



# Canadian “StewardshipFirst”™ Programs

**Pesticide “Life-Cycle” Stewardship in Canada**

**Binational Toxics Strategy Stakeholder Forum**

Toronto, Ontario

May 17, 2006

Cam Davreux  
CropLife Canada

**stewardshipfirst**  
working responsibly to protect  
people and the environment

A green curved line graphic that underlines the word "stewardshipfirst" and extends to the right.



representing the plant science industry  
représentant de l'industrie de la phytologie

# Who are we





Representing Canada's plant science industry

stewardshipfirst



Urban Pest Management  
Council of Canada

### We Stand for Safety:

- protecting human health and the environment  
...putting *stewardshipfirst*
- a rigorous, science-based regulatory system
- an informed public

### We Stand for Innovation:

- enhancing quality of life through the benefits of our technology
- continuous research
- integrated pest management and responsible use
- realizing competitive advantage



# StewardshipFirst - an enlightened approach for industry:

*The Canadian Agrichemical industry is looking at a broader approach to business, which includes societal issues and the environment, as elements in all business decisions*



# Enlightened Industries

## *Old Ethic*

- Do minimum required bylaw
- Limit product obligations
- Downplay public angst
- Against gov't regulations
- Every co. for themselves
- Do in isolation
- Driven by bottom line & laws alone

## *New Ethic*

- Doing the right thing
- Life cycle approach
- Address public concerns
- Voluntary self regulation
- Work towards smaller environmental footprint
- Work together, multi-stakeholder
- Triple bottom line (profit, environment, society)
- Win/win/win scenario – public, environment, business



# “StewardshipFirst”™

- Stewardship initiatives started in 1980’s
- Evolved into 7 major programs
- For communication, grouped under “StewardshipFirst” banner
- Full product life-cycle risk management of pesticides
- Expensive – over 60% of CropLife’s budget allocated to stewardship initiatives...industry “walks-the-talk”- not window dressing
- CropLife has virtually all Canadian pesticide suppliers as members



# Current Lifecycle Approach



**STEWARDSHIPFIRST**  
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people and the environment





# Health & Safety at Manufacturing Facilities

- Nine formulation plants in Canada – all certified.
- Result: No safety, health or environmental incidents since 1995.
- Additional result – employee pride & improved morale.
- New: Standards now in process of being broadened to include Consumer & Structural product formulators.



**AWSA**

Agrichemical Warehousing Standards Association

*Agrichemical Warehousing  
Standards Association:  
...a National Industry **Risk**  
Management Program  
for  
Safe Warehousing  
of  
Agrichemicals*

**stewardshipfirst**  
putting responsibility to protect  
people and the environment



# Warehousing Standards

## Agrichemical Warehousing Standards Association

- Largest voluntary self-regulatory industry initiative in Canada.
- Standards initially developed in 1980's, fully implemented in 1995...continuously updated
- Goal: minimizing risks (fires, spills, accidents) associated with the storage of agrichemicals
- Mandatory for all warehouses storing agrichemicals in Canada.
- Enforced through “*no certification – no ship*” rule
- **Prior to program:** 2 fires per year – considerable environmental damage.
- **After program implementation:** 3 fires over 11 years – a 86% reduction – no environmental or health issues.



# Wellburn fire could have been devastating

In Food Week  
THE SIGNPOST

Cause not yet determined  
**\$1 million fire at Hutton Farm Supplies**

According to Staff Sergeant  
The fire started  
The fire started

**Fire at Hutton Farm Supplies**



MICHAEL JORDAN/The London Free Press  
The fire at Hutton Farm Supplies destroyed by fire late Thursday night in the West End. Damage is estimated at \$750,000 to \$1 million. Cause of the blaze is under investigation.

## Fire damage may be \$1 million but it could have been worse

The blaze was put out before it spread to a storage shed containing herbicides, pesticides and other chemicals.

By Steve Haskin  
The London Free Press

The fire was observed to police shortly after 11 p.m. Thursday. Early Friday morning, London OPP investigators began work on the site. The fire started in a shed containing herbicides, pesticides and other chemicals. The fire was put out before it spread to a storage shed containing herbicides, pesticides and other chemicals.

The fire started in a shed containing herbicides, pesticides and other chemicals. The fire was put out before it spread to a storage shed containing herbicides, pesticides and other chemicals. The fire started in a shed containing herbicides, pesticides and other chemicals. The fire was put out before it spread to a storage shed containing herbicides, pesticides and other chemicals.



