

Dual loops of paper carton recycling



A used paper carton is a high-quality resource. It is reborn as recycled products.

Paper cartons have lower environmental load*

CO2 emissions from a 1000 ml paper carton total 32.4 g. The environmental load resulting from this is very small. Recycling a 1000 ml paper carton reduces CO2 emissions by 23.4 g.

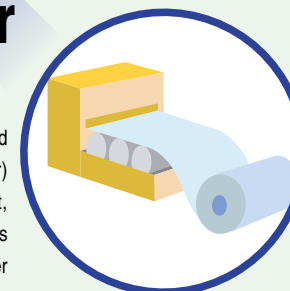
*Source: Institute for Policy Analysis and Social Innovation "2004 Report of Survey on Life Cycle Assessment of Containers and Packaging" (Entrusted by the Ministry of Environment)

Reborn as recycled products



Recycled paper manufacturers

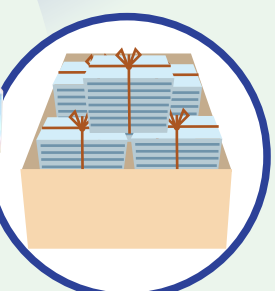
Laminated portions are removed and the base paper (raw paper) portion is dissolved. At this point, foreign substances such as residual ink are extracted in order to produce clean pulp that is suitable for manufacturing recycled products such as toilet rolls.



Recycling of paper cartons

Paper recyclers and wholesalers of used (consumed) paper

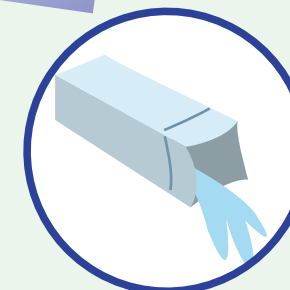
They sort paper cartons and transport them to recycled paper manufacturers.



Collection

Collection methods include store collection at supermarkets and other similar stores, municipality collection, group collection by citizens' groups, and collection at schools.

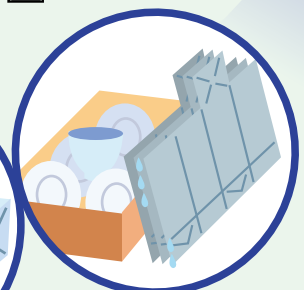
- ① Rinse
- ② Open
- ③ Dry



Rinse



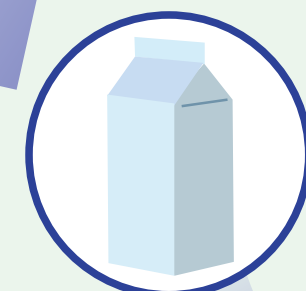
Open



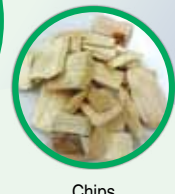
Dry

Paper cartons

Paper cartons refer to a container of milk, lactic beverages, juices, etc. that do not have a piece of aluminum laminated to the inside surface.



Paper manufacturers



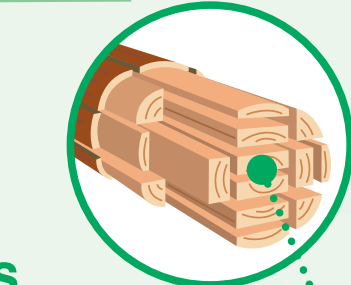
Chips



Construction materials storage site



Construction and furniture materials



Edge trims and timbers from forest thinning activities

Use

Wood is used with zero waste.

Logged trees are primarily used for construction materials and furniture. Wood chips made from thin timbers that result from forest thinning, edge trims that result from manufacturing construction materials, and branches are used as raw material to produce paper. Long fibers of acicular trees are suitable for processing of durable paper cartons.



Growing

Appropriately managed forestry practices absorb atmospheric carbon dioxide and discharge oxygen.



Life cycles of a forest

Life span of 50 to 100 years

Base paper (raw paper) will not be exhausted.

Acicular trees in North America and Northern Europe are mainly used for production of base paper (raw paper). Forests of acicular trees are managed according to forestry certifications, and tree trimming, planting of seedlings and growing processes are conducted systematically. Acicular trees in North America are raised for approximately 50 to 80 years, and in Northern Europe they are raised for approximately 70 to 100 years. Trees in both regions are subject to controlled thinning.

