

Resources

CropLife International has published guidance on the prevention and management of obsolete pesticide stocks, as well as guidance on broader crop protection stewardship, including management of empty pesticide containers, warehousing and transport. Also available are training manuals on IPM, responsible pesticide use and training of retailers. These along with posters and videos are available on the CropLife International website at:

<https://croplife.org/crop-protection/stewardship/stewardship-training-materials/>

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Date of publication: August 2017

CropLife International is the voice of the global plant science industry. It champions the role of agricultural innovations in crop protection and plant biotechnology in supporting and advancing sustainable agriculture; helping farmers feed a growing population while looking after the planet; and progressing rural communities. The world needs farmers, and farmers need plant science. CropLife International is proud to be at the heart of helping farmers grow.

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Helping Farmers Grow



Managing obsolete stocks of crop protection products

Obsolete stocks of crop protection products

Obsolete crop protection products are those that are unfit for further use or for re-conditioning.

Obsolete crop protection products exist in many countries, but the largest stocks are in Eastern Europe, Africa, Central Asia and parts of Latin America. One estimate suggests that the problem could be as large as 300,000 tonnes of obsolete materials¹. Many have been abandoned, forgotten or even deliberately buried by the owners. In some cases, the original packaging is in very poor condition or has corroded away and the contents have leaked into the surrounding soil, contaminating both the storage site and beyond.

Why do these stockpiles exist?

These stockpiles began accumulating 40 or 50 years ago for a number of reasons, but principally:

- The failure of centralised purchasing systems to deliver crop protection products to farmers in appropriate packs and on time
- Lack of infrastructure leading to poor storage conditions
- Poor management of stocks, whether donated as development aid or purchased by governments, acquired for the control of strategic pests – locusts, army worms, malarial mosquitoes
- Lack of awareness of the issue amongst national authorities and a lack of local expertise, resources or facilities to dispose of obsolete stocks safely and effectively
- Products have been de-registered locally or banned internationally
- Climatic variations can mean that some products do not need to be used

Some of these stocks originate from CropLife International member companies². However the majority were originally supplied by other companies that are not members of CropLife International.

¹ Baseline Study on the Problem of Obsolete Pesticide Stocks. Paper prepared for the OECD-FAO-UNEP Workshop on Obsolete Pesticides, Alexandria, Virginia, September 2000

² CropLife International leading companies are BASF, Bayer CropScience, Dow AgroSciences, Dupont, FMC, Monsanto, Sumitomo and Syngenta. The companies Adama and Shell have also cooperated with CropLife International to remove obsolete stocks.

What is being done to get rid of them?

Obsolete crop protection products can be detected, inventoried and disposed of efficiently and safely by skilled personnel and specialist high temperature incineration facilities. CropLife International and its member companies have worked actively on this issue for more than 20 years, in partnership with national governments, international development agencies, and NGOs. Obsolete products originating from our member companies are, naturally, the focus of our efforts, but we recognise that our skills contribute to dealing with obsolete crop protection products in general and therefore, on a case-by-case basis, have engaged in projects that have removed stocks originating from both CropLife International member and non-member companies with the aim of eliminating the risk they pose to human health and the environment.

We have:

- facilitated 40 disposal projects in partnership with donors, and provided technical expertise where appropriate
- reformulated or revalidated unused stocks where possible
- provided funding, representing at least the cost of incineration of the products that were originally supplied by our member companies
- contributed to the safe disposal of 8,242 tonnes of obsolete stocks from developing countries (mainly Africa) by the end of 2016. This comprises 3,000 tonnes before the start of the Africa Stockpiles Programme (ASP) and 5,242 tonnes after the start of the ASP.
- promoted initiatives in developed countries, where over 15,000 tonnes of obsolete products have been collected from farmers and destroyed.

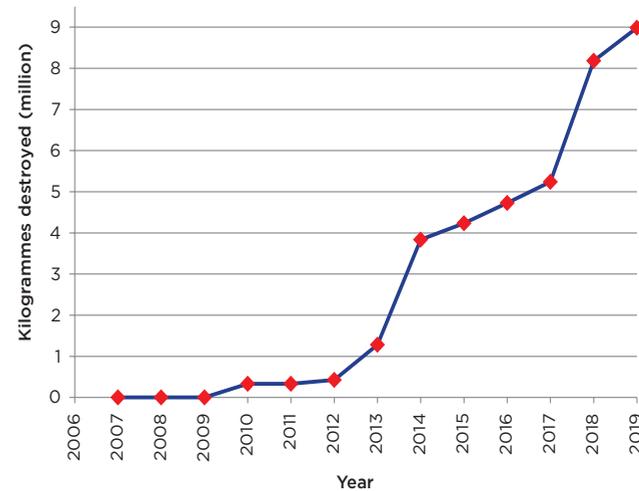


Figure 1. Quantity destroyed to date since the beginning of the ASP, and forecast quantities up to the end of 2018.

