Obsolete stocks of crop protection products are avoidable

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Summary

The Crop Protection Industry is committed to a comprehensive programme of Stewardship of its products, which extends from manufacture beyond the point of sale. Industry is one of the key stakeholders in the management of stocks of crop protection products and supports activities to find ways of disposing of obsolete stocks owned by third parties as part of a multi-stakeholder approach. This paper discusses ways to avoid build-up of obsolete stocks with specific suggestions for co-operation between the European Crop Protection Association, ECPA¹, its Member Companies, and governmental and non-governmental organisations in Central and Eastern Europe.

Introduction

Whilst estimates vary, it is recognised that a considerable quantity of potentially obsolete crop protection products exist in developing and lesser industrialised countries. It is not known how much of this total is truly obsolete, i.e. unfit for further use or re-conditioning - and how much may be cost effectively re-formulated or re-packed. However, the scale of the problem is such that disposal of the truly obsolete stockpile will require a major expenditure of funds and resources.

The problem of obsolete stocks dates back 30 or more years when the links between the purchase of crop protection products and their use and management - and especially stock management - were not adequately established. Many government-owned stocks of obsolete crop protection products originate from donations provided under various international development assistance programmes. Others have accumulated in countries where procurement in planned economies was carried out centrally, without the full awareness of actual crop protection needs at the farmers' level.

The procurement of products in inappropriate containers and packs, which were subsequently supplied into agricultural systems lacking the necessary management expertise and infrastructure to make use of them has significantly contributed to the obsolete stock disposal problem we see today. Products that are disposed of without ever being used for their intended purpose not only constitute a waste of significant funds, but improperly stored obsolete products awaiting disposal can pose problems for local communities and for the environment.

How the Crop Protection Industry responds to the challenge of obsolete stocks

Member Companies of the Global Crop Protection Federation (GCPF) have dealt with obsolete stocks for many years. If a manufacturing company owns a quantity of product, which has become obsolete, then the responsibility for the obsolete stock remains with that company. In contrast, it must be clearly understood that the responsibility for *purchased* stocks lies with the current owner. This is the situation in the great majority of cases of problem obsolete stocks.

However, recognising that Industry has the greatest expertise in handling the substances involved, GCPF Member Companies are willing to help find appropriate solutions for products they originally manufactured or supplied.

To this end the following activities have been undertaken. In 1991, GCPF published its well appreciated booklet "Disposal of Unwanted Pesticide Stocks - Guidance on the Selection of Practical Options". This was followed by the establishment of an Obsolete Stocks Project Team in 1995, in order to provide a focus for industry support and to facilitate co-operation between industry, governments and other stakeholders. In 1998, an Obsolete Stocks Technical Co-ordinator was appointed to oversee the Crop Protection Industry's involvement across the globe and, since early 2000, Regional Champions have been providing support to country projects at local level.

¹ ECPA is a member of the Global Crop Protection Federation (GCPF)

Broad co-operation to eliminate obsolete stocks

The position of GCPF and its Member Companies includes the following recommendations and commitments:

- GCPF Member Companies are willing to provide assistance for the disposal of stocks, which they manufactured or supplied.
- The level of assistance is decided on a case-by-case basis after verification of the stocks and will be an individual Member Company decision.
- The GCPF Co-ordinator backed by the Obsolete Stocks Project Team acts in a facilitating role in a multistakeholder approach between industry, governments (or other owner of the stocks) and other involved stakeholders.

It is not GCPF policy to take the lead in organising disposal projects. Instead, the Project Team works with other stakeholders including international organisations, donor agencies, aid organisations, exporting governments and regional bodies, as well as hazardous waste disposal companies and environmental groups, to provide assistance. In addition, GCPF Member Companies often choose to give financial support to the multi-stakeholder approach if they originally supplied the stocks in question. The level of financial assistance is decided on a case-by-case basis by individual Member Companies after verification of the stocks and their origin.

The stock verification process is crucial because, frequently, not all of these built-up stocks are actually obsolete - some can still be used or reformulated and repackaged for use. The verification process identifies the appropriate disposal option and likely costs of disposal operations. In projects where Industry has been involved and where the preferred disposal option has been incineration by a specialist waste disposal contractor, GCPF Member Companies have funded at least the cost of incineration of their products.

Disposal projects are complex undertakings involving many areas of expertise such as project design, inventory production, stakeholder identification, fund seeking, bilateral agreements and contractor selection. Usually, this complexity unfortunately creates obstacles to a speedy resolution of the problem. Obtaining permission to export/import and transport the stocks can also entail administrative delays, as recent projects have revealed.

However, the country-by-country approach is proving successful. For example, countries where a significant industry involvement has led to obsolete stocks being repackaged and re-cycled or safely eliminated include Brazil, Gambia, Madagascar, Malawi, Mauritania, South Africa and Uganda. An update of finished and ongoing country projects can be found at GCPF's Internet website (www.gcpf.org - under "Industry positions").

Prevention is better than cure: managing stocks of crop protection products

Preventing the unnecessary build-up of stocks of crop protection products is a major concern for GCPF Member Companies and Associations. Evidence confirms that a private market system helps the prevention of obsolete stocks since private enterprises are motivated to monitor the level of product stocks and budget supplies accordingly.

