

Managing Processing Pitfalls

Demand is growing in response to escalating health awareness, packaged food and ready-to-drink beverages.

BY CHUCK GREEN

More retailers are relinquishing control of creating fresh-cut fruits to local and regional processors, rather than doing the cutting themselves.

In fact, the fresh-cut industry is expanding more rapidly than other sectors of the fruit and vegetable market due to its supply of both the foodservice and retail industries, as well as its expanding production and access to new markets across the globe, according to a study, *Processing and Preservation of Fresh-Cut Fruit and Vegetable Products*, published in the November 2016 issue of London-based Intech-Open, a global publisher of scientific journals.

The growth rate of the sector has accelerated in the past few years and is expected to register a compound annual growth rate of 8.3% through 2023, according to the study, *Fruit and Vegetable Processing Market — Global Trends & Forecasts (2019 - 2024)*, which is from Hyderabad, India-based market research firm Mordor Intelligence.

What's behind the demand for this market? Health awareness among consumers, increased demand for convenient food and ready-to-drink beverages and increased demand for fresh-cut fruits and vegetables are clear drivers.

For retailers, precise packaging of fresh-cuts helps increase the shelf life of products which, in turn, leads to increased trade.

SAFETY FIRST

Food safety is also a factor, which is a key reason processors are gaining more traction, says Darin Eastridge, produce buyer for Chandler, AZ-based Bashas' Family of Stores, which has more than 130 stores throughout Arizona and in New Mexico.

Fresh-cut processors must follow proper safety and sanitation procedures to prevent foodborne illness, according to the U.S. Department of Agriculture Food and Nutrition Service. Most processing facilities will test for fecal coliforms, and generic *E.coli* (also known



as Biotype I/II) to ensure Environmental Protection Agency potable water standards are being met. Water testing of produce wash water may be done throughout each shift as a precaution. Although not mandated, the produce processing industry typically tests for presence of specific pathogens on the product, including *Listeria spp.*, *Salmonella* and *E.coli O157:H7*.

What's more, all produce processing companies should have a microbial testing program. However, some conduct testing in-house, while others may outsource this verification step.

According to Mordor Intelligence, high capital investment and increased concerns over hygiene and safety are expected to restrain the fruit and vegetable equipment market growth.

THE TRUE COST OF CUTTING: LABOR

Besides investment in equipment, Eastridge says cutting fruit in-house also requires significant investment in labor and training to achieve the food safety standards required. "Food processor companies have controlled environments designed for cutting fruits and vegetables, resulting in a consistent variety."

Not only that, various regulations regarding fruits and vegetable processing are laid by organizations — such as Canadian Food Inspection Agency, the U.S. Food & Agricultural Organization and European Food Safety Authority — that need compliance from fresh-cut proces-

sors. This is expected to pose challenges for fruit and vegetable equipment suppliers. Innovations and technology advancements provide growth opportunities to the key manufacturers.

Then there's the issue of labor at store level, which may be cost-prohibitive for retailers, says Joe Granata, director of produce sales at FreshPro Food Distributors in West Caldwell, N.J. Labor costs already take up approximately 14% of grocers' average revenues, according to estimates from the National Grocers Association, and those costs could rise further as more states and cities raise their minimum wages.

If that occurs, fueled by government action and industry competition, some grocers and food retailers are developing ways to keep profit margins intact without passing along costs to customers, according to a 2017 industry analysis from Boston-based global management consulting firm L.E.K. Consulting.

L.E.K. consultants point out that while the easiest way for a retailer to respond is to try to pass price increases to the consumer, the savviest food retailers — the ones who may win lasting advantage — are fashioning strategies that maintain margins and keep customer prices in check, say Chris Randall and Rob Wilson, managing directors in L.E.K. Consulting's Consumer Products and Retail practice and authors of *Rising Labor Costs — and What Retailers Can Do About Them*.

“The smartest grocers are dealing with higher wages by shifting the labor status quo,” says Randall. “That means taming labor costs that already exist, finding opportunities to outsource certain labor-intensive activities, taking labor out of the back office via technology and exploring cutting-edge pricing and merchandising techniques.”

However, customers are footing at least part of the bill to help offset such expenses. “Anytime you outsource fresh-cut items it will drive profitably down for the retailer, but with labor costs now soaring, that disparity in profitably is shrinking,” notes Granata.

