

## **BRITISH COLUMBIA DAIRY COUNCIL**

### **MILK AND MILK SUBSTITUTE CONTAINER RECYCLING PROGRAM STATUS REPORT: YEAR END 2010**

#### **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 2010**

- Overall weight of containers collected increased more than 26% over 2009
- Per-depot collection of milk and milk substitute containers has increased to 3761Kg, nearly 4 tonnes per depot
- The number of depots participating in the program is now 155

#### **2010 Consumer Awareness Program**

Based on consumer research the overall target age group for the 2010 milk

campaign was 25 to 54 with an emphasis on females and families. The media chosen to deliver the milk carton recycling message to this group included:

- Community newspapers
- Major urban daily newspapers
- Radio
- Online through key, high traffic, websites

#### Community Newspapers

This media segment was targeted in three separate “flights” of full page, one colour advertisements in 50 community newspapers in April, June and October. In each case placement was requested as being far forward in the news section and on the right hand page. Insertions tended to be placed in the first 25 pages of the newspaper.

Some highlight placements:

April	Vanderhoof	Page 2
	Fort Nelson	Page 8
	Fort St. James	Page 7
	Maple Ridge	Page 8
	Langley	Page 9
May	North Shore News	Page 2
	Quesnel	Page 2
October	Powell River	Page 2
	Coast Mountain News	Page 2
	Merritt	Page 2
	Nanaimo	Page 3

Five Lower Mainland placements, plus Nanaimo, were in the “Live Green” feature.

#### Advertorials

Four one-half page B&W advertorials were run in both major Vancouver dailies, two in The Vancouver Sun (weeks of May 17 and August 30) and two in The Province (weeks of April 5 and July 19)

#### Radio

For the four week campaign in September the program negotiated a minimum number of Gross Rating Points with radio broadcasters for the campaign with the hope that, when completed, this number would be slightly exceeded. In 2010 the program exceeded contracted GRPs by 8% overall with some markets showing a 10 to 15% overage. Bonus 30 second spots were also delivered.

Results by area:

- Vancouver – 220 spot announcements plus bonus spots and tags on five stations
- Victoria – 380 spots plus bonuses on three stations
- Prince George – 144 plus bonuses on two stations

Kamloops – 160 plus bonuses on two stations  
Kelowna – 188 plus bonuses on two stations

In addition, 19 other radio stations in other BC markets ran approximately 500 spots.

### Online campaign

As a way of improving consumer awareness of milk carton recycling a campaign focused on the seasonal sale of eggnog was developed specifically for online advertising. In addition to the target audiences identified above, this campaign was given a geographic focus on the Lower Mainland and a seasonal (Dec. 26 to Jan. 3) time frame.

Data on online usage for the target group indicated the ability to reach 83% of the intended audience through a combination of select local sites and an ad network. Selected local sites included CTV and Global TV video players, ad network sites included Discovery, accesshollywood.com, etonline, recipes.com and others.

Final results showed over 1 million impressions with a “click through” rate much higher than the industry standard indicating a high interest level by visitors.

### Below - A sample page from recipes.com

The screenshot shows a Mozilla Firefox browser window displaying a page from <http://www.kitchenlink.com/>. The page content includes:

- Banner:** "Include milk cartons on depot trips." with images of a 2L Milk carton and a 2L Egg Nog carton. Below the banner is a "Return-It" logo and a link: "Click here for Lower Mainland Return-It Depot information."
- Navigation:** Links for "Daily Menu", "Newspaper Food Columns", "Copycat Recipes/ Restaurant Recipes", and "Make Ahead/Freezer Recipes".
- Recipelink Cooking Club - Favorite Recipe Swap Topics:**
  - [Cooking Club](#) • [All Baking and Breadmaking](#)
  - [What's For Dinner?](#) • [Copycat Recipe Requests](#)
  - [Party Planning and Recipes](#) • [More...](#)
- Join Our Daily Recipe Swap! Today's Topic:**
  - [Resolution Recipes](#)
  - [Healthy and Diet Recipes](#)
  - [\(Topic Calendar - Archive\)](#)
- Last 10 Recipes Posted:**
  - [Baked Onion Blossom with Spicy Dip \(no flour or breading\)](#)
  - [Homeys Meatloaf](#)
  - [Chocolate Chai](#)
  - [Super Meatballs with Spicy Red Sauce](#)
  - [Basic Caribbean Black Beans](#)
  - [Mediterranean Chicken Breasts Stuffed with Spinach](#)
  - [Quick and Easy Chicken Cacciatore \(using stewed tomatoes\)](#)
  - [Marvelous Mushroom Barley Soup](#)
  - [Zucchini Boats Stuffed with Turkey \(using ground turkey and bread crumbs\)](#)
  - [Great Greens \(collards with onion, peppers and mushrooms\)](#)
  - [More...](#)
- FIND A RECIPE:** A search bar with a "Find" button and "More Options" link. Radio buttons for "All Recipes" (selected) and "Recipes Tried".
- amazon.com:** A search bar with a dropdown menu set to "All Products" and a "GO" button.

## Collection Network

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

- Curbside, drop-off and other municipal collection systems which collect and recycle plastic milk jugs but not polycoat cartons.
- The depot program described in this report.

This report is limited to describing collections made through the depot program.

## Depot Participation

Depot participation in the program is voluntary and requires each to sign an individual agreement with Encorp. Of the 172 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
<b>December 2010</b>	<b>155</b>

## 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

	2009 PLASTIC BY WEIGHT (KG)	<b>2010 PLASTIC BY WEIGHT(KG)</b>	2009 POLYCOAT BY WEIGHT (KG)	<b>2010 POLYCOAT BY WEIGHT(KG)</b>
<b>COLLECTIONS BY ENCORP DEPOTS</b>	257,156	<b>274,854</b>	204,222	<b>308,168</b>
<b>SALES (INCLUDING SOY AND OTHER MILK SUBSTITUTES)</b>	4,420,960	<b>3,932,045</b>	3,062,766	<b>2,714,419</b>
<b>RECOVERY RATE DEPOT ONLY</b>	5.8%	<b>7%</b>	6.7%	<b>11.4%</b>

#### **Overall Recovery Rate for Plastic Milk Jugs**

All curbside and other local government recycling programs continue to collect HDPE plastic milk jugs. In the past virtually all HDPE jugs went to a single processor allowing for fairly accurate estimates of the volume recovered. Changes in collection practices including mixing plastics as well as the involvement of other processors have made it difficult to provide reasonable estimates of the overall percentage of milk jugs recovered but, given that curbside collection continues for this container type, it is expected that the overall recovery rate is unchanged from earlier estimates of between 70 and 80%.

#### **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
<b>2010</b>	<b>1988</b>	<b>1773</b>	<b>3761</b>

- ***Since 2007 the per-depot weight of milk and milk substitute containers collected has increased by 128%***

#### **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 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.

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March, 2011

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