- ▶ Training and assistance must be available to the technical staff involved in the relevant analytical work. [KR 1.24]
- ▶ Regulatory authorities must be provided with new or updated information that could reasonably impact regulatory conditions or the regulatory status of the product as soon as it becomes available. [KR 1.25]



1. PRINCIPLE

Research & Development



Provide transparent and accurate information to our customers via product labels that are compliant with local and international requirements.

- ▶ It must be ensured that the proposed use pattern, label claims and directions, packages and technical literature truly reflect the outcome of scientific tests and assessments and comply with all conditions of authorization. [KR 1.26]
- ▶ All product containers and related outer packaging must be clearly labeled with adequate and accurate information in accordance with registered or approved uses. [KR 1.27]
- ▶ Crop Protection and Environmental Science product labels must clearly identify whether the product can be applied via ground and/or aerial application. [KR 1.28]
- ▶ Product labels must comply with local regulatory requirements for classification and labeling. [KR 1.29]
- ▶ In the absence of specific requirements for labeling, Crop Protection products must be labeled in accordance with the Global Harmonized Systems Codes (GHS) and the FAO Guidelines on good labelling practice of plant protection products. [KR 1.30]
- ▶ Specific claims on the safety of a product to bees, beneficial insects, fish, etc., when used as directed, are permitted only when local legislation allows and provided scientific evidence is available to support the claim. [KR 1.31]
- ▶ Product labels must be written in an appropriate language and understandable to end users. [KR 1.32]
- ▶ Product labels must include symbols and pictograms, if appropriate. [KR 1.33]
- ▶ Information and instructions must be provided with each product package in adequate language and form to ensure effective risk management during handling, according to local regulations. [KR 1.34]
- ▶ The safety text on Crop Protection and Environmental Science labels must include advice on appropriate personal protective equipment. [KR 1.35]
- ▶ Product labels must include, where relevant, information on first aid and medical advice. [KR 1.36]
- ▶ Crop Protection and Environmental Science product labels must include a warning against the inappropriate use of empty containers. [KR 1.37]
- ▶ Crop Protection and Environmental Science product labels must include instructions on cleaning and safe disposal of empty containers. [KR 1.38]
- ▶ Where appropriate, Crop Protection product labels must specify a re-entry time (= the minimum amount of time that must pass after application of plant protection product to an area or crop and the time that people can go into that area without additional protective clothing and equipment) for each use. [KR 1.39]
- ▶ Product packaging must clearly identify each lot or batch of the product to allow traceability. [KR 1.40]
- ▶ Crop Protection and Environmental Science product labels must clearly show the identity of the registrant. They must also carry a telephone contact number in case of an emergency. [KR 1.41]
- ▶ Crop Protection and Environmental Science product packaging must carry the release date (month and year) of the lot or batch and provide relevant information on appropriate storage conditions for the product in accordance with national labeling rules and requirements. [KR 1.42]
- ▶ Products sold under specific trademarks must only contain the active ingredient(s)/trait or variety approved by Bayer for use under that name in accordance with normal quality standards. [KR 1.43]
- ▶ The same product trademark must not be used simultaneously in a country for formulations containing different active ingredients. Finished products for sale by Environmental Science or Seeds utilizing the same brand name can be excluded from these provisions. [KR 1.44]
- ▶ Labels for commercial products must among other things clearly identify the product incl. the product content; mention the intellectual property rights as applicable; specify the directions for use and disposal incl. possible use restrictions; include information on acute and chronic hazards, if applicable; supplier identity; and comply with national and international labelling requirements as well as Bayer internal standards for labeling. [KR 1.45]
- ▶ Bayer must require the relevant business partner, e.g., seed treatment companies, to add appropriate handling instructions for treated seed to the outside of the seed bags. [KR 1.46]



2. PRINCIPLE

Production

Bayer's production facilities and sites will be of a suitable standard in all countries in which product is manufactured/seeds are produced. Where third parties produce on behalf of Bayer, contractual agreements will impose stewardship requirements on par with Bayer's own requirements.

KEY REQUIREMENTS:

Production sites, company-owned or contracted, will be of a suitable standard.

- ▶ Each site/location must take all necessary precautions to protect workers, bystanders, nearby communities and the environment during its operations. [KR 2.1]
- ▶ Each site/location must establish and implement an integrated and process-oriented Quality Health Safety and Environment (QHSE) Management System suited to its particular needs, and based on the QHSE Handbook. It must focus on the systematic identification and mitigation of site risks. [KR 2.2]
- ▶ Bayer must ensure the proper siting of manufacturing and formulation plants as well as their storage areas, and must adequately monitor and control waste, emissions and effluents in accordance with national regulations, where available, or in accordance with relevant international guidelines. [KR 2.3]
- ▶ Each site/location must adopt engineering standards and operating practices appropriate to the nature of the production operations and the hazards involved, and ensure the availability of appropriate protective equipment. [KR 2.4]
- ▶ A formal Hazard Identification and Risk Assessment must be conducted at site level for all existing activities, modifications, substances, new processes and projects. [KR 2.5]
- ▶ Processes must be designed such that potential risks are minimized, as appropriate, through the selection of materials and process parameters. [KR 2.6]
- ▶ Each site/location where Crop Protection and Environmental Science products are handled must be equipped with up-to-date Safety Data Sheets. [KR 2.7]
- ▶ Knowledge and technology must be offered and transferred to all Bayer-sites/locations to enable them to develop, implement and improve the Quality Health Safety and Environment system according to Bayer Principles and Standards or the equivalent thereof. [KR 2.8]



