Burning Issues

Multistate Salmonella outbreak linked to tomatoes

In September 2006, an outbreak of *Salmonella Typhimurium* occurred involving 183 cases distributed among 21 states. All but one infected person lived east of the Mississippi River, but that person had been to the Northeast. Other cases were reported in Canada; of these, one person had visited a state in the United States where other cases were reported. Most of the cases were reported within a two-week period. DNA fingerprinting showed the same strain was involved in most of the cases. Centers for Disease Control and Prevention investigators believe tomatoes were involved as the vehicle for illness, which has now subsided.

Multistate E. coli O157:H7 outbreak linked to Taco Bell

From late November through early December, five states in the Northeast reported 67 cases of illness due to *E. coli* O157:H7, and additional cases of illness are still being investigated. Most of the patients had reported eating at a mutual fast-food restaurant: Taco Bell. Green onions were originally thought to be the cause; however, investigators for the Centers for Disease Control and Prevention now believe it was the lettuce.

PulseNet, the molecular-typing network for foodborne surveillance

PulseNet is a computerized databasing of DNA patterns obtained using Pulsed Field Gel Electrophoresis from foodborne pathogens and outbreak strains. The database draws from not only Centers for Disease Control and Prevention, U.S. Department of Agriculture-Food Safety and Inspection Service and Food and Drug Administration labs, but also from the various departments of health from almost every state in the United States, including six Canadian provinces.
FDA releases draft of voluntary retail food regulatory program standards

The Food and Drug Administration has long established a federal Food Code that was loosely followed by various states that also have implemented their own food codes. In an attempt to create greater uniformity in standards pertaining to food codes, the FDA has developed and initiated a voluntary plan for a retail food regulatory program.

The plan incorporates many of the steps used in Hazard Analysis & Critical Control Point food safety programs now mandated for the seafood, fruit juice and meat- and poultry-processing industries. One of the main program initiatives is to ensure food service establishments recognize certain risk factors for foodborne illness and develop a program to manage them.

15 cases of illness are averted by taking contaminated product out of the marketplace, the cost spared in investigating those cases could pay for the cost of program start-up, plus five years of operation.

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without which the program would not work as efficiently as it does. As public-health authorities in a particular state notice a rise in illnesses due to a particular pathogen, they perform PFGE to generate a DNA fingerprint, which then gets put into the PulseNet system. In almost real time, they are able to determine if other occurrences of the same “fingerprint” are showing up in other locations networked through PulseNet. Colorado’s state public-health laboratory was able to use PulseNet to quickly identify the involvement of contaminated hamburger in an outbreak of *E. coli* O157: H7 in 1997. A subsequent cost-benefit analysis estimated that if only DNA typing of different strains of the same bacterial pathogen by PFGE.