

developed a proprietary multi-step microfiltration process for its coconut water to enable the company to reduce the weight of its PET bottles but extend shelf-life and protect the flavor of the beverage.

Heat pasteurization is typically used to assure the safety of low-acid beverages. Giannella Alvarez, chief executive of the brand, told *Plastics in Packaging* that this was not an opinion as it destroys the nutrients and flavors found in the raw product.

When we moved from high-pressure processing (HPP) to our new multi-step microfiltration process we were able to adopt new bottle designs that have on average 24 percent less plastics than our previous bottles," she said, "we are not aware of any other coconut water processed in this way. Microfiltration is used for some bottled waters where flavor is less sensitive."

When the coconut water leaves the microfiltration system, it is

"Multistep filtration allows us to have a superior flavour with any of the pasteurized/UHT products on the market while delivering unparalleled microbiological control and product quality," she explained.

Alvarez added that micro-filtration does not cost more than HPP: "We have added two new filtration steps and many other quality enhancing steps in to our production process. Our cost of filtration is similar to HPP with advantages in more predictable performance and less damage to our packaging.

"Our belief is that the higher costs associated with our proprietary non-thermal process are worth it to deliver a superior sensual experience,"

With solid distribution in the 'Natural' channel, Harmless Harvest is seeking to expand into other channels this year as the demand for organic products increase. The brand is already in thousands of stores nation-wide.

"We are committed to being



harmless to our plant and have developed a proprietary process that allows us to maintain the taste of the coconut water".

The product offers a shelf-life of up to 60 days (compared with the previous 45 days) and requires chilled distribution to limit microbial activity.

Harmless Harvest's patent filing is currently ongoing and the company was unable to disclose the elements that it is protecting. The company refused to disclose the suppliers of the PET bottles and performs but did confirm that it uses a PET shrink label on the bottles to facilitate easier recycling.

*More Information from:  
Harmless Harvest,  
[www.harmlessharvest.com](http://www.harmlessharvest.com)*

## Rajoo's Pentafoil -All- PE 5-layer Co-extruded Blown Film Line

Tailored to meet specific needs, PENTAFOIL all-PE 5-layer co-extruded blown film line helps raise the performance bar of films with an unprecedented efficiency ratio; Benefits of down gauging, lower cost of final film, adaptability across applications enhances the ROI still further!

Indigenously designed and built, this line incorporates the latest advancements in technology such

as Cylindrical Spiral Die (CSD), Internal Bubble Cooling, Circumferential Profile Control with elevated air ring and triple lip, full automatic winder and touchscreen based supervisory control panel. This 5-layer line while ensuring a thin skin layer of property polymers and a thick core layer of inexpensive materials, offers enough versatility for processors to produce films that comply to difficult industry

demands with specifications that provide a competitive edge to its customers' business, both in terms of diverse film properties and of course costs. The film capabilities with a 5-layer are significant when compared to a conventional 3-layer alternative. The five layer film line will be at the K-2016, event at Dusseldorf, Germany.

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