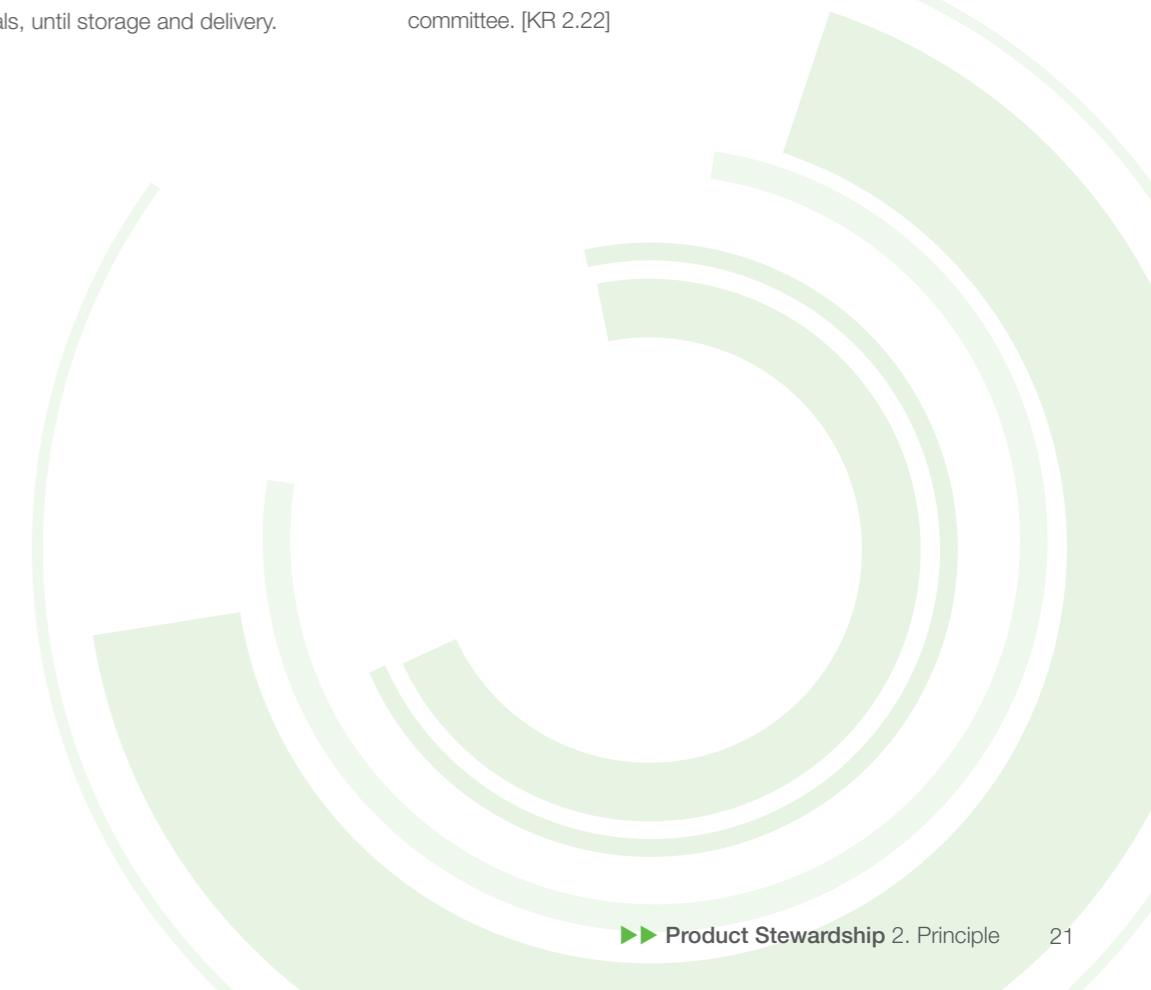


2. PRINCIPLE Production



Ensure product integrity through sound quality assurance and quality control measures.

- ▶ Quality and Genetic integrity must be ensured by a clearly defined chain of surveillance. [KR 2.9]
- ▶ Crop Protection and Environmental Science product manufacturing must ensure that the quality of Bayer products meets the registered specification. When Bayer becomes aware of that a product does not meet specifications, appropriate steps must be taken. [KR 2.10]
- ▶ Any formal changes to materials, process and/or equipment at third parties producing Bayer products must follow a management of change process which is reviewed and approved by Bayer prior to implementation. [KR 2.11]
- ▶ Every reasonable precaution must be taken to ensure that Crop Protection and Environmental Science products do not contain residual impurities in the form of additional active ingredients, microbial contaminants or other impurities at levels which will prejudice safety or efficacy, or render the products non-compliant with applicable country laws. [KR 2.12]
- ▶ Micro-organisms from Master Cell Banks representing the active ingredient of biological products must be supplied by Bayer to manufacturing sites and third parties. They must be preserved in a manner to protect genetic integrity. [KR 2.13]
- ▶ Seed quality standards must be defined to ensure that the seed conforms to label conditions. [KR 2.14]
- ▶ Quality control methods must be available in order to ensure that seed quality standards have been met. [KR 2.15]
- ▶ Chemical and biological seed treatment quality standards must be defined to ensure that the treated seed conforms to label conditions and the impact, if any, on humans and the environment is minimized. [KR 2.16]
- ▶ Quality control standards must be available in order to ensure that chemical and biological seed treatment quality standards have been met. [KR 2.17]
- ▶ Bayer must require that seed production by third parties on behalf of it must be done in accordance with Good Agricultural Practices (GAP), following the same stewardship requirements as those applied by Bayer. [KR 2.18]
- ▶ Seed produced on behalf of Bayer by third parties must comply with agreed quality assurance and quality control measures. [KR 2.19]
- ▶ Product identification and traceability procedures must be established to allow the unique identification of products and raw materials through relevant stages of production, starting with receipt of raw materials, until storage and delivery. [KR 2.20]
- ▶ Safety Data Sheets must be provided with Crop Protection and Environmental Science product samples when supplied to a third party (e.g., for registration trials). [KR 2.21]
- ▶ Changes of packaging specification or new product/package combinations must be approved through contact with the department Packaging Technology and/or the local packaging committee. [KR 2.22]