Plant





Seedlings are picked from parent trees, grown in nursery grounds, and then systematically planted in logging forests.







History



● History of COMCEI ■ History of JAMRA ★ Activities to strengthen collaboration

Fiscal year	History	Trend in applicable laws
1984	■ A group of housewives started a milk carton recycling movement to teach their children to recognize the value of objects.	
1985	■ "Japan Milk Carton Recycling Association" (JAMRA) was established.	
1992	● "Committee for Milk Container Environmental Issues" (COMCEI) was established. ■ "Milk carton recycled products mark" was created. 	
1993	● COMCEI participated in "Forestry Fair" held by the Forestry Agency (COMCEI participated every year until 2008).	● The Basic Environmental Law was enacted.
1995	● "Basic survey on the present status and trends of beverage paper container (paper carton) recycling" was started.	● Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging was enacted.
1996	● "The Beverage Paper Container Recycling Council" was established.	
1997	■ National case study on milk carton collection system was conducted.	● Containers and Packaging Recycling Law was enforced.
1998	● Model project for promotion of milk cartons used for school lunches was started (Hokkaido). ■ An experimental project was implemented to build a collection and recycling system for milk cartons used for school lunches (Fukuoka and Hyogo) ■ Convivial meetings were held to promote collection of beverage paper containers (Locations of meeting *1)	
1999	★ Local conference to promote paper carton recycling was held (this has been continuing since then *1).	
2000	● The Paper Carton Identification Mark was voluntarily established. ● Discussion Meeting to Promote Recycling of Paper Cartons for Beverages was started (this has been continuing since). 	● Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging was completely enforced. ● Basic Law for Establishing the Recycling-Based Society was enacted. ● Law for the Promotion of Effective Use of Resources was enacted in its entirety.
2001	★ Movement for expansion milk carton collection centers was started. (Provision of collection boxes to local communities) 	● Act on Promoting Green Purchasing was enacted.
2002	● A symposium commemorating the 10th anniversary of COMCEI was held. ★ Activities to expand milk carton collection centers to 10,000 locations was started. ● Survey on Paper Carton Life Cycle Assessment (LCA) was started (this has been continuing since).	
2003	★ Survey on paper carton LCA in North America was conducted.	● Part of End-of-life Vehicle Recycling Law was enforced.
2004	● Environmental campaign was started (executed during Environment month and the 3R month each year). ★ Workshop on milk carton recycling was held (this has been continuing since *2). ● Participated in one of the largest class environmental-related exhibitions, called "Eco Products 2004" (this has been continuing every year). 	● Review of Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging was started.
2005	● Goal of the paper carton collection rate in fiscal 2010 was set to 50% or greater. ● The voluntary action plan for promoting 3R of containers and packaging was announced (The Beverage Paper Container Recycling Council). ★ The website for children's environmental education called "Milk Packn's Expedition" was started. ● Sponsoring of "Message Box Kit" for enlightening exhibition was started. ★ Nishi Hari project (Construction of local collection system) ★ Survey on paper carton LCA in Northern Europe 	
2006	■ 20th anniversary memorial meeting of JAMRA 	● Revised Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging was enacted.

