

Israel-based StePac develops novel modified-humidity films for retail

By Gill McShane

Identifying a gap in the retail market, StePac has developed a "first-of-its-kind" packaging solution that can modify humidity levels to extend the shelf life of highly respiring produce, such as avocados, berries, mini cucumbers, green beans, squash and others that are sensitive to moisture.

Unlike conventional retail modified atmosphere (MA) packaging, the Israeli company says its new Xgo™ Modified Atmosphere/Modified Humidity (MA/MH) films provide a customised modified atmosphere, as well as eliminate excess product moisture from within the packaging. This reduces the risk of product decay, and thereby opens up the usage of MA packaging to a wider range of fruits and vegetables.

"Traditionally, films for retail packaging applications are used to create modified atmospheres that extend product shelf life, but they are constrained in their breadth of application by their low water vapour transmission rate (WVTR), meaning they're inadequate for certain produce items and supply chains," Gary Ward, technical development manager at Johnson Matthey (owner of StePac), told PBUK.

"In our new films, we manipulate the WVTR to eliminate excess moisture and to achieve the right modified-humidity level, as well as the right modified atmosphere. The key is understanding which WVTR to use for which application. The solution is really the first of its kind."

The films are suitable for automated flow packing. They also have anti-fog/mist properties, a high-clarity, glossy appearance and an easy-seal feature.

Ward revealed to PBUK that an Xgo MA/MH film is currently being used for the sea shipment of Colombian passionfruit to a leading UK retailer. He added that a major retailer in the United States is also running commercial trials with an Xgo MA/MH film to pack and ship squash from Mexico. He declined to disclose the names of either retailer at this time.



"Squash is another product that's sensitive to decay when exposed to excess moisture," Ward pointed out. "But this new film keeps the squash dry and reduces the risk of decay en route."

"The films will also be suitable for unstable supply chains in which fluctuations in temperature may lead to build-up of moisture in packaging containing any produce items."

Historically, StePac has operated in the bulk packaging arena, but after identifying a gap in the market, the firm has spent the past two years using its expertise in MA packaging technology to develop its new Xgo MA/MH films with the retail sector in mind.

"We recognised that we could develop a solution that meets retailers' requirements and adds value," Ward explained. "On the back of the success with Colombian passionfruit to the UK, we are looking to expand into avocados and berries."

"Avocados respire at a high rate and hence generate a lot of water vapour. The Xgo MA/MH film, if used correctly, will add two days or more to the shelf life of ripe avocados, keeping them riper for longer and reducing waste both in the supply chain and in consumers' homes."

"Thanks to its easy-seal properties the film can also be used as a top-seal on punnets, which is ideal for berries," Ward added.



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