Paper or Plastic?

We hear the question almost every time we go grocery shopping. Some shoppers love reusable plastic bags—standard that they are making a better choice for the environment. Others ask for paper, balancing the worry some like the novelty in being both paper and plastic bags globally link natural resources and cause significant pollution. When you weigh all the costs to the environment, you might just choose to reuse.

### Paper Consumption

Americans consume more than 30 billion paper bags each year. Some 14 billion trees are cut down annually for paper bag production.

### Production

1. **PAPER**
   - **i.** Paper, of course, comes from trees. Trees are grown or found, then marked and felled.
   - **ii.** Logs are moved from the forest to a mill, where they are stored for a year in a three-year wait for the logs to dry before they can be used.
   - **iii.** Logs are stripped of bark and chopped into one-inch squares. The wood is called “kraft” with tremendous heat and pressure.
   - **iv.** Tiny pieces, or “fluff,” are added with lime stone and sulphur acid until the wood becomes paper.
   - **v.** The pulp is washed, requiring thousands of gallons of fresh water and bleach, then pressed into finished paper.
   - **vi.** Cutting, printing, packaging, and shipping to make paper bags require additional time, labor, and energy.

### Pollution

- The use of toxic chemicals during the production of paper for bags contributes to air pollution, such as acid rain, and water pollution.
- Paper production requires toxic chemicals. In an EPA ranking of chemicals that generate the most hazardous waste, five of the top six were commonly used by the plastics industry.

### Recycling

Paper must be returned to pulp by using many chemicals to bleach and disperse the fibers. 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 flexibility. Bags that are recycled are often turned into corrugated cardboard, not new paper bags.

### Biodegradable?

Paper is degradable, but it cannot completely break down in modern landfills. With the lack of water, light, oxygen and other necessary elements. About 95 percent of garbage is buried beneath layers of soil that make it difficult for air and light to reach it.

### Plastic

Plastic is a broad product of oil refining. Plastic bags are made from polyethylene, which comes from oil refineries as small resin pellets.
- **1.** A machine heats the pellet to about 340 degrees and pulls out from it a long, thin tube of molten plastic.
- **2.** A hot bar is dropped on the tube at intervals, making a line.
- **3.** Each marked line becomes the bottom of one bag and the top of the next.
- **4.** The sections are cut out and a hole for the bag’s handles is stamped in each piece.

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- In hundreds of thousands of marine mammals die every year after eating discarded plastic bags.
- Tortoise think the bags are turtle food, their primary food source.
- Bags clog animals or block their intestines.

### WHAT YOU CAN DO

1. **Invest in high-quality reusable bags**
   - Each wash has the potential to eliminate an average of 1,000 plastic bags over its lifetime. The bag will pay for itself if your grocery store offers a 5- or 10-cent credit per bag.

2. **Buy collapsible plastic crates**
   - Keep them in your purse or car at checkout, food goes into the crates, making it easy to bring food into the house in one or two trips.

3. **Bee the bees**
   - Line your litter box with them; crape them and use them for packing; cut the handles off, add some tape and make a top parasol; use them for humming bee propolis; dip your trash cans with them to be creative.

4. **Keep reusable bags in your home, office or car so they are available when you go shopping.”


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