

# Food Packaging Industry can Reduce Plastic Waste

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The food packaging industry is a large producer of plastic containers which have a short useful life. This industry is responsible for considerable plastic waste ending up in landfills or as litter. It needs to understand that with plastics there are two sides and both need to be considered: the supply side and the waste or disposal side. Plastics are intentionally designed to not break down in the environment. That is what makes them so attractive to this industry, but these same properties also carry over to the waste side and cause problems there.

The manufacturers that really focus on making their plastic recyclable are to be applauded. But recyclable does not mean recycled. A simple fact many people do not understand. Simply because a PET bottle can be recycled does not mean it goes into a recycling bin. More often than not it ends up in the trash bound for a landfill. Is this the manufacturers' fault? Well partially yes. They are the ones making these plastic items and they know that most of them will not get recycled and some will end up as litter. Yet they absolve themselves of any responsibility by showing the recyclable label on the bottles. If these manufactures were to actively support programs like container deposit schemes instead of lobbying against them, then we would have substantially higher recycle rates (over 80 % instead of 25%) and a lot less litter of their products. This has been well proven by regions that do have these schemes in place.

So many companies say they are being environmentally responsible and following sustainable practices. This is more for company spin than reality in many cases. To say food would be too expensive if it was packaged in other less waste causing packages is no excuse to pollute the planet. For their packaging to be sustainable and the world not to be left in a worse condition due to their products, then perhaps they should be charging the higher real price for their food items.

The manufacturers claim they are moving to thin walled plastic vessels as a way to reduce the volume of plastic used. Reduction of volumes certainly helps them lower their manufacturing costs, but a plastic tray littering the ground, whether it is a thick or a thin wall, is still a plastic item polluting the ground. If it goes to a landfill, a thin one may take a few 100 years to break down vs multiple 100 of years for a thick one. Does that make us feel better?

A trip through a grocery store will show plastic food packaging with either no recycling symbol on it or a #7 on it. Both of these types have to be thrown out to trash. Food packaging should only be made from commonly recyclable plastic types and the recycle symbol should always be printed on the package.

There is a current trend to replace more and more items packed in paper or cardboard packaging with plastic wrapping. Some items used to be packaged in cardboard boxes for freight purposes, such as a 12 pack of bottles. Now they are also packed in plastic shrink wrap. So now we have plastic wrapped in plastic. Apart from being lower cost to produce, all these changes are doing is generating more plastic to dispose of and create more waste issues. How environmentally responsible is this?



The food industry is also moving towards smaller and smaller servings for convenient snack sized servings. Bite size servings of crackers each in their own disposable plastic package, or small 250 ml bottles of drink are contributing significantly to the number of items of plastic waste.

Design for total life and not just the short life of the product inside the plastic package needs to be considered. The juice in a two litre juice bottle only lasts for a few days before it has been consumed. Yet the bottle will last many 100's of years afterwards. This not only makes no sustainable sense, but the design of the bottle features itself make an even worse hazard. Closed rings on bottles are a well documented hazard to wildlife. One common juice bottle has three separate rings on it: one for security, one as a lifting handle and a third for the lifting handle to attach to the top of the bottle! These rings are clearly designed for the use of the bottle while it has juice in it and a complete disregard for the bottle once disposed. A simple redesign of the bottle to incorporate a T handle instead of a loop handle and eyelets on the bottle neck could eliminate all these rings, making the bottle safer for the environment.



Another issue that is attracting a lot of attention for the manufacturing side is the use of bioplastics claiming a green alternative to petroleum based plastics. While it is refreshing to see oil based products being replaced, at some point we must ask: is the use of land to grow plants, from which disposable short lived plastic packaging is made, rather than growing food, the best use of our land? The world population is projected to be 9 billion by 2050. Some bioplastics even make the exact same plastic molecule as what is derived from petroleum sources meaning their products have the exact same waste issues as the plastics made from petroleum. Most bioplastics are not designed to address their disposal side. They only address the manufacturing side by marketing their so called green non petroleum attributes. When it comes to disposal, these bioplastics will not break down in a landfill. This is stated on their websites. Most bioplastics require composting facilities for their biodegradation. Without these composting conditions the plastics will not biodegrade. Their manufacturers know this. Bioplastics are a clear example of manufacturers focusing their efforts on the supply side and paying less attention to the waste side of their products. From a waste point of view it is not clear that bioplastics offer any advantages at all.

