

Setting the Standard in Product Stewardship

For Bayer CropScience, taking care that our products are used safely and responsibly is certainly not a matter of paying lip service to outside expectations. Product stewardship lives as a corporate philosophy and is expressed through a multitude of projects sponsored by our country organizations.



Although crop protection products are a beneficial technology, essential to securing the world's food supply, they regularly hit the headlines under suspicion of harming human health and the environment. However, the incidents that are reported mostly involve inappropriate use or handling of these chemical substances. In order to prevent such product abuses, and to avoid accidents, the major crop protection companies are committed to providing extensive product stewardship. Bayer CropScience is at the cutting edge of promoting the responsible management of our products, within the company, in the field, and beyond.

Product stewardship starts with the invention of an active substance and continues throughout the product life-cycle, up to and including the disposal of empty containers or obsolete stock. Every year, Bayer CropScience evaluates its activities and assesses the level of compliance with its product stewardship policy. This policy and the key requirements derived from it, are based on the International Code of Conduct on the Distribution and Use of Pesticides, set up by the Food and Agriculture Organization (FAO) of the United Nations.

The Product Stewardship Program of Bayer CropScience has its roots in Responsible Care – a program sponsored by the Chemical Manufacturers Association. The features of the principles include in particular the consistent application of product stewardship across the entire value-added chain, and a management system approach to all aspects of safety, health protection and environmental protection. Bayer CropScience goes an extra mile with Product Stewardship as will be shown in the following examples.

Paper does not blush but Bayer CropScience product stewards would if one of their substances posed a danger if handled and applied properly. We have 88 stewards working around the globe, each of whom is committed to the cause of ensuring the safe use of our products.

The annual assessment produces some reassuring figures. Take one example: the 2006 Bayer CropScience safe seed-treatment campaign in the Ukraine, which reached 4,000 farms via direct contacts, and some 18,000 farms through the media. Dr. Peter Ohs, Senior Safe Use Manager at Bayer CropScience, is pleased with the success of this project: "The campaign significantly increased the percentage of users wearing protective equipment to a remarkable extend. But this was not our only

concern. Above all, we wanted to raise operators' awareness and convey the benefits of safe product use."

One Philosophy, two targets

The safe-use campaign in the Ukraine is only one of many country- and product-specific projects in progress, all of which add together to form a well-rounded policy. "Within Bayer CropScience, product stewardship is a philosophy that influences all company operations", Peter Ohs underlines. He makes it clear that stewardship implies more than just rescue work where hazards arise for health and the environment: "product stewardship has two main targets: minimizing potential risk, and maximizing the benefits derived from product use, both for farmers and for our company".

To ensure the successful implementation and monitoring of its product stewardship approach, Bayer CropScience has fixed twelve stewardship principles, each of which leads to concrete instructions. The company guidelines comply fully with the FAO Code of Conduct on the Distribution and Use of Pesticides. One of the twelve Bayer CropScience principles focuses on

the training of staff and customers in all aspects of responsible product use. The company runs training programs for users in all continents; the project in the Ukraine is just one example.

"In the Ukraine, we aim to advance safety standards when applying Bayer CropScience products through two parallel strategies: the instruction of farm workers; and winning their belief in product stewardship" explains Evgenia Ustimenko, the project leader. The safe-use campaign preceded the launch of Lamardor®, a fungicidal seed treatment product based on prothioconazole. The campaign comprised educational advertising in the national media, public discussion meetings, and training events for retailers, farmers and farm workers. The participation of the latter two groups was further encouraged by setting up a competition for the best on-farm implementation of product stewardship.

As the Ukrainian project scored so well in the company-internal annual assessment of product stewardship projects, it is now being expanded into Moldavia and Romania in 2007. However, project activities always have to be adapted to local conditions, because different countries vary in size and agrarian structure. The annual as-

Product Stewardship is a Life Cycle Approach





The product stewardship project in South and Latin America is called "Agrovida". The project logo is widely used and draws the attention to this project.



The product stewardship campaign of Bayer CropScience in the Ukraine led to an increased percentage of users wearing protective clothes.

assessment of all product stewardship projects serves a double purpose, as Dr. Ohs points out: "The evaluation gives immediate feedback to our country organizations as to how they can further improve their activities. Furthermore, experience from the countries provides the basis for formulating global product stewardship strategies and developing global projects."

Projects are making an impact

For instance, the "Safe Use in Seed Treatment" is a global campaign, which is steered from Bayer CropScience Headquarters in Monheim, Germany. A CD-ROM "Guide to responsible seed treatment" has been produced and is available in various languages; it is aimed at different target groups, i.e. for both farm and industrial use. This resource is used in extension and training. Another training kit targets responsible product use in greenhouses. An example of the use of these materials is a pilot project in Turkey, which will be transferred to other countries around the Mediterranean area after it has been evaluated. "We have to target our resources to a limited number of projects. But these are projects that make an impact", reasons Peter Ohs.