3. PRINCIPLE

Packaging, Storage and Transport

Bayer will organize qualified packaging, storage and transport of its products in accordance with applicable legal requirements, the respective FAO Guidelines and the Bayer Quality, Health, Safety and Environment Handbook.



KEY REQUIREMENTS:

Ensure safe storage and transport

- ▶ Bayer must only use containers approved for use with the products for transport, in compliance with the requirements of the rules on the transport of dangerous goods by air, sea, road, rail or inland waterways. [KR3.1]
- ▶ Bayer Crop Protection, Environmental Science and Treated Seed products must not be transported in the same container or compartment as food, drugs, toys, clothing, cosmetics or household goods. [KR 3.2]
- ▶ Bayer must promote the implementation of measures to ensure suitability of vehicles and safe stowage and securing of the load. [KR 3.3]
- ▶ Bayer must base the storage of goods on the properties of the materials stored: the storage must comply with applicable local requirements. [KR 3.4]
- ▶ Bayer or contracted seed cleaning, conditioning, bagging and storage facilities must be operated in compliance with applicable local regulations. [KR 3.5]

Packaging materials will be in accordance with applicable legal requirements, the relevant FAO Guidelines and the Bayer Quality, Health, Safety and Environment Handbook.

- ▶ The development and use of packaging materials for purchased goods, intermediates and finished products must take the following Quality, Health, Safety and Environment (QHSE) aspects into account:
 - Quality
 - Resource conservation
 - Transport safety
 - Interactions between the product and packing
 - Adequate barrier properties to protect the Quality and Genetic integrity to ensure user and environmental safety during storage.
 - Safety in operation (filling, handling and application)
 - Use of combinations of packaging materials that support recycling
 - Use of packs that allow complete emptying and rinsing to support recycling [KR 3.6]
- ▶ Containers that can be easily opened by children must in general not be used, particularly not for household, hygiene and garden products. [KR 3.7]
- ▶ Containers for products intended for/supplied to the general public shall not have either a shape or design likely to attract or arouse the active curiosity of children, or have a presentation or a design similar to that used for foodstuffs, animal feed, or medicinal or cosmetic products, which could confuse consumers. [KR 3.8]
- ▶ Bayer must provide a reasonable range of pack sizes and types that are appropriate to the needs of customers, especially small-scale farmers, in order to reduce risks and avoid unsupported repacking by sellers. [KR 3.9]
- ▶ Bayer must only supply products of adequate quality, packed and labelled as appropriate for each specific market. [KR 3.10]



4. PRINCIPLE

Marketing, Branding, Intellectual Property, Sales and Distribution

Bayer will adhere to ethical sales & marketing practices that meet the standards set by applicable regulations as well as company-specific regulations. Responsible Marketing and Sales also involves monitoring the implementation of procedures, systems and processes by all Bayer legal entities.

KEY REQUIREMENTS:

Comply with laws, regulations and good business practices

- ▶ All applicable laws and regulations dealing with marketing practices, the applicable global, regional and local industry codes relevant for our business as well as all Bayer internal regulations e.g., the Bayer “Corporate Compliance Policy”, the “Responsible Marketing & Sales” Policy and Bayer Directive 91 “Product Defense” must be adhered to. [KR 4.1]
- ▶ All necessary steps must be taken to ensure that products traded internationally conform to the relevant international conventions (e.g., Rotterdam Convention (PIC)). [KR 4.2]
- ▶ Bayer must take reasonable pro-active initiatives to combat all kind of illegal activities related to the production and formulation, export and import, any kind of transportation, distribution, sale and use of Crop Protection products. [KR 4.3]
- ▶ All necessary steps must be taken to ensure that seed shipped internationally conforms to all relevant international regulations. [KR 4.4]
- ▶ For Crop Protection tender business, national requirements must be followed and the respective FAO Guideline “Provisional guidelines on tender procedures for the procurement of pesticides” Rome, Food and Agriculture Organization of the United Nations; FAO, 1994) must be taken into account. Before providing the product, its demand must be evaluated in the country of sale to avoid building up obsolete stocks. [KR 4.5]
- ▶ Only products/product uses that have been registered or authorized in the country of sale are allowed to be recommended, advertised and promoted. Additionally, these products might be subjected to a directed use program in the case the product is not yet authorized for import, food and feed use in all key import countries. [KR 4.6]
- ▶ For products which do not need a registration or authorization, best accepted practices will be used. [KR 4.7]
- ▶ Promotion of side effects is possible to the extent allowed by applicable law. All brand communication claims must be technically substantiated and only lawful uses of a product must be recommended. [KR 4.8]
- ▶ Announcements of expected regulatory decisions or technical articles (e.g., for pre-launch of products that are not yet authorized) can be made, provided they comply with national rules and regulations. In countries where no national rules or regulations exist, it must be made clear in the announcement/article that the sale/use of the product is not yet allowed. [KR 4.9]