Given such variables, retailers can consider smart sourcing, as pointed out in a 2013 report from consultant McKinsey and Co., based in New York. The cost of goods sold in the fresh department typically amounts to up to a third of the total cost base of a grocery chain. But despite the importance of fresh sourcing, many retailers approach it unsystematically and thus end up paying above-market prices. Typical pitfalls in fresh sourcing include factors such as buyers who think their primary responsibility is to secure sufficient supply and thus spend most of their time processing orders rather than managing suppliers and conducting fact-based negotiations, as well as limited transparency into the performance and strength of individual suppliers and the supplier base as a whole (many retailers track only one of the following metrics: buying price versus benchmark, margin, availability of products and quality).

WHICH CUT PRODUCE SELLS?

When it comes to the palate and the popularity of specific fresh-cut fruits, Bashas’ Eastridge says cut melons, including watermelon, cantaloupe and honeydew have always been one of the better selling items in the produce department. Customers now are purchasing more berry cups, such as raspberries, blueberries, blackberries and strawberries, as well as items like grapes and pineapple, he says.

Granata notes mango chunks, followed by sliced apples are his company’s best sellers.

According to the Produce Marketing Association, mixed fruit, watermelons, pineapples and cantaloupe were among the top 10 value-added categories of fresh fruits based on dollar sales in 2018. To increase sales of cut fruit, PMA recommends offering pre-cut snack packs with dip and adding pre-cut fruits to salad bars for the lunch crowd.

Convenience goes a long way toward fueling the rate of consumption, says Eastridge. “Summer’s a great time for cut fruit due to all of the in-season variety.” While Granata notes

■ PACKAGING HAS COME A LONG WAY

BY MATT OGG

Whether it is modified atmosphere packaging (MAP) to foster quality or techniques that reinforce food safety, technology has come a long way to improve the consumer experience with fresh-cut produce.

Danielle Ohl, digital and online marketing specialist at Oostburg, WI-based Viking Masek, a leader in global packaging technologies, says MAP either maintains or creates a specific environment to increase the shelf life of perishables.

“One way to do this is by fitting a packaging machine with nitrogen gas flush,” says Ohl. “This technology pumps nitrogen gas into a package prior to closing to displace oxygen, thereby decreasing the rate of product degradation and giving fresh produce a longer shelf life.”

She highlights stand-up pouches are seeing strong growth as they provide a premium shelf presence, feature a large amount of surface area for messaging and branding, and are much easier to stock and display than loose produce.

“While it does cost more to package fresh produce in this manner, consumers have been more than willing to pay for this convenience,” she says.

Dr. Matthew Wilson, a postdoctoral research fellow at the ARC Training Center for Innovative Horticultural Products at the Tasmanian Institute of Agriculture in Australia, notes packaging, form and functionality have a great influence on consumer perceptions of fresh produce.

“New packaging innovations can deliver more usable and convenient fresh products to consumers, with improved quality, freshness and longer fresh shelf-life,” says Wilson. “Efficient packaging is also important for reducing waste of resources and produce.

peak selling time is May through August, he adds, they sell all year long.

Who’s buying? “There’s not really one segment of consumer buying more but, of course, the younger, health-conscious consumers would be the target audience,” says Granata. “Those trying to eat healthier opt for fruit instead of chips or cookies when reaching for a snack, [not to mention] moms giving



“Passive modified atmosphere packaging (MAP) has long been used for fresh produce, however the latest developments are ‘active packaging’ that optimizes ripening and controls bacterial levels, ethylene or odors.”

Ohl adds proper sanitation of fresh produce packaging equipment is a top priority to avoid recalls and potentially devastating reputational damage.

“Produce companies can employ a number of technologies to decrease the risk of product contamination during the packaging process,” she says.

These include open and simple modular packaging machine designs under the premise, “If you can’t see it, you can’t clean it,” while tweaking aspects such as angles and electropolishing the finishing of surfaces.

“The smoothing and sealing of corners, open seams, exposed threading and pits can eliminate acute angles or niches on the machine where microscopic contaminants can hide,” says Ohl. “Sloping the tops of enclosures or adding a trench for proper draining means contaminants will not collect on or in product contact areas.

“To protect fresh produce from any falling debris while it is being packaged, a drip pan can be placed above the packing machine that redirects contaminants away from the packaging area,” says Ohl.

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their children healthier snack options. They also like the convenience factor.”

Although promotions such as buy-one-get-one-free work with many items, not necessarily cut fruit, says Granata. “[That’s] because you want it to be fresh, and the product has a date on it. Unless you consume it right away, it may go out of code. The longer you keep it, the [more it diminishes the flavor.]”

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