Plastic Bags

NATIONAL RECYCLING WEEK
PLANET ARK

Factsheet

About Plastic Bags

Plastic bags are all around us – we use them for shopping, carrying and storing, disposing of rubbish and more. Australians use about 3.9 billion[i] lightweight supermarket shopping bags every year.

There are two major types of plastic shopping bags. Lightweight, checkout-style bags are most commonly found in supermarkets and takeaway stores, and are made from high density polyethylene or HDPE. The heavier, tougher plastic bags found in boutique and department stores are made from low density polyethylene or LDPE.

Environmental Impacts

Plastic bags are linked to a range of environmental impacts. They are one of the most obvious displays of our throw away society. Even though many are made from a non-renewable resource (oil), the vast majority have a useful life of minutes - from the shop to the car and from the car to the kitchen. Then they are thrown away. As oil supplies become scarcer, we simply can't afford to throw away such a valuable resource.

Plastic bags also present life-threatening risks to wildlife and livestock. Turtles, whales, birds and fish are especially vulnerable. Plastic bags floating in water can be mistaken for food. Once ingested, a bag can prevent the animal from digesting food or can prevent them submerging.

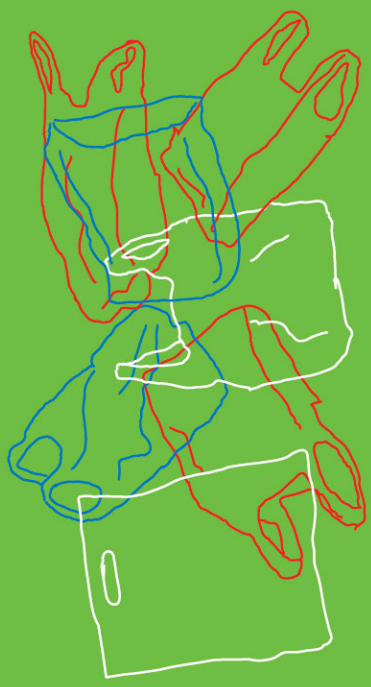
Biodegradable and Degradable Bags

What Is A 'Biodegradable Bag'?

Biodegradable bags are made from plant-based materials like corn and wheat starch rather than petroleum. Under certain conditions when oxygen is present, biological processes break these bags down into molecules such as carbon dioxide, water and methane[ii]. Currently there are no mandatory standards in Australia regulating the amount of time it takes a biodegradable bag to fully biodegrade[iii]. However, 'compostable bags' generally refer to biodegradable bags that will biodegrade within 6 months if composted[iv].

What Is A 'Degradable Plastic Bag'?

'Degradable plastic bags' (also known as 'oxo-degradable plastic bags') are made from petroleum products that contain metal



How do you recycle computers, corks, cartridges and cans?

For information on council services and drop-off locations in your area... visit

RecyclingNearYou.com.au
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or call

RECYCLING HOTLINE 1300 733 712
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compounds to help accelerate their breakdown. Oxygen, ultra-violet light and/or heat chemically weaken degradable plastic bags until they become brittle and fragment into smaller pieces. This process may take up to 5 years to occur. Oxo-degradable bags cannot be composted.

While there aren't mandatory standards on biodegradability or degradability for plastic bags in Australia, manufacturers can choose to comply with the voluntary Australian standard (AS) 4736–2006 Biodegradable plastics—Biodegradable plastics.

Are biodegradable and degradable plastic bags the answer?

For food scrap recycling purposes, compostable bags are becoming increasingly useful. A small but growing number of local councils offer a household food recycling service, where residents place food scraps into compostable bags. Once collected, the scraps are taken to industrial composting facilities for processing. As food scraps make up a significant proportion of the average Australian household's waste, mainstream food recycling services could lead to big reductions in greenhouse gas emissions from landfills and increased recovery of valuable nutrients for use in fertilisers and soil conditioners.

For shopping bag purposes, single-use biodegradable bags and oxo-degradable plastic bags do not yet provide a comprehensive solution to the issue of single-use bags. This is because:

- They still present a litter problem.
- Until they have fully degraded they still pose a threat to animals that ingest them.
- They are not suitable for recycling in mainstream recycling systems as they contaminate the recycling process.
- If biodegradable bags are sent to landfill, they break down without oxygen to produce methane, a greenhouse gas with a warming capacity 21 times more powerful than carbon dioxide.
- The environmental impact of oxo-degradable plastic after it has fragmented to small pieces or powder has not yet been determined.
- It can be difficult to distinguish between different types of single-use bags, and therefore to decide on the most responsible disposal option.

How can I tell if a bag is conventional plastic, biodegradable or degradable?

It can be difficult to tell if a bag is made from conventional plastic, biodegradable materials or oxo-degradable plastic. Some bags may be labelled as '100% degradable and recyclable' or 'This bag is made of 100% biodegradable plastic'. However these claims are often confusing and incorrect. If unsure, you can try asking your retailer or the manufacturer for information – or better still, avoid using single-use plastic bags whenever possible.