4. PRINCIPLE

Marketing, Branding, Intellectual Property, Sales and Distribution



Be honest and reliable

- ▶ Advertising, promotion and information materials must be understandable, clear and consistent irrespective of form or forum (e.g., product brochures, technical information leaflets, press information, social media, customer letters). They must not contain any statement or visual presentation which, directly or by implication, omission, ambiguity or exaggerated claim, is likely to mislead a reasonable buyer/user. [KR 4.10]
- ▶ Advertising of plant protection products that are legally restricted to use by trained or registered operators only must not be publicly advertised through journals other than those catering to such operators, unless the restricted availability is clearly and prominently mentioned. [KR 4.11]
- ▶ Advertising material must only contain representations that reflect the proper use of the product (including necessary protective clothing) and must not contain any visual presentation of potentially dangerous practices, such as mixing or application of crop protection products without wearing recommended personal protective clothing, use near food, or use by or near children. It must be free of inappropriate statements and visuals. [KR 4.12]
- ▶ Statements on efficacy, yield and plant growth effects must not be made without a qualifying phrase such as “when product is used as directed”. [KR 4.13]
- ▶ Statements on “intrinsic” product safety (e.g., “safe”, “non-poisonous”, “harmless”, “non-toxic”, “low risk”) must generally not be made. [KR 4.14]
- ▶ Advertising material must not include comparison with brand names of competitors unless this is allowed by national laws. False, misleading or technically irrelevant comparisons with competitor products must not be made. [KR 4.15]
- ▶ All advertising and promotional materials (irrespective of form or format) must undergo internal review for accuracy, appropriateness & compliance before being released outside the company. [KR 4.16]

Listen attentively and communicate appropriately

- ▶ Proper information about any risk associated with our products must be transparently communicated in accordance with industry practices and relevant requirements. [KR 4.17]
- ▶ Interactions with stakeholder groups must be responsible and transparent. [KR 4.18]
- ▶ Outside views and feedback must be actively sought and considered in our daily work. [KR 4.19]

Care about people, safety, quality and the environment

- ▶ Bayer is committed to implementing and monitoring procedures, systems and processes, and in particular to review marketing and business operations regularly to assure the highest quality of its products and services as well as to safeguard people and the environment (see also chapter 10 and 11 of this guideline). [KR 4.20]
- ▶ Bayer must undertake reasonable in-market control and market entry control in order to mitigate risk related to counterfeit and illegal Crop Protection products. [KR 4.21]
- ▶ Marketing of products, including those identified as highly hazardous products (HHPs) must be adapted to the extent required by risk evaluations. If necessary, labels, promotion activities and sales must be adapted accordingly, including targeted sales restrictions. [KR 4.22]
- ▶ Corrective actions must be implemented where required and transparent reporting of the resulting re-assessments must be done. [KR 4.23]
- ▶ Sales must be stopped and products must be recalled if handling or use is found to pose an unacceptable risk to the environment or human health, and these risks cannot be mitigated through stewardship measures. [KR 4.24]
- ▶ Recall procedures must be put in place in advance for all businesses/products at global and local level, so that any recalls that become necessary are run efficiently and in a timely manner. [KR 4.25]

Enable business partners to fulfill the stewardship requirements for our products

- ▶ When commissioning relevant supplier companies, Bayer must endeavor to ensure that they apply the same Quality Standards as are applied by Bayer. [KR 4.26]
- ▶ The approval process for a newly-contracted toll manufacturer of Crop Protection and Environmental Science products must include a site visit to evaluate equipment, QHSE Standards, the quality control laboratory, the level of qualification of personnel, etc., to ensure that Bayer QHSE requirements are understood and capable of being followed. [KR 4.27]
- ▶ Bayer must ensure that toll, supplier and transport companies dealing/handling Bayer products agree to implement an efficient due diligence process to prevent that they get involved in any kind of activities related to counterfeit and illegal Crop Protection products. [KR 4.28]



4. PRINCIPLE

Marketing, Branding, Intellectual Property, Sales and Distribution



- ▶ Licensees working with Bayer seed technologies must agree to adhere to Bayer stewardship requirements and to ensure that they produce seed products containing Bayer technologies that meet Bayer quality assurance. [KR 4.29]
- ▶ Bayer must take steps to avoid child labor in its business operations. The term “child” refers to any person under the age of 15 (or lower according to the applicable local laws), or under the minimum age for completion of compulsory education, or under the minimum age for employment in any particular country, whichever is the highest. Employees under the age of 18 must not perform hazardous work. [KR 4.30]
- ▶ When treatments e.g., of seeds, storage areas, or domestic areas with our products are to be done by specialized companies, Bayer must require such companies have measures in place to be in compliance with the Bayer Product Stewardship Policy and Key Requirements. [KR 4.31]
- ▶ Agents or contractors must agree to abide by these requirements as well in the course of fulfilling any obligations under any agreement they are performing for Bayer. [KR 4.32]
- ▶ Bayer must require that its business partners apply the same level of Product Stewardship to our products as is expected within our own Company. [KR 4.33]
- ▶ Bayer technical and commercial staff must provide the appropriate advice, support and training to its business partners, such that they are adequately qualified to present accurate information on Bayer products to their customers. [KR 4.34]
- ▶ If affiliated companies are asked to supply analytical-grade standards to third parties conducting studies on our active ingredients, seed or other products, the analytical grade standards must be provided from an authorized source. [KR 4.35]
- ▶ Bayer must have an agreement with the third party and be provided with a copy of the study report and, where possible, monitor the work conducted. [KR 4.36]
- ▶ The privacy of customer or consumer information and data protection must be observed. [KR 4.37]

