

Food safety begins as vegetables grow

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Monitoring vegetables while they are growing is crucial in the prevention of contamination of fresh produce with harmful bacteria such as *E. coli* and *Salmonella*, say plant pathologists who are members of The American Phytopathological Society (APS).

There have been outbreaks of *E. coli* and *Salmonella* for at least the past decade, and the incidences of vegetable contamination are increasing in frequency. "We've studied plant pathogens on plants for a long time, but haven't studied human pathogens on plants until recently," said Jeri D. Barak, research microbiologist with the U.S. Department of Agriculture's Agricultural Research Service (ARS) in Albany, Calif.

"What we've found up to this point is that most contamination is occurring while the plants are still growing in the field," said Barak. "The most successful way to prevent contamination of fresh produce is to intervene before the harvest, not after," she said.

Her research has shown that pathogens like *Salmonella* use specific genes to colonize plants, creating an active interaction with the plant surface. "When this happens, the bacteria become almost inseparable from the vegetable," she said.

Barak and other APS members will present their latest food safety research and describe future research needs at a symposium titled "Cross Domain: Emerging Threats to Plants, Humans, and Our Food Supply" on Monday, July 30 from 1 to 5 p.m. These experts from across the United States will discuss the environmental biology of bacteria in fresh

produce and the link between plants and bacteria associated with human infections, such as the recent E. coli outbreaks from California spinach.

The symposium will be held during the joint meeting of The American Phytopathological Society (APS) and the Society of Nematologists (SON). The meeting will take place July 28 – August 1, 2007, at the Town and Country Resort and Convention Center in San Diego, Calif.

A news conference on plant diseases and issues that are of importance to the California economy and agriculture, including the latest food safety information, will be held during the meeting on Monday, July 30 at 11 a.m.

Source: American Phytopathological Society

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