

Glass (Beverage and Food Containers)



Glass is used in bottles for beverages and food, in windows and in fiberglass insulation. It is good to use in these products because it is hygienic and transparent. In addition, glass is inert and non-toxic in landfill sites. (Source: *Consumers Glass*, www.glassworks.org/glassworks.html)

Glass is 100% recyclable and can be used over and over again.

How is container glass made?

- Container glass is made using 60% silica sand, 20% soda ash, 15% limestone, 4% alumina-silicate, 0.9% saltcake and 0.1% minor ingredients. (Source: *Consumers Glass*)
- Crushed recycled glass (cullet) can be used to reduce the need for these raw materials.

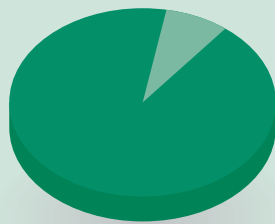
How is container glass recycled?

- The Blue Box only accepts glass bottles and jars.
- Collected glass is separated by colour.
- Glass is passed through magnets to remove metal contaminants.
- Screens are used to filter small particles of glass.
- Density separators are used to remove lighter plastics and aluminum.
- Glass is crushed into cullet and again passed through magnets and air to remove any remaining contaminants.
- Cullet is ready to be used to manufacture new glass products.

(Source: *Bluewater Recycling Association*, January, 1993)

Fast Facts

- Estimated percentage of glass sold (imports and domestics) in Ontario each year that is diverted from landfill by Ontario's blue box program: 70% (Source: *Consumers Glass*)
- If all the glass bottles and jars sent to Consumers Glass from recycling programs in Canada in 1995 were laid end to end, they would circle the earth four times around the equator, (estimates based on average bottle height of 19.1 cm.)
- In Ontario in 1998, just less than 40% of all container glass contained post-consumer glass. Over 70% of green glass contained recycled content, 40% of amber glass contained recycled content, and 20% flint glass contained recycled content. (Source: *Glass Works, Consumers Glass*, 1999, Vol. 10(1):3)
- Length of time for a littered glass bottle to break down by natural processes: 1 million years (Source: *Multi-Materials Stewardship Board*, October 1998, www.mmsb.org/fasfacts.htm)



In 1997, 90% of Ontario's population had access to glass recycling. (Source: *Ontario Material Recovery System: Selected Programs, CSR*, 1998)

How much glass do Ontario households recycle?

- Amount of glass that was sold for recycling by Ontario municipalities in 1998: 98,303 tonnes (Source: *Municipal 3Rs 1998 Database, 3Rs Information Partnership*)



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A Waste Reduction Week '99 Initiative

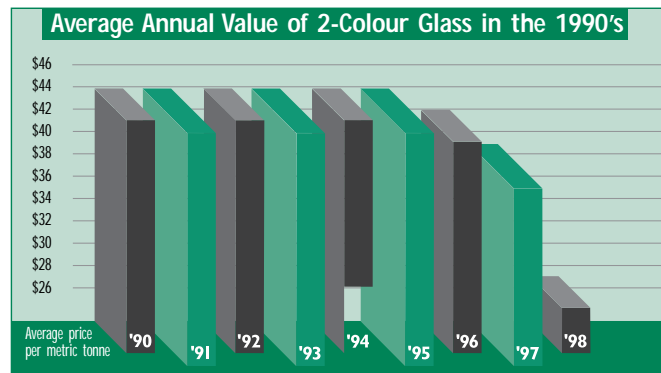
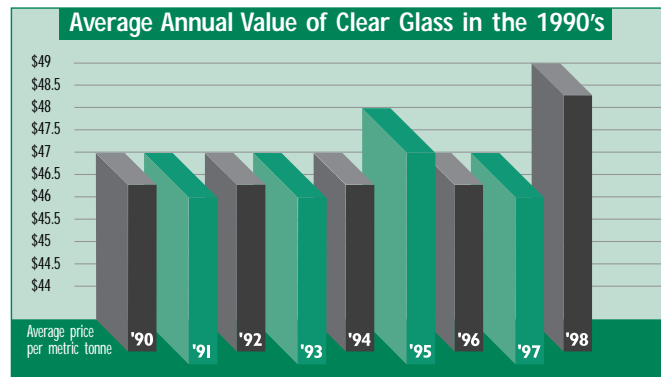
Why do we recycle glass?

- When cullet (recycled glass) is used to make new glass products less energy is needed.
- Recycling one glass bottle in the making of a new glass container saves enough energy to keep a 100-watt light bulb burning for four hours.

How much is used container glass worth?

- Breakage during the collection and shipping of recyclables results in a three-coloured glass stream, which has no value at present. Recyclers and municipalities are currently developing methods to reduce glass breakage and to find markets for the finely crushed glass (sand) that can be made from three-coloured glass. In 1998, used clear glass sold for \$49 per tonne and used coloured glass sold for \$27 per tonne on the spot market.

(Source: CSR Sheet, 1999)

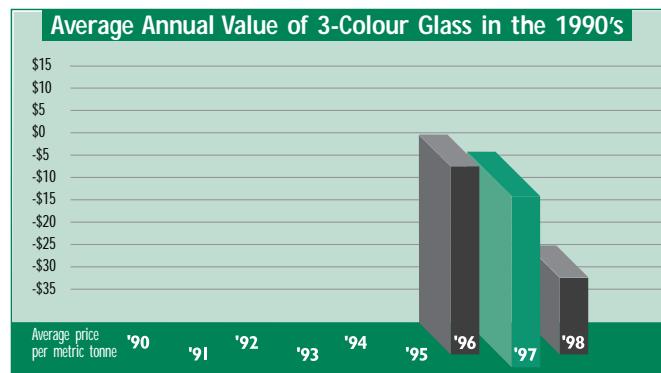


What about the first R?

82% of all glass packaging consumed in Canada in 1996 was reused or recycled:

- 1,382,005 container glass tonnes were consumed.
- 823,042 container glass tonnes were reused.
- 303,676 container glass tonnes were recycled.
- 255,287 container glass tonnes were disposed of.

(Source: National Packaging Survey for 1996 conducted by National Packaging Protocol for the Canadian Council of the Environment)



For more information....

- Consumers Glass
www.glassworks.org
- Corporations Supporting Recycling
www.csr.org
- Recycling Council of Ontario
www.rco.on.ca