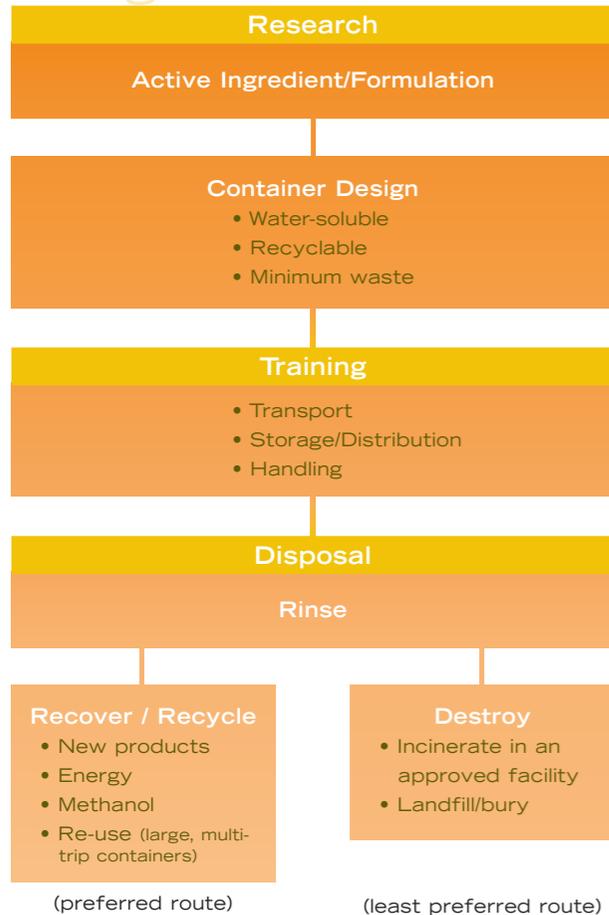


# Stages in Container Management



CropLife International is a global federation representing the plant science industry. On the industry's behalf, we address international developments in crop protection and agricultural biotechnology.

We promote approaches that enhance sustainable agriculture in the interests of farmers, consumers and the environment. CropLife International aims to provide transparent information to its stakeholders and welcomes open dialogue with parties interested in the future of food and farming.

CropLife International is committed to supporting the safe and responsible use of our industry's products in order to provide a secure, varied, healthy and affordable diet for our world's population.

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# Container Management

## Safe and effective disposal of empty crop protection product containers



# Container Management

The plant science industry provides farmers with innovative crop protection products that enable them to improve agricultural productivity while sustainably managing precious natural resources such as land, soil and water.

Product packaging plays an essential role in ensuring that crop protection products are delivered safely to the intended customers, while minimising the risk of leakage and exposure. The containers in which products are sold are part of the plant science industry's life-cycle approach to product stewardship. The industry is committed to ensuring that all containers are handled, collected and recycled or disposed of safely and appropriately.

There are over 35 container management programmes operating in countries around the world, in addition to a large number of pilot programmes. These have been developed over a 20 year period and are often run in partnership between industry and government.



The goals of these programmes include:

- protecting both the environment and the operator from exposure
- appropriate treatment and safe disposal of used packaging
- reducing waste and maximising recycling
- ensuring compliance with local packaging requirements and legislation

The crop protection industry supports container management programmes across three main areas:

1. Research and design of containers
2. Training of distributors, retailers and end-users
3. Implementation of empty container collection and recycling options

## Research & Research & Design Design

The ideal approach for effective product design is to pro-actively mitigate potential issues by developing packaging that is safe, efficient and capable of being recycled or returned for re-use. The research and design phase is therefore a crucial component of the container management process. Past developments include:

- small ready-to-use packs (suitable size for backpack sprayers)
- multi-trip, returnable containers
- one-way, single-trip containers made of recyclable materials

Currently, one-way containers are most commonly used, with increasing use of multi-trip containers wherever practical.

## Training Training

CropLife associations around the world are also making a significant contribution to raise awareness about proper container management through training programmes for distributors, retailers and most importantly – end users.

Training programmes provide specifics on container management that includes:

- purchasing appropriately sized containers, and only as much product as is necessary to complete the required task
- using returnable or refillable containers where possible
- never decanting crop protection products into other containers
- never using empty containers for other uses (storing food, water, fuel, etc.)
- decontaminating empty containers, e.g. through ‘triple rinsing’ (see below) or sprayer-integrated (pressure) rinsing followed by puncture of the rinsed container
- recycling or returning empty containers for destruction through approved routes

Triple rinsing empty containers is the recommended method promoted by the global CropLife network. Triple rinsing containers with water can remove 99.99% or more of product residue. Similar results can be achieved with integrated pressure rinsing using specialized equipment incorporated in some modern spray application equipment. For more information on triple rinsing, please visit [www.croplife.org](http://www.croplife.org).

## Collection & Collection & Recycling Recycling

The Crop protection industry supports a range of different programmes that enable the collection and recycling of properly rinsed containers in specific countries. These programmes are supported by regional and national CropLife associations.

Recycling can take a number of different approaches:

- recycle through re-use of multi-trip containers, especially suitable for large container volumes
- recycling of the material, especially plastics, into approved products such as fence posts, parking cones or drainage pipes and many other high value added applications
- recovery of energy from containers, for example, thermal recovery in approved cement kilns

In areas where recycling is not yet an option, the industry promotes the appropriate disposal of containers through its Responsible Use training programmes. As a last resort, containers can be incinerated in an approved facility or buried in landfills.

### Stewardship Vision 2020

The crop protection industry is taking the lead to ensure safe and responsible management of empty, properly rinsed pesticide containers worldwide. Through collaboration with governments and country stakeholders, our industry has a goal of recovering 100% of all crop protection containers by the year 2020.

## Container Container Management in Action Management in Action

The global CropLife network is actively supporting and promoting container management programmes around the world. CropLife associations provide guidance and advice on how to establish a viable scheme, including health, safety and environmental standards, which should be adhered to in all schemes. Additional information can be found in the Roadmap for Establishing a Container Management Programme for Collection and Disposal of Empty Pesticide Containers at [www.croplife.org](http://www.croplife.org). Under the Integrated Pest Management/Responsible Use training programmes, more than 650,000 individuals are trained each year.

Global reporting from regional associations indicates there has been a continual increase in the total amount of containers recovered, from 2.9 million kg of plastic containers in 2005 to nearly 6.5 million kg in 2011. At the same time, the specific cost of recycling has steadily decreased – making the development and sustainable operation of container management programmes more viable.

The most successful programmes have been delivered in partnership with other stakeholders, such as local authorities and government. In the majority of cases, the crop protection industry and its associated network has taken the initiative. The global CropLife network will continue to support and implement practical solutions that ensure the responsible management of crop protection containers around the world.

For more information, please visit [croplife.org/container\\_management](http://croplife.org/container_management)