ENVIRONMENTAL COMPANY OF SAO PAULO STATE – CETESB

REGIONAL CENTRE OF STOCKHOLM CONVENTION ON POPs FOR LATIN AMERICA AND THE CARIBBEAN REGION

V INTERNATIONAL TRAINING PROGRAM ON ENVIRONMENTAL SOUND MANAGEMENT ON CHEMICALS AND WASTES, ESPECIALLY ON PERSISTENT ORGANIC POLLUTANTS (POPs) AND MERCURY (Hg)

2016
Sao Paulo – SP – Brazil
CAMPO LIMPO SYSTEM

inpEV
NATIONAL INSTITUTE OF EMPTY PACKAGING PROCESSING

- LAW 9.974/00

Created in December, 2001, inpEV is a non-profit entity with headquarters in São Paulo. It promotes the correct disposal of empty crop protection packaging material throughout the national territory.
EMPTY PACKAGES FLOW STUDY

FEDERAL LAW 9.974/00

DECREES 4.074/02

INPEV FOUNDATION

BRAZIL BECOMES A WORLD REFERENCE

CAMPO LIMPO PLASTIC TRANSFORMATION AND RECYCLING + ECOPLASTICS

DNCL IN THE NATIONAL CALENDAR

1 MILLION PARTICIPANTS IN DNCL (NATIONAL CLEAN FIELD DAY) SINCE ITS FIRST EDITION

+ 320.000 TONS OF PACKAGES REMOVED FROM THE ENVIRONMENT

CAMPO LIMPO PLASTIC LIDS AND RESINS
ASSOCIATED ENTITIES

9 entities
more than 100 manufacturing companies

AGRIBUSINESS SECTORS

DISTRIBUTORS AND COOPERATIVES

MANUFACTURERS

RURAL PRODUCERS

9 entities
more than 100 manufacturing companies

abag
APPS
SAPROSOJA
ANDA
OCB

Aenda
INDEP
SINDIVEG
CNABrasil

Confederação da Agricultura e Pecuária do Brasil
PRINCIPLES OF THE CAMPO LIMPO SYSTE

Producer Distribution channels Manufacturing industries Public Power

LEI 9.974/00

LEGISLATION INTEGRATION EDUCATION AND AWARENESS PROCESSES AND INFORMATION MANAGEMENT
SHARED RESPONSIBILITIES

ALL CHAIN LINKS SINCE THE START OF THE SYSTEM
THE SYSTEM

SALES FLOW DIAGRAM

- More than 100 companies
- 267 associations
- 1.7 million agricultural properties*

RETURN OF EMPTY PACKAGES BY PRODUCERS

- Over 400 receiving units
  - Itinerant Collection
  - Central Stations
  - Transportation done by inpEV
  - 11 Recyclers
  - 3 Incinerators
  - Outposts

FINAL DISPOSAL

* Source: IBGE (27% of the 5 million rural properties in Brazil)
THE RECEIVING UNITS

EXCLUSIVE UNWASHED WAREHOUSE
(FOR EMPTY UNWASHED RECIPIENTS, CLASSIFIED AS HAZARDOUS WASTE)

ALL UNITS HAVE AN LO (OPERATING LICENSE), PCMSO (OCCUPATIONAL HEALTH PROGRAM), PPRA (RISK & ACCIDENT PREVENTION PROGRAM), FIRE DEPARTMENT LICENSE, STAFF TRAINED ON OPERATING PROCEDURES
FLOW DIAGRAM OF THE CAMPO LIMPO SYSTEM

1. PRODUCT READY FOR SALES
2. COMMERCIALIZATION
3. TRIPLE WASH
4. RETURN
5. PACKAGING PROCESSING
6. ENVIRONMENTALLY CORRECT DISPOSAL
6a. INCINERATION
6b. RECYCLING

ECOPLASTIC PRODUCT READY FOR SALES
INFORMATION SYSTEMS OF THE CENTRAL OFFICES (SIC)

Supplies the amount and type of material shipped until the previous day in real time, in several grouping formats.