● History of COMCEI ■ History of JAMRA ★ Activities to strengthen collaboration

Fiscal year	History	Trend in applicable laws
2007	● "Plan 2010 -Action plan for paper carton recycling - Toward collection rate of 50%" was established and published. ● Participated in the main event of the environmental month "Eco-Life Fair 2007" (this has been continuing every year). ■ Supported "Friendly environment loop forum - JAMRA" (this has been continuing every year). ★ On site lessons on milk carton recycling were started (and continue *3). ★ The movement to expand the number of milk carton collection centers (20,000 locations were targeted) was developed further. 	
2008	● Participated in the Toyako Summit Memorial General Environmental Exhibition 2008. ★ Conference on employment of CTMP for beverage paper containers	
2009	★ A book "Paper Cartoon Manifesto" was published	
2010	★ "Milk Packn's Expedition" DVD was produced. ★ The 1st "Japan and Korea Forum on Processed Milk Industry Environmental Management (in Seoul, Korea)	
2011	★ "Real Story of Paper Carton Recycling" pamphlet was published. ★ On site lessons on paper carton recycling were held for leaders of the movement in Korea (in Korea). ★ Provision of collection boxes at 20,000 locations was achieved. ● "Plan 2015 - Action plan for paper carton recycling" was established and published. ● The second voluntary action plan for promoting 3R of containers and packaging was announced (The Beverage Paper Container Recycling Council). ● Certified as PCR of "milk". ★ The 2nd "Japan and Korea Forum on Processed Milk Industry Environmental Management (in Osaka) ■ "The promotion council of Milk carton Recycle products mark" was established. 	
2012	● New organizations for operation of COMCEI were started. (General Affairs, local organizations, Event Committee) ★ The 3rd "Japan and Korea Forum on Processed Milk Industry Environmental Management (in Kyongju, Korea) ★ Survey on paper carton LCA in Northern Europe was conducted. ■ "Friendly environment loop forum - Efforts for utilization of renewable energy" ★ Workshop at a commercial facility "Ginza Mitsukoshi" (Tokyo) 	● Review of Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging was started.
2013	● A symposium commemorating the 20th anniversary of COMCEI was held. ★ A booklet "Story of Waste" was published. ★ Workshop at a commercial facility "Ario Hashimoto (Sagamihara City)" and "LaLa garden Nagamachi (Sendai City)". ■ Supported "Friendly environment loop - Effects and problems of recycling containers and packaging" 	● Small-Appliance Recycling Law was enforced.
2014	● Composition analysis of paper cartons in Matsudo City ★ Workshop at a commercial facility "Isetan Matsudo Store (Matsudo City)" and "LaLa garden Nagamachi (Sendai City)". ■ Friendly environmental loop forum - Information exchange on activities at welfare organizations associated with milk carton recycling	

*1 Venues of local conference to promote paper carton recycling (1998 to 2014)

Hokkaido, Hakodate, Aomori, Iwate, Miyagi, Fukushima, Yamagata, Niigata, Nagano, Shiga, Gunma, Warabi, Saitama, Chiba, Ibaragi, Tokyo (northern and eastern parts), Akishima, Kanagawa, Yokohama, Kuwana, Kasuga, Shizuoka, Gifu, Ishikawa, Fukui, Mie, Aichi, Osaka, Kyoto, Hyogo (Kobe and Hanshin area), Akashi, Shimane, Okayama, Hiroshima, Tokushima, Ehime, Kochi, Fukuoka, Oita, Saga, Kumamoto, Okinawa

*2 Venues of workshop on milk carton recycling (2004 to 2014)

Asahikawa, Sapporo, Saitama, Fujimi, Shibuya, Shinagawa, Koto, Nakano, Kita, Nishitokyo, Yokohama, Sagami-hara, Otsuki, Kofu, Chikusei, Nisshin, Osaka, Nishinomiya, Matsuyama, Kochi, Beppu, Naha

*3 We visited the following schools to run the on-site lessons on milk carton recycling (2008 to 2014)

Sukagawa City Abukuma Elementary School, Toyama City Shinjo Elementary School, Haga Cho Hagaminami Elementary School, Motegi Cho Motegi Elementary School, Mito City Akatsuka Elementary School, Ota Chuo Primary School, Nogi-machi Tomonuma Elementary School, Chikusei City Ueno Elementary School, Noda City Futakawa Elementary School, Ichihara City Chiharadaisakura Elementary School, Kawaguchi City Tozokaminami Elementary School, Shibuya Ward Kakezuka Primary School, Edogawa Ward Shinozakidaini Elementary School, Yokohama City Hie Elementary School, Hiratsuka City Okazaki Elementary School, Yamato City Shibuya Elementary School, Shizuoka City Togendai Elementary School, Komagane City Akaho Elementary School, Hokuto City Mukawa Elementary School, Kanazawa City Izumino Elementary School, Tarui Cho Iwade Elementary School, Godo Cho Godo Elementary School, Nisshin City Higashi Elementary School, Nisshin City Nishi Elementary School, Minamise Cho Nantohigashi Elementary School, Nabari City Mihata Elementary School, Oji Cho Ojikita Elementary School, Kishiwada City Jyoutou Elementary School, Osaka City Benten Elementary School, Osaka City Turumachi Elementary School, Nishinomiya City Takagi Elementary School, Amagasaki City Wakaba Elementary School, Hiroshima City Omachi Elementary School, Hiroshima City Ushitashinmachi Primary School, Hiroshima City Niho Elementary School, Hiroshima City Nukushina Elementary School, Mitoyo City Omi Elementary School, Mitoyo City Matsusaki Elementary School, Yoshinogawa City Kamiura Elementary School

COMCEI publications

COMCEI provides DVDs and leaflets that explain characteristics of paper cartons and how they are recycled in an easy-to-understand manner.