# Agrichemical Warehousing Standards Association

- 1,502 warehouses certified (initially started with 3,000)
- 277 warehouses in Ontario
- Each facility audited every two years
- 25 trained auditors across Canada (2 senior auditors - E/W), 6 in Ontario.
- Standards upgraded every 3 – 4 years by Technical Committee support – last revision issued Jan, 2006
- Philosophy of “continuous improvement”.
- Separate Board of Directors (outside CropLide Canada) – largest group represented by warehouseurs (ie. program for warehouseurs by warehouseurs)







WARNING  
Do not touch or use  
any of the contents  
without proper  
protection.

CAUTION  
Do not touch or use  
any of the contents  
without proper  
protection.

WARNING  
Do not touch or use  
any of the contents  
without proper  
protection.

DANGER  
Do not touch or use  
any of the contents  
without proper  
protection.





# WELCOME

to the



# AWSA

## Transportation of Dangerous Goods



## "Clear Language" Regulations Training Course

6:59:26 PM

Copyright AWSA 2002.

FORWARD

QUIT

working responsibly to protect  
people and the environment





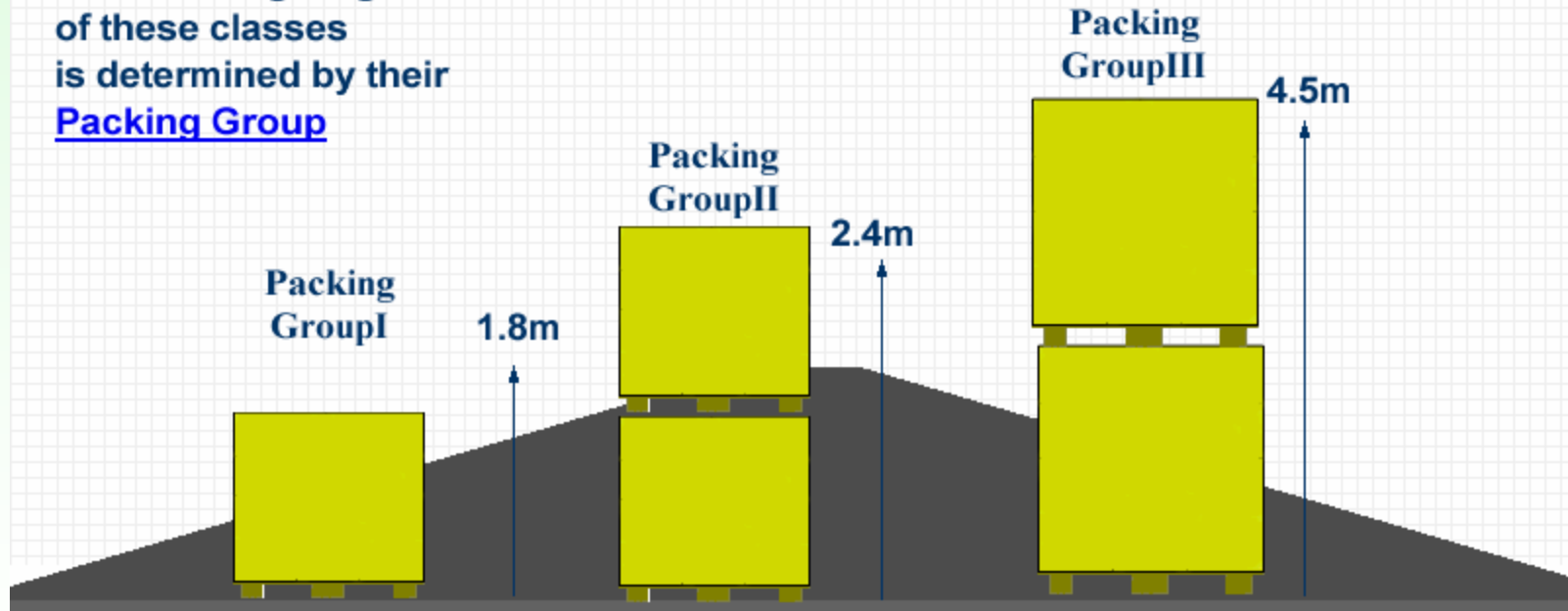
**TDG Regulated Products Storage**  
**Classes 4,5,6,8**



**Storage and Stacking Heights per I.S.A**

**Unprotected Storage**

The stacking height of these classes is determined by their **Packing Group**



GG  
GG

7:08:33 PM

PREVIOUS FORWARD Menu QUIT

working responsibly to protect  
people and the environment





# “Certified Crop Science Consultant”

Industry staff accreditation program

but

also available to retailers!



