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THE BASICS

## **Taking Aim at All Those Plastic Bags**

## **By CHRIS CONWAY**

Paper or plastic?

San Francisco last week offered an answer to the question. Paper is fine. But plastic isn't — unless it's biodegradable.

By a 10-1 Board of Supervisors' vote, San Francisco became the first major American city to ban the use of non-biodegradable plastic bags by supermarkets, drug stores and other large retailers.

The paper-or-plastic question has long been a vexing one. Paper bags, of course, are biodegradable and recyclable, and are made from trees, a renewable resource. But the production of paper bags generates significantly more air and water pollution; manufacturing and recycling them requires more energy than their plastic cousins do, according to the <a href="Environmental Protection Agency">Environmental Protection Agency</a>.

Paper bags also take up comparatively more space in landfills, where they are slow to degrade, like most everything in a landfill. A study for the American Forest and Paper Association estimated that about seven billion paper bags were used in the United States in 2003.

On the other hand, plastic bags made of polyethylene, which dominate the market, are non-biodegradable and are made from crude oil and natural gas, both nonrenewable resources. They can be recycled, but are mostly discarded.

The E.P.A. estimated that only 5.2 percent of the plastic bags and sacks in the municipal waste stream in 2005 were recycled, compared with 21 percent of paper bags and sacks. And there are also horror stories about animals swallowing them and starving to death.

Plastic bags have virtually taken over the grocery market since they were first put at check-out stands in 1977. Ninety percent of all grocery bags are now plastic, according to the Progressive

Bag Alliance, an industry group of plastic bag manufacturers. Estimates of the number of plastic bags used around the world each year vary wildly — from 100 billion to as many as one trillion.

Whatever the number, it's a lot. And that has made for a lot of plastic bag litter — which, the E.P.A. says, can take 1,000 years to decompose.

One reason for the abundance of plastic bags is economic. A standard plastic grocery bag costs about a penny to produce, according to the plastics industry, compared with 4 cents to 5 cents for a paper bag. Compostable plastic bags would cost from 8 cents to a dime, the industry says, although supporters of the San Francisco action say the cost would drop as more local governments require them.

Several states have addressed the issue in other ways. California now requires large supermarkets to set up a system for customers to recycle plastic bags. Rhode Island has teamed up with grocers to collect plastic bags for recycling.

Because of a tax, Ireland has cut the use of plastic bags by 90 percent, according to the Irish government. Taking matters further, several countries, among them Bangladesh and Bhutan, have banned them.

Ikea, the Swedish home furnishings and accessories chain, has just begun charging customers 5 cents per plastic bag in the United States, which it donates to American Forests, a conservation group. On average, its United States stores have gone through about 70 million a year. In Britain, Ikea says, it has seen a 95 percent drop in plastic bag use since it began charging for them there last spring.

Yet another alternative is to sell consumers reusable bags.

"The paper versus plastics question takes us off the issue, which is consumption," says Vincent Cobb, who offers reusable bags and containers on the Internet. He admits to using plastic bags, which he calls a "fantastic product," but not as many as in the past.

"Getting into the habit of bringing your own shopping bag," he says, "can slash this problem across the board."