DVD "Milk Packn's Expedition"
COMCEI has prepared a detailed DVD version of a website called "Milk Packn's Expedition" that is aimed at elementary school students. This is an educational tool that helps them think about the environment and learn the importance of initiating their own activities. We send it free of charge to schools and organizations that apply.



DVD "Milk Packn's Expedition"

"Real Story of Paper Carton Recycling"

This leaflet contains answers to frequently asked questions that are raised in the course of promoting activities to improve the recycling rate of paper cartons. Utilizing many illustrations it also clearly and simply explains that paper cartons are very environmentally-friendly products and that they must be collected separately from other paper products in order to utilize this resource effectively.

"Story of Waste"

"Real Story about Paper Carton Recycling" has been edited for children and features interesting illustrations of Milk Packn.



"Story of Waste"



"Real Story of Paper Carton Recycling"

"Story of Milk Cartons"

We have created this book by re-editing "A Life of Milk Cartons", which had been published as Milk Carton Library and designed for children in the lower grades of elementary schools. It shows the life of a milk carton - from its birth to finally being recycled to a new product - in an easy to understand manner using cartoons. This publication is recommended for use in events such as workshops where many visitors bring their children.



"Story of Milk Cartons"

COMCEI has various publications to help people gain awareness of the global environment through recycling.

Book "Paper Carton Manifesto"

This book details characteristics of paper cartons and recycling activities in order to submit recommendations for the future of our planet while enhancing consciousness about the meaning of recycling.

The writers include Mr. Inose, president of ECOIPS, Ms. Hirai, Director General of JAMRA, and seven members of COMCEI, among others.



Book "Paper Carton Manifesto"
Nihon Hyouron Sha

the third edition of "Milk Carton Recycling – Nationwide Collection of 20 Cases"

Currently, three methods have been established to collect paper cartons. These are: store collection, municipality collection, and voluntary group collection. To make strict sorted collection a success, it is necessary to educate the local community and devise ways that suit individual communities. This case book introduces actual recycling activities carried out by citizens' groups, local governments and various business sectors throughout Japan to assist readers when they are confronted with problems.



The third edition of "Milk Carton Recycling – Nationwide Collection of 20 Cases"
(The fourth edition will be published in 2015)

Members list

4 related associations

Japan Dairy Industry Association
Japan Dairy Association
National Association of Agricultural cooperative Dairy
Federation of Milk Processors Co-operatives

7 Carton manufacturers

Nippon Paper Industries Co., Ltd.
Nihon Tetra Pak K.K.
ISHIZUKA GLASS Co.,Ltd.
Dai Nippon Printing Co.,Ltd.
TOPPAN PRINTING CO.,LTD.
Hokuetsu Package Co., Ltd.
TOKYO PAPER MFG. CO. ,LTD

128 dairy companies

[Hokkaido]

Yotsuba Milk Products Co., Ltd.
Satsuraku Dairy Agricultural Coop
HOKKAIDO HOSHO MILK PLANT Co.,Ltd.
SHIN SAPPORO NYUGYO CO., LTD
KUMIAI DAIRIES LIMITED
Hokkaido Milk Product Co.,Ltd.
Hakodate Milk
Hokkaido Dairy Corporation Co.,Ltd.
MACHIMURA FARM ,Inc.
kurasimamilk.Co,ltd.
TOYOTOMI MILK PRODUCTS

[Aomori]

HAGIWARA MILK PLANT Co.Ltd.

[Iwate]

Fujiya Milk Co., Ltd.
Oofunato Milk Co., Ltd.

