

BRITISH COLUMBIA DAIRY COUNCIL

MILK AND MILK SUBSTITUTE CONTAINER RECYCLING PROGRAM STATUS REPORT: YEAR END 2009

Background

In October 2006, the B.C. Dairy Council (the Council) launched a voluntary collection program designed to increase the recycling of plastic and polycoat milk and milk substitute (soy and rice beverage) containers in B.C.

Under an initial three year contract with Encorp Pacific (Canada), which was renewed in 2009 for a further 3 years, consumers return milk and milk substitute cartons and jugs to any participating Encorp Return-It Depot.

This program is designed to supplement, not replace, existing collection efforts for milk containers including municipal curbside programs which collect plastic milk jugs. The program responds to the stewardship goals of the Province of British Columbia while also addressing industry's desire for minimal impact on consumer costs.

The program is supported and funded by the entire dairy industry and the major suppliers of milk substitutes.

Program Highlights

No deposit is charged on full milk or milk substitute containers and, therefore, no refund is paid for empty returns. Collected materials are transported from depots to recyclers by the existing Encorp system.

Included containers:

- Plastic jugs
- Polycoat (gabletop) cartons
- Single serve plastic cups
- Aseptic cartons

Highlights from 2009

- The three major milk substitute (soy and rice beverages) producers agreed to participate in the program. This means that they are reporting their unit sales to Encorp for inclusion in the reporting of results and will be contributing financially to the program
- Per depot collection weights continue to increase and have posted an 89% increase since 2007
- The overall weight of containers collected in 2009 increased by 49% over 2008

Consumer Research

A significant component of the milk and milk substitute container recovery program is consumer motivation. Consumers require encouragement to return their milk, soy and rice beverage containers at the same time they are returning their deposit-bearing juice, water and soft drink containers. In order to design the most effective campaigns Encorp Pacific (Canada), the service provider for the Council's container recycling program, conducts annual surveys to determine consumer attitudes, actions and concerns. For the past three years, questions concerning the milk container program have been included as part of an omnibus survey which covered several product categories.

In 2009, Encorp conducted the first survey dedicated solely to the milk and milk substitute container recycling program which provided the opportunity for more in-depth probing of consumption, behaviours, perceptions and understanding of the program.

Key Objectives

- To assess knowledge and awareness of the program
- To measure recycling and discard behaviours
- To identify and understand perceptions behind behaviours
- To assess awareness and satisfaction with Return-It depots

Methodology

- Data was collected in October, 2009
- All samples were collected through an online panel of 80,000 people maintained by one of Canada's leading survey organizations
- A total of 499 BC individuals aged 18+, balanced by region, completed the survey
- The data was weighted on age, gender, region and education to ensure that the results are representative of BC's entire population

Key Findings

PROGRAM KNOWLEDGE

- Most BC residents are aware that some milk containers, particularly plastic milk jugs, can be recycled
- 44% believe that they can take their milk containers to a Return-It Depot for recycling
- There is almost universal understanding that no deposit is paid on milk containers

CONSUMPTION AND DISCARD HABITS

- BC households consume an average of 6.1 containers of milk per month, mostly in plastic jugs
- Most say that they put out milk containers with their curbside recycling, only 12% say that they take containers to a Return-It or recycling depot
- 25% of milk containers are thrown out with the trash, usually at home

RETURN-IT DEPOT VISITATION AND SATISFACTION

- 18% of BC residents visit a Return-It depot at least once per month to drop off milk containers
- Residents are generally satisfied with their overall experience at Return-It depots

IMPACT OF MESSAGING

- Understanding specifically what milk containers are recycled into would increase the likelihood that residents would take their containers to a Return-It or recycling depot
- Similarly, if residents knew that the only way to be assured that their milk containers are recycled is to take them to a Return-It depot the majority would be more inclined to take them there.

