

Know your Shopping Bags

Over the last year we've witnessed plastic bag bans in San Francisco and Leaf Rapids Manitoba, the introduction of the \$960 designer hand-wrought silk shopping bag, and more recently, in an attempt to green their operations, a trend towards degradable and compostable bags by retailers. Here in Calgary I've been handed 'compostable' plastic bags at Mountain Equipment Co-op, 'degradable' plastic bags at Community Natural Foods, and if that's not confusing enough, Planet Organic is now supplying customers with 'oxo-biodegradable' plastic bags. It now seems that the long-despised plastic bag is facing some tough competition but how do these alternatives measure up and what can a person do with them once they've unloaded their precious contents?

What are Compostable Plastics?

Before getting into the details, simply put, 'compostable' plastics are made from farmed products like cornstarch and are broken down by microorganisms. 'Degradable' and 'oxo-biodegradable' plastics are made from fossil fuels and additives, breaking down when exposed to heat, moisture and/or ultraviolet (UV) radiation. Because each of these bags has unique qualities, they must be differentiated before deciding whether they should be placed in the garbage, compost or recycling bin.

According to the American Society for Testing and Materials (ASTM), an international body that has established standards for compostable and degradable plastics, compostable plastics are "capable of undergoing biological decomposition in a compost site..., such that the plastic is not visually distinguishable and breaks down to carbon dioxide, water, inorganic compounds, and biomass..., [leaving] no toxic residue." Compostable bags do not undergo this ideal transformation when placed in a landfill, however. This is because modern-day landfills are largely void of oxygen. When compostable items, including grass clippings, leaves, fruit and vegetables, coffee grinds, newspapers, etc. enter a landfill, methane gas is created. This is problematic because methane - a greenhouse gas - is 20 times more effective at trapping heat than carbon dioxide. In 2003 alone, as a result of compostable materials, Calgary's landfills emitted as much greenhouse gases as nearly 75,000 sport utility vehicles (SUVs) driving for an entire year. Methane release from landfills will only increase if consumers start adding compostable plastic bags to their garbage.

Don't Recycle Compostable Plastics

As for recycling, compostable plastics are not intended to be recycled and when they enter the mix, they create all sorts of headaches for recyclers. Plastics and compostable plastics have very different properties and several local plastic recyclers have stated that mixing the two results in serious product quality issues and therefore cannot be done. If consumers are to truly make good use of their compostable bags, they must be composted.

The other 'degradable' plastic bags, including 'oxo-biodegradable' plastics, are simply fossil fuel-based plastics that have been modified with additives so that they degrade faster. Large molecules are broken into smaller molecules or fragments by moisture, heat or exposure to UV light and once the fragments are small enough they will biodegrade. It should be noted that there are no requirements for this to be done by "naturally occurring microorganisms", meaning that degradable plastics, as defined under the ASTM standard, cannot be claimed to be compostable. They can, however, be recycled at the various green recycling bins around Calgary and unlike standard plastic bags that may hang onto their contents for hundreds of years in a landfill, degradable and oxo-biodegradable bags are likely to decay in as little as twenty four months.

There is a Difference!

It's important to understand the difference between these bags and the impact they can have on the environment. Replacing normal plastic with degradable and compostable bags is not without problems and this information should not deter citizens from making the best shopping bag choice – not using a bag at all! With 55 million plastic bags going home with Canadians each and every week, individuals can make a meaningful contribution to the problem by simply loading up a reusable bag. If, however, you find yourself with one of the alternatives, remember – if it says compostable, compost it. If it doesn't, do your part and recycle it.

(from Lindsay Luhnau, Coordinator, Environmental Education for www.CleanCalgary.org)