Support strong and effective intellectual property protection

- ▶ Bayer must ensure that innovation within the company is promptly brought to the attention of the Bayer IP department as soon as possible so that it can be effectively protected by patents, plant variety protection rights, trade secret or other means. [KR 4.38]
- ▶ Bayer staff must ensure that confidential information, such as technological know-how, or that relating to intellectual property rights, is not disclosed to third parties without explicit approval of the Bayer IP department. Information should be considered to be confidential unless there is clear indication otherwise. [KR 4.39]
- ▶ Bayer must ensure that its IP department will be informed of, review and monitor potentially relevant intellectual property rights of third parties and analyze the relevance and validity of such rights with respect to Bayer products or activities, and inform the relevant business of its findings so that appropriate licenses can be negotiated if necessary. The Bayer IP department must be involved in such license negotiations. [KR 4.40]
- ▶ All Bayer staff must ensure that if the intellectual property rights of third parties are found to infringe on, or could be potentially relevant to, Bayer products or activities, that this is brought immediately to the attention of the Bayer IP department. [KR 4.41]
- ▶ On becoming aware of activities of third parties that might violate Bayer's intellectual property rights, or might be illegal, Bayer staff must ensure that these activities are analyzed, and that if needed appropriate action is taken to try to stop the infringing or illegal activities. [KR 4.42]
- ▶ Bayer consequently must pursue all kind of intellectual property infringements related to counterfeit and illegal Crop Protection products. [KR 4.43]



5. PRINCIPLE

Integrated Pest Management/ Resistance Management

Bayer will support the implementation of Integrated Pest Management (IPM) measures, including resistance-management tools, for the whole product portfolio.

KEY REQUIREMENTS:

- ▶ Bayer must develop and promote IPM solutions for its products. [KR 5.1]
- ▶ Bayer must develop, communicate and implement resistance management guidance to prolong the effectiveness of its products and to limit the impact should resistance occur. [KR 5.2]
- ▶ Where relevant, training must include resistance management strategies, biological control and Integrated Pest Management strategies, and measures in the framework of Good Agricultural Practice and Integrated Pest Management. [KR 5.3]



6. PRINCIPLE

Responsible Use

Bayer will ensure that appropriate programs are implemented in order to train, instruct and, as necessary, update our own staff and customers in all aspects of the responsible management of our products during their entire life-cycle, from research to product discontinuation.

KEY REQUIREMENTS:

Implement training programs for Bayer staff and customers

- ▶ The use of Bayer products, and the occurrence of any problems arising from the use of the products must be actively followed, as a basis for determining the need for changes in labeling, directions for use, formulation or product availability. [KR 6.1]
 - Actions to take in case of emergency
 - Use of recommended personal protective clothing
 - Clean-up of product spills
 - Personal hygiene
 - Quality and genetic integrity, e.g., compatibility, sensitivity
 - Risks associated with the handling and use of counterfeit and illegal Crop Protection products and how to distinguish original from counterfeit and illegal products
 - Key principles how to avoid the un-intended purchase and use of counterfeit and illegal products.
 - Correct storage of products at dealer warehouse and on farm
 - The correct way to prepare products for use (mixing and loading procedure)
 - Recommended application techniques
 - Calibration, use, cleaning, and maintenance of equipment
 - Correct cleaning of empty containers
 - Correct disposal of waste products and empty and cleaned containers
 - Mitigation measures: e.g., drift reduction measures in order to protect the environment in off-crop zones and sensitive zones for human water production
 - Minimizing the exposure/risk to by-standers. [KR 6.5]
- ▶ Bayer business units must take appropriate efforts to introduce products in ready-to-use packages whenever reasonably possible, e.g., Environmental Science uses. [KR 6.2]
- ▶ Where compulsory country training and accreditation requirements are absent or inadequate to ensure safe and responsible use of products, Bayer must support the responsible use of its products through the implementation of appropriate training measures, e.g., through its own activities and/or those of industry associations, and through collaboration with various stakeholders, including governments and extension services. [KR 6.3]
- ▶ Emphasis must be given to avoid improper use of Bayer products. [KR 6.4]
- ▶ Training programs must include, as appropriate and relevant to the product, information on:
 - Hazard and risks
 - Recognition of the symptoms of product-related poisoning





6. PRINCIPLE Responsible Use



- ▶ All staff involved in marketing, promotion, selling or giving advice on Bayer products must be adequately trained to present accurate and valid information on the products sold as well as understand laws, regulations, internal rules and standards relevant to the commercial use and marketing of the product. [KR 6.6]
- ▶ Best management practices for the safe handling and application of Bayer products must be actively promoted by our field staff, e.g., when visiting farmers or other customers, at product launch meetings, etc. [KR 6.7]

Do not support, encourage or tolerate any unapproved use of our products and/or seed technologies