Summary of Consumer Research Findings

Since this is the first comprehensive survey of B.C. residents' attitudes and behaviours with regard to the milk container recycling program, the results will primarily be used to establish baselines for future surveys. Some early conclusions, however, appear possible:

- Most B.C. residents recycle milk containers, primarily plastic milk jugs, either through curbside recycling or by taking them to a Return-It depot
- The 25% which are said to be discarded with household trash coincides closely with industry estimates that more than 75% of plastic milk jugs are recovered for recycling
- The consumer awareness program for milk containers which includes information on what containers are recycled into is confirmed as being the appropriate message
- Once consumers are aware of the availability of Return-It depots for milk container recycling, and of the value of that recycling, they find the experience of returning containers to be generally satisfying

2009 Consumer Awareness Program

The target audience for the 2009 milk container consumer awareness program was the age group 25 to 54 with an emphasis on females and families.

To reach this audience three key media approaches were used:

- Display advertisements in community newspapers
- Advertorials in major urban newspapers
- Thirty second spots on radio

In addition to the above media purchases a significant effort was put into other means of raising consumer awareness as listed below under Other Consumer Awareness Initiatives

PRINT – Display Advertisements

The regions covered by the print media campaign were:

- Sunshine Coast
- Coastal Islands
- Fraser Valley
- Kootenays
- Lower Mainland
- Okanagan
- Vancouver Island

A total of 50 community newspapers were involved in this campaign which involved a single insertion of a full page, one colour, advertisement in April, May and October.

Placement of the advertisements on the right hand pages within the news section was requested with the result that most advertisements were located near the front (most often read) section of the papers. A number of placements on the outside back covers of several community papers were also obtained further enhancing the visibility of the message.

PRINT – Advertorials

A one-half page black and white advertorial was run twice in each of the Vancouver Sun and Province. The run dates were April, May, July and August. Advertorials allow for explanatory text on the value of the program and have proven to be effective in spreading a "...why recycle?" message tailored to milk containers

RADIO – 30 second spots

During September a 4 week radio campaign featuring 30 second spot announcements was conducted.

The major markets covered were:

- Vancouver
- Victoria
- Prince George
- Kamloops
- Vernon
- Kelowna
- Penticton

The above are measured markets which allows the effectiveness of the campaign to be monitored. The target for the campaign was to achieve 4200 Gross Rating Points; through fee negotiation and bonus spots provided, the target for each area was exceeded and the overall GRP rating for the campaign was 4653.7 GRPs.

In addition to the measured markets the spots were run on a number of stations in non-measured markets.

During the campaign **32** radio stations throughout B. C. ran a total of **2094** 30-second spots in support of the milk and milk substitute container recycling program.

OTHER CONSUMER AWARENESS INITIATIVES

Return-It Man – Encorp’s well known mascot, Return-It Man, promotes the return of milk and soy containers in all appearances at schools and participating Encorp depots.

Brochures – Brochures outlining the program are provided to grocers, depots and community partners such as libraries, MLA offices and community groups.

Depot Signage – Milk-container-specific signage is provided to all participating Encorp depots.

Media Monitoring- All forms of media are regularly monitored to ensure that any relevant news stories are collected and reviewed.

Website – A section of the extensively promoted Encorp website is dedicated to the milk container program. It may be viewed at www.encorp.ca/milk.

Total consumer awareness expenditures for 2009 were **\$416,000**, up \$2,000 from 2008

Collection Network

The collection and recycling of milk containers in B.C. has two major components:

- Curbside, drop-off and other municipal collection systems
- The depot program described in this report

This report is limited to describing the depot program but will incorporate collection data from the other source in order to provide a more complete picture of recycling performance for milk containers.

Depot Participation

Depot participation in the program is voluntary and requires each to sign an individual agreement with Encorp. Of the 170 depots currently in the Encorp beverage container system the following table shows the number participating in the milk and soy beverage container recovery program.

October 2006 (program start)	51
October 2007	117
March 2008	122
December 2008	134
December 2009	148

Depot Incentives

Similar to several deposit-bearing container types such as aluminum cans, milk containers are placed in recyclable plastic bags, supplied by Encorp, at the depot. Unlike deposit containers, depots do not need to handle, sort or count containers, nor do they need to pay a deposit refund. Customers place milk containers in one of two bags marked either for polycoat or plastic. When the bag is full depot staff need only tie off the bag and put it aside for pickup by an Encorp transporter.