# Certified Crop Science Consultant Program



representing the plant science industry  
représentant de l'industrie de la phytologie



UNIVERSITY  
of GUELPH





## *“Certified Crop Science Consultant”*

- Ten Modules – all updated & 3 brand new:
  - 1. Legislation & Gov’t Relations
  - 2. Product Use & Label requirements
  - 3. Human Health
  - 4. Environmental Health
  - 5. Product Safety
  - 6. Pest Management
  - 7. Application Technology
  - 8. Biotechnology (new)
  - 9. Urban Use (new)
  - 10. Stewardship & Sustainable Agriculture (new)

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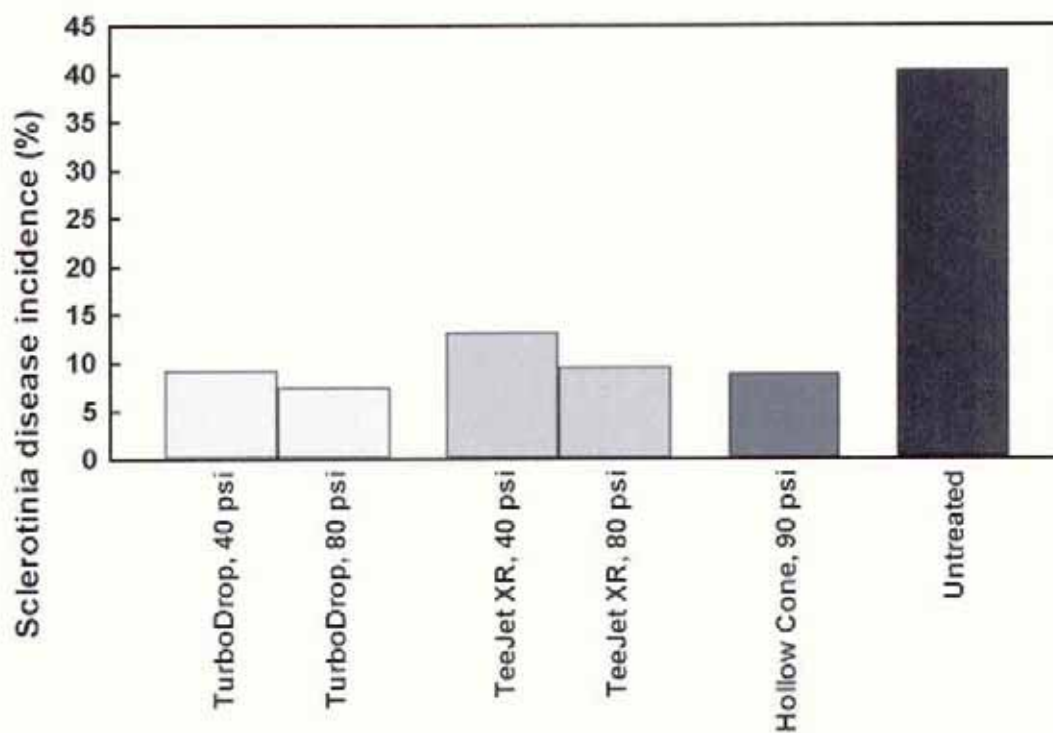
7

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10

testing with two fungicides (**Figure 4-28** ). A copy of this report is available here (**PDF: Canola.pdf**).



**Figure 4-28.** Sclerotinia disease incidence in canola treated with foliar fungicide using several nozzles and pressures.

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Disease control tends to respond more to carrier volumes than droplet size. However, twin nozzles are becoming popular with some fungicides. These nozzles emit spray both forward and backward from a single nozzle body, improving deposition on vertical structures such as cereal heads (Figure 4-29 ).

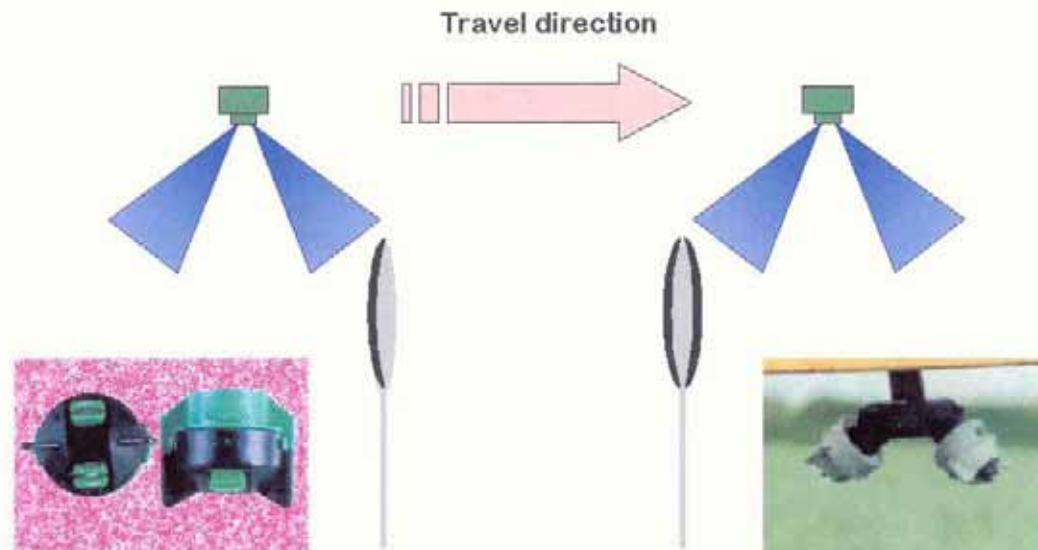


Figure 4-29. Twin nozzles for improving spray capture on vertical surfaces.




