

BYOB – Bags (Just the Facts)

Suggested Facts that might work for Bermuda (in Blue)

* - these facts noted below are listed our website - <http://www.greenrock.org/content/view/96/5>

The horrible facts! - paper vs. plastic *:

- plastic bags consume 40% less energy to produce than paper bags, and
- plastic bags generate 80% less solid waste than paper bags.
- The majority of kraft paper is made by heating wood chips under pressure at high temperatures in a chemical solution. As evidenced by the unmistakable stench commonly associated with paper mills, the use of these toxic chemicals contributes to both air pollution, such as acid rain, and water pollution. Millions of gallons of these chemicals pour into our waterways each year; the toxicity of the chemicals is long-term and settles into the sediments, working its way through the food chain. Further toxicity is generated as both plastic and paper bags degrade.

POLLUTANTS PAPER V.S. PLASTIC

- as waste, paper bags produce 70 times more air pollutants than plastic bags, and
- as waste, paper bags produce 50 times more water pollutants than plastic bags.

Source: "Comparison of the Effects on the Environment of Polyethylene and Paper Carrier Bags," Federal Office of the Environment, August 1988

- It takes more than four times as much energy to manufacture a paper bag as it does to manufacture a plastic bag.

ENERGY TO PRODUCE BAG ORIGINALLY (BTUs)

Safeway Plastic Bags: 594 BTUs

Safeway Paper Bags: 2511 BTUs

(Source: 1989 Plastic Recycling Directory, Society of Plastics Industry.)

Of course, most paper comes from tree pulp, so the impact of paper bag production on forests is enormous. In 1999, 14 million trees were cut to produce the 10 billion paper grocery bags used by Americans that year alone. Paper bag production delivers a global warming double-whammy forests (major absorbers of greenhouse gases) have to be cut down, and then the subsequent manufacturing of bags produces greenhouse gases.

- It takes 91% less energy to recycle a pound of plastic than it takes to recycle a pound of paper. But recycling rates of either type of disposable bag are extremely low, with only 10 to 15% of paper bags and 1 to 3% of plastic bags being recycled, according to the Wall Street Journal.

ENERGY TO RECYCLE PACKAGE ONCE (BTUs)

Safeway Plastic Bags: 17 BTUs

Safeway Paper Bags: 1444 BTUs

Source: 1989 Plastic Recycling Directory, Society of Plastics Industry.

Although paper bags have a higher recycling rate than plastic, each new paper grocery bag you use is made from mostly virgin pulp for better strength and elasticity.

Social responsibility? *

- In 1960 almost 6.3 billion pounds of plastic was produced in the USA. By the early 1970's the figure had tripled
- By 1988 the USA produced approximately 50 billion pounds of plastic. HDPE (plastic) bags were introduced into circulation in 1977.
- It has been estimated that the worlds annual consumption of plastic shopping bags has reached in excess of 500 billion bags.
- The Wall Street Journal has estimated that the USA consumes 100 billion plastic bags annually (the equivalent of 12 million barrels of oil in the manufacturing process).
- It is estimated that 53% of plastic shopping bags are distributed into circulation via supermarkets and grocery stores.
- Over recent years these outlets have reintroduced paper bags for customers in the belief that this was environmentally responsible.

The facts: extreme environmental damage *

- Plastic never fully decomposes. Over time it goes through a process of photo degradation and breaks down into smaller and smaller pieces. These substances cannot be converted by any known organisms and as such remain as plastic in landfills, rivers and oceans.
- In a 1998 survey of the North Pacific Ocean, 89% of waste observed was plastic products. Sea turtles, whales and dolphins are among sea animals being directly affected by plastic waste products, often mistaking plastic bags for food, causing slow and painful deaths to these animals over a prolonged period of time.

Reduce / Reuse:

- It has been reported by the Sierra Club that if every New York resident reduced their consumption of plastic bags by just 1 per year would reduce waste by 5 million lbs. and save \$250,000 in disposal costs.
- The Sierra Club has also reported that reusing a bag meant for just one use has a big impact. A sturdy, reusable bag needs only be used 11 times to have a lower environmental impact than using 11 disposable plastic bags.
- International experience shows that the use of plastic bags can be substantially reduced in a very short period of time. Introduction of alternative reusable bags has shown to be an effective means by which to reduce consumption of plastic bags.

PSA BYOB – Bags

October 29, 2007

- This strategy has been most effective when combined with legislative pressure for supermarkets and non grocery distributors of plastic bags to impose a levy on customers who choose to use plastic bags instead of reusable bags.

The Irish Example

- The Irish public consumed 1.2 billion plastic bags during 2001. In 2002 the Irish government introduced a levy, called the PlasTax, and the consumption of plastic bags reduced consumption by 90%. It is estimated that this has saved 430,000 barrels of oil and thousands of pounds of greenhouse emissions in the form of carbon dioxide equivalents.

The Australian Example

- A report commissioned by the Australian government in 2002 identified that the use of reusable bags for a period of 1 year:
 - consumed only 9% of the energy; and
 - produced only 10% of the greenhouse emissions of standard plastic bags.
- In the three years after the introduction of the alternative shopping bags Australian consumption of plastic bags had reduced from 6 billion bags to 2.5 billion bags per annum. The reduction of 3.5 billion bags per annum equates to approximately 1.4 million barrels of oil and thousands of pounds of carbon dioxide equivalents.

The International Experience

- Other countries, including but not limited to, the United Kingdom, South Africa, Bangladesh, Vietnam, China, Japan and Taiwan have introduced some forms of governmental reforms aimed at reducing the country's consumption of HDPE bags.