



Purfresh announces study results on ozone effectiveness regarding food safety during transportation

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Purfresh, a leading provider of clean technologies that purify, protect, and preserve the world's food and water, announced important results from recent third-party research which demonstrates ozone's applicability and effectiveness as a tool to improve the safety of fresh food shipped globally.

The results, from research commissioned by Purfresh and conducted by **The National Food Lab**, demonstrated that controlled supplementation of ozone, an active form of oxygen, into transportation container conditions was able to kill and control the spread of important foodborne pathogens such as *Salmonella*, by more than 99.997%, *Listeria monocytogenes*, by more than 99.999%, and *E. coli* O157:H7, by as much as 99.9%. These results were on both actual fruit and container surface coupons and poignantly represent the efficacy of using ozone during transport, which is often the longest segment of the food supply chain, to actively reduce food safety risks.



“Countless studies have proven ozone controls bacteria, molds, yeast, viruses, and ethylene. I believe this study was unique because it showed that ozone is also highly effective at killing harmful bacteria in conditions similar to those found in refrigerated shipping containers”, said Dee M. Graham, Ph.D., president of R and D Enterprises.

An estimated 70 million tons of perishables were transported in refrigerated containers last year. During transport, with transit times ranging from 7 to 50 days, harmful microorganisms can multiply rapidly putting the food at great risk for contamination and spoilage. Purfresh uniquely addresses these risks with their ozone-based Purfresh Transport solution, an active cargo protection system that has been scientifically engineered to use ozone—a natural, residue-free form of oxygen—to control ripening, reduce decay, and enhance the safety of fresh produce during transport, leading to safer, fresher food.

“Given the continued expansion of the global food market and the ever-increasing reports of food related illnesses, it is exciting and encouraging to see innovative companies like Purfresh applying sound science and commercially viable solutions to this important industry challenge,” said Paul A. Hall, Ph.D., president of AIV Microbiology and Food Safety Consultants, LLC. “And I believe they really hit a home run with their transport solution by providing a way to enhance food safety as well as maintain the quality and value of fresh produce being shipped around the world without the dependency of many harsh, traditional chemicals that are rapidly falling out of favor in the world’s markets”.

“At Purfresh we are focused on meeting the needs of the global food industry by providing innovative solutions that are science-based, easy to use, and integrate with existing processes and infrastructure,” said David Cope, president and CEO of Purfresh, Inc. “Unmatched by any other cargo protection system in the industry, our Purfresh Transport solution uniquely takes advantage of the clean, powerful properties of active forms of oxygen to help extend shelf life, minimize losses, maintain quality, and enhance the safety of fresh produce all the way to market.”



Available for use on new and existing refrigerated shipping containers, the patent-pending Purfresh Transport system simply “snaps” into a fan port to integrate with the container’s refrigeration system.

Leveraging the existing air flow system, the Purfresh Transport technology delivers precise, low-dose levels of ozone throughout the container—treating the air and surfaces to reduce harmful microorganisms that may lead to both disease and decay. The system actively monitors and adjusts the required ozone levels throughout the voyage based on changes in the condition of the cargo or the atmosphere. Purfresh Transport is available through most major ocean carriers and is offered on as a per-trip service.

Committed to promoting food safety throughout the food supply chain, Purfresh also offers two additional ozone-based solutions—Purfresh Cold Storage for preserving the freshness and safety of produce during storage for warehouses and distribution centers, and Purfresh Wash, a produce disinfection wash system that helps packers and processors meet HACCP requirements while reducing chemical use.