1

an inversion are very slow and unpredictable in direction, and when they occur, a concentrated spray drift cloud is moved off the treated area and can cause considerable damage at its destination.

2

3

In **Figure 4-35** , we see the concentrated smoke (spray) cloud remaining near the ground. Any object in its path will receive a large doses of pesticide. For this reason, drift damage potential is high during a temperature inversion.

5

6

Fine sprays are particularly sensitive to inversion drift. Applicators should avoid spraying during temperature inversions, regardless of the application method.

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**Figure 4-35. Movement of concentrated clouds under inversion conditions.**

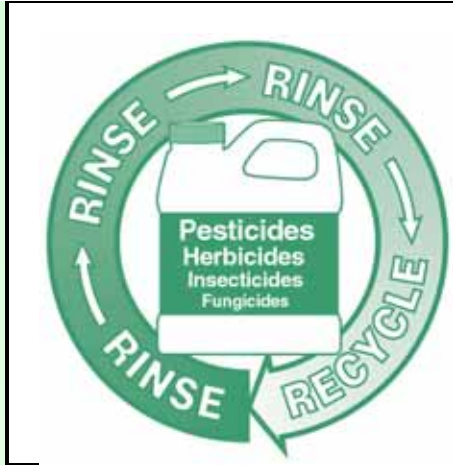




CropLife Canada  
“StewardshipFirst”™ Programs

*Pesticide Container Recycling  
Program*

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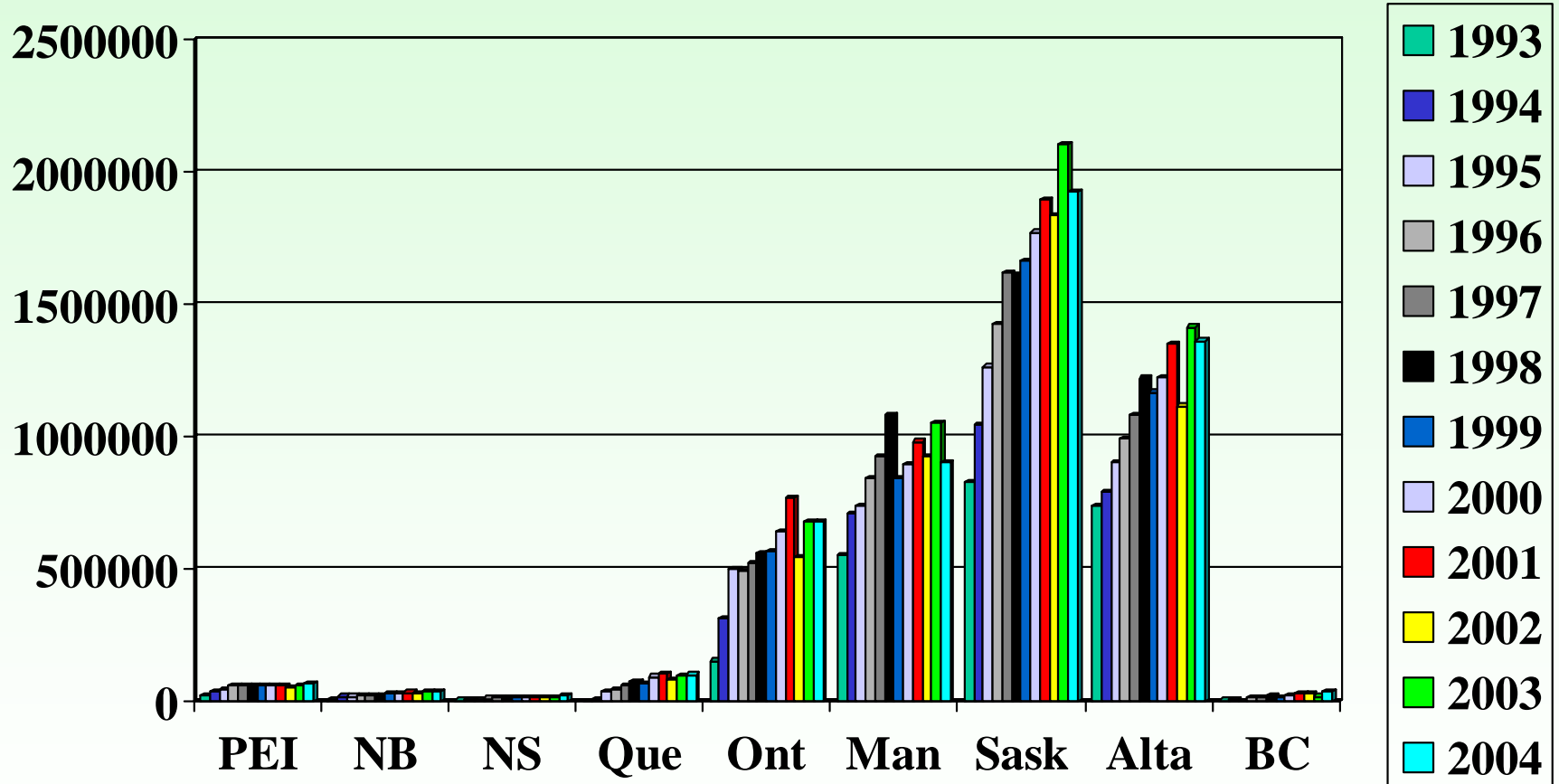


