

# FDA releases final report on spinach E coli outbreak

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By: Lisa Schnirring | Mar 23, 2007

Mar 23, 2007 (CIDRAP News) – The US Food and Drug Administration (FDA) and California officials released a final report today on last fall's nationwide *Escherichia coli* O157:H7 outbreak linked to fresh spinach, tracing the pathogen to a specific farm and identifying a handful of possible contamination sources.

The outbreak, which occurred in early fall, sickened 205 people and caused three deaths.

## San Benito County farm cited

During the investigation, federal and California officials found the outbreak strain in 13 bags of Dole brand baby spinach and traced the contaminated products to an Aug 15 production run at a Natural Selection Foods facility in San Juan Bautista, Calif., according to the FDA report. Testing at the facility found no samples that matched the outbreak strain.

Investigators traced the product code to four fields in Monterey and San Benito counties, the report says. Though *E coli* O157:H7 was found in environmental samples on all of the farms, samples that matched the outbreak strain were limited to one farm: the Paicines Ranch in San Benito County.

There, officials found the outbreak strain in river water, cattle feces, and wild-pig feces. A grass-fed cattle operation was located on the ranch, less than a mile from the spinach field, the report says. Investigators found evidence of wild pigs in and around the cattle, growing, and irrigation well areas.

Changes in groundwater levels during the 2006 growing season could have contributed to contamination problems on the field, according to the report. In March the ranch's groundwater levels were higher than the San Benito riverbed, but they fell to the riverbed level in July, and then dropped below the riverbed's level later in the season. "This potentially allowed surface river water from the river flowing into the Paicines Ranch valley to percolate into the ground again and recharge the groundwater during that period," the report said.

The spinach grower was marketing products for conventional sale, but the field was being changed into an organic growing area, the report said. Jeff Farrar, food and drug chief of the California Department of Health Services (CDHS), said at a press conference today that the fertilizer used on the field was heat-treated chicken manure pellets.

Kevin Reilly, deputy director for prevention services at the CDHS, said that though the 6-month investigation wasn't able to determine how the *E coli* got onto the spinach, it was still a success. "This is the first time we've found a clear link between an individual with a contaminated product and taken that link down to the farm level," he said. "In real time, we saw evidence of some of the risk factors coming to fruition."

The multifaceted problems identified by the investigation point to an urgent need for more research on the microbial ecology of *E coli*, said David Acheson, MD, chief medical officer for the FDA's Center for Food Safety and Applied Nutrition. "We need to find out how the bugs get onto the produce in the first place and how we can prevent that from happening in the future," he said.

### **Industry signs on for voluntary changes**

The way to reduce the risk of *E coli* contamination in spinach and other fresh greens is for farms to uniformly adopt established good agricultural practices, Reilly said. "Every farm, every day," he stressed, adding that food processors must follow good manufacturing practices.

Reilly said California growers are taking a good first step by signing on to marketing agreements that will be administered by the California Department of Food and Agriculture (CDFA). Food handlers and producers who join the CFDA marketing agreements vow to accept products only from farmers that follow specific food safety procedures. Products certified by state-authorized inspectors and grown with good agricultural practices can carry an official seal to assure consumers.

About 90% of California's fresh produce companies have expressed an interest in joining the marketing agreement, the details of which are still being formulated, Reilly said.

### **Mandatory oversight?**

Acheson said the FDA is holding three hearings on issues surrounding tainted produce. He said though good agricultural practices and marketing agreements are the best ways to keep *E coli* out of produce in the short term, information may come out of the hearings that could build a case for mandatory federal oversight.

Elisa Odabashian, director of the Consumers Union's West Coast office, spoke at the FDA hearing held in Oakland, Calif., on Mar 20. In her comments, posted on the Consumers Union Web site, Odabashian said the marketing agreements taking shape in California lack public input and are heavily influenced by the leafy-greens industry.

"Industry self-regulation seldom protects consumers and often provides industry with cover when contamination occurs," she said in her statement. "Simply put, if the leafy green industry ever hopes to regain consumer trust, it must be regulated by an authority other than itself."

### **See also:**

[Mar 23 FDA press release](#)

[FDA final report on \*E coli\* outbreak in fresh spinach](#)

[Consumers Union statement](#)

Jan 26 CIDRAP News article "[California debates produce safety measures](#)"