



Carton Council 
RecycleCartons.ca



of commitment
towards growing
carton recycling

CARTON COUNCIL OF CANADA NEWS

CARTON COUNCIL OF CANADA CELEBRATES WASTE REDUCTION WEEK

Welcome to the Fall 2015 edition of the Carton Council of Canada's (CCC) newsletter! Waste Reduction Week was celebrated on October 19-25. This edition of our newsletter is an opportunity to highlight how CCC is contributing to the shared goal of reducing waste and growing diversion through carton recycling awareness and education. We hope that you will find it useful and we welcome your feedback and comments. Please send them to me, at ifaucher@recyclecartons.ca.

OUR NEW WEBSITE

The CCC has completely revamped and refreshed its website – www.recyclecartons.ca. With information now conveniently organized by key subject areas, including carton facts, carton recycling, tools for municipalities and sorting centres, and collaboration and projects, we hope that you will find it useful and inspiring! As always, your feedback is most welcome.



Isabelle Faucher,
Managing Director

Founding Members:



POLY-ALUMINUM MARKETS

While discussing end-markets for used cartons with various industry stakeholders, the question of whether cartons' non-fibre components can be given a second life often comes up. As you will recall, cartons are mainly made from paper in the form of paperboard. They also contain thin layers of polyethylene (plastic), and, in the case of shelf stable (aseptic) containers, an additional thin layer of aluminum.

According to the latest available data, 53% of the polyethylene/Aluminum (PolyAl) by-products were recycled globally. There were over 50 active companies worldwide recycling the material. In certain cases, the paper mill processing the fibre component also recycles the polyAl, or they sell it to other companies that recycle it. It is most common that polyAl recyclers sell polyAl either as a commodity in the form of pellets, or roof tiles. More and more paper mills recycling cartons globally have integrated solutions to recover the polymer and aluminium and make use of it in new products.

The remaining polyAl material mix can be recycled into pellets and be sold as a commodity, partially or fully replacing virgin or recycled plastic in many types of products such as pipes, pallets, roof tiles, and artificial flowers. Alternatively, the Aluminum can be separated from the polymer and recycled in some specific applications such as producing metal parts, production of water purification chemicals, deoxidizing agents in iron melting, etc. The choice of technology, equipment and production processes depends on the requirements on the product to be sold. There are several technologies available and in use to recycle the aluminum and polymer layers of carton packages including agglomeration, chemical delamination, hot pressing, pyrolysis, and full carton recycling. The company ReWall in Iowa, is an example of the latter.



About 30 cartons make up a single 2'x2' ReWall ceiling tile. Source: The ReWall Company - www.rewallsolutions.com

The CCC is currently working on opportunities to grow the recycling options for the poly-alu by-products that are generated in North American. The polyAl material has a value and we want to help facilities capture that value.

MRF SPOTLIGHT: CITY OF HAMILTON

NORTH AMERICAN MILLS

UNITED STATES

- **Resolute**, Fairmont, WV
- **Fox River**, De Pere, WI
- **Great Lakes Tissue**, Cheboygan, MI
- **ReWall**, Des Moines, IA

MEXICO

Mills consuming cartons:

- **Biopappel**, Tres Valles, Veracruz State
- **Celupak**, San Juan Del Rio, Queretaro State
- **Fabrica de Papel San Jose**, Texcoco, Estado de Mexico
- **Grupo Empresarial Transforma**, San Juan Del Rio, Queretaro State
- **Imerssa**, Zumpango, Estado de Mexico
- **Kimberly-Clark**, Orizaba, Veracruz State
- **Recicladados del Izta**, San Rafael Tlamanalco, Estado de Mexico
- **SCA**, Ciudad Sahagun, Hidalgo State
- **Verdek**, San Martin de las Piramides, Estado de Mexico
- **Ziklum**, Acolman-Estado de Mexico

Consumers of Poly/Al. and Poly residual:

- **Ecolaminados**, Morelia, Michoacan State
- **Ecomadera**, Jiquilpan, Michoacan State
- **Grupo Empresarial Transforma**, San Juan Del Rio, Queretaro State.
- **Grupo Tea**, Zumpango, Estado de Mexico
- **IMERSSA**, Zumpango, Estado de Mexico
- **PLACOVE**, Toluca, Estado de Mexico
- **Q.F. Mex**, Mexico D.F
- **Verdek**, San Martin de las Piramides, Estado de Mexico
- **Ziklum**, Acolman-Estado de Mexico

ASIAN MILL LOCATIONS

- **Daewang Paper Co. Ltd.**, Gunpo-si, S. Korea
- **Daewon Paper Co.**, Pochun, S. Korea
- **Fiber Pattana**, Bangkok, Thailand
- **Samjung Pulp Ind. Co. Ltd.**, Godeokmyeon, S. Korea
- **Shin Chang & Paper Industry Co. Ltd.**, Chungchongnam-Do, S. Korea

Established in 2001, the City of Hamilton's Material Recovery Facility is a dual-steam operation that processes on average 45,000 tonnes of recyclable materials annually. Canada Fibers Ltd. operates the facility. The CCC recently spoke with David Yousif, Project Manager for the MRF.

What is the scope of your operations?

We process recyclable materials from 221,000 households (both single and multi-family), as well as from small-medium businesses, Business Improvement Areas, schools, and special events.

How are cartons processed in the MRF?