There are a number of areas where Industry can assist with good practices to facilitate stock management even in a centralised purchasing system, whilst internationally developed guidelines (e.g. for tender purchase) can help governments with their management tasks. For example:

- GCPF Member Companies can co-operate with donors and governments to analyse the demand for crop protection products and assist in monitoring stocks after sales.
- GCPF Member Companies are willing to support efforts to manage strategic stocks for locust control.
- GCPF Member Companies offer quality control services together with advice for those products that have the potential for becoming obsolete.

Modern approaches to product procurement and use, together with lifetime stewardship of stocks, are essential for the safe and cost effective management of crop protection products - products which will continue to be important tools for the economic production of abundant and healthy food, feed and fibres for the foreseeable future. Initiatives like Integrated Crop Management (ICM), Integrated Pest Management (IPM), Safe Use Initiatives (SUI), Container Management (CM) and the FAO Code of Conduct all contain the elements of product stewardship necessary to prevent the accumulation of obsolete stocks.

Container management

Packaging plays a vital role in delivering crop protection products to the end user, while minimising risks of leakage in the supply chain and over-exposure for operators. A reduction in the amount of used packaging requiring disposal

can be achieved by a shift in product presentations and/or formulation innovation. The basic requirement for quality design is that the container should drain well and allow easy and effective rinsing to maximise residue removal.

Container management strategies (www.gcpf.org) establish practices for recovery and disposal of empty, cleaned packaging. This set of practices should be appropriate to specific local circumstances, evolve in line with improvements in technology, legislation and infrastructure and be both environmentally and economically acceptable. To this end, GCPF encourages the practice of triple-rinsing prior to recovery and/or disposal.

A pre-requisite for collection and/or recovery schemes is finding a clearly defined end use for collected plastic and other packaging materials. GCPF's container management philosophy promotes alliances with other industrial collection schemes and seeks the involvement of distributors, retailers, farmers and farmer associations, custom applicators, local authorities, government environmental agencies, professional waste collection companies and other stakeholders.

Where it is unlikely that alternative approaches could entirely replace on-farm disposal methods - including controlled burning and on-farm burial - farmers can consult best practice guidelines drawn up by GCPF.

Not surprisingly, the longest running container collection and recovery schemes are operational in developed countries, but developing countries world-wide are quickly adopting similar initiatives. Australia's innovative **drum**MUSTER programme (www.avcare.org.au) based on the collection of non-returnable rigid metal and plastic containers used in the packaging of crop protection and animal health products, presents an important case study to be considered for adoption elsewhere.

The container management programme is a model of the continual process of accountability that the Crop Protection Industry subscribes to and demonstrates a strong commitment to the environment and to sustainable agriculture. Container management has direct impact by improving the interaction between the retailer, distributor and purchaser, while providing farmers with the knowledge to choose product containers that are environmentally friendly. Its importance as one link in the chain to avoid obsolete stocks issues is evident.

Sustainable agriculture

Industry's commitment as a reliable partner in achieving sustainable agriculture is best demonstrated by its product development programmes involving practical efforts to promote Integrated Crop Management (ICM) with Integrated Pest Management (IPM) as an essential part. The European Initiative for Integrated Farming (www.ecpa.be) originated in Germany in 1986 and has since spread to a number of other countries in Europe under the leadership of the European Crop Protection Association (ECPA).

In developing countries, GCPF Member Companies are equally involved in promoting IPM. The signature in 1997 by all GCPF Member Companies of the IPM declaration (www.gcpf.org under "Industry Positions / Publications") confirmed Industry's readiness to work more closely with the public sector and other interested institutions.

In 1992, GCPF launched the first Safe Use Initiatives (SUI) in Kenya, Thailand and Guatemala (www.gcpf.org). These highly successful educational programmes present additional steps towards the goal of sustainable agriculture. Regional extensions of this work continue.

All of the above initiatives demonstrate Industry's commitment to promoting the safe and effective handling, storage and stock management of the crop protection products that it manufactures.

The way forward in Central and Eastern Europe

The available data indicates that only a minor quantity of the obsolete crop protection products in Central and Eastern Europe originate from Member Companies of ECPA. Most of these problem stocks, it appears, are derived from local manufacturers during the period of centrally planned economies. The situation today in many countries in Central and Eastern Europe is opportune to promote practices that will ensure the safe and proper supply, storage, handling and use of crop protection products as well as the management of empty containers and other possible wastes. The ECPA Member Companies are open to co-operation with other stakeholders to initiate local schemes that promote sustainable crop production with responsible use of crop protection products. Such initiatives include:

- 1. Creation of local National Crop Protection Associations as the focus for collaborative developments and product management, as already exist in Hungary, Poland, Czech Republic, Slovak Republic, Lithuania and Slovenia.
- 2. Establishment of networks to launch initiatives such as Integrated Crop Management. Joining the European Initiative for Integrated Farming could be a goal for the mid term.
- 3. Introduction of a container management concept.
- 4. Market analysis and reporting to ensure an equilibrium between product supply and product use.

Conclusion

ECPA and its Member Companies are living their commitment to fully comply with the FAO Code of Conduct. Industry's contribution towards the goal of sustainable agriculture is demonstrated by its efforts in projects such as the European Initiative for Integrated Farming, the Safe Use Initiative in developing countries, through its global support for Integrated Pest Management and container management schemes as well as obsolete stock prevention. These activities are inclusive, promoting meaningful collaboration and dialogue with all other interested parties. This principle also applies to all Industry efforts in the field of obsolete stock prevention.

For countries in Central and Eastern Europe, ECPA and its Member Companies are offering support for the approaches indicated above. We are convinced that this is the way forward to minimise the risks and maximise the benefits from crop protection products.

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