

Guidance documents on Container Management

CropLife International has developed a global steering/advisory body – the Container Management Project Team (CMPT) – to provide guidance and advice to individual country program managers on how to establish cost-effective, sustainable programs and to share best practices.

As part of these objectives, the International Container Management Project Team has developed a number of guidance documents, which are aimed to help both pilot (establishing) and existing programs. These complement the overarching guidance document "*Roadmap for establishing a container management programme for collection and disposal of empty pesticide containers*", which is freely downloadable from the CropLife international website www.croplife.org

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1. Recommended End Uses for Plastic Pesticide Containers

With respect to the recycled end uses for plastic from empty pesticide containers the following guidance has been developed:

1. All plastic from empty pesticide containers must be triple or pressure rinsed by farmers.
2. Where possible the plastic containers should be recycled into new products (end use applications) and this should undergo a risk analysis to show that there is unacceptable risk to humans and the environment from the new use the risk analysis should be undertaken by the individual country program, local government or other competent private or public organization. This includes plastic from both one-way trip containers, as well as plastic from multi-trip drums and totes at their end-of-life.
3. A list of tested and approved end use applications for recycled industry plastic is available [here](#)
4. Plastic being recycled into unknown or untested end use applications is considered an industry risk.
5. All country managers or the local CropLife association are requested to submit an annual report to CropLife International on statistical results for the prior year that includes kilograms of container plastic collected and recycled, plus advising:
 - a. A list of end use applications for recycled industry plastic.
 - b. Are all end use applications known for plastic derived from one-way trip containers?
 - c. Are all end use applications known for plastic from larger containers such as drums, totes or IBC's, or end-of-life returnable/refillable containers?
 - d. Are all end use applications been tested and assessed for risk and approved as acceptable by the CropLife International CM PT or equivalent?

Based on the individual country report (point 4 above), the CropLife International CMPT, in collaboration with the country programs, will assess end use applications against the agreed CropLife industry policy outlined above. If compliance is considered unsatisfactory, the CMPT will offer technical or other assistance to aid in compliance to the above policies. Where necessary, the CMPT will inform stakeholders of end use applications that are considered too risky. The risk analysis used for approval or rejection of end use application will be available to stakeholders on request (for uses analyzed directly by the CMPT. The CMPT will direct

stakeholders to the relevant organization for assessments undertaken by other organizations).

2. Hard-to Rinse Containers

The hard-to rinse containers are containers that cannot be properly rinsed using manual or pressure methods of triple rinsing. - A good example of this is seed treatment containers. The following guidance is recommended:

- a. Separate hard-to-rinse/contaminated containers at source. Do not rinse, or mix with recyclable containers
- b. Incinerate containers
- c. If the program is based on a levy system, the need to place a higher levy such containers should be considered in order to cover additional cost.

3. End-of-Life Collection & Recycling of Drums & Totes

As a result of large scale agriculture, some countries require and use large volume agrochemical packaging, such as drums, totes, or intermediate bulk containers (IBC's). While these containers are sometimes designed as one-way trip containers, in most cases these larger containers are refilled and reused a number of times over a period of years. Eventually, when they reach their end-of-life, these containers will be contaminated as a result of many cycles of reuse. Accordingly, for environmental and human health and safety reasons, the residual plastic or steel from these containers will need to be safely disposed. For the disposal of plastic containers at their end-of-life, following removal of all non-plastic components on the container, it is recommended that this plastic be recycled solely for the recovery of heat energy at cement plants, or at waste-to-energy facilities. All such facilities must be approved for this use by local authorities.

For steel drums, once thoroughly rinsed and cleaned, these drums can be recycled at a steel recycling facility.

The responsibility for the recycling process can be more complex as ownership of such bulk containers may be with either the chemical manufacturer or with the local distributor.

Nonetheless, the responsibility for the tracking, collection and appropriate recycling of these containers should remain with the owner.

4. Collection and Adding Value to Caps

As a component of the primary packaging, it is recommended that the plastic caps be collected separately as part of the container collection process.

Container caps are normally made from polypropylene, which is recyclable. This is a different plastic than that typically used for the containers – normally high density polyethylene (HDPE).

The plastic container caps have value for recycling into recommended end uses. As such, the sale of this polypropylene can reduce the overall cost of the program.

It is noteworthy that the Brazil Container Management Program, [InPEV](#) is currently recycling plastic from polypropylene caps into new container caps - thereby contributing positively to the program's cost reduction.

Polypropylene container caps in Brazil are classified as a non-hazardous recyclable material - they have an aluminum foil cover that prevents them from coming in contact with the product.

5. Suggested Good Practices with Contractors Handling Pesticide Containers

There is a set of suggested practices when dealing with contractors. - Please also read ECPA's Guidelines for Collection and Recovery Schemes [here](#).

1. The ownership of the collected plastic needs to be clear – collection program, contractor etc.
2. Annual Healthy Safety & Environment audit (HS&E) and safety review
3. Compliance with all applicable laws
4. Indemnify & hold harmless Container Management program & management
5. Contract bases on kilograms of plastic (& specify method of measurement)
6. Insurance requirements:
 - Commercial General Liability

- Environmental Impairment Liability
 - Automotive Liability
 - Workman's compensation coverage
7. Hazardous waste review – proof of disposal at approved facilities
 8. Has the facility received any regulatory orders?
 9. Contractor has completed collection depot inspections and has effective communication with them
 10. There is a signed and posted HS&E policy
 11. The facility has written procedures covering Container M activities for a) fixed facilities & b) portable shredding/granulating
 12. Evidence of annual training or testing has been provided
 13. The facility has a written Emergency Response Plan with training
 14. The facility has Safety Data Sheet (SDS) available for pesticides handled

6. Suggested Elements for Health Safety & Environment (HSE) Audit Protocols, Annual Audit & Inspection Report

Permanent Collection Sites

1. Is there adequate signage at the site?
2. Are containers inspected for cleanliness & lack of pesticide residue?
3. Is the collection site fenced and secure?
4. Are containers covered from the elements to prevent contaminated leachate runoff?
5. Is site rainwater runoff contained?
6. Are non-recyclable wastes adequately separated?