Finally, in recent years there has been the release of landfill biodegradable additives. These have the property of making almost any plastic biodegradable when disposed to a landfill. Since most of our plastic trash at the moment ends up in a landfill, then making the plastics able to biodegrade away in a landfill is what food packaging manufacturers ought to be considering. No breakdown occurs while the plastic is not in a landfill. These additives also encourage recycling. The plastic can be recycled as many times as is practical as this then spreads the additive around to other plastics. Eventually when the recycled items do get disposed to a landfill, they will then begin to biodegrade away. The additives are also USA FDA compliant which makes them attractive for use in food packaging containers.

In summary, while food packaging manufacturers make many claims about being environmentally responsible, many of the changes they make are geared towards lowering their production costs on the manufacturing side of the plastics issue. There are a lot of changes that could be implemented

to address the waste side for the items they produce. These latter changes while perhaps not directly benefitting their bottom line, will leave us with a better environment, an environment with less of their plastic trash. This would enhance our perceptions of these pollution generating companies and perhaps their bottom lines would in fact increase.

Medium Length Version

## Food Packaging Industry can Reduce Plastic Waste

The food packaging industry is a large producer of plastic containers that have a short useful life. It needs to understand that with plastics there are two sides that both need to be considered. The supply side and the waste or disposal side. Plastics are intentionally designed to not break down in the environment. That is what makes them so attractive to this industry but these same properties also carry over to the waste side making such problems there.

The manufacturers that really focus on making their plastic recyclable are to be applauded. However because a PET bottle can be recycled does not mean it goes into a recycling bin. More often than not it ends up in the trash bound for a landfill. Is this the manufactures fault? Well partially yes. They are the ones making these plastic items and they know that most of them will not get recycled and some will end up as litter, yet they absolve themselves of any responsibility by showing the recyclable label on the bottles. If these manufactures supported container deposit schemes instead of lobbying against them, we would have substantially higher recycle rates and a lot less litter of their products.

The manufacturers claim they are moving to thin walled plastic vessels as a way to reduce plastic volume used. Reduction of volumes certainly helps them lower their manufacturing costs. If the plastic item goes to a landfill, a thin one may take a few100 years to break down vs multi 100 years for a thick one, does that make us feel better?

Often a poor choice of plastic material is made. A trip through a grocery store will show plastic food packaging with either no recycling symbol on it or a #7 on it. Food packaging should only be made from commonly recyclable plastic types and the recycle symbol should always be printed on the package.

There is a current trend to replace more and more items packed in paper or cardboard packaging, with plastic wrapping. This is generating more plastic to dispose of. How environmentally responsible is this?

The food industry is also moving towards smaller and smaller servings for convenient snack sized servings. This is contributing significantly to the number of items of plastic waste.

Design for total life not just the short life of the product inside the plastic package needs to be considered. Closed rings on bottles are a well documented hazard to wildlife. One common juice bottle has three separate rings on it, one for security, one as a lifting handle and a third for the lifting handle to attach to the top of the bottle. These rings are clearly designed for the use of the bottle while it has juice in it and complete disregard for the bottle once disposed. A simple redesign of the bottle to incorporate a T handle instead of a loop handle and eyelets on the bottle neck could eliminate all these rings.



Another issue that is attracting a lot of attention for the manufacturing side is the use of bioplastics claiming a green alternative to petroleum based plastics. Some bioplastics even make the exact same plastic molecule as what is derived from petroleum sources. Bioplastic products when made by these methods have the exact same waste issues as the plastics made from petroleum. Most bioplastics are not designed to address the disposal side of issues. When it comes to disposal, these bioplastics will not break down in a landfill. This is stated on manufacturers websites. Most bioplastics require composting facilities for their biodegradation. Without composting conditions the plastics will not biodegrade and the manufacturers know this. From a waste point of view it is not clear that bioplastics offer any advantages at all.

Finally in recent years, there has been the release of landfill biodegradable additives. These have the property of making almost any plastic biodegradable when disposed to a landfill. No breakdown occurs while the plastic is not in a landfill. These additives also encourage recycling. The plastic can be recycled as many times as it practical as this spreads the additive around further and eventually when the recycled items do get disposed to a landfill, they will then begin to biodegrade away. The additives are also USA FDA compliant making them attractive for use in food packaging containers.

To sum up, while food packaging manufacturers make many claims about being environmentally responsible, many of the changes they make are geared towards lowering their production costs on the manufacturing side of the plastics issue. There are a lot of changes that could be implemented to address the waste side for the items they produce. These latter changes while perhaps not immediately benefitting their bottom line, will leave us with a better environment, more free from their plastic trash. Perhaps that would enhance our perceptions of these pollution generating companies and maybe their bottom lines would in fact go up.