

Handling & Distributing Purfresh system uses ozone to keep fruit fresh

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(Feb. 11, 1:10 p.m.) Purfresh Inc., Fremont, Calif., is promising blemish-free grapes with new cold storage and transport technology the company wants to expand to more produce varieties.

Purfresh chief executive officer and president David Cope said the company's system uses ozone to kill molds and other pathogens that can spoil grapes, making it a safer alternative to sulfur dioxide fumigation and pads now widely used to preserve the freshness of grapes.

"We simply are providing growers with a path to start to reduce their dependency on chemicals," Cope said.

Cope said some Californian grape suppliers using the system have reduced their use of sulfur by up to 70% for conventionally grown grapes and up to 100% on organic grapes.

The Purfresh system continuously releases low concentrated doses of ozone into refrigerated environments through equipment that can be installed in existing cold storage warehouses, shipping containers or other areas, according to the company.

One recent test Purfresh conducted, Cope said, looked at how well the system keeps grapes fresh compared to sulfur dioxide and grapes with no treatment in shipping containers headed from Chile to Europe. After 46 days, according to the company, no Purfresh-treated samples showed signs of *Botrytis cinerea* nesting, a problem mold for grapes.

Purfresh also helps reduce ethylene gas, which causes fruit to ripen and reduces shelf life.

"We provide solutions that assist the market all the way up and down the supply chain," Cope said.

Purfresh is being used on everything from New Zealand citrus to California stone fruit and Chilean blueberries. Leafy greens, however are not good candidates for the system because of their thin and delicate leaves. Cope said the system has been available for about three years and the company already covers many produce items shipped to and from Europe and Asia.

AiroCide treatment

KES Science and Technology, Kennesaw, Ga., offers technology that provides a high level of protection for all produce without producing ozone, said Jimmy Lee, vice president of marketing and sales.

"We feel like it's a direct solution to food safety concerns and risk management," Lee said.

The company's system, AiroCide PTT Air Sanitation, doesn't emit ozone, Lee said. Instead, it uses photocatalytic oxidation and ultraviolet light to kill bacteria, molds and other pathogens in the air by continuously filtering and cleaning air in an enclosed storage cooler or shipping container. It's also used in grocery walk-in coolers, Lee said, as well university and medical facilities, and covers a wide range of products from flowers to wine. The system is usually just a single unit for filtering the air that's installed in an enclosed room, Lee said.

The AiroCide system uses a patented technology that kills more than 99% of airborne pathogens that pass through its processor, according to the company.



A Purfresh cold storage unit is installed, continuously releasing low concentrated doses of ozone to keep grapes fresh. The technology, says Fremont, Calif.-based Purfresh Inc., is a safer alternative to chemicals such as sulfur dioxide.

Courtesy Purfresh Inc.