# Container Recycling

- Program started in Alberta in 1989
- CropLife will have collected & recycled approximately 65 million empty pesticide containers since program inception
- Over 1,100 collection sites across Canada, 277 in Ontario.
- Canada now recycles approx. 70% of all containers shipped – exceptionally high for a *voluntary* program
- Plastic is shredded and recycled into:
  - farm drainage tile
  - fence posts
  - highway guard rail posts
  - guard rail spacers
  - RR ties (trial shipments)
  - used for heat energy

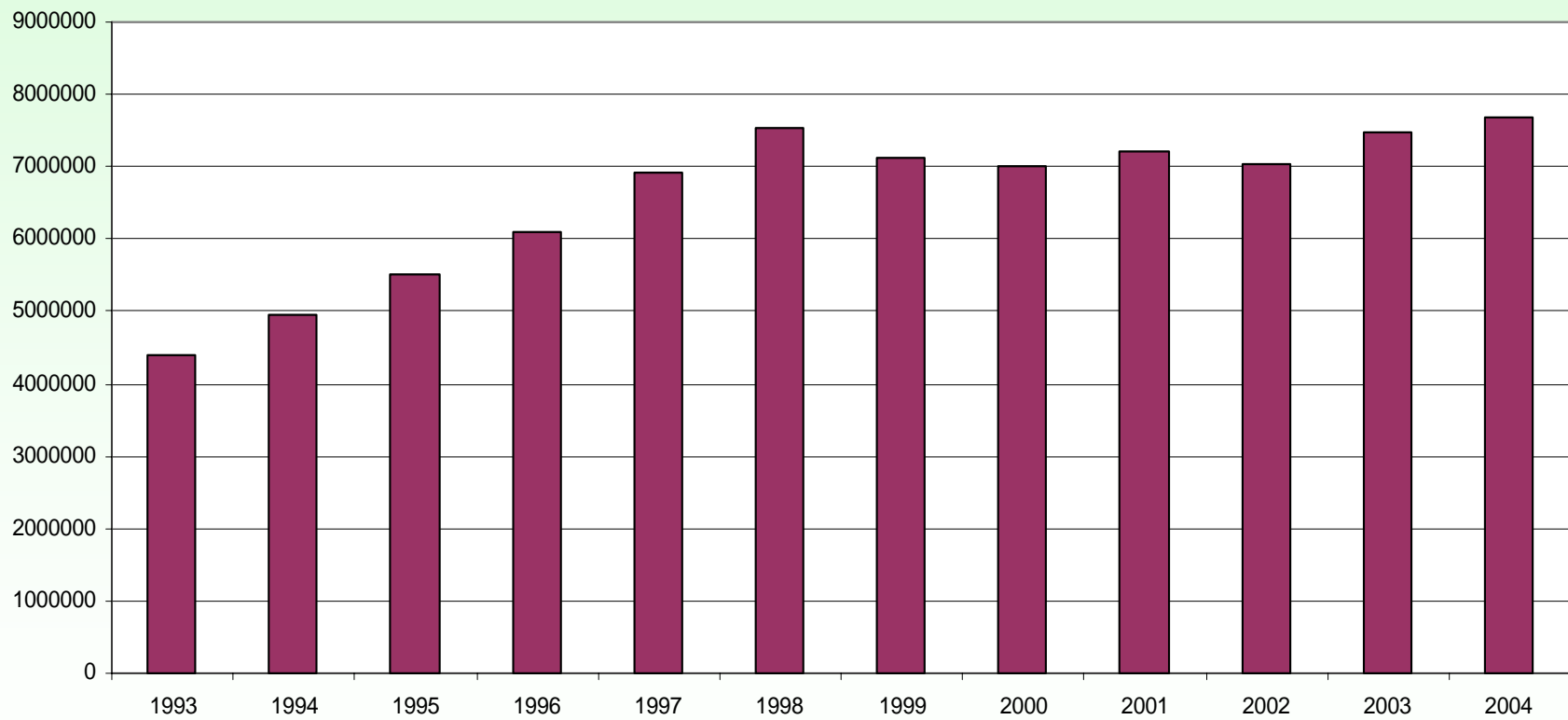


