Odwalla, Inc., and the E. Coli Outbreak

October 30, 1996, was a cool, fall day in Half Moon Bay, California, a coastal town an hour's drive south of San Francisco. At the headquarters of Odwalla, Inc., a modest, two-story wooden structure just blocks from the beach, company founder and chairman Greg Steltenpohl was attending a marketing meeting. Odwalla, the largest producer of fresh fruit and vegetable-based beverages in the western United States, had just completed its best-ever fiscal year, with sales of \$59 million, up 40 percent over the past 12 months.

The company's CEO, Stephen Williamson, urgently knocked on the glass door and motioned Steltenpohl into the hall. Williamson, 38, a graduate of the University of California at Berkeley and a former investment banker, had served as president of Odwalla from 1992 to 1995, when he became CEO.

It was unlike him to interrupt a meeting, and he looked worried. "I just got a call from the King County Department of Health," Williamson reported. "They've got a dozen cases of E. coli poisoning up there in the Seattle area. A number of the families told health officials they had drunk Odwalla apple juice." E. coli O157:H7 was a virulent bacterium that had been responsible for several earlier outbreaks of food poisoning, including one traced to undercooked Jack-in-the-Box hamburgers in 1993.

Steltenpohl was puzzled. "What do they know for sure?"

"Right now, not a whole lot. It's just epidemiology," Williamson replied. "They don't have any bacteriological match-ups yet. They said it might be a while before they would know anything definitive."

"We'd better see what else we can find out."

Steltenpohl and Williamson returned to their offices, where they began placing calls to food safety experts, scientists at the Food and Drug Administration and the Centers for Disease Control, and the company's lawyers. A while later, Steltenpohl came out to speak to his next appointment, who had been waiting in the lobby for over an hour. "I'm awfully sorry," the chairman said apologetically. "I'm not going to be able to see you today. Something important's happening that I've got to deal with right away."

By Anne T. Lawrence This is an abridged version of a full-length case. "Odwalla, Inc., and the E. Coli Outbreak (A), (B), (C)," Case Research Journal 19, no. 1 (Winter 1999). Abridged and reprinted by permission of the Case Research Journal. This case was written with the cooperation of management, solely for the purpose of stimulating student discussion. Sources include articles appearing in the Natural Foods Merchandiser, Nation's Business, San Jose Mercury News, Rocky Mountain News, San Francisco Chronicie, Seattle Times, Francisco Bee, The New York Times, The Wall Street Journal, and Sources (Odwalla's in-house newsletter), press releases issued by Odwalla and by the American Fresh Juice Council, and Odwalla's annual reports and prospectus. Odwalla's Web site may be found at www.cdwalla.com. Cooyright © Anne T. Lawrence and the North American Case Research Association, All rights reserved.

History of Odwalla, Inc.

Odwalla, Inc., was founded in 1980 by Steltenpohl; his wife, Bonnie Bassett; and their friend Gerry Percy. Steltenpohl, then 25, was a jazz musician and Stanford graduate with a degree in environmental science. The group purchased a used hand juicer for \$200 and began producing fresh-squeezed orange juice in a backyard shed in Santa Cruz, California. They delivered the juice to local restaurants in a Volkswagen van. Steltenpohl later said that he had gotten the idea from a book, 100 Businesses You Can Start for under \$100. His motivation, he reported, was simply to make enough money to support his fledgling career as a musician and producer of educational media presentations. The company's name came from a jazz composition by the Art Ensemble of Chicago, in which Odwalla was a mythical figure who led the "people of the sun" out of the "gray haze," which the friends chose to interpret as a reference to overly processed food.

During the 1980s, Odwalla prospered, gradually extending its market reach by expanding its own distribution and production capabilities and by acquiring other juice companies. In 1983, the company moved into a larger production facility and added carrot juice to its product line. In 1985—the same year Odwalla incorporated—the company purchased a small local apple juice company, Live Juice. With apple added to the line, the company expanded its distribution efforts, moving into San Francisco and further north into Marin County. In 1986, Odwalla purchased Dancing Bear Juice Company in Sacramento and assimilated that company's juice products and distribution network in central California.