Transportation

1. Are all necessary transport permits available for inspection?
2. Has proof of insurance coverage by the transporter been provided?
 - a. Commercial General Liability
 - b. Environmental Impairment Liability
 - c. Automobile Liability

Shredding or Baling

1. Are employees adequately trained in all matters necessary for safe work?
 - a. First Aid (pesticide poisoning)
 - b. Generic Workplace Hazardous Materials Information System (WHMIS)
 - c. Personal Protective Equipment (PPE) selection, fit, care, use
 - d. Operational procedures
 - e. Emergency Response (ER) procedures
2. Do employees require, and if so, have annual medical monitoring?
3. Safety Data Sheets (SDS's) available for all pesticides formerly in containers
4. Does the facility have written procedures covering all major processes?
5. Hazardous wastes – is there proof of disposal at approved facilities?
6. Is there evidence of appropriate communication between contractor & the collection site?
7. Is contractor providing agreed frequency of pick-up service?
8. If required, has contractor completed collection depot inspections?
9. Does the facility have a written Emergency Response Plan?
 - a. Key staff has copies?
 - b. Annual Emergency Response drill?
 - c. Emergency Response contact phone numbers posted?
 - d. Local Fire Department contacted?
 - e. Spill equipment available?
10. Is there evidence that Personal Protective Equipment is worn when appropriate?
 - a. Coveralls
 - b. Gloves
 - c. Safety glasses
 - d. Footwear
 - e. Noise protection if needed
11. Is there adequate ventilation if workplace is inside a building?
12. Is shredding/baling/other equipment guarded to prevent injury? Are written procedures available to handle drums & totes?
13. Is there a safe procedure to remove product from drums & totes?
14. Is the facility secured?
 - a. Locked?
 - b. Fenced?

- c. Monitored on a 24 hour basis?
- 15. Does that facility have adequate fire protection?
 - a. Adequate fire extinguishers?
 - b. Sprinkler system (optional)
 - c. Monitored 24 hours?
- 16. Emergency equipment is evident
 - a. First Aid supplies
 - b. Emergency eye wash
- 17. Sensitive environmental receptors are not exposed to contamination from the operation
 - a. Risks are controlled (open ground, bodies of water, storm water drainage)
- 18. Overall housekeeping is good (visual inspection)

Plastic Washing, Palletizing and Recycling

1. Wastewater contaminants have been analyzed
2. The wastewater receiving facility is aware of the contaminants & accepts this waste stream
3. Sludge from the washing process has been analyzed
4. The sludge receiving facility is aware of the contaminants & accepts this waste
5. All plastic is being recycled only into recommended end use applications
6. Business and environmental permits for the business are available for inspection
7. Proof of insurance coverage has been provided

7. Crisis Communication

Potential crises such as fires, spills, death or serious injury, environmental incident or sabotage can occur at any time. These are some general recommendations to be followed:

Before crisis hits

- Identify your potential crisis

- Create a response team (management and key tacticians) and:
 - ✓ Define roles & responsibilities
 - ✓ Create notification system (update periodically)
 - ✓ Off-site location
- Determine organizational expectations
- Map out potential scenarios:
 - ✓ How would a given crisis unfold?
 - ✓ What are your options to respond?
 - ✓ What are the potential consequences of your actions
- Draft materials in advance:
 - ✓ Key messages
 - ✓ Background materials
 - ✓ Top 10 tough questions
- Pick your spokesperson/people
- Ensure high level of knowledge about:
 - ✓ Organization
 - ✓ Regulations
 - ✓ Industry standards
- Get spokesperson/people media training

Media liaison

All organizations benefit from having a single point of entry for the media, which is especially important during a crisis.

During crisis

- Communication is crucial
- Communicators:
 - ✓ Must be at the table with the decision-makers
 - ✓ Need full disclosure
 - ✓ Must ensure consistency of messages
- Not just about the media
- Other audiences include:

- ✓ Victims
- ✓ Staff (and their families)
- ✓ Emergency responders
- ✓ Community
- ✓ Critics
- Keep it simple:
 - ✓ Demands will be high
 - ✓ Focus on providing:
 - Regular, relevant updates
 - Facts only (never speculate)
 - Your piece of the pie (others should speak for themselves)
- Open and accessible:
 - ✓ If you're in the midst of a crisis you need to share facts
 - ✓ Answer as many of the five Ws (what, where, when, who, why) as the facts allow
 - ✓ Explain who else is involved and allow them to answer questions about their areas of expertise

Dealing with media

- Establish facts
- Be brief
- Use simple language
- Speak honestly with empathy
- Don't avoid the media – will heighten the interest
- Media is your conduit to the public

Monitor the media

- Monitor what's being said
- Media monitoring services (scout out an emergency service provider if needed)
- Google alerts
- Respond to errors or unfair reporting