

Pesticide Stewardship in the Baltic States

Robert L. (Rob) Denny: Director
Biocides Improvement Project
State Environmental Health
Centre
Kalvarijų gatve 153-530
LT-08221 Vilnius, Lithuania



The Baltic States and Neighbors

Baltic Pesticide Stewardship Topics

- Obsolete Pesticide Stocks
- Pesticide Container Management
- Other Mitigation Measures and Programs

Soviet Heritage: Obsolete Stocks at Independence

- Estonia: 700 tons
- Latvia: 2000 tons @ 600 sites
- Lithuania: 6000 tons @ 42 sites
- Poland: 50 - 60000 tons

Max. Total: 68700 tons*

** Largest amount officially inventoried or guesstimated*

Status of Baltic Obs. Stocks Today

- **Estonia:** "0"t. Zero according to locals- 2007
- **Latvia:** 200 DDT
5 Toxaphene
170 Lindane
200 Lindane + DDT mix
≤575 Latvia Total:
Kņava/Gardene sites
- **Lithuania:** "0" Zero claimed by authorities
- **Poland:** < 5,000 Progress in proper ID and storage incl closure of tombs w. onsite incin. in Gdansk cap 20k t /yr. Not including wastes from pesticide plant in Silesia which give total 3x?

Case Study: the Lithuanian Experience

- Historic Agricultural Region – Excess Production
- Wheat and Barley documented 1st/2nd c. BC
- Not US/West stds but more efficient Soviet ag producer
- Recipient of excess of cheap state supported pesticides



Today:

Lithuania: Portrait of Small Ag State

● Measure*	Lithuania	Europe	World
● Per capita Ag	631 t/person	542 t/person	343 t/person
● Arable land per 1k pop.	809 h	422 h	251 h
● Ag % of Land	46.1	13.4	11.3

* Data 1999 World Resource Institute

First Look at Potential “Time Bomb”

- Earliest Inventories: 953 tons
- Authorities Encourage Return: 6000 tons
- Early 1990's: most storage improper
- Public Health historically districts admin
 - > sites were poor
 - > mysterious and/or accidental fires
 - > collections inc. military chemical warefare

Outside Assistance for LT: Denmark

- 1993 Danish Research Institute brought in mobile lab. Mass spec. and FDIR
- Segregated: 60+ % unknown: no label/mix
20+/- % forbidden use
20+/- % usable and was used

1995-1997 Beginning of Action Plan

- Search for Long Term Storage: 15km Telšiai
- Lithuania: 2nd largest rotary kiln cement furnace in Europe: 900kg / annum destruction:
- Allegation: “new” methods marred by scandal and graft? Net effect? Little/no progress.
- LT did accept responsibility and decision to destroy-Significant development. How?

Resolve and “Success” 2000...

- Stocks now at 4.5k tons, hospital/military added
- Competitive bidding → AVG Hamburg, DE (Abfall-Verwertungs-Gesellschaft mbH)
- 2002 bid awarded, stocks repacked, shipped and destroyed prior to 2005
- Cost? 1014€ / ton



The Problem with “Success”

- Contaminated Sites Certainly Remain
- Small Holdings of Soviet era Stocks Likely
- Relief from Massive Disposal Effort
Masks and Hinders Efforts to Remove
“Recent” Unusable/Unwanted Pesticides

Pesticide

- Estonia:
- Latvia:
- Lithuania:
- Poland:



Container Stewardship

Collections began 2005
Interest but no program
Interest but no program
Collections since 2004

Poland: a Case Study in Collections

Inspiration?

The Act on Packaging and Packaging Waste defines producer obligations for packaging take back, recovery and recycling targets, consumer information and restrictions for maximum heavy metal concentration.