[Miyagi]

TOUHOKU MORINAGA MILK INDUSTRY CO., LTD
furukawa milk industry Co.Ltd
YAMADA MILK PRODUCTS
Michinoku Milk Co.,Ltd.
Touhoku Glico Dairy Products Co.,Ltd

[Yamagata]

Fuji Milk Co., Ltd.
GOTO Farm Co.,Ltd
Ohu Dairy Cooperative

[Fukushima]

Rakuou milk products Co.,Ltd.
Tohoku-kyodo Milk industry Co., Ltd
Aizu Chuoh Nyugyo Corporation
Matsunaga milk Co., Ltd.
Fukushima Milk Co., Ltd.

[Ibaraki]

IBARAKI DAIRY PRODUCT INDUSTRY CO., LTD.
TOMOE DAIRY PROCESSING CO., LTD
Ibaraku Co.,Ltd.
KANTO MILK INDUSTRY CO., LTD.

[Tochigi]

DAIRY TOCHIGI AGRI. CO-OP
Tochiraku Milk Co.,Ltd.
Harigai Milk Industry Co.,Ltd.
Tochigi Meiji Milk Co. Ltd
Tochigi Milk Co., Ltd.
HORAI Co.,Ltd. Dairy Industry Division

[Gunma]

Haruna Dairy Cooperatives
Tomo Dairy Cooperative
GUNMA MILKJOINT BUSINESS COOPERATIVES

[Saitama]

MORI MILK Co., Ltd.
SEIBU RAKUNOU
JA Saihoku Rakunou
osawa milk Co., Ltd.

[Chiba]

FURUYA MILK PRODUCTS CO.,LTD
Chiba Hokubu Rakuno Dairy Cooperative
Chiba-raku Dairy Cooperative

[Tokyo]

MEGMILK SNOW BRAND Co., Ltd
Meiji Co., Ltd.
MORINAGA MILK INDUSTRY CO.,LTD.
KYODO MILK INDUSTRY CO.,LTD.
Glico Dairy Products Co.,Ltd
KOIWA DAIRY PRODUCTS CO., LTD.
Koshin Milk Products Co,Ltd

[Kanagawa]

Takanashi Milk Products Co.,Ltd.
YOKOHAMA MILK INDUSTRY CO.,LTD.
KONDO MILK PRODUCTS CO.,LTD.
Ashigara Milk Products Co.,Ltd.
Kyoudou Milk Co., Ltd.

[Nagano]

YATSUGATAKE MILK Co.,Ltd.
MATSUDA MILK co.ltd

[Niigata]

Niigata-ken Nokyo Milk Co., Ltd.
HARADA Daily Products.CO.,LTD.
Tsukada Milk Products.Co.LTD
Sado Milk Products Ltd.

[Toyama]

Tonami Milk Co., Ltd.
Kokuto milk

[Ishikawa]

i-Milk Hokuriku Co.,Ltd.

[Gifu]

Hida Rakuno Dairy Cooperative
Bokuseisha Ltd.
Seki Milk Co., Ltd.
Mino Dairy Cooperatives

[Shizuoka]

INASA MILK ASSOCIATION

Kannami toubu nougyoukyoudou kumiai
TOKAI MEIJI.CO.Ltd
Asagiri Milk Products Co.,Ltd

[Aichi]

CHUOSEINYU CO.,LTD.
toyota-nyugyou.co.jp
Aichi Brother Company Co.,Ltd.
TOKONAME MILK LIMITED PARTNERSHIP COMPANY

[Mie]

Ouchiyama Dairy Agricultural Cooperative

[Kyoto]

HIRAYA MILK
JA Kyoto Rakuno Center

[Osaka]

SEN-NAN Dairy Products Co.,Ltd.
NIPPON DAIRY CO-OPERATED CO.,LTD.
Takada Milk Co., Ltd.
Vitamin Milk Products Co.,Ltd
Ikaruga Milk Plant CO.,Ltd.

