Burning Issues

E. coli 0157:H7 outbreak in spinach

An Escherichia coli O157:H7 outbreak involving contaminated bagged spinach has been traced to Natural Selection Foods LLC of San Juan Bautista, Calif. To date, there have been 199 cases of illness reported, including 102 hospitalizations, 31 kidney failures and three deaths associated with the outbreak.

Federal regulatory officials are investigating what is the source of the contamination on the farm, whether it was the result of negligence or a lapse in good manufacturing practices, or perhaps an unforeseen event.

The outbreak raises questions on how did the E. coli escape the processing that such bagged, ready-to-eat produce usually receives. E. coli O157: H7 is usually associated with animals and shed in their feces, which presents several possible scenarios of how the spinach could have been contaminated. These scenarios include human unsanitary practices in the fields, shed by wild animals/rodents, contaminated irrigation water, improperly composted manure, proximity to live cattle pasture and water runoff, accidental or willful human negligence during processing, etc.

An extended discussion of this issue can be found in an FAPC FLASH at http://fapc.biz/fapcflash/ecolispinach.pdf.

FDA approves use of bacterial viruses as a food additive

The FDA approved a food additive petition on the use of bacterial viruses, bacteriophages, for Listeria monocytogenes as an antimicrobial agent against this foodborne pathogen. L. monocytogenes has been a problem contaminant of food contact surfaces and ready-to-eat meat products.

The company manufacturing the additive, Intralytix Inc. of Baltimore, Md., indicates the preparation is a mixture of six individual bacteriophages that are sprayed onto a food product susceptible to contamination with L. monocytogenes. After contact with the organism, the bacteriophages inject their DNA into the Listeria cell, undergo replication and burst open the pathogen, thereby killing it.

For more information on this topic, visit http://fapc.biz/newsletters/pathogenpatrolwinter06.pdf.
Food Safety Exploration

Campylobacter foodborne illness transmitted by flies

Medical investigators in New Zealand have identified various ways people have become ill with Campylobacter, an organism known to have high incidence in poultry. One of which is the transmission of the organism by flies in rural areas, where people live in close proximity to livestock that have high rates of shedding of the organism in their feces and then are later picked up by flies.

The investigators have identified flies can spread the organism either indirectly by fly deposits on door knobs, hand rails or other surfaces touched by humans, or by directly landing on food itself either indoors or at picnics. These investigators have indicated this vehicle of transmission of Campylobacter results in sporadic outbreaks and is more prevalent in the summer months when flies are more active.

Illnesses due to Campylobacter spp., primarily C. jejuni which accounts for 95 percent of campylobacteriosis, are among the most prevalent causes of foodborne illness in the United States, where poultry are known to carry the organism at high incidence.

The only reason Campylobacter spp. has not been subject to performance standards in poultry processing is the inability of methods to accurately and consistently recover and identify the organism.

Recently, USDA-FSIS sought advice from the National Advisory Committee on Microbiological Criteria for Foods on methodology that they would use for an upcoming renewed baseline testing for detection and enumeration of Campylobacter in poultry.

the spinach survived the processing treatment that most bagged ready-to-eat leafy greens receive.

There seems to be enough drama unfolding from various foodborne outbreaks that they can probably base a new television series on such: CSI Food Safety! Who knows, it may be the most effective way to teach the general populace about food safety practices.