

# **CONTAINER MANAGEMENT IN BRAZIL - “RECALLING AND PROCESSING OF EMPTY PESTICIDE CONTAINERS”**

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The National Institute for Processing Empty Containers (InpEV) is a non-profit organization created by the industry which manufactures crop protection products (chemical or biological products developed to control pests, diseases or plant which infests agriculture e non agriculture areas) to undertake the proper disposal of empty containers In Brazil. It works within the requirements of Law number 9.974/00 under which the responsibility for the proper disposal is shared by those involved in agricultural production: farmers, distribution channels, manufacturers and the public authorities.

InpEV's members include 99% of the manufacturers of crop protection products in Brazil and seven entities, including the bodies which represent the industry, the distribution channels and the farmers. There are 399 reception units covering over 141,000 square meters in the main agricultural regions of the country. They are located in environmentally licensed areas. All those involved in the links of the chain have acted in a decisive way to make the final disposal program a global benchmark. The system have invested more than R\$ 220 million over the last seven years.

More than 108,000 tons of empty containers of crop protection products have been properly disposed since 2002. The number has risen on a yearly basis and came to 24,400 tons in 2008 compared with 21,100 tons the previous year. The Eco-efficiency Study that was carried out showed that in seven years (2002-2008), the proper disposal of containers brought an environmental gain corresponding to 163,000 tons of CO2 equivalent\* which were not emitted into the atmosphere or equivalent to 816,000 trees which were not chopped down.

## **Briefly Container Management System's Description**

The management of empty crop protection product containers joins various players in support of a cause: the protection of human health and the environment.

### **According to the Law each player's share of responsibility**

1. Farmers: rinse; temporarily store; return; get and keep a receipt.
2. Distributors: make available the local where he must return the container (Receiving Unit); inform the receive unit's address; provide a receipt to the grower; participate in educational and awareness campaign ;
3. Manufacturers: logistics – transport; ensure final proper disposal; participate in educational and awareness campaign ;
4. Govern: inspect and license; participate in educational and awareness campaign ;

### Receiving units

The return location for empty containers can be a container receiving unit called "Post" (small units) or "Centres" (bigger units). Both are built and managed by the distribution (Dealers and Cooperatives), as part of their legal responsibility, with inpEV's financial and technical support.

The distributors usually form associations to jointly manage the receiving units. They are (Dealers and Cooperatives) assembled into 239 associations that bring together over 2,900 Dealers and Cooperatives.

### Recycling plants

As a legal representative of manufacturers, inpEV has carefully selected companies to work with recycling. Over the course of seven years, partnerships with ten recycling companies strategically located in five states have also been established, in order to ensure safe, high quality recycling of empty containers and the tracking needed for the recycling process.

### The recycled materials

Currently fourteen different products are manufactured from recycled materials (plastic from containers, lids, cardboard and metal). These products are used in the crop protection industry itself or in the construction, trade, sanitation, and automotive industries, among others. Production of new products using empty container recycling must be submitted to a multidisciplinary committee for approval.

### Reverse logistics

The transport of plastic, metal and cardboard containers, lids and flexible and rigid contaminated packaging from the reception unit to the place for final disposal is the responsibility of InpEV. Those containers which have not been rinsed or have been incorrectly rinsed are transported in special bags directly for incineration. The process is managed through the Reverse Logistics concept which ensures that trucks carrying the crop protection products to the distributors, cooperatives and farmers return with the empty containers (bulk or compacted) stored in the reception units, which also ensures efficiency and safety and lower costs.

Growth in the volume of disposed containers (in Kg)

