

RECYCLE, REUSE

Benefits of Legalizing recycling of properly rinsed and inspected empty pesticide containers – a robust roadmap towards sustainable management

ingle-use plastic ban in India has kicked in from July 1, 2022. It is time to review the policy for empty pesticide containers in India.

Primary pesticide packaging is essential to ensure safe handling, storage and application of agrochemicals throughout the value chain and beyond. Post consumption of the pesticide these packs become waste (Empty Pesticide Container or EPC). Because of current pattern of use and management of pesticides, the volume of EPCs generated is increasing.

As pesticide containers are mostly produced from plastics, they contribute to the increasing mountain of plastic waste in India often dumped recklessly into the environment, burned, or buried near farms. These discarded EPCs bear the risk of soil and ground water pollution owing to contamination with residuals of the pesticide. Consequently, they can be hazardous for the community and the environment. The problem is further aggravated in view of their potential for

misuse in illegal counterfeited products.

The International Code of Conduct of the distribution and use of agrochemicals (WHO/ FAO 2008) provides general guidelines on the management options for empty pesticide containers to minimize potential health and environmental impacts associated with their disposal.

Triple-Rinsing of EPCs

The FAO recommends triple-rinsing of EPCs as one effective practice for farmers to remove pesticide residuals from the containers. Cleaned pesticide containers are classified in many countries as "non-



hazardous" waste. The European Waste Catalogue suggests that where the hazardous component in the waste is less than 0.1 percent, the waste is no longer perceived as 'relevant' and the packaging is classified as "non-hazardous".

In Australia, triple rinsed containers are allowed to be recycled and classified as non-hazardous while containers that are not cleaned and properly rinsed are classified as hazardous waste.

The effectiveness of triple rinsing has been further demonstrated through a recent study undertaken by the All India Network Project on Pesticide Residues (AINPPR) of Indian Council of Agriculture Research, GOI. The interim results indicate that irrespective of container type, formulation type, pack size, toxicity, etc., the pesticide residues tend to decline by more than 99%. It is reasonable to expect that the remaining active ingredient content in waste composition after rinsing will serve as the basis to address classification criteria (toxicity) and the defined thresholds/cutoffs defined in the Waste Framework

CropLife India is an association of 16 R&D driven member companies in crop protection. We jointly represent more than 70% of the market and are responsible for 95% of the molecules introduced in the country



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Directives.

This study is a balanced body of contemporary certainty, supplemented by research and analysis to enable GOI to decide on a reclassification of decontaminated primary pesticide packaging in India and establish triple rinsing as a sustainable method for management of empty pesticide containers.

Strict Compliance With Reasonable Safety Measures

In this context, the framework for Extended Producers Responsibility under the Plastic Waste Management Rules 2016 of the Union Ministry of Environment, Forest and Climate Change (MoEF&CC) gains predominance. The regulations demand from all producers, importers and brand owners of pesticide products without exemption the installation and/or financial contribution to a waste collection system. However, strict compliance with reasonable safety measures to minimize any potential risk for exposure during collection, storage, transport, and recovery of used and possibly contaminated EPCs requires a thorough planning of the reverse logistic process including recycling/ disposal steps which is complex and time consuming.

Collection and recovery programs for empty pesticide containers especially of small containers cannot be initiated before destination value chain of the collected material is established and

Virtual International Symposium on EPC Management

CropLife India organized a *Virtual International Symposium on Empty Pesticide Containers (EPC) Management in India - Roadmap for Sustainable Management of Empty Pesticide Containers* on May 25. It was attended by delegates from across the world including Asia, Europe and Africa.

Establishment of collection and disposal of EPCs/Container Management is a stepwise approach which requires strong support of the government and coordination amongst multiple stakeholders. There is an imminent role of every stakeholder in the value chain – government, manufacturers, channel partners, farmers, Producer Responsibility Organizations, recyclers and end-users. CropLife International has successfully initiated and established independent Container Management Systems organizations and activities in 63 countries, which has removed over a million tonnes of agriculture waste plastic from the environment between 2005-2020.



the recycling application developed and approved by relevant authorities.

Seven-Step Roadmap For Sustainable Management Of EPCs

In February 2021, CIB&RC issued a public notice inviting comments from all stakeholders for classification of empty pesticide containers and disposal thereof. In response to the public notice, CropLife India had submitted a detailed seven-step roadmap for sustainable management of EPCs through shared responsibilities of all stakeholders. Further The 429th meeting of the Registration Committee held in June 2021 decided to formulate a working group/ task force comprising experts from DPPQ&S/CIB&RC, CPCB, State Governments, M/o EF&CC, ICAR and Pesticide industry associations stakeholders to work upon deciding the responsibility for collection and disposal

of the empty container & suggest about linking/creation etc. of necessary infrastructures setup.

CIB&RC's cognizance, and consideration to develop a framework for safe disposal of EPCs is therefore welcomed and perceived as a promising first step in the right direction to add India to this success story.

CropLife India hopes that the Ministry of Agriculture & Farmers Welfare (MoA&FW), Ministry of Environment, Forest & Climate Change (MOEF&CC), Central/ State Pollution Control Boards, Central Insecticide Board & Registration Committee (CIB&RC) and Industry can jointly facilitate a supportive mechanism to promote an effective empty pesticide container management system in India. CropLife India is highly motivated to support the process, as industry's stewardship commitment.