

# WHAT'S NEW AT Q

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## An ISO/IEC 17025 Accredited Laboratory

### FROM THE PRESIDENT'S DESK



*As of this writing, there have been 30 deaths and 139 illnesses caused by a batch of cantaloupes contaminated with *Listeria monocytogenes*, making it one of the worst food contamination incidents in the last 40 years. As a member of the food safety industry, it seems unthinkable that this type of tragedy could occur. But to use a modern phrase, I think we can use this crisis as a "teachable moment." The FDA conducted*

*a thorough investigation at the facility where the cantaloupe originated and discovered some issues that can serve to educate all of us on the precarious nature of food safety. It is not always a major sanitary issue that leads to contamination, but rather can be a deficiency "in plain sight" that causes such a calamity. The report, entitled "Environmental Assessment: Factors Potentially Contributing to the Contamination of Fresh Whole Cantaloupe Implicated in a Multi-State Outbreak of Listeriosis," noted observations of three areas of concern that were potential contributing factors to the contamination of the cantaloupe: facility lay-out, equipment design and handling processes. The investigation found multiple areas of pooled water in the facility. High moisture areas are notorious for attracting and proliferating *Listeria*. Environmental samples taken from some of these areas, including packaging equipment, tested positive for *Listeria monocytogenes*. It was also determined that a truck transporting cantaloupe waste to a cattle operation parked in an area where foot traffic occurred and could possibly have tracked bacteria into the facility. The investigation also determined that facility equipment, including equipment used to wash and dry the cantaloupe was found to be basically un-cleanable due to its design. Environmental samples taken from the equipment tested positive for *L. mono*. FDA investigators also found that in the process of washing the produce, the firm actually created an environment more conducive to *L. mono* growth. The report states, "free moisture or increased water activity of the cantaloupe rind from postharvest washing procedures may have facilitated *L. mono* survival and growth. After harvest, the cantaloupes were placed in cold storage. The cantaloupes were not pre-cooled to remove field heat before cold storage. Warm fruit with field heat potentially created conditions that would allow the formation of condensation, which is an environment ideal for *L. mono* growth. The combined factors of the availability of nutrients on the cantaloupe rind, increased rind water activity, and lack of pre-cooling before cold storage may have provided ideal conditions for *L. mono* to grow and outcompete background microflora during cold storage...it is also likely that the contamination proliferated during cold storage."*

*So basically in the process of cleaning the produce, both the cleaning equipment and the cleaning and handling process possibly contributed to the contamination. That is frightening and enlightening at the same time. It shows that despite best intentions, without a scientifically validated process and fastidious due diligence, contamination can occur. My intention is not to scare anyone by telling them they are on the brink of causing death and illness. Rather, we can use the cantaloupe incident as a cautionary tale to show us that even if you believe you are safe, you need constant vigilance and continued re-evaluation of your processes to better assure your products are safe for public consumption.*

*David G. Goins*

David G. Goins, President

### O CANADA

Q Laboratories, Inc. served as the independent laboratory for the recently completed AOAC-RI GovVal study entitled: "Validation of *Listeria* Test Kits In Ready to Eat Meats and on Stainless Steel Compared to Health Canada Reference Method -MFHPB-30." According to an AOAC Press release, "The GovVal program is based on the PTM program operated by the AOAC Research Institute. Candidate test kit methods were evaluated using a validation protocol approved by AOAC, the Canadian Food Inspection Agency and Health Canada, using blind coded, randomized samples. Results were reviewed and approved by the AOAC General Referee's for Microbiology. Sample preparation and independent testing of many test kit methods, as well as the MFHPB-30 reference method, was done by Q Laboratories, Inc., an AOAC RI approved independent laboratory. The GovVal program is designed to evaluate previously AOAC-approved methods for the specific needs of regulatory agencies to enforce their standards for regulatory testing."

### MEET THE Q LABORATORIES' STAFF

The friendly voice you most likely hear when you call Q Laboratories, Inc. is Customer Service Representative Shelley Barsan. Shelley's goal is to get you to the right staff member to answer your question(s) or provide you with the services you need as quickly and efficiently as possible. She can provide you with the necessary forms you need or get you set up as a new client. If you require sampling materials or need your samples picked up, Shelley can take care of that for you. Shelley is a major part of our unending commitment to customer service excellence at Q Laboratories, Inc.



### STEC RULE

In September, the USDA-FSIS announced they were extending their "zero-tolerance" policy currently in place for *E. coli* O157:H7 to include six additional serogroups of Shiga toxin-producing *E. coli* (STEC) (O26, O45, O103, O111, O121, and O145). The Centers for Disease Control and Prevention (CDC) estimate 112,752 illnesses and 271 hospital visits due to non O157 STEC's contamination in 2011. The USDA-FSIS intends to implement routine testing of manufacturing trim and other raw ground beef product components for the six additional STECs beginning March 5, 2012. Research has indicated that a very small dose of the STEC serogroups can cause serious illness and that the bacteria are capable of withstanding ordinary cooking of ground beef product. The FSIS is proceeding with modifications to the Microbiology Laboratory Guidebook to include methods of detection for the six additional STECs. They have also released the, "FSIS Guidance for Test Kit Manufacturers, Laboratories: Evaluating the Performance of Pathogen Test Kit Methods," to accelerate the availability of test kits and methods for the detection of the STECs.