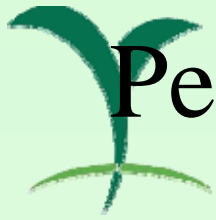
# Pesticide Containers Collected



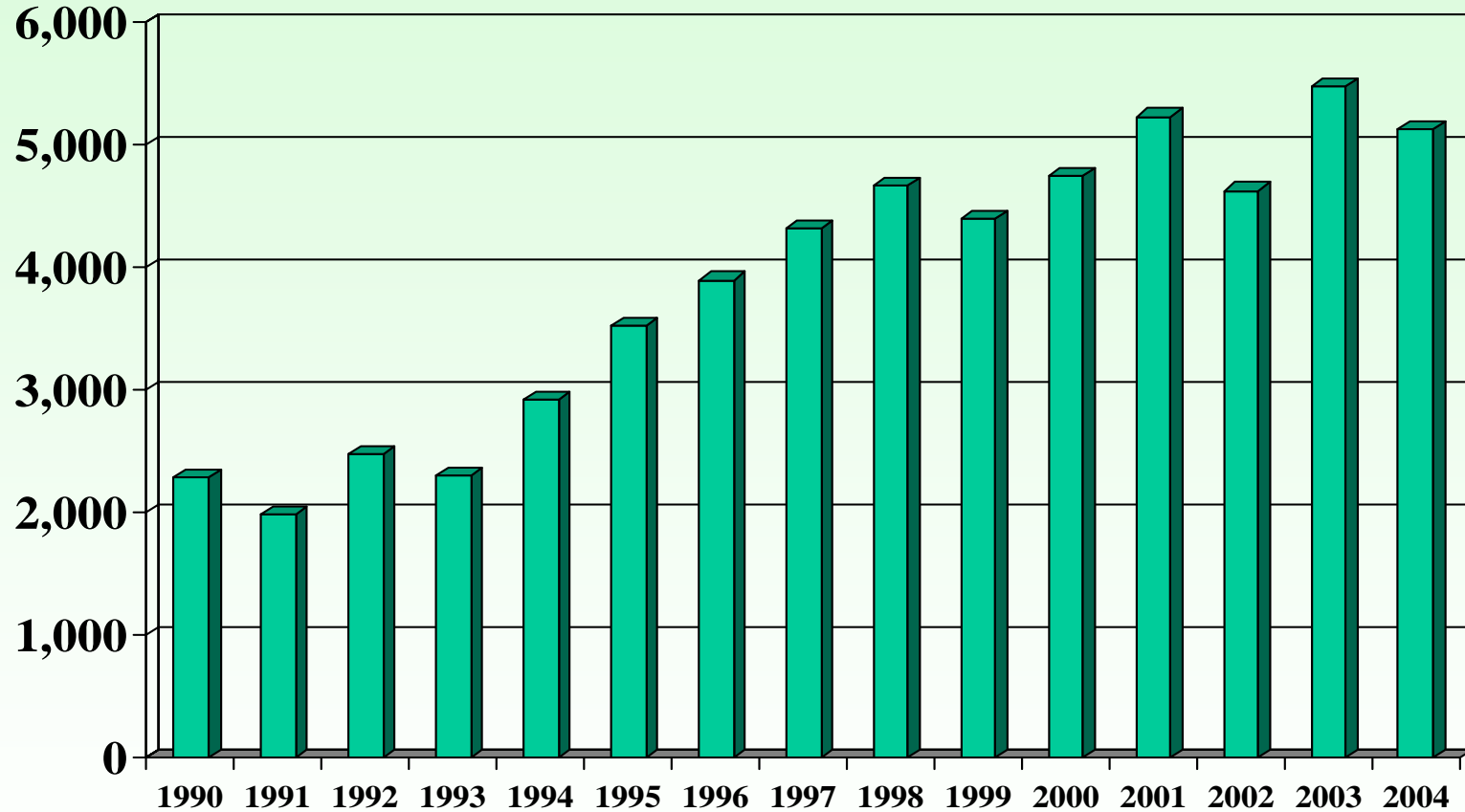


## PESTICIDE CONTAINERS SHIPPED CANADA



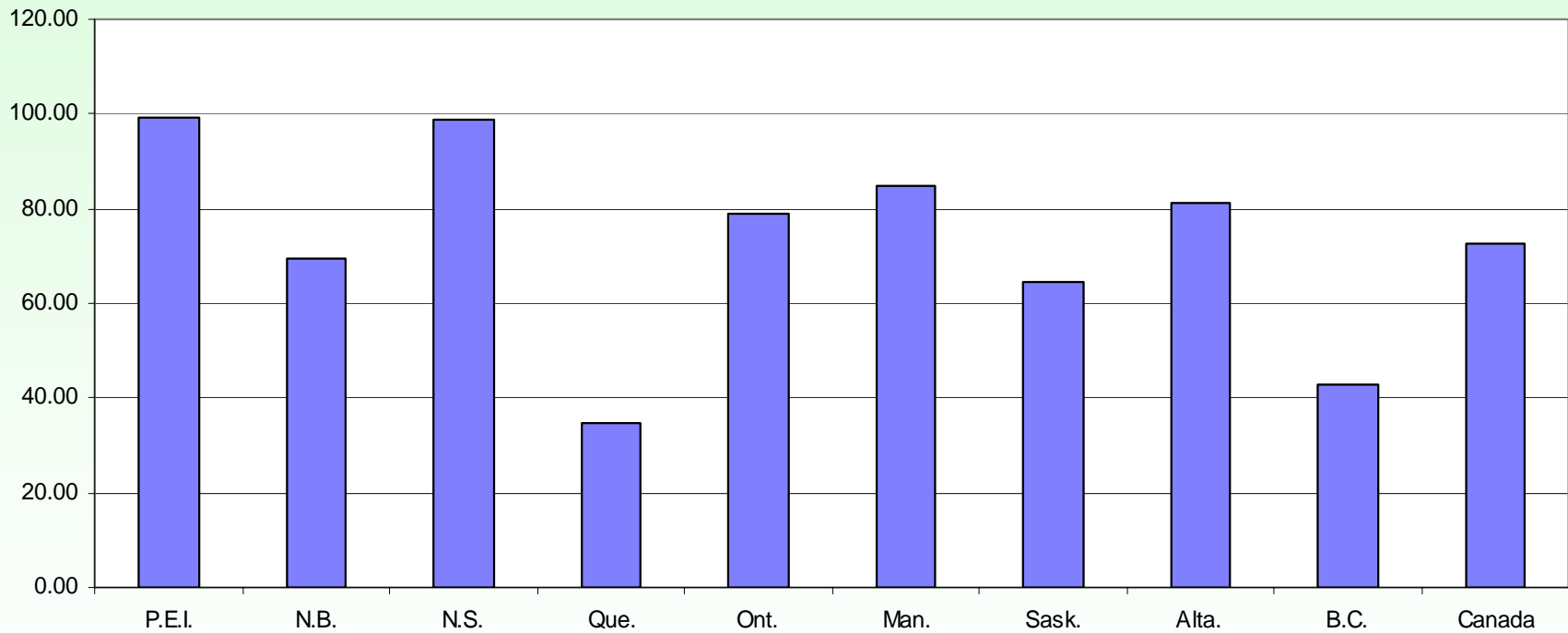


# Pesticide Containers Collected 1989 to 2004(000's)





**PESTICIDE CONTAINERS RECOVERED  
(AS A PERCENT OF SHIPMENTS)**



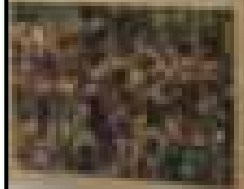
ENCES<sup>®</sup>

SOLUTIONS

BRAND PROTECTS  
LEVELS...



FROM THE...



**THIS BAG CONTAINS**  
**ONLY**  
**CLEAN**  
**TRIPLE RINSED**  
**WELL DRAINED**  
AGRICULTURAL CHEMICAL  
CONTAINERS

**VOLUNTARY**  
**AGRICULTURAL**  
**CHEMICAL**  
**CONTAINER**  
**COLLECTION**  
**SITE**  
We can accept only  
that are:























## Fence Posts from Plastic Pesticide Containers







M O N D O  
**Polymer Technologies**



*From The Original Polymer Offset  
Block Manufacturer Comes The New*

**MONDO**Block™

**RECYCLED POLYMER OFFSET BLOCK**

**stewardshipfirst**

*exercising responsibility to protect  
people and the environment*





# Take it off – Take it ALL off!

COMPLETELY REMOVING THE LABEL BOOKLET FROM YOUR PESTICIDE CONTAINERS SAVES RECYCLING TIME AND MONEY.