The company financed its rapid growth in its early years through bank loans and private stock offerings in 1991, 1992, and 1993. In December 1993, the company went public, offering for sale 1 million shares of common stock at an initial price of \$6.375 a share. The proceeds of the initial public offering were used in part to construct a 65,000-square-foot state-of-the-art production facility in Dinuba, in California's agricultural Central Valley.

The company also made additional acquisitions. In June 1994, the company acquired Dharma Juice Company of Bellingham, Washington, to distribute its products in the Pacific Northwest. In January 1995, Odwalla purchased J. S. Grant's, Inc., the maker of Just Squeezed Juices, which became the distributor for Odwalla products in the Colorado market. The strategy appeared to be successful. By 1996, Odwalla, which already controlled more than half the market for fresh juice in northern California, had made significant inroads in the Pacific Northwest and Colorado and was poised to extend its market dominance into New Mexico, Texas, and southern California.

Product Line

The company considered its market niche to be "fresh, minimally processed juices and juice-based beverages."

The company produced a range of products from fresh juice, some single strength and some blended. Odwalla chose fun, clever names, such as Strawberry C-Monster (a vitamin C-fortified fruit smoothie), Femme Vitale (a product formulated to meet women's special nutritional needs), and Guava Have It (a tropical fruit blend). Packaging graphics were brightly colored and whimsical. Pricing was at the premium level; a half gallon of fresh-squeezed orange juice retailed for around \$5.00; a 16-ounce blended smoothie for \$2.00 or more.

Odwalla was committed to making a totally fresh product. In the company's 1995 annual report, for example, the letter to shareholders stated:

Our juice is FRESH! We believe that fruits, vegetables, and other botanical nutrients must be treated with respect. As a result, we do not heat-treat our juice, like the heavily processed products made by most other beverage companies.

The company's products were made without preservatives or any artificial ingredients, and the juice was not pasteurized (heat treated to kill microorganisms and to extend shelf life). Unpasteurized juice, the company believed, retained more vitamins, enzymes, and what Steltenpohl referred to as the "flavor notes" of fresh fruits and vegetables.

Although Odwalla did not pasteurize its juice, it took many steps in the manufacturing process to assure the quality and purity of its product. To avoid possible contamination, the company did not accept ground apples, only those picked from the tree. Inspectors checked field bins to see if there was any dirt, grass, or debris; and bins with evidence of ground contact were rejected. The company's manufacturing facility in Dinuba was considered the most advanced in the industry. The plant operated under a strict code of Good Manufacturing Practices. At Dinuba, apples were thoroughly washed with a sanitizing solution of phosphoric acid and scrubbed with whirling brushes. All juice was produced under extremely strict hygienic standards.

Marketing

Odwalla marketed its products through supermarkets, warehouse outlets, specialty stores, natural food stores, and institutions such as restaurants and colleges. Slightly over a quarter of all sales were with two accounts—Safeway, a major grocery chain, and Price/Costco, a discount warehouse.

A distinctive feature of Odwalla's strategy was the company's direct store distribution, or DSD, system. Most sites, from supermarkets to small retailers, were provided with their own stand-alone refrigerated cooler, brightly decorated with Odwalla graphics. Accounts were serviced by route salespeople (RSPs), who were responsible for stocking the coolers and removing unsold juice that had passed its "enjoy by" date. RSPs kept careful records of what products were selling well, enabling them to adjust stock to meet local tastes. As an incentive, salespeople received bonuses based on their routes' sales, in addition to their salaries.

Although the DSD system was more expensive than using independent distributors, it allowed the company to maintain tight control over product mix and quality. Moreover, because the company assumed responsibility for ordering, stocking, and merchandising its own products within the store, Odwalla in most cases did not pay "slotting" and other handling fees to the retailer.