Fees paid to depots to handle milk containers compare very favourably with those paid to handle deposit containers when the actual workload requirement is considered.

Container Recovery Rates

<i>COLLECTIONS</i>	2008 PLASTIC BY WEIGHT (KG)	2009 PLASTIC BY WEIGHT (KG)	2008 POLYCOAT BY WEIGHT (KG)	2009 POLYCOAT BY WEIGHT (KG)
ENCORP	179,170	257,156	131,334	204,222
CURBSIDE ¹	2,772,347	2,939,691	---	---
TOTALS	2,985,017	3,196,846	131,334	204,222
SALES	3,776,939	4,420,960 ²	2,482,195	3,062,766 ²
RECOVERY RATE DEPOT ONLY	4.7%	5.8% ³	5.3%	6.7% ³
RECOVERY RATE INCLUDING CURBSIDE	79%	72.3% ⁴	N/A	N/A

1. A conservative estimate of the milk jugs which are collected through BC curbside programs.
2. Includes soy and other milk substitute sales
3. Excluding soy and other milk substitute sales the recovery rates would have been 6.0% for plastic and 7.8% for polycoat.
4. Although curbside collections increased in 2009 the increase did not match the increase in reported sales which, for the first time, include milk substitutes. In addition, some collection from commercial accounts is likely unreported.

Per Depot Collection Volumes

As would be expected, the total volume of containers collected has grown along with the number of participating depots. More significant, however, is the fact that individual depot volumes have also grown as consumers become more aware of the program and act to support recycling efforts.

The following table details the per-depot growth of collection volumes:

Kilograms per depot	Polycoat	Plastic	Total per depot
2007	540	1111	1651
2008	980	1337	2317
2009	1380	1738	3118

- *Since 2007 the per-depot weight of milk and milk substitute containers collected has increased by **89%***

Markets for Collected Materials

High Density Polyethylene (HDPE) Plastic – By volume, 2 and 4 liter plastic milk jugs account for the majority of milk sales. The recovered material is cleaned and processed into pellet form for resale in commodity markets. A typical use for this material is in new, non-food, containers.

Polycoat cartons – gabletop and aseptic. The largest component material in this type of carton is high quality paper fibre. Collected containers are shipped to paper recycling mills which extract the fibre for use in new products such as cardboard.

Single serve milk cups – The container consists of a plastic cup with a peel-off foil lid. The type of plastic used in the cups requires that they be kept separate from milk jugs. This is not a major issue since the primary market for these containers are institutions such as hospitals and schools, not individual consumers. The plastic is blended with other types for use in a wide variety of new plastic products.

Life Cycle Management of Milk and Soy Containers

No major changes in the composition and weight of milk and milk substitute containers has taken place in the past year, however, over the past 5 to 6 years the following packaging changes have taken place

- Plastic milk jugs (HDPE)
 - Weight reduction of almost 5%.
- Milk cups (PP)
 - Weight reduction of more than 10%
- Gabletop cartons (polycoat, paper-based)
 - 250ml and 500ml cartons have been reduced in weight by 5.5%
 - 1L cartons have been reduced in weight by 4.7%
 - 2L cartons have been reduced in weight by 3.2%

Summary

The program continues to make great progress in the overall and per-depot collection of milk and milk substitute containers. The BC Dairy Council is committed to the long-term success of this program and has signed a new three year agreement with its contractor, Encorp Pacific (Canada). The active participation of the major soy and rice milk suppliers is an indication of the industry support that the program has generated.

The Council is confident that the program will continue to grow due to the following factors:

- An increase in the number of participating depots
- Further increases in per-depot collection volumes
- Continued consumer research and awareness programs funded by the program

The Council continues to believe that a voluntary program for the collection and recycling of milk containers is the best way of addressing environmental concerns while respecting the financial concerns of all consumers which include individuals and families as well as institutions such as hospitals and schools.

Report prepared by M.E. Harvey and Associates, Victoria, B.C. from information supplied.

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E-mail – MEHAssociates@shaw.ca

Mobile: (604) 831-7203

Tel: (250) 386-7205