

Methodologies Used to Calculate Indicators of Carton Recycling Progress

To track the progress of the recycling of food and beverage gable top and aseptic cartons in Canada, Carton Council mandates an accounting firm to calculate the following indicators:

1. Carton tonnes collected/recycled
2. National blended carton collection-recycling rate
3. National average rate of access to beverage carton recycling
4. National average rate of access to food carton recycling

These indicators are calculated using the latest data available for each province and territory. Since the same types of data are not available in all provinces and territories, **these figures must be interpreted as progress indicators and approximations only.**

The sections below describe the methodologies used to calculate each of these indicators.

Carton tonnes collected/recycled National blended carton collection-recycling rate

Data Types and Sources

- Latest available tonnes of cartons supplied to market and tonnes of cartons collected or recycled in each province and territory, as reported by the organizations that operate or oversee the recycling systems. Some organizations report numbers of cartons instead, which are then converted into tonnes.
- Table 1 shows, for each province and territory and for the last time the indicators were calculated at the time of writing, the categories of cartons for which data was available, the organizations that reported the data, and whether the organizations reported tonnes collected or tonnes recycled.

Formulas

- **Carton tonnes collected/recycled:** sum of the tonnes of cartons collected or recycled in each province and territory.
- **National blended carton collection-recycling rate:** sum of the tonnes of cartons collected or recycled in each province and territory, divided by the sum of the tonnes of cartons supplied to market, expressed as a percentage, rounded to the nearest whole number.

Table 1—Data Types and Sources Used to Calculate the 2024 “Carton Tonnes Collected/Recycled” and “National Blended Carton Collection-Recycling Rate” Indicators, by Province and Territory.

Province/ Territory	Recycling System	Carton Categories Concerned	Organization Reporting Data	Type of Data Reported
AB	Deposit return	Beverage cartons	ABCRC	Tonnes recycled
BC	Deposit return	Beverage cartons	Encorp Pacific	Tonnes recycled
	Residential collection	Food cartons	Recycle BC	Tonnes collected
MB	Residential collection	All cartons	MMSM	Tonnes collected
NB	Deposit return	Beverage cartons, excluding milk	Encorp Atlantic	Tonnes recycled
	Residential collection	Milk cartons	Atlantic Dairy Council	Tonnes recycled
NL	Deposit return	Beverage cartons, excluding milk	MMSB	Tonnes recycled
	Residential collection	Milk cartons	MMSB	Tonnes recycled
NS	Deposit return	Beverage cartons, excluding milk	Divert NS	Tonnes recycled
	Residential collection	Milk cartons	Department of Environment	Tonnes recycled
NWT	Deposit return	Beverage cartons	Government of NWT	Tonnes recycled
ON	Residential collection	All cartons, except alcohol	RPRA	Tonnes recycled
	Deposit return	Alcohol cartons	The Beer Store	Tonnes recycled
PEI	Deposit return	Beverage cartons, excluding milk	Department of Environment	Tonnes recycled
	Residential collection	Milk cartons	Atlantic Dairy Council	Tonnes recycled
QC	Residential collection	All cartons	ÉE	Tonnes collected
SK	Deposit return	Beverage cartons	SARCAN	Tonnes recycled
YK	Deposit return	Beverage cartons	Government of YK	Tonnes recycled

Notes

- **Tonnes collected** refer to cartons collected through a residential collection system and brought to a material recovery facility (MRF) for sorting and baling. **Tonnes recycled** refer to cartons sent for recycling after having been sorted and baled at a MRF or that were redeemed through a deposit return system.
- Provinces and territories for which data on food cartons is not available still collect those cartons through their residential collection systems and send them for recycling.
- Deposit return systems target cartons both in the residential and in the industrial, commercial and institutional (IC&I) sectors. For their part, residential collection systems typically target only the residential sector. Therefore, the available data relative to residential collection typically only include containers supplied to the retail market.
- Nunavut does not have a recycling program for packaging and paper products. The quantity of cartons supplied to market in Nunavut is estimated based on data for the Yukon and the Northwest Territories, and that number is entered in the calculation of the national blended carton collection-recycling rate.
- These indicators are updated yearly.

National average rate of access to beverage carton recycling

National average rate of access to food carton recycling

Data Types and Sources

- In provinces and territories where **beverage cartons** are collected via **deposit return** systems:
 - Latest available rate of access to a return point in each province and territory concerned, as reported by the organization that operates or oversees the deposit return system.
 - For provinces and territories where access is not reported, a rate of 100% is assumed.
- In provinces and territories where **beverage cartons** are collected via the **residential collection** systems:
 - Latest available rate of access to residential collection in each province and territory, as reported by the organization that operates or oversees the residential collection system.
 - For provinces and territories where access is not reported, CCC estimates the rates of access by reviewing the accepted material lists on the websites of residential collection programs. In doing so, it endeavours to review a number of programs that collectively cover at least 80% of the population of the province or territory. Whenever less than 100% coverage is attained, the remaining proportion of the population is assumed not to have access to carton recycling, even if that might not be the case in actuality.
- In some provinces, milk cartons are collected via residential collection systems while other beverage cartons are collected via deposit return systems. In those cases, the rates of access are calculated by averaging the rates of access to each system, weighed by the estimated quantities of cartons of each category that were collected.
- **Food cartons** are only collected via the **residential collection** systems. As above, provincial and territorial rates of access are sourced either via reporting organizations or via CCC estimates.
- Table 2 shows, for each province and territory and for the last time the indicators were calculated at the time of writing, the type of recycling systems used to collect beverage and food cartons, the categories of cartons concerned, and the sources of the data.
- Latest population estimates for each province and territory, as reported by Statistics Canada.

Formulas

- **National average access to beverage carton recycling:** sum of the population of each province and territory multiplied by the rate of access to beverage carton recycling of that province or territory, divided by the total population of Canada, expressed as a percentage, rounded to the nearest whole number.
- **National average access to food carton recycling:** sum of the population of each province and territory multiplied by the rate of access to food carton recycling of that province or territory, divided by the total population of Canada, expressed as a percentage, rounded to the nearest whole number.

Table 2—Data Types and Sources Used to Calculate the 2023 National Average Access to Beverage and Food Carton Recycling Indicators, by Province and Territory.

Province/ Territory	Recycling System	Carton Categories Concerned	Source of Access Data
AB	Deposit return	Beverage cartons	100% assumed
	Residential collection	Food cartons	CCC estimation
BC	Deposit return	Beverage cartons	Encorp Pacific
	Residential collection	Food cartons	Recycle BC
MB	Residential collection	Beverage and food cartons	MMSM
NB	Deposit return	Beverage cartons, excluding milk	100% assumed
	Residential collection	Milk and food cartons	CCC estimation
NL	Deposit return	Beverage cartons, excluding milk	MMSB
	Residential collection	Milk and food cartons	MMSB
NS	Deposit return	Beverage cartons, excluding milk	100% assumed
	Residential collection	Milk and food cartons	Department of Environment
NWT	Deposit return	Beverage cartons	100% assumed
	Residential collection	Food cartons	CCC estimation
ON	Residential collection	Beverage, excluding alcohol, and food cartons	RPRA
PEI	Deposit return	Beverage cartons, excluding milk	100% assumed
	Residential collection	Milk and food cartons	IWMC
QC	Residential collection	Beverage and food cartons	RECYC-QUÉBEC
SK	Deposit return	Beverage cartons	100% assumed
	Residential collection	Food cartons	SK Recycles
YK	Deposit return	Beverage cartons	100% assumed
	Residential collection	Food cartons	CCC estimation

Note

- These indicators are updated every three years.