

Sticks and Stones Can Break ... Teeth

Pure Pacific Organics installs fluorescent inspection system to ensure produce quality.

Pure Pacific Organics (www.purepacificorganics.com), Salinas, Calif., processes healthy foods, including organic fresh-cut products such as spring mix, baby spinach and more. Product quality and food safety are paramount, which led the company to search for an automated inspection system.

"At Pure Pacific, we do everything we can to make our product safe," says President/CEO Tom Russell. "When we went looking for an automated inspection system, removing foreign material was our No. 1 goal. Removing defects was also important."

"We considered sorters from a number of different manufacturers," adds David Black, chief operations officer. Some used belt conveyors and others a free-fall approach. A number of different camera technologies were considered. But no other machine at the time had the fluorescent imaging that focused on the food product's level of chlorophyll, which is the basis of Key's Optyx sorter with FluoRaptor technology.

"When we saw what this sorter could do – it found things we couldn't even see – we were impressed," says Russell.

Last October, Pure Pacific became the first to install a Key Optyx sorter with FluoRaptor fluorescence-sensing laser technology. It's designed to maximize the detection and removal of defects, extraneous vegetable matter and foreign material based on differing levels of chlorophyll, as well as color, size and shape. Typical applications are inspecting fresh or frozen vegetables.

"FluoRaptor's combination of color cameras and laser technology, together with its ability to detect chlorophyll, enable the sorter to go after foreign material better than anything else we found," says Black. "We also liked FluoRaptor's on-belt inspection more than the free-fall systems because gentle handling reduces mechanical damage to the tender leaf, which is critical to our final product quality. That, and we wanted to buy an American-made product from a company that could offer us excellent technical support."

Detecting differences in the fluorescent properties of objects, Optyx with FluoRaptor removes insects and animal parts as well as sticks, rocks, cardboard, plastic, metal and glass, even if they are the same color as the product. The sorter also can identify and remove product left over from the prior crop and leaves, even if they have similar color, texture and shape as good product.

"It's up to every processor to determine their ideal balance between product quality and yield because, in general, the more foreign material and defects you remove, the more good product you lose with it," explains Black. "With FluoRaptor, our yield loss has been minimal because the sorter accurately fires its ejectors at foreign material without removing much good product. Our goal



Optyx with FluoRaptor removes all foreign matter with little product loss.

is to remove 100 percent of the foreign material, and FluoRaptor helps us achieve that without much product loss. We are very happy with the results we're achieving."

Configured specifically for Pure Pacific's tender leaf products, the Optyx 6786 with FluoRaptor features a 48-in. wide scan area that allows it to handle up to 6,500 lbs. of product per hour while a top-mounted laser, two top-mounted visible infrared (Vis/IR) cameras and two bottom-mounted Vis/IR cameras view product top and bottom. Unique product handling and sanitation features minimize mechanical damage to the tender leaf products and help keep the sorter free of product build-up.

"Our cold, wet environment can be challenging but FluoRaptor handles it well," noted Black. "We're experiencing virtually 100 percent production efficiency with the sorter. We've reduced our labor costs and maintained our throughput. But most importantly, we've improved our product quality and food safety."

Pure Pacific runs 24 different spring mix blends and component products through its Optyx. Each blend and product has its own preprogrammed setting, which can easily be recalled in seconds via the touchscreen control panel. The icon-based user interface is available in multiple languages so Pure Pacific's operators can interact with the sorter in English or in Spanish. To further simplify operation, the sorter can be networked. "We've hooked FluoRaptor up to the Internet so we can get immediate assistance from Key to help us fine tune it, if needed," adds Black. **FP**

For more information about sorting technology, contact Key Technology, Walla Walla, Wash., 509-529-2161 or see www.key.net.