

# **Plastic Vs. Paper**

**by Ralph Brown**

There has been a lot of controversy over the years as to which product is more environmentally friendly, paper or plastic when it comes to shopping bags. Neither comes without an impact on the Earth and its inhabitants, but which one leaves the smallest environmental footprint?

At first glance it was believed that paper was actually the first choice because it was a renewable resource whereas plastic takes years to biodegrade. The Environmental Literacy Council did an analysis of this topic and here is an overview of their findings. There were several considerations to take in to account.

## **THE PRODUCTION**

Plastic bags are made from petroleum waste products. Paper bags are made from trees. Comparatively, plastic takes less energy to produce.

## **TRANSPORTATION**

Again, plastic seems to have the upper hand because it costs seven times as much to transport paper than it does to haul plastic bags which are considerably lighter and much more compact. It would take 7 trucks to transport the same number of plastic bags making plastic an easy favorite.

## **LANDFILL IMPACT**

Plastics generate 14 to 28 percent of all landfill waste disposal. Plastic is non-biodegradable whereas paper is certainly biodegradable, however, landfills are set up so that no products biodegrade since the waste is deprived of air and water in the effort to protect ground water sources, so all of the waste piles up and is buried. Paper products occupy over 50 percent of landfill space. With that being said, plastic compresses much more than paper leaving plastic to occupy 9 to 12 percent of available land. Not all trash ends up in landfills of course leaving these waste products to be blown about until they come to their final resting place. At this point paper will biodegrade whereas plastics go on and on posing a huge risk to wildlife on both land and sea.

If both products were recycled, much of today's landfills would be reduced. Only 30 percent of paper products are recycled compared to 50 percent of plastics. When it comes to the reusability of each product, paper bags are less durable than plastic and plastic bags get used far more and for a much longer time than paper bags.

## CONCLUSION

Plastic seems to be the hand down favorite unless you consider a third alternative, cloth bags. If people took their own cloth bags when they shopped, 70 percent of all landfill waste would be eliminated ! That alone would be a huge incentive to take your own bags when shopping, but there is one more consideration, off-gassing!

Globally we use 160,000 plastic bags per day 58,400,000 annually! Plastics are made from materials such as benzene and vinyl hydrochloride. Both chemicals are known to cause cancer and contaminate both air and soil. Phthalates are another chemical added to plastic bags to make them softer and more pliable. This is known to cause infertility, disrupt our endocrine glands, birth defects and a host of other health problems. Phthalates are not chemically bound to the material and are quick to off-gas. That “new plastic smell” is Phthalates off-gassing. Paper bags off-gas formaldehyde in case you were beginning to think they were harmless.

With all of the pollutants (also known as free radicals) that fill our air on a daily basis from these products, it is no wonder that health care issues and their associated costs are such a global issue.

Until the world gets on board and makes the changes necessary to negate these issues, here is something you can do to protect yourself.