- ▶ When aware of an unapproved use, the issue must be promptly addressed, reported to the respective functions and appropriate steps taken to correct the situation. [KR 6.8]
- ▶ Bayer affiliate companies must cooperate with the appropriate stakeholders, including authorities, to correct unapproved use. [KR 6.9]
- ▶ Personal misuse by a Bayer employee or encouragement or toleration of unapproved uses of a product by others may result in disciplinary action. [KR 6.10]
- ▶ Bayer will support governments and authorities to detect, control and prevent the production, transport, trade and use of counterfeit and illegal Crop Protection products through national and international co-operation and information exchange. [KR 6.11]



Take all practicable measures to prevent and manage any incident

- ▶ Bayer must take all reasonably practicable measures to prevent any external incident involving our R&D and commercial activities. [KR 6.12]
- ▶ Should incidents occur, the country organization must investigate and report them to headquarters. [KR 6.13]
- ▶ Measures must be implemented to reduce the likelihood of recurrence. [KR 6.14]
- ▶ Reported incidents must be managed in a timely way to ensure that the impact to the company and stakeholders, including any trade disruptions is minimized. [KR 6.15]
- ▶ Bayer affiliate companies or the responsible Bayer organizational or operational unit in any given country must have a procedure in place to report and promptly respond to incidents involving Bayer products. [KR 6.16]
- ▶ Personnel within each Bayer-affiliated company or the Crop Science Division in a country must be nominated to respond to, and manage, incidents. This includes reporting to regional functions and to global headquarters. [KR 6.17]
- ▶ Procedures for incidents must include communications to potentially impacted stakeholders, such as downstream partners and industry associations. [KR 6.18]
- ▶ The country organization must inform and co-operate with national authorities, users and Poison Control Centers to enable prompt remedial action. [KR 6.19]
- ▶ Updated Safety Data Sheets (SDS) for products must be provided in an appropriate language to Poison Control Centers or other responsible organizations, to regulatory authorities, transport companies, distributors, retailers and if requested, end users. This applies to all Bayer Crop Protection and Environmental Science products sold by, or on behalf of Bayer. [KR 6.20]
- ▶ Bayer affiliate companies must provide, where appropriate, Poison Control Centers in each country with a list of company contact details upon request. [KR 6.21]
- ▶ At local level, the following actions must be followed in cases of accidental or intentional over-exposure:
 - Investigate all reported over-exposures in which Bayer Crop Protection products may be implicated and if they are found to have been involved, complete incident report in accordance with internal Bayer guidelines.
 - Conduct a review of the factor(s) contributing to the incident and implement, where necessary, stewardship measures to prevent recurrence. [KR 6.22]



7. PRINCIPLE

Container Management

Bayer will actively support programs to recycle and, where this is not possible, safely dispose of empty packages and containers.

KEY REQUIREMENTS:

- ▶ Container design must support safe disposal in accordance with:
 - 1) national rules and regulations where they exist;
 - 2) the FAO Guideline, if national rules and regulations do not exist;
 - 3) CropLife International guidelines, if not covered by the FAO Guideline. [KR 7.1]
- ▶ Bayer must ensure for all professional products that empty product containers, which had been filled with these products before, can be treated as non-hazardous waste after adequate cleaning steps, i.e. by applying the triple rinse procedure. [KR 7.2]
- ▶ Programs must be actively supported that encourage recycling and – where not possible – safe disposal of empty packages and containers. [KR 7.3]

8. PRINCIPLE

Product Discontinuation/ Disposal of Obsolete Stocks

Bayer will have policies and procedures in place to ensure safe discontinuation and disposal of its obsolete stocks of products.

KEY REQUIREMENTS:

Ensure, as much as possible, a smooth discontinuation of our products for our customers

- ▶ Bayer must have processes in place to ensure a smooth discontinuation of our projects and/or products for our customers. [KR 8.1]
- ▶ Bayer must comply with and ensure that appropriate regulatory permits, conditions, and/or approvals are maintained throughout the discontinuation phase and as appropriate should continue for a defined period after commercial discontinuation in order to sufficiently mitigate the issue of unintended presence that could lead to trade disruption. [KR 8.2]
- ▶ Bayer must comply with inventory management and dispose of excess and obsolete internal materials. [KR 8.3]

Support safe disposal of obsolete product stocks

- ▶ Bayer must participate in programs together with other stakeholders, such as retailers, farmers and authorities, to prevent products supplied by Bayer from becoming obsolete stocks. [KR 8.4]
- ▶ Bayer must, through multilateral co-operations and/or through industry associations (global, regional and/or local), assist in disposing of obsolete stocks of Bayer plant protection products in an environmentally-sound manner. [KR 8.5]



DEFINITIONS

ACTIVE INGREDIENT

means the biologically active part of the product.

ADVERTISING

means the promotion of the sale and use of products via printed and electronic media, signs, displays, gifts, demonstration or word of mouth.

ANALYTICAL GRADE CHEMICAL STANDARD

is a purified chemical substance (e.g., active ingredient, metabolite or impurity) supplied with GLP certification.

ANTI-COUNTERFEIT

means initiatives to combat all kind of illegal activities related to the production and formulation, export and import, any kind of transportation, distribution, sale and use of Crop Protection products.

APPLICATION EQUIPMENT

means any technical aid, equipment or machinery, which is used for the application of products.

APPLICATION TECHNOLOGY

means the actual physical delivery and distribution process of a plant protection product or Environmental Science product to the target organism, or to the place where the target organism comes into contact with the plant protection or Environmental Science product.

