

The Greener Davis Digest

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Paper or Plastic?

The debate has gone on for a long time—which is better for the environment, paper or plastic shopping bags? The best choice is always reusing a bag that you already have.

If you have to have some sensible use bags on hand for the occasional customer that forgets their reusable bag, should you go with paper or plastic? Here's some data that may help illuminate your decision:

Paper Bags

Pros

- Paper comes from trees, a renewable resource—if we take care of our forests!
- Paper bags are accepted in most recycling systems.
- Paper bags have a higher recycling rate than plastic bags.
- Paper is biodegradable under the right conditions (oxygen, microbes).

Cons

- The toxic chemicals used during the production of paper contributes to air pollution, acid rain, soil and water pollution. Effluent from paper and pulp mills can cause genetic damage and immune system reactions in fish.
- Bleach and other chemicals are used to turn paper back into pulp. Recycled paper bags are often turned into corrugated cardboard, not new bags. Each new paper bag is made mostly from virgin pulp, for better strength and elasticity.
- Paper does not completely break down in



modern landfills because of the lack of water, light, oxygen and other necessary elements. When paper does biodegrade anaerobically, without oxygen, it releases methane.

Plastic Bags

Pros

- Plastic bags are light weight, so they cost less to transport than paper bags.
- Production of plastic bags creates much less air and water pollution than paper bag production.
- Much less energy is needed to produce plastic bags compared to paper bags.

Cons

- Plastic is a by-product of oil refining. Plastic bag production requires toxic chemicals. Five of the six chemicals

ranked by the EPA for generating the most hazardous waste are commonly used by the plastics industry. Hundreds of thousands of marine mammals die every year after eating discarded plastic bags.

- Recycling plastic bags is time-consuming and expensive. It can cost about \$4,000 to process and recycle 1 ton of plastic bags, but they are worth only \$32 when sold on the market.
- Petroleum-based plastics are not biodegradable, meaning they will not decompose over time. Plastic can break down into smaller and smaller pieces, but will never go away. Except for a small amount that has been incinerated, all plastic that has ever been produced still exists.

There is no simple solution to the paper or plastic debate. You can encourage your customers to bring their own bags by creating an incentive to BYOB—Bring Your Own Bag! Offer a 5 cent bag credit. This will reduce the number of disposable bags you purchase and help save valuable resources as well!

Selling reusable bags is also a good idea. This provides customers with a reusable bag if they forget their own and another popular sale item for your business.

Statistics from Washington Post: Plastic Bags, Headed for A Meltdown By Jane Black, February 6, 2008.

New online maps of City parks show pesticide use

Several City parks now have maps available online, and soon at the park itself, that show the public where and what kinds of pesticides are sprayed. The City's Integrated Pest Management (IPM) Program has adopted a system known as the Pesticide Hazard and Exposure Reduction (PHAER) Zone.

The PHAER Zone System arose out of a need for a standardized, results-based reduced-risk pest management strategy, and addresses several common challenges faced by many



IPM programs. It seeks ways to measure progress towards risk reduction goals, it allows grounds managers needed flexibility in their management options, and it informs the community about the general level of pesticide hazard that could be present on a site-by-site basis.

The PHAER Zone System establishes management zones on each site based upon the unique risk reduction goals of individual jurisdictions. These zones are designated as Green, Yellow, and Special Circumstance Zones, with Green Zones providing the lowest potential for pesticide hazard and exposure. Each Zone has a corresponding pesticide list determined by existing toxicological data which is available online at: www.cityofdavis.org/pgs/ipm/phaer.cfm

The goals of the PHAER Zone System are to

- Identify concrete risk reduction goals (Green Zone management).
- Establish a measurable timeline for risk-reduction activities (transition to Green Zones or other management goals).
- Communicate to the public the general level of pesticide hazard on a site-by-site basis through colored zones maps.
- Provide a platform for public education through a regional adoption of the PHAER Zone System.

For more information please contact the City of Davis IPM program at (530) 757-5656.