

BRITISH COLUMBIA DAIRY COUNCIL

MILK CONTAINER RECYCLING PROGRAM STATUS REPORT: as of March 31, 2008

Background

In October 2006, the B.C. Dairy Council launched a voluntary recycling program designed to increase the recycling of plastic and paper milk containers in B.C.

Under a three year contract with Encorp Pacific (Canada), consumers return milk 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 the dairy industry's desire for program consistency across different provinces and minimal impact on consumer costs.

The program is supported and funded by the entire dairy industry and does not adversely affect the price of milk to consumers.

Program Highlights

- No deposit is charged on full milk containers and, therefore, no refund is paid for empty returns
- Collected materials are transported from depots to recyclers by the existing Encorp system
- A continuing consumer awareness campaign features advertisements in local newspapers and radio spots as well as posters at depots and flyers in grocery stores
- The program was launched in three phases:
 - Lower Mainland – 4th Quarter 2006
 - Vancouver Island and Okanagan – 1st Quarter 2007
 - Rest of Province – 2nd Quarter 2007
- Included containers:
 - Plastic milk jugs
 - Polycoat (gabletop) milk cartons
 - Single serve plastic milk cups (*institutional pkg. accepted by depots effective 05/08*)
 - Aseptic milk cartons (Tetrapaks)
 - Soy and milk substitute cartons (*see note in Summary below*)

Consumer Research

As part of its contract with BCDC, Encorp Pacific conducts consumer research on a regular basis to determine ways of improving the program. This research is conducted by Ipsos-Reid, an internationally recognized research company. Research was conducted early in the BCDC program and repeated in late 2007 to provide measurements of progress.

Some highlights from the 2007 results:

- Attitudes on recycling and the environment:
 - The vast majority of people in B.C. are motivated to return their containers for recycling for environmental reasons and the number so motivated increased from 2007 to 2008
 - Most people don't feel that the time required to use a bottle depot is a solid barrier to their using these facilities.
 - British Columbians are motivated by guilt and perhaps for this reason display a solid sense of self-motivation and empowerment. Believing they can make a difference they don't wait for others to take action.
- Awareness that milk containers can be returned to depots for recycling:
 - Milk cartons – 33% said 'yes' in 2007, up from 25% in 2006
 - Plastic milk jugs – 47% said 'yes' in 2007, up from 42% in 2006
- Awareness levels vary from region to region, awareness for milk cartons ranges from 46% in the Fraser Valley to 22% in Vancouver while for plastic milk jugs the range is from a low of 42% in Metro Vancouver to 55% for the balance of the province.

Based on these findings it was determined that there are three key elements to increasing recovery rates to be employed during 2008:

- An increase in the number of depots accepting milk containers
- Location-specific consumer awareness programs
- Focus awareness on milk cartons rather than milk jugs

Consumer Awareness

2006-2007

Each phase of program rollout was accompanied by advertising customized for each community. Following completion of the third and final rollout phase in April, 2007, a fourth consumer awareness phase was implemented in July.

Summary of consumer awareness activities during this period:

- Newspaper advertisements – 160 in newspapers throughout the province
- Radio campaign - A 30 second clip was used at stations around the province a total of 776 times
- Point of sale – A total of 17,800 flyers promoting the program were distributed to 99 grocery stores and their head offices
- Depot promotion – Each of 117 participating depots received two separate packages with flyers and a styrene poster
- Total consumer awareness expenditures for the period were approximately \$288,000.

2008

Based on the findings from consumer research noted above, the 2008 awareness campaign is depot centered and geographically targeted.

Highlights

- Newspaper advertisements – Large (8"x11") newspaper advertisements in blue and black will be placed in 51 publications around the province. This size advertisement will permit the inclusion of maps to local depots as well as greater program detail. A total of 166 advertisements are planned but, with bonuses provided, this is a minimum number.
- Newspaper advertorials – Advertorials permit more detailed explanation of the program and its value to B.C. residents. Twelve advertorials are planned for newspapers in metro Vancouver and Victoria, each will be 5"x14" in size.
- Milk Month Radio – A concentrated three week period of 30 second radio spots in September focused on the metro Vancouver market. The three stations involved will provide coverage of 150 Gross Rating Points (GRPs) which is significant market penetration.
- New grocery store and community promotional kits which include consumer brochures and brochure holders, posters and other program information

- New depot signage including a window decal
- Press releases and media monitoring
- Total consumer awareness expenditures for 2008 have been budgeted at approximately \$400,000

Collection Network

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

- Collection from commercial and institutional accounts by, or on behalf of, dairy processors
- 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 two sources in order to provide a more complete picture of recycling performance for milk containers.