Corporate Culture

The fresh juice company was always, as Steltenpohl put it, "values driven." In 1992, around 80 Odwalla employees participated in a nine-month process that led to the creation of the company's vision, mission, and core values statements. These focused on nourishment, ecological sustainability, innovation, and continuous learning.

Concerned that rapid growth might erode common commitment to these values, in 1995 the company initiated annual three-day training sessions, held on site at multiple locations, known as Living Vision Conferences, for employees to talk about the application of the vision to everyday operating issues. An internal process the company called

Vision Link sought to link each individual's job to the Odwalla vision. Managers were expected to model the company's values. The company called its values a "touchstone [for employees] in assessing their conduct and in making business decisions."

In addition, Odwalla instituted a "strategic dialogue" process. A group of 30 people, with some fixed seats for top executives and some rotating seats for a wide cross section of other employees, met quarterly in San Francisco for broad discussions of the company's values and strategic direction.

Social responsibility and environmental awareness were critical to Odwalla's mission. Community service efforts included aid to farm families in the Central Valley, scholarships to study nutrition, and gifts of cash and juice to many local community organizations. The company instituted a recycling program for its plastic bottles. It attempted to divert all organic waste away from landfills—for example, by selling pulp for livestock feed and citrus peel for use in teas and condiments and past-code juice for biofuels. In the mid-1990s, the company began the process of converting its vehicle fleet to alternative fuels. Odwalla's corporate responsibility extended to its employees, who received innovative benefits that included stock options, extensive wellness programs, and an allowance for fresh juice. The company won numerous awards for its environmental practices, and in 1993, *Inc.* magazine honored Odwalla as Employer of the Year.

During these years, the Odwalla brand name became widely identified with a healthful lifestyle, as well as with California's entrepreneurial business climate. In an off-repeated story, Steve Jobs, founder of Apple Computer, was said to have ordered unlimited quantities of Odwalla juice for all employees working on the original development of the Macintosh Computer.

The E. Coli Bacterium

The virulent strain of bacteria that threatened to bring down this fast-growing company was commonly known in scientific circles as Escherichia coli, or E. coli for short.

The broad class of E. coli bacteria, microscopic rod-shaped organisms, are common in the human intestinal tract, and few pose a danger to health. In fact, most E. coli play a beneficial role by suppressing harmful bacteria and synthesizing vitamins. A small minority of E. coli strains, however, cause illness. One of the most dangerous of these is E. coli O157:H7. In the intestine, this strain produces a potent toxin that attacks the lining of the gut. Symptoms of infection include abdominal pain and cramps, diarrhea, fever, and bloody stools. Most cases are self-limiting, but approximately 6 percent are complicated with hemolytic uremic syndrome, a dangerous condition that can lead to kidney and heart failure. Young children, the elderly, and those with weakened immune systems are most susceptible.

E. coli O157:H7 (or 157) lives in the intestines of cows, sheep, deer, and other animals. The meat of infected animals may carry the infection. E. coli is also spread to humans through fecal contamination of food. For example, apples may be contaminated when they fall to the ground and come in contact with cow or deer manure. Secondary infection may also occur, for example, when food is handled by infected persons who have failed to wash their hands after using the toilet. Unfortunately, only a small amount of 157—as few as 500 bacteria—is required to cause illness. As one epidemiologist noted, "It does not take a massive contamination or a major breakdown in the system to spread it."

E. coli O157:H7 is known as an emergent pathogen, meaning that its appearance in certain environments is viewed by researchers as a new phenomenon. The organism was

first identified in 1982, when it was involved in a several outbreaks involving undercooked meat. Since then, poisoning incidents had increased dramatically. By the mid-1990s, about 20,000 cases of E. coli poisoning occurred every year in the United States; about 250 people died. Most cases were believed to be caused by undercooked meat. Although a serious threat, E. coli is not the most common food-borne illness. In the United States, 5 million cases of food poisoning are reported annually, with 4,000 of these resulting in death. Most cases are caused by mistakes in food preparation and handling, not by mistakes in food processing or packaging.