BUSINESS PARTNERS

include Suppliers, Toll Manufacturers, Distributors, Retailers, Formulators, Co-marketers, and Seed Producers.

CONTAINER

means any object used to hold a Crop Protection, Environmental Science or Seeds product.

COMPLIANCE

means full adherence to, and implementation of, legal and company requirements.

COMPLIANCE MONITORING

means collecting and analyzing information on the compliance status of an entity or facility, or of an industry or economic sector.

CROP PROTECTION PRODUCT

is a product that protects crops from pests during crop production.

CROP TOLERANCE EVALUATION

means the assessment of possible adverse effects of the plant protection product on a crop. Possible adverse effects of a plant protection product can be direct phytotoxicity of the treated plant immediately after application or later, effect on the emergence of the crop or the following crop in the rotation, effect on the quantity and quality of harvest and/or effect on plant parts used for propagation.

DISPOSAL

means any operation to recycle, neutralize, destroy or isolate product waste, used containers and contaminated materials.

DISTRIBUTION

means the process by which products are supplied through trade channels to national or international markets.

EFFICACY EVALUATION

means the assessment of the effectiveness of a plant protection product against the target pest, which may include an assessment of its agronomic sustainability and economic benefits.

ENVIRONMENT

means surroundings, including water, air, soil and their interrelationship as well as all relationships between them and any living organisms.

EXPERIMENTAL PRODUCT SAMPLES

are those based on new molecules or new formulations for which only limited toxicological or ecotoxicological data are available at the time of testing.

ENVIRONMENTAL SCIENCE PRODUCTS

are pest and weed control products for use for professional users and private consumers.

EXTENSION SERVICES

means the entities in a country that are responsible for the transfer of information, technology advice and training regarding the improvement of agricultural practices, including the production, handling, storage and marketing of agricultural commodities.

FACILITY

means any place or operation where active ingredients or products are manufactured, held, stored, marketed, sold, distributed, transported, used or disposed of, or where records relating to such activities are maintained.

FORMULATION

means the combination of various ingredients designed to render the active ingredient useful and effective for the purpose claimed; it is the form of the product purchased by end users.

GOOD AGRICULTURAL PRACTICE (GAP)

in the use of plant protection products comprises the officially recommended or nationally authorized uses of plant protection products under actual conditions necessary for effective and reliable performance and safety of the product. It encompasses a range of levels of plant protection applications up to the highest authorized use rate and/or frequency, applied in a manner which leaves a residue which is consistent with that authorized by a competent regulatory authority.

GLOBALLY HARMONIZED SYSTEM (GHS)

establishes new classification criteria for physical, health and environmental hazards, along with associated hazard communication elements, notably pictograms, signal words, and hazard statements for use on labels. It is based on harmonizing major existing systems for classifying and labeling.

HAZARD

is the inherent property of a product related to its physico-chemical and toxicological properties towards human beings and the environment.

HIGHLY HAZARDOUS PESTICIDES (HHPs)

means 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 to their listing in relevant binding international agreements or conventions. In addition, plant protection products that appear to cause severe or irreversible harm to human health or the environment under conditions of use in a country may be considered to be, and treated as, highly hazardous.

INCIDENT

includes, but is not restricted to:

- ▶ Product spillage due to a road or rail accident during transport
- ▶ Accidental or intentional over-exposure of humans (e.g., misuse, attempted suicide)
- ▶ Accidental or intentional over-exposure of non-target species (e.g., fish kill caused by incorrect application of a plant protection product, spillage or dumping)
- ▶ Accidental or intentional misapplication of a product leading to illegal crop residues and restriction on consumption

INTEGRATED CROP MANAGEMENT

means practicing efficient, profitable production of high-yielding, quality crops, using fertilizers and modern seeds, with or without improved traits and crop protection inputs, but without depleting natural resources or damaging the environment.

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 and animal health and/or the environment.

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, ecological soundness and sustainability of disease vector control interventions for control of vector-borne diseases.

LABEL

means the written, printed or graphic matter on, or attached to, the product or the immediate container thereof and also to the outside container or wrapper of the retail package of the product.

LIFE-CYCLE

means all the stages a product 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 product and/or its container.

MANUFACTURER

means a corporation or other entity in the public or private sector or any individual engaged in the business or function of manufacturing active ingredients and/or products.

MARKETING

means the overall process of product promotion, including advertising, product public relations and information services as well as the distribution and sale on national or international markets.

MASTER CELL BANK (MCB)

is defined as an aliquot of a single pool of cells that generally has been prepared from a selected clone under defined conditions, dispensed into multiple containers, and stored under defined conditions. A MCB typically originates from a research cell bank that is the "end point" of cell-line development.

MAXIMUM RESIDUE LIMIT (MRL)

means the maximum concentration of a residue that is legally permitted or recognized as acceptable in or on a food or agricultural commodity or animal feedstuff. The MRL is set at a value that is unlikely to be exceeded if the product creating the residue is used according to GAP.

MONITORING

means collection and analysis of information on the status of, for example, compliance, environmental conditions, or public health events such as poisoning incidents.

PACKAGING

means the container together with the protective wrapping to carry products via wholesale or retail distribution to users.

PERSONAL PROTECTIVE EQUIPMENT

means any clothes, materials or devices that provide protection from product exposure during manufacture, handling and application. In the context of the International Code of Conduct on the Distribution and Use of Pesticides, it includes both specifically-designed protective equipment and clothing reserved for product application and handling.