- **Return scheduling of empty packages**
- **Logistics System**
  - Allows to manage the shipment value practiced by inpEV
- **Cost-sharing system**
  - On-line option for farmers to return empty packages
- **New systems under development**
  - SIC Platform
EDUCATION AND AWARENESS

CONTINUOUS INVESTMENTS FOCUSING ON FARMERS AND ON FUTURE GENERATIONS
NATIONAL CLEAN FIELD DAY

Celebrated on August 18, the DNCL integrates all strategic audiences of the Campo Limpo System. It involves communities neighboring the receiving units by promoting reflection on environmental conservation and holding social-educational activities.
CAMPO LIMPO ENVIRONMENTAL EDUCATION PROGRAM

Partnership with Elementary schools and teaching professionals

It addresses topics related with the environment, thus complementing school syllabuses
LONG DISTANCE TEACHING

The Course on the Final Disposal of Empty Crop Protection Packages provides information on all the process phases.

On-line and free, it offers a participation certificate.
RESULTS
TOTAL DISPOSED EMPTY PACKAGES (TONS)

TOTAL NUMBER DISPOSED FROM 2002 TO 2014

3,768 2002
7,855 2003
13,933 2004
17,381 2005
19,634 2006
21,129 2007
24,415 2008
28,771 2009
31,366 2010
34,202 2011
37,379 2012
40,404 2013
42,646 2014
45,500 2015 Forecast

> 300,000
DEFRAYAL OF SYSTEM ACTIVITIES

MORE THAN R$900 MILLION INVESTED IN 13 YEARS

85% DISTRIBUTION CHANNELS

11% MANUFACTURERS

4% FARMERS
PACKAGES REMOVED FROM THE ENVIRONMENT

80%
Packages (metallic, cardboard and lids)

94%
Primary plastic packages
DISPOSAL AROUND THE GLOBE
CORRECTLY DISPOSED OF PRIMARY PLASTIC PACKAGING
RECYCLED ARTIFACTS
MANUFACTURED FROM RECYCLED RESIN

1. Recipallet
2. Support for road signs
3. Pole crossover
4. Toilet flush reservoir
5. Wheelbarrow bed
6. Mortar box
7. Automotive battery casing
8. Plastic wheelbarrow wheel
9. Lubrication oil packaging
10. Ecoplastic
11. Plastic barrel for incineration
12. Corrugated conduit
13. Corrugated duct
14. Electrical box for electric wires and cables
15. Sewage pipe
16. Ecocap
17. Cardboard barrel
RECYCLERS AND INCINERATION PARTNERS OF THE SYSTEM

RECYCLERS
- Plastibras (MT)
- Cimflex (PR)
- Pasa (PR)
- Recicap (RJ)
- Garboni (RJ)
- Campo Limpo Reciclagem e Transformação de Plástico (SP)
- Campo Limpo Tampas e Resinas Plásticas (SP)
- Coletti (SP)
- Dinoplast (SP)
- Eco paper (SP)

INCINERATORS
- Clariant (SP)
- Ecovital (MG)
- Essencis (SP)
ECOEFFICIENCY OF THE CAMPO LIMPO SYSTEM
(2002 TO 2014)

Energy savings

Enough to supply 1.7 million houses during one year

Natural resources

extraction 3.8 times smaller

Waste reduction

equivalent to that generated by a 500,000 inhabitant city over 7 years

CO₂ emissions

447,000 tons of CO₂eq that were avoided or 1 million barrels of oil avoided or 2 million trees planted

source: Fundação Espaço Eco
NEXT CHALLENGES

LOGISTICS AND INFRASTRUCTURE
Roads, shipping costs, transportation availability

LEGISLATION
Follow-up of newly proposed Senate Bills (PLS) based on the PNRS (National Solid Waste Policy)

BUREAUCRACY/COSTS
Complex licensing processes, transportation licenses, lack of standardization

FISCAL/TAXATION
Waste invoice issuance by rural producer

Legislation harmonization (CONAMA 465, state regulations)

Charging of various fees

Unburdening of recycled material chains