Effective: 2004 May 01

Polish Packaging Act and Pesticides

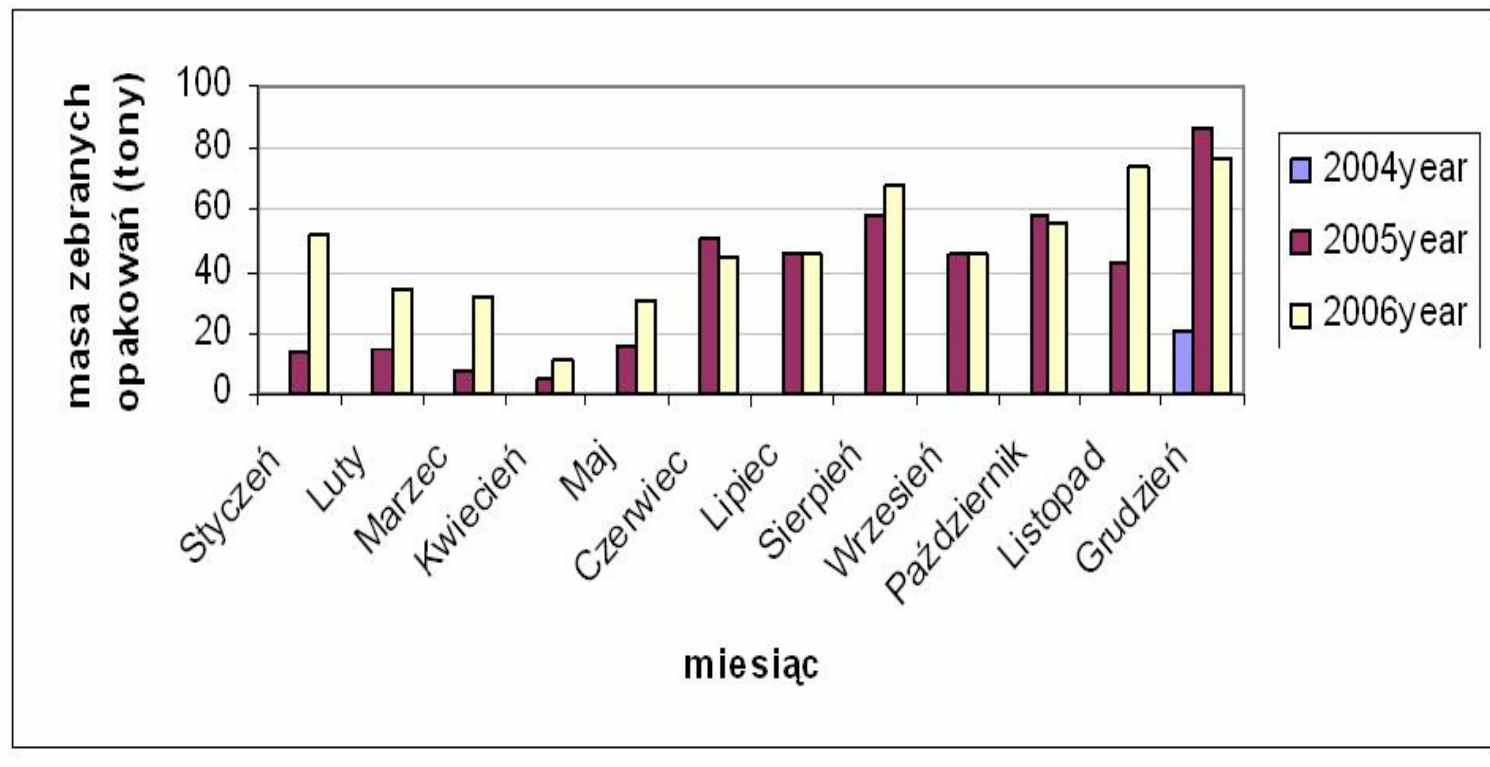
- Farmers: Obligated to return packages.
- Sellers: Obligated to accept packages.
- Manufacturers/ Importers/Distributors:
Obligated to collect, consolidate, and “neutralize” or see that above is accomplished.

PSOR: Unified Response

- Polish Crop Protection saw need for unified vs. individual response
- Designed Collection
- Put Request for Proposals out for Bid
- Supplemented Financing and Management of the Collections
- Oversees Outreach and Proper Utilization



Growth by Sub-state Region: Total Collections 2006 = +30% Return



Polish Crop Protection Association

Stewardship Projects:

- Triple rinsing of PPP containers
- Waste Packaging Collection System
- Anticounterfeit Campaign
- TOPPS Campaign (best management practices)
- Label attractiveness campaign (reducing child poisoning hazards)
- Pesticides are not for play campaign
- Old Stocks Collection System (newer unwanted pesticides)
- Safe Use Initiative
- Drift Reduction

Baltic Associations - Stewardship

- **Estonia:** Agroskai AS Priit Palumaa priit@agroskai.ee
- **Latvia:** Lativa Crop Protection Assc. Inese Karlova info@laalruta.lv
- **Lithuania:** Lithuania Crop Protection Assc. Ausra Beneiuliene
ausra.beniuliene@takas.lt
- **Poland:** Polish Crop Protection Assc.
Michal Fogg-Overall Stewardship michal.fogg@psor.pl
A. Jagielska-Container Stewardship anna.jagielska@psor.pl

Labai Specialus Ačiū

- Dr. Romaldus Rekertas,
Retired Prof. Chemistry, Vilnius University
Project Manager – Storage and
Destruction of Lithuania's Obsolete
Pesticides/Haz. Wastes
- Vaiga Beržintė – Assistant to the Director
Lithuania Biocides Improvement Project

For more information....

Robert L. (Rob) Denny
Arrowchase, Inc.
236 Park Avenue
Takoma Park, MD 20912
rdenny@arrowchase.com

-or-

Project Director
Biocides Improvement Project
State Environmental Health Centre
Kalvarijų gatve 153-530
LT-08221 Vilnius, Lithuania
rdenny@rachel.lt