

Q&A: Improving Sustainability Without Compromising Quality

Q&A with Fred Melms, Manager — Packaging R&D, WhiteWave Foods

WhiteWave Foods is one of the largest producers of creamer singles in North America, primarily through its International Delight® and LAND O LAKES® brands. The company has recently developed alternative packaging to reduce the environmental impact of its products. *Food Manufacturing* spoke with Fred Melms of WhiteWave about the company's sustainability initiatives and its new packaging technology.



Q: What are some of your sustainable packaging initiatives?

A: Our latest sustainable packaging initiative is a package redesign for our creamer singles that will allow for the removal of a material called polyvinylidene chloride (PVdC) which has traditionally been used to keep product fresh for a long period of time. Specifically, we have developed a more earth-friendly packaging solution, which won't impact the product's customer-guaranteed shelf-life.

The package redesign is first step in a series of changes that we are undertaking. The next step includes studying the ability to reclaim and reuse post-industrial scrap from the manufacturing process to make packaging for new creamer singles.

Q: What is PVdC, and how does it impact the environment?

A: PVdC, a variation of polyvinyl chloride (PVC), has the potential to release carcinogenic dioxins when incinerated. There are also concerns that PVdC packaging could pollute the recycling stream if mingled with recycled materials. These potential impacts drove WhiteWave to pursue removing PVdC from its packaging.

Q&A: Improving Sustainability Without Compromising Quality

Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

Q: What are you developing as a replacement, and how does it work?

A: Our R&D Team, partnering with key suppliers, developed a new thermoforming film that offers an alternative to PVdC without adding bulk.

Q: Once the PVdC is removed from the packaging, what impact will this have regarding the company's sustainability?

A: Once the removal is complete, the creamer singles will use less overall material in the cup structure, which will result in:

- The elimination of 1.1 million pounds of material from landfills every year
- More efficient shipping, as less material requires fewer truckloads and fuel; specifically, 33 fewer trucks of waste material and 49 fewer trucks between our suppliers and facilities

Q: What do you have planned as far as reclaiming and reusing post-industrial scrap? How will that process work, and how will it be reused?

A: Picture a long, thin sheet of plastic being fed into a giant machine that punches out, while simultaneously filling, little cups; not unlike cutting cookies out of a sheet of dough. There's a lot of leftover "dough" or material from that process. In the future, because of removing PVdC, we'll be able to start reclaiming and reusing the leftover scrap produced during the cookie-cutting process to into the plastic sheets to make more cups. This will allow us to divert even more material from the landfills.

Q: What challenges have you faced while implementing these more sustainable processes?

A: We've faced the common challenges of any packaging redesign which is to create more sustainable packaging while ensuring that the functionality of the package is not compromised. It wasn't a quick fix item because a simple solution didn't exist. That thin sheet of plastic was actually made up of seven layers, and it was one of those layers that kept the post-industrial scrap from being recyclable. But it wasn't as simple as just removing the layer (PVdC) because that layer was also one of the major factors that allowed us to keep the product inside fresh for a long period of time. So the team actually had to solve two problems at once. Remove the non-reusable layer without compromising the packaging's ability to keep the product from going sour too soon or adding bulk to the package. It took two years to complete, and required a lot of testing and tweaking, but we're pleased to be able to announce that we finally got there.

Q: How do you see the packaging industry changing in the future with regards to sustainability?

A: First and foremost, any package must be functional, safe and cost effective. A truly sustainable package is one that strikes the balance between those critical

Q&A: Improving Sustainability Without Compromising Quality

Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

factors while being mindful of the lifecycle or footprint of the package—how much material is used, the quality and the sustainability of the material and whether it's reusable/recyclable. There's a lot of great innovation happening right now and a lot more to learn.

In addition to the creamer cups, in 2009 WhiteWave's International Delight brand introduced a new bottle that reduced the bottle's carbon footprint by 30 percent by increasing transportation efficiency and integrating materials that require less energy and water to produce. We're going to keep looking for these opportunities.

Interview By Lindsey Coblentz, Associate Editor, Food Manufacturing

Source URL (retrieved on 05/03/2015 - 9:14am):

<http://www.impomag.com/articles/2011/04/q-improving-sustainability-without-compromising-quality>