Depot Participation

Depot participation in the program is voluntary which requires each depot to decide whether or not to sign an individual agreement with Encorp. As of startup in October 2006 there were 51 depots in the Lower Mainland in the program. During 2007 the number increased to 117 and by the end of March 2008, 122 of the 170 Encorp Return-It Depots were participating in the program. Additional depots are expected to join the program in 2008.

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 gabletop 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.

In 2008 the per-bag fee paid to depots was increased from \$2.00 to \$2.25. The table below shows how the handling requirements and fees paid for milk containers compare to the payment for a similar, but deposit-bearing, container type.

Fee and Handling Comparison

CONTAINER TYPE	1.89L polycoat gabletop juice carton	2L polycoat gabletop milk carton (<i>Example for comparison only – milk containers are not sorted by size</i>)
CUSTOMER ACTION REQUIRED	Customer returns containers to a Return-It [®] Depot	Customer returns containers to a Return-It [®] Depot
CUSTOMER ACTION REQUIRED	Customer must sort different container types by material and deposit level	Customer needs only to sort by material type. e.g. into plastic or polycoat
CUSTOMER AND DEPOT ACTIONS REQUIRED	Customer takes containers to service counter, depot staff must count containers and enter amounts into Point of Return (POR) system or cash register	Customer places containers in bags in customer service area
DEPOT ACTIONS REQUIRED	Depot staff must place containers into bags by material type. In depots without the electronic POR system they must also separate by deposit level	Not applicable
DEPOT ACTION REQUIRED	Depot staff must pay deposit refund to customer	Not applicable
Handling fee per bag paid to depot (not including reimbursement of deposits paid out)	\$2.50	\$2.25

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: January – December 2007

COLLECTED	PLASTIC BY UNITS	PLASTIC BY WEIGHT (KG)	POLYCOAT BY UNITS	POLYCOAT BY WEIGHT (KG)
ENCORP	2,275,392	130,024	1,911,840	63,159
CURBSIDE (MERLIN PLASTICS)	48,106,247	3,078,801	---	---
DAIRY INDUSTRY*	828,125	53,000	---	---
TOTALS	51,209,764	3,261,825	1,911,840	63,159

SALES	72,065,635	4,259,160	87,906,869	2,816,772
RECOVERY RATE	71.1%	76.6%	2.2%	2.2%

**One major dairy collects empty milk jugs from commercial accounts and sends them for recycling to a processor other than Merlin Plastics*

Depot Container Collection Summary January – March 2008

With the full program now rolled out and more depots participating than during 2007, collection results have shown a dramatic increase in the first quarter of 2008

UNITS COLLECTED JANUARY-MARCH	PLASTIC	POLYCOAT	TOTAL	WEIGHT (KG)
2007	410,144	261,296	671,440	32,069
2008	694,408	830,468	1,524,876	67,116

Markets for Collected Materials

High Density Polyethylene (HDPE) Plastic – By volume, 2 and 4 liter plastic milk jugs account for the majority of fresh 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.

Gabletop (polycoat) cartons – 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 Containers

Plastic milk jugs (HDPE)

- Over the past 5 years the weight of plastic milk jugs has been reduced by almost 5%.

Milk cups (PP)

- The weight of these containers has been reduced by 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

Due to the program being introduced in three phases, and the need to sign depots individually, the milk container recycling program did not effectively begin full province-wide operations until the second half of 2007. The result of this gradual introduction is that polycoat container recovery for the first full year was small but is increasing rapidly as the figures for the first three months of 2008 would indicate.

The BC Dairy Council is committed to the long-term success of this program and continues to work with its contractor, Encorp Pacific (Canada), to refine and expand its scope. The Council believes 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.

Note regarding soy and milk substitute containers:

When establishing this voluntary program, milk processors agreed to accept soy and other milk substitute containers even though the producers of such products were neither part of the BC Dairy Council nor contributing financially to the program. Increased sales of soy milk and other substitutes have made this position increasingly difficult to continue; in effect, milk producers are subsidizing their competition. Discussions between BCDC and soy producers have commenced as a first step towards resolving this issue.

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