[Hyogo]

Hyogo-tantan Dairy Agricultural Cooperative
Awajishima Dairy Agricultural Cooperative

[Tottori]

DAISEN Dairy agricultural cooperative

[Shimane]

KISUKI Daily Product
Yasugi Milk Product Co.,Ltd
YUGEN GAISHA YOEKISHA

[Okayama]

OHAYO DAIRY PRODUCTS CO.,LTD
KAJIHARA MILKPRODUCTS CO.LTD
HIRUZENRAKUNOU NOUGYOU KYOUDOU KUMIAI
okayamanisinougyoukyoudoukumiai

[Hiroshima]

Sanyo Milk Industry Co., Ltd.
TOYO MILK INDUSTRY CO.,LTD.
Hiroshima Kyodo Milk Industry Co.,Ltd.
Chichiyasu Co.,Ltd.

[Yamaguchi]

Yamaguchi Kenraku Milk industry Co.,Ltd
houfurakunou agricultural cooperative
Nishimotobokujou

[Kagawa]

Shikoku Meiji Dairies Corporation

[Ehime]

SHIKOKU MILK PRODUCTS CO.,LTD.

[Kochi]

Himawari Milk

[Fukuoka]

nishirakunyuugyou Co.,Ltd
Omu Milk Products Co.,Ltd.
NAGATOSHI-MILK CO., LTD.

[Nagasaki]

SHIMABARA AREA DAIRY FARMERS COOPERATIVE

[Kumamoto]

KUMAMOTO DAIRY CO-OPERATIVE ASSOCIATION
KUMAMOTO MILK INDUSTRY CO., LTD.
Kuma Dairy Agricultural Cooperative
JA ASO
Limited Partnership (Corp.) HOTTA KOUNYUUSHA

[Oita]

KYUSUYUNYUGYO CO.,LTD
JA-Shimogo
Koyama Dairies Co., Ltd

[Miyazaki]

MINAMI NIHON RAKUNO KYODO CO.,LTD

[Kagoshima]

kagoshimakenrakunounyugyoukabushikigaisya

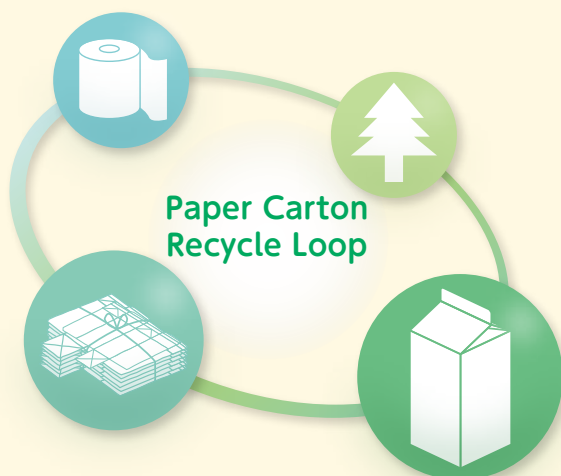
[Okinawa]

OKINAWA MEIJI MILK PRODUCTS CO.,LTD.
OKINAWA MORINAGA MILK INDUSTRY CO., LTD.
Mariya milk industry
YAEYAMA GENKI
Genki Seikatsu Co., Ltd.
Miyahira Dairy Corporation

13 supporting members

Oji Eco Materials Co.,Ltd
NISHINIHON EIZAI CO.,LTD
Nissey Sangyo co.,Ltd.
NIPPON PAPER CRECIA CO.,LTD
DAIWA ITAGAMI CO., LTD.
SHIN-EI PAPER MFG.CO.,LTD.
Marutomi Paper Company
YAMADAYOUJI SYOUTEN CO., LTD.
CRESCO Corporation
MeadWestvaco Asia K.K.
Masukoo Paper Company
Stora Enso Japan
Weyerhaeuser Japan Ltd.

As of the end of October, 2014



Paper Carton Recycle Loop

Dairy product manufacturers and paper container manufacturers collaborate to preserve the environment related to paper containers such as milk cartons.

Committee for Milk Container Environmental Issues

A message to members of the paper carton collection associations

Please contact schools, local authorities, public facilities, retail stores, banks and post offices to gain their cooperation with regard to installing a collection box. At the same time, set up a system to enable collection on a regular basis. When you do not know from where to collect, contact the section in charge of the local government/public administration.

Contact the following for more information:

<Secretariat of Japan Milk Carton Recycling Association>
Phone: 03-3360-1098, Fax: 03-3360-7090
4-6-7-201 Higashi Nakano, Nakano Ku, Tokyo 164-0003