When you  
bring them\* back clean...



\*up to 23 L pesticide containers

you make it possible to recycle  
efficiently and economically!



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WEB [www.croplife.ca](http://www.croplife.ca)  
TELEPHONE (416) 622-9771  
FAX (416) 622-6764

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FOR YOUR FARM, YOUR FAMILY, OUR HEALTH AND OUR ENVIRONMENT

# CleanFARMS

EMPTY PESTICIDE CONTAINER RECYCLING PROGRAM

## Every return makes a difference...

and – it won't cost you a thing!

**rinse**

Pressure rinse or triple  
rinse your pesticide  
containers

**remove**

Completely remove  
the paper booklet  
from your pesticide  
containers

**return**

Return clean, empty  
containers with no  
paper booklet to  
your collection site



**stewardshipfirst**™

For more information contact your local dealer or visit [www.croplife.ca](http://www.croplife.ca)

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responsibility to protect  
and the environment



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people and the environment



# Obsolete Product Management

(Closing the loop on the *StewardshipFirst*™ product life cycle)

- National plan to collect and safely dispose of outdated agricultural pesticides from rural Canada.
- Program started in 1998 in the Maritime provinces.
- In 2004 Canada completed with 800 metric tonnes (over 1.7 million pounds) collected & disposed
- Commenced 2<sup>nd</sup> “sweep” in 2005
- Programs co-funded on a 50 – 50 basis with federal or provincial government
- Collection points at AWSA certified warehouses
- Managed through partnering producer groups, retailers, manufacturers and federal and provincial governments – *excellent example of good co-operative working relationship between all stakeholder groups!*



# Program Template

- Financing – CropLife Canada matches \$\$\$ with province and/or Federal government.
- Pull together committee:
  - Retailers
  - Federal & Provincial Agriculture and Environment
  - Farm groups
  - Pesticide industry
- Establish groups to handle:
  - Collection site locations & education
  - Contractor selection
  - Communications
- Typical budget: 85% collection & disposal, 15% communications....with considerable “in-kind” support!



# Ontario Obsolete Pesticide Collection Program

- First collection was in two pieces:
  - October 2000 (Barrie to Windsor) – 35 sites
  - October, 2001 (Eastern & northern Ontario) – 13 sites
- Total year 1 – 110,870 kgs.
- Total year 2 – 38,656 kgs.
- Total (first collection) 149,526 kgs.



# Ontario – 2<sup>nd</sup> “Sweep”

- October, 2005 (13 sites)
- Collected 116,800 kilograms (approx. 80% of 1<sup>st</sup> collection).
- Communication via numerous farm organizations (AgCare et al)
- Site volunteers from government and industry
- Financing –
  - Federal Can Advance
  - Ontario Ministry of Environment
  - Environment Canada
  - CropLife Canada
- Total cost – approx. \$191,000



# 2005 Ontario Obsolete Pesticide Collection

- Level 1 & 2 pesticides: 1.3 metric tonnes (1.1%)
- Other: 115.5 metric tonnes
- Total – 116.8 tonnes
  
- For comparison, first collection (2000/01)
  - Level 1 & 2 pesticides: 7.0 metric tonnes (4.7%)
  - Other: 142.5 metric tonnes
  - Total: 149.5 metric tonnes





Working responsibly to protect  
people and the environment







Working responsibly to protect  
people and the environment





**wardshipfirst**

Our responsibility is to protect  
people and the environment





**ardshipfirst**

working responsibly to protect  
people and the environment







**stewardshipfirst**  
working responsibly to protect  
people and the environment



**stewardshipfirst**  
exercising responsibility to protect  
people and the environment



## *StewardshipFirst*<sup>TM</sup> – it is working!

No environmental or health incidents in either warehouse or manufacturing sectors.

Environmental pollution insurance rates have been reduced by 50% (but last year inc. of 20%)

Well trained employees – with side benefit result... improved morale & company pride

Over 1,000,000 kilograms of obsolete product removed from farmsteads across Canada to date

Empty container management & recycling.

- 70% of containers used are now returned (Canadian farmers *are* environmentally responsible!)
- 100% of containers returned are recycled



## **BENEFITS** of putting *StewardshipFirst*<sup>TM</sup>

- Addresses public concerns
- Cleaner, safer Canadian farms and farm communities
- Good news stories for agriculture (we need them!)
- Allows CropLife to bring other stakeholder groups into our programs...which improves relationships & communication
  - federal government
  - provincial governments
  - grower organizations
  - retailers
  - environmental groups



**THANK YOU**

**for your interest!**





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