Go Plastic Bag Free!

The best action you can take for the environment on this issue is to reduce your use of single-use bags, by using and reusing long-life reusable bags.

- Use reusable bags or a backpack for your shopping. Onya provides a range of reusable bags including large shopping bags and smaller produce bags for fruit and vegetables. Most supermarkets also sell reusable 'green bags'. Although they are still made from polypropylene, a type of plastic, they provide greater environmental benefits than many other reusable bag options[v] - as long as you remember to reuse them!
- Instead of putting your household garbage in plastic bags, put dry or clean items, like plastic wrapping, straight into your bin. For wet or smelly garbage, such as non-compostable food scraps, try placing it in old bread bags, the bags from inside cereal boxes or even a sheet of newspaper.
- Reuse any plastic bags that you do have. Damaged plastic bags can be recycled through special plastic bag recycling collection bins at major supermarkets. Don't put plastic bags in your kerbside recycling bin, as they can wreak havoc with the machinery in recycling facilities.
- Encourage your town or council to go plastic bag free, and/or implement plastic bag reduction actions such as a community bag-share program. See our Tips for Councils and Towns page on PlasticBags.PlanetArk.org for more information, including case studies of towns that have made the change.

Recycling Plastic Bags

Take your plastic bags (both HDPE and LDPE) to major supermarkets such as Coles, Woolworths, Franklins or Safeway for recycling – look for the plastic bag recycling collection bin at the front of the store. To find plastic bag recycling locations in your area, visit RecyclingNearYou.com.au and search for 'Plastic shopping bags'. Torn or damaged reusable 'green bags' that can no longer be reused can also be placed in these collection bins.

Plastic bags and biodegradable bags should not be placed in your kerbside recycling bin at home as they can interfere with the sorting process and machinery at recycling facilities.

Government Action

In Australia

The following Australian States and Territories have already taken action to ban the supply of lightweight, single-use HDPE plastic bags in retail outlets.

- In South Australia a ban has been in place since 2009. The SA government estimates that there are almost 400 million less plastic bags in SA every year as a result of the ban. For more information visit www.zerowaste.sa.gov.au/plastic-bags
- In the Northern Territory a ban took effect from 1 September 2011. For more information visit www.greeningnt.nt.gov.au/plasticbagban/index.html
- In the Australian Capital Territory a ban took effect from 1 November 2011. For more information visit http://www.environment.act.gov.au/waste/plastic_bags

These bans do not apply to biodegradable bags, compostable bags, or barrier bags which are dispensed from a roll to hold items such as fruit and vegetables.

In other countries

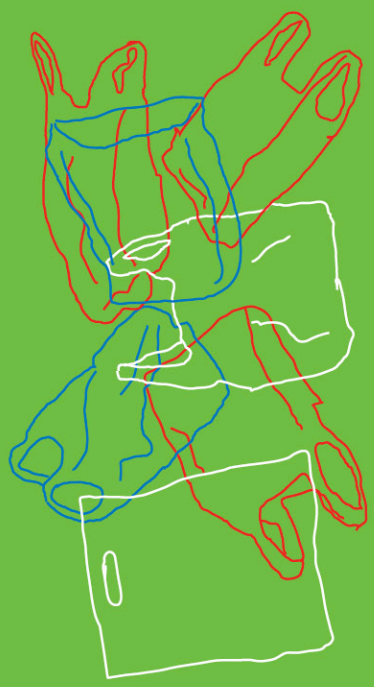
The governments of many other countries and municipalities have taken action to curb plastic bag use, from Europe and Africa to Asia and North America. Initiatives range from placing a levy on plastic shopping bags, banning plastic shopping bags that don't meet a minimum thickness, or banning plastic bags altogether. For more information, see the Government Action page of our Plastic Bag Reduction website.

More information

Planet Ark's Plastic Bag Reduction website (PlasticBags.PlanetArk.org) contains more information on plastic bags and plastic bag reduction, including Frequently Asked Questions; handy tips for consumers, retailers and councils; research reports; local and global case studies and more.

October 2012

[i] Department of Sustainability, Environment, Water, Population and Communities website (environment.gov.au/settlements/waste/plastic-bags/index.html, accessed 26/9/11). Statistic from 2007.
[ii] Clean Up Australia website (cleanup.org.au/au/Whatelsewesupport/faq1.html, accessed 26/9/11)
[iii] 'Biodegradable, degradable and recyclable claims on plastic bags'. Australian Competition and Consumer Commission, 2010.
[iv] EV0422: Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle: Report to the Department for Environment, Food and Rural Affairs, January 2010. Loughborough University.
[v] 'Comparison of Existing Life Cycle Analysis of Shopping Bag Alternatives.' A Report for Sustainability Victoria by Hyder Consulting, April 2007.



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