In line with this prioritization approach, Bayer CropScience is currently concentrating on offering training for crop protection traders and extension officers, because these people act as knowledge multipliers in their regions. In Brazil for example - the company has started a certification scheme for retailers who are capable of providing the appropriate product stewardship know-how. Distributors who have been awarded a certificate are audited regularly. Another

example is the training of retailers by Bayer CropScience China, under the Bayer Key Retailer project. Projects like this comply with another principle of the product stewardship policy that relates to our business partners: they are expected to apply the same level of responsibility as is demanded within Bayer CropScience as a company.

These product stewardship principles (and indeed all of the twelve) accompany the full life-cycle of a crop protection product. They start right at the time of selecting and testing new substances, and continue to apply to product registration, labeling, and formulation. "You can pack a lot of safety into the formulation of an active ingredient", explains Andreas Stork, Team Leader of Insecticide Formulation Technology at Bayer CropScience. "For example, improved adhesion and penetration of a substance reduces the necessary application rate." In another project, Bayer CropScience researchers have developed a stem-injection system for palm trees that minimizes the product exposure of users and the environment. Closely connected with this stewardship principle is the development of innovative product packaging, for example, with a built-in measuring cup.



Dialogue and discussion are the best means of promoting the safe use of crop protection products.



The optimal protective outfit for working with crop protection products was promoted in a safe use project in Turkey.

Responsible care at all product stages

In cooperation with other stakeholders, Bayer CropScience runs projects on the disposal or recycling of empty containers – by far not in each country an industry organization or the state takes care of this task. The company is also involved in the safe disposal of obsolete pesticide stocks, especially in developing countries. Experts estimate that this is a problem on a large scale – 500,000 tons of product, often stored under poor conditions and sometimes involving older, more hazardous substances.

But even before a product is sold to retailers or users, its safe development and manufacturing on Bayer CropScience sites must be ensured. A “Quality, Health, Safety and Environment Policy” (QHSE) and QHSE Management Systems govern the handling of chemical substances at all of our sites. The transport and storage of products is organized in accordance with legal requirements. Bayer CropScience also maintains up-to-date Material Safety Data Sheets for each commercial product and makes them available to all stakeholders.

Bayer CropScience does not tolerate any unapproved use of its products. “Depending on the particular circumstances, we have the option of applying for a label extension by providing the necessary studies in order to enable the farmer to use the product legally; otherwise, we try to persuade the farmers to use alternatives”, Peter Ohs explains. When Bayer CropScience learns of a health hazard or an ecological

risk posed by one of its products, additional product stewardship efforts are made, or, if the risk cannot be thus excluded, marketing of the product may be stopped, and substitutes are sought. “Take the insecticide aldicarb, graded class I by the World Health Organization but authorized for specified uses in United States. In cooperation with the national authority, we have set up strict rules for farmers intending to apply aldicarb-containing products safely,” Peter Ohs adds.

Dialogue promotes product stewardship

Bayer CropScience has initiated a project called “AgroVida” in a number of countries in South and Latin America. This is a Public Private Partnership used as an instrument to support Sustainable Development in rural areas, which involves local authorities, unions, industry and farmers’ associations. “In so-called ‘farmer clubs’, opinion leaders in a certain micro-region meet to discuss agricultural problems, but the topics are not necessarily restricted to safe product use”, reports Margot Börgartz, Safe Use Assurance Manager at Bayer CropScience. Latin America is her main region of activity, and she is very familiar with the “Agrovida” campaign there.

Peter Ohs is convinced that dialogue and discussion are the best means of promoting the safe use of crop protection products. “Whether fostering the philosophy of product stewardship within our company or passing it on to farmers, our experience is the same: Responsible Care, in the majority of cases, is realised through an exchange of thoughts, by listening to ar-

guments, and by reflecting on them.”

Moreover, product stewardship needs concerted action. So Bayer CropScience tends not to organize projects by itself, but rather brings various stakeholders together. For example, a project on safe use in greenhouses in Turkey brought together manufacturers of protective clothing, a producer of spraying devices, regional authorities, and retailers.

Stakeholders are unified by a common goal: and this refers not only to minimize the risks associated with a product; but also to maximize its benefits. “Product stewardship is not a matter of charitable activity: it must fulfil criteria for sustainability for our company”, points out Peter Ohs. “We want to set the standard in product stewardship towards the safe use of our products and their compatibility to the environment. But for us, product stewardship is also connected with economic sustainability. Product stewardship yields a profit, not only in terms of reputation, but also in terms of money.” ■

Links to Product Stewardship

- www.bayercropscience.com
- www.croplife.org
- www.fao.org