Cartons are collected in the container stream. At the end of sorting process on the container line, cartons along with PET and mixed plastics pass through a two valve Optical Sorting System. The optical sorter separates PET onto one line, and mixed plastics and cartons on to another line. A dedicated Quality Control sorter is stationed on the mixed plastics/carton ejection line. This staff member positively sorts cartons and residue into separate live-bottom bunkers connected to the bailer.

Once cartons are sorted, what happens?

Based on recent audit results of our carton bales, they are made up of approximately 80% gable top containers, 12% aseptic containers, 3% paper cups, and 3% ice cream containers. On average, we market 170 tonnes of polycoat annually (which is equivalent to 0.75 load per month).

What made you decide to sort cartons into their own grade?

The fact that there are several end-markets buying the material, at a good price. Also, having an optical sorter has allowed us to sort cartons in a more efficient manner.

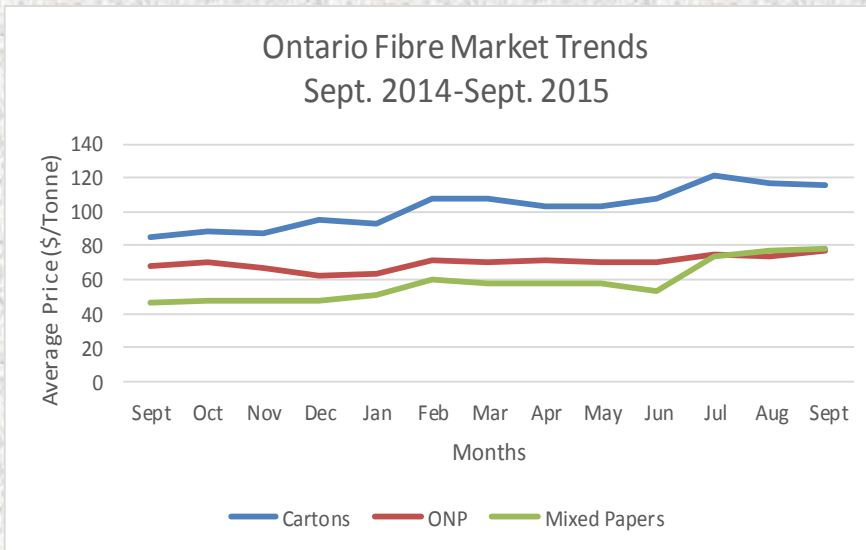
Are there any challenges you face?

The high incidence of plastic film in the container stream impedes the ability of the optical sorter as well as the manual sorter to perform their respective duties as efficiently as possible. Resident confusion and the ensuing placement of cartons in the fibre bin instead of the container bin is also a challenge we face.



Carton poster at the Hamilton MRF is a quick reference point for sorting staff. It highlights that *all* carton types are recyclable and should be recycled together.

CARTON GRADE MARKET VALUE



Source: [Reclay StewardEdge Inc. Price Sheet.](#)

While the price for most recycling commodities has decreased over the past nine to ten months, carton pricing has seen far less volatility and movement remains steady.

DIGITAL PROMOTION AND EDUCATION PROJECT WITH ONTARIO MUNICIPALITIES

The CCC has partnered with four Ontario municipal programs – the City of Toronto, Simcoe County, Essex Windsor Solid Waste Authority and Quinte Waste Solutions – to launch a consumer education campaign. The plan is simple: use digital media to increase awareness and motivate carton recycling. With 84% of Ontarians enjoying internet access and nearly 70% of Canadians visiting social media sites, we are testing the hypothesis that this is an efficient and effective promotion approach. The campaign includes Google AdWords and placement of ads on Facebook, and The Weather Network over a six week period, starting October 5th. We hope to create a winning program that boosts awareness and increases the number of cartons in the recycling bin.



MRF MATERIAL FLOW STUDY

Five national trade associations, including the Carton Council of North America (an affiliate of CCC), joined together to commission a study to find ways to optimize the recycling of their packaging after it goes into the bin or cart. “The MRF Material Flow Study” evaluates where packages end up in a sorting facility, how packages flow in different facilities and what potential changes to the sorting processes could improve recovery. Although the study was conducted in the United States, its conclusions are also relevant to the Canadian market, as sorting centres operate with similar parameters and process similar materials. [The study can be accessed here.](#)

CARTON BROKERS

The following brokers are known to the Carton Council of Canada as brokers of cartons (PSI-52 grade). The list is presented for consideration only and does not contain all available options. Please conduct proper due diligence when selecting a broker to ensure pricing and services are competitive and suited to your needs.

Berga Recycling
St-Eustache, QC
gates@bergarecycling.com

Recyclage Laroche
Candiac, QC
Gerry@larocherecycling.com

Storelli Recycling Company
Fort Lauderdale, FL
vstorelli@bellsouth.net

Potential Industries, Inc.
Wilmington, CA
Tony.fan@potentialindustries.com

Continental Paper Grading of Canada Inc.
Mississauga, ON
pvaleriote@cpghanada.com

Recyclable Materials Marketing
Brantford, ON
atul@remm.ca

The Paper Tigers
Bannockburn, IL
nhalper@papertigers.com

Newport CH International LLC
Orange, CA
chahne@newportch.com

Rock Tenn
Montreal, QC
mquinn@rocktenn.com

ICF Global, Inc
paulchung01@gmail.com