Coffee company abuzz with sustainability initiatives

Peerless Coffee & Tea turns over a new leaf in packaging technology and container reuse to drive efficiencies and waste reduction within its Oakland, CA, business.

Anne Marie Mohan, Senior Editor

The state of California is renowned for its aggressive goals when it comes to environmental initiatives. One very satisfied beneficiary of the state's support for sustainability is family-owned Peerless Coffee & Tea, which in recent years has worked with Alameda County's StopWaste.org to implement new packaging technology and recycling systems to save roughly $110,000 per year, while reducing its environmental footprint.

Through consultation and grant money from StopWaste.org—the group comprises the Alameda County Waste Management Authority and the Alameda County Source Reduction and Recycling Board—Peerless switched from a vacuum brick-pack machine for its custom-roasted coffee varieties to a vertical form/fill/seal machine from **Fres-Co System USA, Inc.** (www.fresco.com).

"We focused on our biggest packaging issue, which was film waste," recalls George J. Vukasin Jr., Peerless executive vice president and grandson of founder John Vukasin. "We had an antiquated packaging machine. It was a brick machine—very complicated and probably over-engineered. The machine was getting pretty heavy use.

"We've now transferred almost everything over to the new machine, which allows us to set up jobs much more quickly and easily, resulting in a lot less film waste."

Tackling waste is a priority

Founded in 1924, Peerless provides custom coffee roasting, blending, and packaging services for both foodservice and retail environments, producing its own-brand varieties, as well as private-label and co-packed products. Seventy-five percent of the company's business is located in California, which enables Peerless to easily service and supply the coffee and equipment it provides to local restaurants, cafes, and hotels. Located at the site of its 70,000-sq-ft production facility is a retail store, which Vukasin says over the years has turned into a "laboratory" of sorts, allowing Peerless to experiment with new coffee blends and varieties. Vukasin estimates that the store is responsible for 1% to 2% of all whole bean coffee sales in the Bay Area.

FRESH BEANS. **Peerless provides custom coffee roasting, blending, and packaging services for both foodservice and retail environments, producing its own-brand varieties, as well as private-label and co-packed products.**

When StopWaste.org approached Peerless, Vukasin says it was at a time when the company was being "bombarded" with offers from organizations wanting to help the company reduce its waste. Appreciating StopWaste.org's laid-back approach, Vukasin began working with the group, tackling recycling first.

Continued on page 42

Continued from page 41

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Peerless' biggest source of waste was coffee chaff—the outer skin of the coffee bean that separates during the roasting process. StopWaste.org found a vendor for Peerless that was able to not only collect the chaff for composting, but also set up a comprehensive recycling system for collecting paper, cardboard, spent coffee grounds, beverage containers, and food scraps. The system resulted in an annual garbage-bill reduction of $10,000.

"We've been able to cut down our garbage pickup from four days a week to two," says Vukasin. "It has basically cut our hauling costs by half, which is great. That's just hard money; it's immediate savings."

Automated setup reduces film scrap

The last significant source of waste was the packaging film scraps resulting from Peerless' outdated coffee-packaging process. Using the vacuum machine for its 2-, 10-, and 12-oz coffee brick-packs, every time Peerless changed from one product size to another, the machine had to be manually recalibrated. While the operators worked to "dial in" proper calibration, the packaging film continued to flow through the equipment, ending up as nonrecyclable waste.

Watch video of this packaging line at **packworld.com/video-29039**

"So we put our engineering heads together and said, 'there's got to be some new technology that will allow us some flexibility so that we can cut back on the setup waste,'" Vukasin recalls.

Another requirement for the new equipment was energy efficiency, especially, Vukasin says, considering California's unpredictable energy situation. "Costs will double, and we'll have rolling blackouts," he says, "so it's always a big issue.

"When we replace equipment, we look at the long-term effect on our energy costs. Our energy bill isn't going to be cut in half tomorrow, but hopefully, we can maintain a slow increase in energy costs as opposed to a massive spike."

The solution was a model GL-14 intermittent-motion vf/f/s gas-flush machine from Fres-Co that produces a side-gusset package using Fres-Co's Corner Seal® technology. (An in-plant video shows the packaging process in detail. See **packworld.com/video-29039**.) Corner Seal eliminates the traditional back seal on the pack and provides rigid corners that frame package graphics. The machine incorporates Allen-Bradley controls from **Rockwell Automation** (www.ab.com) that enable electronic calibration of the machine during changeover. "Not only does the machine cut down on waste," says Vukasin, "but it also produces a better-looking package. It's a win-win."

WASTE REDUCTION. **Replacing outdated vacuum brick-pack equipment with an intermittent-motion vf/f/s gas-flush machine for most of its packaging has reduced Peerless' film waste by 95%.**

Using the vacuum machine, changeovers were "a two-day process," says Vukasin. The GL-14 enables operators to ready the machine for a new package size "in a little over an hour." A typical changeover involves changing out the film and labels, as well as making adjustments for different coffee weights and densities. When switching to a new coffee variety, especially for organic blends, machine components, including the hopper, the forming tube, etc., must be cleaned out to eliminate cross-contamination.

The reduction in changeover time has had a huge impact on material savings and efficiency at Peerless. The company is now saving $100,000 annually on film, reducing the amount of film waste by 95%.

TUBE FORMING. **Tubes are formed for coffee bags on Peerless' new vf/f/s machine. Through automation, changeover went from two days to around an hour for new package sizes.**

Reuse is latest success

Peerless' most recent environmental project—the implementation of reusable containers for local foodservice distribution—was also inspired by StopWaste.org. The group encouraged Peerless to attend an event sponsored by the **Reusable Packaging**

Continued on page 44

Continued from page 42

Association (www.choosereusables.org). "Going to the meeting was amazing," Vukasin recalls. "What's going on is incredible. There are so many cutting-edge activities taking place to make your business more sustainable. After attending the event, I said, 'We have to find a way to make this work for us.'"

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The plan was to replace corrugated shipping containers with reusable totes for local product distribution to foodservice customers. The challenge was finding a racking system and totes that could fit within the company's existing trucks.

In November, Peerless began the first phase of beta testing for its reusable tote program with one of its distribution routes. After some adjustments to the racking system to better utilize the space in the truck, the program achieved its goals of eliminating the corrugated shipping cases. At presstime, Peerless is converting a second route to reusable totes, with seven more routes expected to make the switch within 60 days.

TRIMMING WASTE. **The Corner Seal bag trimmer trims extra film from the coffee pouch. Peerless has modified this component and film measurements to minimize waste.**

According to Vukasin, once the program is fully implemented, the company should see a savings in corrugated of 20%. For shipping to retail, Peerless still employs corrugated cases, however, it has eliminated the "mother boxes" that were formerly used to hold smaller cases of coffee going to one customer.

It's not easy being green in CA

Being an environmentally minded business in California carries a lot of responsibility, Vukasin admits. The company is a certified green business by Alameda County, which means that it is subject to several inspections each year, including audits of water use, electricity, and other utilities. "It's something that my family believes in, so we do it," Vukasin says. "We enjoy it."

"We just constantly are trying to review what we do and figure out how we can do it better, more efficiently, and a little bit greener."