How can obsolete stocks be prevented in the future?

Fortunately the procurement of crop protection products in the developing world has changed significantly in recent years.

Over-production from local manufacture has reduced, centralised purchasing has given way to private markets, the donation of crop protection products as development aid has sharply reduced and the control of strategic pests is better managed.

Nevertheless much remains to be done, particularly:

- implementation of improved tender guidelines to help governments and other stakeholders to tender for the right product, amount and quality
- better warehousing facilities
- strengthened national capacity in management of crop protection products
- sustainable systems for the environmentally sound disposal of unused products and packaging
- promotion of integrated pest management as an overall strategy, in which pesticides are only used when necessary

Optimum supply and product management is a commercial necessity for companies and is an area of significant expertise, being one element of our lifecycle approach to product stewardship. Extending that expertise to developing countries represents a challenge and responsibility not only for our industry, but also for all stakeholders who recognise the necessity of responsible chemical use as a key component of integrated pest and crop management and sustainable agriculture. Future obsolete stocks projects will put increasing emphasis on prevention measures.

We continue to seek partnerships to deal with the overall problem; one such example was the Africa Stockpiles Programme.

The Africa Stockpiles Programme (ASP)

The ASP was a multi-stakeholder partnership to:

- dispose of an estimated 50,000 tonnes of obsolete stockpiled pesticides and contaminated waste in Africa in an environmentally sound manner;
- catalyse the development of prevention measures; and
- provide capacity building and institutional strengthening on prevention and management of obsolete pesticides in a phased approach over 10 to 15 years.

A large part of the funding was contributed through the Global Environment Facility. The member companies of CropLife International offered funding of up to US\$ 30 million to contribute towards disposal costs and mobilisation of expertise, in active collaboration with the World Bank, the United Nations Food and Agriculture Organization (FAO), the African Union, WWF, Pesticide Action Network (PAN) and other stakeholders.

Although the ASP partnership ended in 2014, CropLife International, together with FAO and the World Bank have maintained their commitment to collaborating in the complete removal of all obsolete stocks from Africa. CropLife International has taken a lead in a number of African countries to reduce rapidly the environmental and health risks posed by obsolete stocks through a series of country 'Safeguarding Projects'. In these projects, high risk obsolete stocks are made safe by repackaging and secure, centralized storage. The collaborating partners such as FAO and the World Bank provide technical assistance and facilitate funding for the environmentally sound disposal of the stocks by high temperature incineration in approved facilities. A major revelation from these safeguarding projects was the large amounts of obsolete stocks that can be held by the private sector (farmers, food producers, dealers and others in the value chain) - in some cases as high as 50% of all stocks identified. These were not visible to the Government inventory activities supported by FAO or the World Bank, but were identified using an outreach and declaration strategy. This and other lessons learned are being incorporated into future programs.

Stages in the safe disposal of obsolete stocks

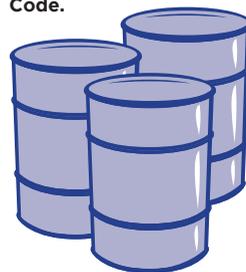
1. Obsolete stocks are discovered in warehouses where they have usually been stored for some years. Typically some barrels are leaking as a result of corrosion.



2. The operators employed to safeguard the stocks receive training and a full set of personal protective equipment, including respiratory masks. They are always supervised by experts from international hazardous waste management companies.



3. The stocks are transferred to UN certified packaging to comply with the International Maritime Dangerous Goods (IMDG) Code.



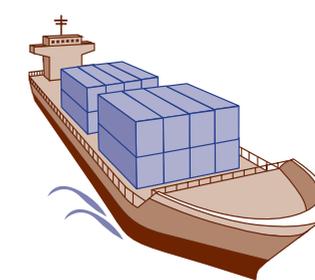
4. The packaging is marked and labelled to comply with the IMDG Code.



5. The repackaged stocks are loaded into sea-freight containers.



6. The containers are shipped to a specialized incineration plant certified to comply with EU emissions regulations.



7. The stocks are incinerated at high temperatures and a certificate of destruction is issued.