E. Coli in Fresh Juice

It was widely believed in the juice industry that pathogens like E. coli could not survive in an acidic environment, such as citrus and apple juice. Odwalla apple juice had a pH (acidity) level of 4.3. (On the pH scale, 7 is neutral, and levels below 7 are increasingly acidic.) Odwalla did conduct spot testing of other, more pH-neutral products. The Food and Drug Administration, although it did not have specific guidelines for fresh juice production, indicated in its Retail Food Store Sanitation Code that foods with a pH lower than 4.6 were not potentially hazardous.

In the early 1990s, however, scattered scientific evidence emerged that E. coli O157:H7 might have undergone a critical mutation that rendered it more acid-tolerant. In 1991, an outbreak of E. coli poisoning sickened 23 people in Massachusetts who had consumed fresh, unpasteurized apple cider purchased at a roadside stand. A second, similar incident occurred in Connecticut around the same time. In a study of the Massachusetts outbreak published in 1993, the *Journal of the American Medical Association* reported that E. coli O157:H7, apparently introduced by fecal contamination of fresh apples, had unexpectedly survived in acidic cider. The journal concluded that E. coli O157:H7 could survive at a pH below 4.0 at the temperature of refrigerated juice. The journal recommended strict procedures for sanitizing apples used to make fresh juice, all of which Odwalla already followed.

Although the FDA investigated both instances in New England, it did not issue any new regulations requiring pasteurization of fresh juice, nor did it issue any advisories to industry. At the time of the Odwalla outbreak, neither the FDA nor state regulators in California had rules requiring pasteurization of fresh apple juice.

Considering the Options

In the company's second-floor conference room, later in the day on October 30, Steltenpohl and Williamson gathered the company's senior executives to review the situation.

King County officials had identified about a dozen cases of E. coli infection associated with Odwalla apple juice products. But as Steltenpohl later described the situation, "It was all based on interviews. They didn't yet have bacteriological proof." Washington health officials had not yet made a public announcement, nor had they ordered or even recommended a product recall.

Conversations with federal disease control and food safety specialists throughout the day had turned up troubling information. From them, Odwalla executives had learned of the two earlier outbreaks of E. coli illness associated with unpasteurized cider in New England. And they had been told that 157 could cause illness in very minute amounts, below levels that would reliably show up in tests. The FDA had indicated that it planned to launch an investigation of the incident but did not suggest that Odwalla had broken any rules.

Management understood that they had no *legal* obligation to order an immediate recall, although this was clearly an option. Another possibility was a nonpublic recall. In this approach, the company would quietly pull the suspect product off the shelves and conduct its own investigation. If a problem were found, the company could then choose to go public with the information.

The company carried general liability insurance totaling \$27 million. It had little debt and about \$12 million in cash on hand. The cost of various options, however, was hard to pin down. No one could be sure precisely how much a full or partial product recall would cost, if they chose that option, or the extent of the company's liability exposure.

Ordering a Recall

At 3 p.m., about four hours after they had received the first phone call, Steltenpohl and Williamson issued a public statement.

Odwalla, Inc., the California-based fresh beverage company, issued today a national product recall of fresh apple juice and all products containing fresh apple juice as an ingredient . . . Our first concern is for the health and safety of those affected. We are working in full cooperation with the FDA and the Seattle/King County Department of Public Health.

The recall involved 13 products, all containing unpasteurized apple juice. At the time, these 13 products accounted for about 70 percent of Odwalla's sales. The company did not recall its citrus juices or geothermal spring water products.

"Stephen and I never batted an eyelash," Steltenpohl later remembered. "We both have kids. What if it had turned out that something was in the juice, and we left it on the shelf an extra two weeks, or week, or even two days, and some little kid gets sick? What are we doing? Why are we in business? We have a corporate culture based on values. Our mission is nourishment. We really never considered not recalling the product. Looking back, I suppose the recall was the biggest decision we made. At the time, it seemed the only possible choice."

