

Case Study: Food Safety Guidelines for Cantaloupes

In March 2013 the [produce industry issued a guidance document \(/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/ProducePlantProducts/UCM365219.pdf\)](#) to convey the best practices for minimizing potential contamination during the growing, harvesting, packing, cooling, storage, and transport of fresh, uncut cantaloupes and netted melons.

It has been widely used by produce organizations. The U.S. Food and Drug Administration provided technical advice and linked to the guidance document on fda.gov.

Here's how it came about: The produce industry mobilized after a deadly 2011 outbreak of *Listeria monocytogenes* tied to whole cantaloupes. A total of 146 people in 28 states were infected and 30 died. Michelle Smith, Ph.D., senior policy analyst in the Division of Produce Safety at the U.S. Food and Drug Administration, says the industry was shaken by the outbreak because this kind of contamination had never been seen in a packing house handling intact, raw produce. Previously, listeriosis associated with produce had only been tied to processed products.

Certain characteristics of cantaloupes, for instance the “netted” rind and low acid levels, make this fruit particularly vulnerable to bacteria and they are typically consumed without further processing that would eliminate or inactivate pathogens, if present.

After the cantaloupe outbreak, the industry-funded Center for Produce Safety in California facilitated a summit for melon producers, with the focus on cantaloupes, says Hank Giclas, vice president of science and technology at the Western Growers Association. People came to San Diego from all over the country. “We talked about what was necessary to take cantaloupes to the next level in food safety,” says Giclas.

Smith was the FDA technical advisor to the development of the guidelines, which was facilitated by the Western Growers, Produce Marketing, and United Fresh Produce associations, and the Fresh Produce Association of the Americas. The working group had about 60 active participants representing a broad range of expertise, including produce growers, handlers and shippers, industry associations, academic experts, and public organizations. There were also about 10 government scientists and regulators from the federal, state and international levels, including Smith.

For this and other industry guidance documents, Smith says, “One of the real strengths of this process as it has evolved is that very broad coalitions with different expertise, needs and perspectives are being brought together. I think it leads to a better product in the end and a higher level of buy-in, which is what really counts when it comes to implementation.”

Giclas notes that there are advantages to targeting a specific commodity in a guidance document. “It’s an opportunity to discuss unique vulnerabilities, which may differ from commodity to commodity. Federal guidances may leave things up to interpretation. Industry has the opportunity to say, ‘This is the best practice.’”

Because the cantaloupe outbreak was such a game changer, this group was determined to update existing cantaloupe guidelines, holding 25 webinars between April 10 and

October 9, 2012 to develop the document.

It identifies certain risks factors during growing and packing that include water quality, equipment and packing facility design and sanitation, worker hygiene, and animal intrusion. It makes recommendations on minimizing those risks, recognizing that the needs of each operation may vary due to location, environment, local requirements, and the volume of cantaloupes grown and handled. Users are encouraged to tailor the recommendations to the conditions and practices at their individual operations.

The end result of these guidelines is a stronger food safety system, says Giclas. Regional produce organizations have used the national guidelines as the foundation of their own mandatory or voluntary standards for their members. "There's a food safety culture in the cantaloupe industry that was not universally present prior to the cantaloupe outbreak," he says.

Smith, who also worked on the **[produce safety rule \(/Food/GuidanceRegulation/FSMA/ucm334114.htm\)](/Food/GuidanceRegulation/FSMA/ucm334114.htm)** mandated by the FDA Food Safety Modernization Act (FSMA), says that FDA will be looking at existing public and private guidance documents as it works on its own compliance and implementation guidance for the rule, which became final in November 2015.

For More Information:

- **[5 Steps Toward Working with FDA on Human and Animal Food Guidance Documents \(/Food/GuidanceRegulation/FSMA/ucm538623.htm\)](/Food/GuidanceRegulation/FSMA/ucm538623.htm)**
- **[Commodity-Specific Food Safety Guidelines for Cantaloupes and Netted Melons \(/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatory-Information/ProducePlantProducts/UCM365219.pdf\)](/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatory-Information/ProducePlantProducts/UCM365219.pdf)**