PEST

means any species, strain or biotype of plant, animal or pathogenic agent injurious to plants and plant products, materials or environments and includes vectors of parasites or pathogens of human and animal disease, and animals causing a public health nuisance.

POISON

means a substance that can cause disturbance of structure or function, leading to injury or death when absorbed in relatively small amounts by human beings, plants or animals.

POISONING

means occurrence of damage or disturbance caused by a poison, and includes intoxication.

PREMISES

are land and buildings together considered as a property.

PRODUCT

means a plant protection product, seeds, trait technology and other components, in the form in which they are sold.

QUALITY AND GENETIC INTEGRITY

characterized by approved methods at the phenotypic and genotypic level to ensure quality, purity and identity to agreed standards.

REGISTRATION

means the process whereby the responsible national government or regional authority approves the sale and use of a plant protection product following the evaluation of scientific data aimed at demonstrating that the product is effective for its intended purposes and does not pose an unacceptable risk to human or animal health or the environment under the conditions of use in the country or region.

REGULATIONS

mean the more detailed implementing provisions usually issued by the administrative authorities to describe the specific means by which the regulated community is required to carry out the provisions of legislation.

REPACKAGING

means the transfer of a plant protection product from any authorized commercial package into any other, usually smaller, container for subsequent sale.

RESIDUE

means any specified substances present in or on food, agricultural or other types of commodities or animal feed as well as in environmental media including soil, air and water deriving from the use of a plant protection product. The term includes any derivatives of a plant protection product, such as conversion products, metabolites, breakdown products, reaction products and impurities considered to be of toxicological or ecotoxicological significance. The term "pesticide residue" includes residues from unknown or unavoidable sources (e.g., environmental contamination) as well as known, authorized uses of the chemical.

RESISTANCE

means the naturally occurring, inheritable adjustment in the ability of individuals in a pest/population to survive a treatment with plant protection products that would normally give effective control.

RESPONSIBLE CARE

is a world-wide initiative by the chemical industry. It means all employees are requested to act in line with corporate environmental protection and safety objectives and implementing innovative solutions with the aim of achieving continual improvements in health care, safety and environmental protection.

RISK

is the probability of occurrence of an undesirable event resulting from the use of a product, taking into account implemented mitigation measures.

SEED PRODUCT

is a product that can be planted to produce a crop and is the end result of research, development and/or plant breeding within Seeds.

SEED TECHNOLOGY

means techniques and methodologies utilized during the research and development and/or breeding of a plant to produce a desired seed product.

SUSTAINABLE AGRICULTURE

is a concept laid down in the Agenda 21 of the Rio de Janeiro conference in 1992. Sustainable Agriculture needs to be economically viable, environmentally responsible and socially acceptable and must:

- ▶ Satisfy human food, animal feed and fiber needs
- ▶ Optimize natural resources utilization
- ▶ Integrate the optimal use of available technologies
- ▶ Maintain or enhance the economic viability of farms and rural communities

SUSTAINABLE DEVELOPMENT

is a development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

TENDER

means request for bids to supply of products.

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.

TRADER

means anyone engaged in trade, including export, import and domestic distribution.

TRAIT

is a genetically determined characteristic.

UNAPPROVED USE

primarily refers to use of a specific formulation or product that is otherwise registered:

- ▶ on a non-registered crop
 - ▶ at a non-registered location
 - ▶ against a non-registered pest
 - ▶ at a higher dose or/and with later timing (e.g., non-compliance with pre-harvest intervals instructed on the product label), or/and frequency of application, or/and different methods of application compared with the instructions on the product label
- It also includes
- ▶ Use of a non-registered seed and seed technology
 - ▶ Use of non-registered application techniques

USE PATTERN

means the combination of all factors involved in the use of a product, including the concentration of active ingredient in the preparation being applied, rate of application, timing of treatment, number of treatments, interval between treatments, use of adjuvants and methods and sites of application which determine the quantity applied, timing of treatment and interval before harvest.

VARIETY

is a subdivision of a species for taxonomic classification, used interchangeably with the term cultivar to denote a genetically uniform, stable group of plants.

▶▶ KEY CONTACTS

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▶▶ ABBREVIATIONS

| | |
|--------------|--|
| CLI: | CropLife International |
| FAO: | Food and Agriculture Organization of the United Nations |
| GAP: | Good Agricultural Practice |
| GHS: | Globally Harmonized System of Classification of Labelling of Chemicals |
| GLP: | Good Laboratory Practice |
| HHPs: | Highly Hazardous Pesticides |
| ICM: | Integrated Crop Management |
| IPM: | Integrated Pest Management |
| IVM: | Integrated Vector Management |
| MRL: | Maximum Residue Limit |
| PIC: | Prior Informed Consent (Rotterdam Convention) |
| SDS: | Safety Data Sheets |
| QHSE: | Quality, Health, Safety and Environment |

▶▶ REFERENCES

- ▶ International Code of Conduct on the Distribution and Use of Pesticides (revised version), Food and Agriculture Organization of the United Nations; Rome, (revised version of 2014)
- ▶ CropLife International Plant Biotechnology Code of Conduct
- ▶ Global Industry Initiative on Stewardship of Seeds - <http://excellencethroughstewardship.org/>
- ▶ Seeds Stewardship Directives - <http://seeds.bcs.cnb/Functions/Stewardship/Directives-Appendices.aspx>
- ▶ Bayer Quality, Health, Safety and Environment Handbook





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