Once the decision to recall the product had been made, the company mobilized all its resources. On Thursday morning, October 31, 200 empty Odwalla delivery trucks rolled out from distribution centers in seven states and British Columbia with a single mission: to get the possibly tainted product off the shelves as quickly as possible. Organizing the recall was simplified by the facts that Odwalla operated its own fleet of delivery vehicles and that, in most cases, the product was displayed in the company's own coolers. The delivery drivers simply went directly to their own accounts and removed the recalled juices. In cases where the product was shelved with other products, Odwalla worked with retailers to find and remove it.

A group of employees in San Francisco, one of the company's major distribution centers, later recounted the first day of the recall:

Every single person who is or was an RSP, express driver, or merchandiser, worked that first full day and the next.

What was amazing was there were a lot of people who we didn't even have to call to come in. It might have been their day off, but they'd call to ask, "What can I do?"

Right. They'd ask, "When should I come in? Where do you need me to be?"
... It was an amazing effort... We were able to make it to every single account on that first Thursday. That's a thousand accounts.

Within 48 hours, the recall was complete. Odwalla had removed the product from 4,600 retail establishments in seven states and British Columbia. "This is probably as speedy as a product recall gets," a stock analyst commented. "They probably accom-

plished it in world-record time."

On October 31, as it was launching its recall, the company also took several additional steps.

- The company announced that it would pay all medical expenses for E. coli victims, if it could be demonstrated that Odwalla products had caused their illness.
- The company offered to refund the purchase price of any of the company's products, even those that had not been recalled.
- The company established a crisis communications center at its headquarters and hired a PR firm, Edelman Public Relations Worldwide, to help it handle the crush of media attention. It also set up a Web site and an 800 hot line to keep the public and the media apprised of the most recent developments in the case. Twice-daily media updates were scheduled.
- The company decided to extend the recall to include three products made with carrot juice. Although these products did not contain apple juice, carrot juice was produced on the same line. Until the company had determined the cause of the outbreak, it felt it could not guarantee the safety of the carrot juice products.

On October 31, as the company's route salespeople were fanning out to retrieve the juice, Odwalla's stock price was plummeting. The company's stock lost 34 percent of its value in one day, falling from 183/8 to 121/8 on the NASDAQ exchange. Trading volume was 20 times normal, as 1.36 million shares changed hands.

Tracking the Outbreak

Over the next few days, the full extent of the outbreak became clearer. In addition to the cases in Washington, new clusters of E. coli poisoning were reported by health authorities in California and Colorado. As the company received reports about individual cases, Steltenpohl and Williamson attempted to telephone families personally to express their

concern. They were able to reach many of them.

On November 8, a 16-month-old toddler from a town near Denver, Colorado, who had developed hemolytic uremic syndrome, died following multiple organ failure. Tests later showed antibodies to O157:H7 in the girl's blood. It was the first, and only, death associated with the E. coli outbreak. Steltenpohl immediately issued a statement that read:

On behalf of myself and the people at Odwalla, I want to say how deeply saddened and sorry we are to learn of the loss of this child. Our hearts go out to the family, and our primary concern at this moment is to see that we are doing everything we can to help them.

Steltenpohl, who had spoken with the girl's parents several times during her hospitalization, flew to Denver, with the family's permission, to attend the child's funeral. The girl's father later told the press, "We don't blame the Odwalla company at all. They had no bad intentions throughout all this, and they even offered to pay all of [our child's] hos-

pital bills. I told them yesterday that we don't blame them, and we're not going to sue."

By the time the outbreak had run its course, 61 people, most of them children, had become ill in Colorado, California, Washington, and British Columbia. Except for the

Colorado youngster, all those who had become ill, including several children who had been hospitalized in critical condition, eventually recovered.

