Why Biodegradable PHA Should Play a Role in California's Single Use Plastic Bag Ban

Bag bans are nothing new in the State of California.

By Laura Mauney

Prior to Governor Jerry Brown's signing of SB 270 (http://leginfo.ca.gov/pub/13-14/bill/sen/sb_0251-



"This bill is a step in the right direction — it reduces the torrent of plastic polluting our beaches, parks and even the vast ocean itself.

We're the first to ban these bags, and we won't be the last."

(http://gov.ca.gov/news.php?id=18742) — California Governor

Jerry Brown, who signed the California plastic bag ban bill, SB

270, on September 30, 2014

0300/sb_270_bill_20140930_chaptered.htm), the new California state law that will put an end to free giveaways of petro plastic shopping bags by retailers, 120 local California communities had enacted similar bans.

Those communities include both Los Angeles City and County, a metro area that boasts a population of over 10 million people.

For eco-minded individuals and families, adopting reusable shopping bags – which have been sold for about \$1 apiece at most California stores for over a decade – has been a growing trend.

Within that framework, the statewide ban is not a big shocker to California residents, but more like the flourish at the end of a signature.

When viewed through the prism of its impact on the state's 50 million+ citizens, the law is unquestionably a victory for public safety, health, and the environment.

Nonetheless, the bag ban risks running out of business a small host of California companies that manufacture single use plastic bags.



Single use plastic bags are often distributed for single item purchases, like candy bars, or doubled up at checkout to hold extra heavy items.

Grocers, drug stores, big box stores, convenience stores – yes, all those stores – hand out as many as 13 million plastic bags with purchases, large or tiny, throughout a given California year.

Though some consumers have consistently and religiously brought single use bags back to stores over the years, to shove down into recycling bins, most bags wind up shoved to the back of kitchen cabinets and drawers, or dumped into landfills, or cast upon streets and beaches throughout the state.

Many are recycled in homes as trash can

liners and reused as pickup bags for pet waste, actions that somewhat offset the wasteful aspect of the single use scenario, but which, from a waste management perspective only make matters worse by mixing organic matter with petro chemicals.

Scores of homeless people in Los Angeles, meanwhile, wrap themselves up in discarded plastic bags on cold, winter nights.

Lightly, lilting bag litter drifting about in the wind, as if it is alive, has become such a common site on the streets that moviemaker Alan Ball adopted it as a metaphoric image in his Oscar winning film, *American Beauty*.

The overabundance of bags littered all over the place even inspired one California reusable bag manufacturer, Chico Bag, to create the "Bag Monster" as a marketing tool.

How on Earth Will Consumers and Businesses Survive without the Bag?

13 million bags is a lot of bags.
Whether it's a lot of trash that will stop happening, a lot of business lost, or a lot of inconvenience for shoppers depends on how one views the problem.

Though touted by some opponents as an attack on the plastics industry, California SB 270 incorporates language designed to accommodate companies that are in the business of making plastic products.



"A throw-away society is not sustainable. Moving from single-use plastic bags to reusable bags is common sense. Governor Brown's signature reflects our commitment to protect the environment and reduce government costs." (http://gov.ca.gov/news.php? id=18742) – California State Senator Alex Padilla, co-author of SB 270.

The idea is to give existing manufacturers time to convert facilities and processes into compostable plastic, recycled paper, or reusable bag production, if they so choose.

The ban does not take effect for grocers and pharmacies until July 1, 2015. Convenience and liquor stores have until July 1, 2016 to make the switch.

For those savvy enough to continue making bags for a state of 50 million citizens, a \$2 million loan allocation fund will be established to facilitate any manufacturing changes.

Additionally, though more shoppers may go ahead and start subbing out single use bags with reusable bags, that won't be convenient to all. Nor will it be viable in all scenarios. In other words, single use bags will still hold a place in the bag ban scenario.

With that reality in mind, stores will be permitted to sell compostable plastic bags and/or paper bags made of recycled material at a cost of ten cents apiece.

At that price, a consumer carrying out 5-10 single use bags will be paying an extra \$0.50 to \$1.00 per shopping trip.

MHG Biodegradable PHA Plastic Requires No Manufacturing Change

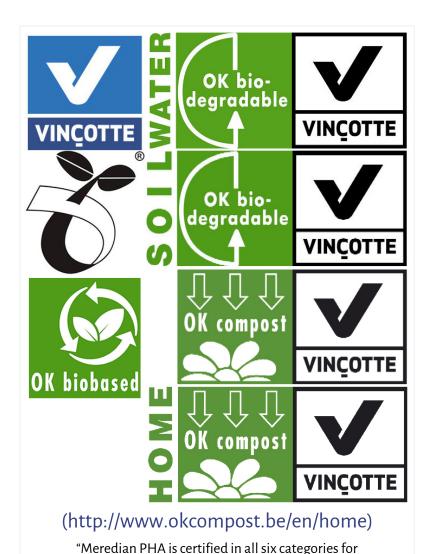
While trending away from our disposable culture is certainly a good idea, there is little question that unless all new bags are made of compostable content, even reusable shopping bags will become problematic waste at the end of life cycle.

SB 270, in fact, requires third party certification for the material content of reusable bags, presumably to protect consumers from recycled toxins.

One action that bag makers can take sooner, rather than later, is to replace petro-plastic feedstock completely with compostable feedstock, like MHG's low impact, biodegradable PHA plastic, which requires no manufacturing change.

MHG's PHA is a material that will decompose organically only when an item reaches its end of life and is tossed away.

Beyond the value of switching to PHA for single use compostable bag production, the flexibility, longevity, and ability to withstand UV radiation of PHA makes it a much healthier material for use in reusable bags.



environmentally safe biodegradation including soil, marine water

and fresh water. These attributes along with the fact that Meredian PHA is produced from a sustainable, renewable

Additionally, MHG's PHA can be adapted to plastic produce bags and food storage containers, product arenas that will continue

resource offers the global marketplace a biopolymer material that is uniquely positioned to respond to these environmental challenges." – Blake Lindsey, MHG Chief Administrative Officer & Founder

to generate petro plastic pollution until more bans are passed, or unless a compostable substitute is deployed.

Does Your Company Manufacture Plastic Bags?

Please visit **MHGBio.com** (http://www.mhgbio.com/), to find out more about how biodegradable plastics from MHG can be adapted to a wide range of product manufacturing and packaging requirements.

Learn more (http://www.mhgbio.com/mhg-sustainability/mhg-certifications/) about how MHG's biodegradable PHA plastic is **Certified** (http://www.mhgbio.com/mhg-sustainability/mhg-certifications/) for all six levels of biodegradability and compostability.

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