

Plastics | SA

Plastic Alternatives – Blessing or Curse?

On the 3rd of July, citizens throughout the world celebrated *Plastic Bag Free Day*. This, hot on the heels of Environment Day and World Oceans Day, both celebrated a few weeks earlier. On all three these days, and throughout the month of *Plastic Free July*, consumers were encouraged to #beatplasticpollution and join the challenge to “choose to refuse” single-use plastics.

Calls for action such as these make it clear that consumers around the world are tired of visible litter. By responding on social media platforms with zealous passion, they demand to see an end to plastic packaging such as carrier bags, drinking straws and cotton ear buds.

Recognizing an opportunity to gain significant marketing and PR mileage some retailers and brand-owners were quick to respond to these public outcries by introducing alternatives. Alternatives included paper bags and piloting a compostable bag made from starches, cellulose, vegetable oils and combinations as an “environmentally friendly alternative to plastic bags” to replace all plastic carrier bags, barrier bags and fruit and vegetable bags.

To the uninformed, this might seem an excellent and practical solution to solve an irritating problem. The reality, unfortunately, is far from the truth. Many of the so-called “plastic alternatives” that are now flooding the market have not been properly evaluated.

Offering a compostable carrier bag to consumers sounds good in theory; however further scrutiny reveals that these bags and other biodegradable plastic products will *only* degrade in a properly managed composting facility and definitely not in the normal suburban compost heap.

According to the internationally accepted standard for compostability (EN 13432), the packaging must be mixed with organic waste and maintained under test scale composting conditions for 12 weeks. If not kept under ideal conditions, these bags *will not* biodegrade and are most likely to end up in one of the country’s landfills (also not ideal composting environment) or worse – in the recycling stream where it will contaminate the entire stream and render more material unrecyclable.

South Africa has a robust and well-developed plastics recycling industry that provided jobs to more than 52 000 collectors who collect waste that is mechanically recycled into new raw materials (more than 313 700 tons of plastic material) in 2017 alone. Thanks to their dedicated efforts and the South Africans committed to recycling, 214 220 tons of CO² and enough landfill space to fill 714 Olympic sized swimming pools were saved in one year - this is the equivalent weight of 560 Airbus A380 aeroplanes, saving enough fuel to keep 178 000 cars on the road for one year!

Unfortunately, the same cannot be said of these replacement materials. All of these products will eventually reach the end of life and will need to be discarded. A non-woven *plastic* reusable plastic bag, for example, is not currently recycled in South Africa owing to the fact that the stitching and webbing used in the manufacture of the bag are made of different materials to the bulk of the bag.

Likewise, drinking straws made from alternate materials such as glass or bamboo tubing are neither currently recycled in South Africa nor, collected by waste pickers due to their low value and weight.

On the other hand, when combined with a responsible, well-managed waste management system, a recyclable product not only underwrites and supports a circular economy, but also ensures that precious resources are protected and reused for as long as possible. Rejecting a “fit for purpose” plastic packaging material with a low carbon footprint, in favour of an alternative material that is imported, more expensive, with a higher carbon footprint and potentially uses scarce food resources as raw material could creating an even bigger problem, rather than solve this one.

Plastics don't litter – people do. Opting for biodegradable packaging is not going to change the human behavior of littering. Consumers need to commit to protecting our environment and educate themselves on the facts around packaging alternatives, and the benefits of effective plastic recycling and correct disposal of materials they no longer need. The marketing jargon promoting these replacement materials should be researched before boldly switching to alternative materials.

Similarly, it is of vital importance that legislators, local government, consumers and the plastics industry continue to work together on developing solutions that are sustainable, well researched and properly evaluated. Only through this combined effort can we ensure that the resources are utilized and managed efficiently and cater to an increasing population seeking the unrivaled benefits offered by plastics packaging when it comes to preventing food waste, extending shelf life of products, and protection against breakage.

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