

## The Invisible “R” Reduction

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Plastics have not been recognized for their contribution to source reduction

Gesellschaft Für Verpackungsmarktforschung estimated in 1993 that to replace the 1.4 million tonnes of plastic packaging used in Germany in 1991 would require 5.6 million tonnes of other materials.

“While the number of individual plastic objects has increased in the past 20 years – more than doubling – the proportion of landfill space taken up by those objects has not changed”. (WM. Rathje, Director: The Garbage Project).

Save: Raw Materials, Transportation Costs, Etc.

### *Examples of Lightweighting*

- The weight of a plastic milk jug has been reduced by 37 per cent since first introduced in the early 1970s.
- Increasingly, milk is being packaged in plastic film pouches. A refillable, 1L glass bottle weighing 640 grams would have to be reused over 90 times before generating a level of waste as low as a 1L plastics pouch weighing 7 grams.
- In Ontario, 75 per cent of all fluid milk sold in stores is packaged in plastic pouches, eliminating an estimated 10,000 metric tonnes of material each year that would otherwise require disposal. (That’s equivalent to eliminating the total amount of garbage generated annually by a town of 5,000 people).
- The 2L PET soft drink bottle is more than 20 per cent lighter than when first introduced in 1977.
- Based on equivalent size and use rates, plastic grocery sacks are about 20 per cent of the weight and 25 per cent of the volume of paper.
- Plastic grocery sacks, themselves, are 40 per cent lighter today than in 1976.

- Plastic trash bags are 50 per cent lighter than in the 1970s, while produce bags have been reduced in thickness by over 60 per cent during the same period.
- When combined with reusable plastic containers, concentrated fabric softeners packaged in plastic film pouches reduce total waste generation by 75 per cent.
- The use of high density polyethylene resin and modified mould designs have reduced the raw material requirements for dairy product containers and food pails by 30 per cent and 109 per cent, respectively.
- In what may appear to be a trivial example, one restaurant chain made its plastic drinking straws 20 per cent lighter but eliminated over 350,000 kilograms of solid waste in the first year.
- New technology developed within the past three years has resulted in a 40 per cent reduction in the weight of meat, cheese and various shrinkwraps.