

**BRITISH COLUMBIA DAIRY COUNCIL**  
**MILK CONTAINER RECYCLING PROGRAM**  
**STATUS REPORT: YEAR END 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 – 4<sup>th</sup> Quarter 2006
  - Vancouver Island and Okanagan – 1<sup>st</sup> Quarter 2007
  - Rest of Province – 2<sup>nd</sup> Quarter 2007
- Included containers:
  - Plastic milk jugs
  - Polycoat (gabletop) milk cartons
  - Single serve plastic milk cups
  - Aseptic milk cartons (Tetrapaks)
  - Soy and milk substitute cartons (*see note in Summary below*)

## Marketing

A significant component of the milk container program is consumer motivation. Consumers require encouragement to return their milk 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 contractor which operates the program on behalf of the Dairy Council, conducts regular consumer research and, from that research, designs appropriate consumer awareness campaigns.

## 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 and 2008 to provide measurements of progress.

### Some highlights from the 2008 results:

- Awareness that milk containers can be recycled at a bottle depot:
  - Milk cartons
    - 2006 - 25%
    - 2007 - 33%
    - **2008 - 37%**
  - Plastic milk jugs
    - 2006 - 42%
    - 2007 - 47%
    - **2008 - 53%**
- Awareness that no deposit is paid on milk containers:
  - Cartons - 93% Up 1% from 2007
  - Jugs - 84% Up 3% from 2007
- Awareness of the "Return-It" brand:
  - 2008 - 59% Up 8% from 2007

The results of the research show that consumer awareness efforts are succeeding in increasing the awareness of the milk container program but that there is still work to be done. Consistent messaging over time will steadily increase public awareness of the program and the 2008 Consumer Awareness Program continued that practice.

## 2008 Consumer Awareness Program

### Highlights

- Newspaper advertisements – 140 large (8"x11") newspaper advertisements in blue and black were placed in 53 publications which covered 77 communities around the province. This size advertisement permitted the inclusion of maps to local depots as well as greater program detail.
- Newspaper advertorials – Advertorials permit more detailed explanation of the program and its value to B.C. residents. In addition to paid advertorial placements, the program received a free advertorial placement from many newspapers. As a result, there were 31 advertorials run in newspapers around the province.
- The newsprint campaign was estimated to reach 70-80% of adults 18 and over in the target communities and 50% of all adults 18 and over in the province
- Milk Month Radio – A concentrated three week period of 30 second radio spots in September focused on the metro Vancouver and Victoria markets.
  - In Vancouver 5 stations were involved with an average of 186 GRPs (Gross Rating Points) per week with an estimated reach to 52% of Metro Vancouver residents
  - In Victoria 4 stations were involved with an average of 176 GRPs per week with an estimated reach to 55% of Greater Victoria residents
- New grocery store and community promotional kits were provided which included consumer brochures and brochure holders, posters and other program information
- New depot signage including a window decal were provided to participating depots
- Total consumer awareness expenditures for 2008 were \$414,000

## 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. As of **December, 2008** there were **134** participating depots throughout the province.

## 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)	<b>\$2.50</b>	<b>\$2.25</b>

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

COLLECTED	2007 PLASTIC BY WEIGHT (KG)	2008 PLASTIC BY WEIGHT (KG)	2007 POLYCOAT BY WEIGHT (KG)	2008 POLYCOAT BY WEIGHT (KG)
<b>ENCORP</b>	130,024	179,170	63,159	131,334
<b>CURBSIDE (MERLIN PLASTICS)<sup>1</sup></b>	3,078,801	2,772,347	---	---
<b>DAIRY INDUSTRY<sup>2</sup></b>	53,000	33,500	---	---
<b>TOTALS</b>	3,261,825	2,985,017	63,159	131,334
<b>SALES</b>	4,259,160	3,776,939	2,816,772	2,482,195
<b>RECOVERY RATE</b>	76.6%	79%	2.2%	5.3%

1. A conservative estimate of the milk jugs processed by Merlin which are collected through BC curbside programs.
2. One major dairy collected empty milk jugs from commercial accounts and sent them for recycling to a processor other than Merlin Plastics. In 2008, this dairy lost these accounts to a supplier which does not provide this service.

## **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**

During 2008 the milk container collection program continued to grow and preliminary figures for early 2009 indicate that this growth is being maintained. An encouraging indication is that, during 2008, those depots involved in the dairy program enjoyed an average increase in their overall volumes of 7.7% compared to depots which were not involved in the program which posted a 4% increase. This is a further endorsement of the one-stop convenience provided by the Encorp depot network.

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.

Preliminary discussions have taken place but, due to the lack of a central organization for these products such as the Dairy Council provides for milk producers, progress has been very slow. The Council is still optimistic that soy and rice milk producers will eventually participate in the program.

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