Investigation of the Outbreak

As the outbreak itself was running its course, the investigation by both the company and federal and state health authorities proceeded. On November 4, the FDA reported that it had found E. coli O157:H7 in a bottle of unopened Odwalla apple juice taken from a distribution center in Washington State. As it turned out, this was the only positive identification of the pathogen in any Odwalla product. Eventually, 15 of the 61 reported cases (5 in Colorado and 10 in Washington) were linked by molecular fingerprinting to E. coli found in the Odwalla juice sample. The origin of contamination in the other 46 cases remained unknown.

Meanwhile, federal and state investigators converged on Odwalla's Dinuba manufacturing plant, inspecting it from top to bottom, in an attempt to find the source of the pathogen. On November 18, the FDA announced that it had completed its review of the Dinuba facility and had found no evidence of E. coli O157:H7 anywhere in the plant. The investigators then turned their attention to the growers and packers who supplied apples to the Dinuba plant, on the theory that the company might have processed a batch of juice containing some ground apples contaminated by cow or deer feces. In their interim report, the FDA noted that although no E. coli was found at Dinuba, "microbial monitoring of finished product and raw materials used in processing [was] inadequate." Odwalla sharply challenged this conclusion, noting that the FDA did not have any requirements for microbiological testing.

Searching for a Solution

The recall placed enormous financial pressure on the company and challenged its executives to decide how and when to reintroduce its products to the market.

As a short-term measure, Odwalla announced on November 7 that it would immediately reintroduce three of its recalled products, all juice blends, that had been reformulated without apple juice. These products would continue to be produced at Dinuba, but not on the apple processing line. In announcing the reformulation, Steltenpohl told the press, "Until we are assured of a completely safe and reliable method of producing apple juice, we will not include it in our juices."

But the reformulation of a few blended juice smoothies was hardly a long-term solution, since apple juice was a core ingredient in many of the company's top-selling products. Odwalla urgently needed to find a way to get apple juice safely back on the market. How to do so, however, was not obvious.

To assist it in finding a solution to the problem, Odwalla assembled a panel of experts, dubbed the Odwalla Nourishment and Food Safety Advisory Council, to recommend ways to improve product safety. In late November, with the help of these experts, Odwalla executives conducted detailed scenario planning, in which they reviewed a series of possible options. Among those they considered were the following:

- Discontinue all apple juice products. In this scenario, the company would eliminate
 all apple juice and blended juice products until it could be fully assured of their safety.
- Improve manufacturing processes. In this scenario, the company would take a number of steps to improve hazard control at various points in the production process, for

example, through modified product handling procedures, multiple antiseptic washes, routine sample testing, and stricter controls on suppliers.

- Modify labeling. Another option was to disclose risk to the consumer through product labeling. For example, an unpasteurized product could be sold with a disclaimer that it was not suitable for consumption by infants, the elderly, or those with compromised immune systems, because of the very rare but still possible chance of bacterial contamination.
- Use standard pasteurization. Standard pasteurization involved slowly heating the juice to a point just below boiling and holding it at that temperature for several minutes. The heat killed dangerous microorganisms and also had a side benefit of extending the shelf life of the product. Standard pasteurization, however, also destroyed many of the nutritional benefits of raw juice.
- Use modified pasteurization. Modified pasteurization, also known as flash pasteurization, involved quickly heating the juice to a somewhat lower temperature, 160 degrees F., and holding it very briefly at that temperature to kill any harmful bacteria. In tests of this procedure, Odwalla technicians found that it yielded an apple juice that had a "lighter" taste than unpasteurized juice, but with a more "natural" taste than standard pasteurized apple juice. The process destroyed some nutrients, but fewer than standard pasteurization. Flash pasteurization did not, however, extend the shelf life of the product.
- Use alternative (non-heat-based) technologies for removing pathogens. The company also examined a number of alternative methods of killing pathogens. These included a high-pressure process in which pressure was used to explode the cell walls of bacteria; a process in which light waves were directed at the juice to destroy pathogens; the use of electricity to disrupt bacteria; and the use of herbal antiseptic products.

A key factor in the decision, of course, was what customers wanted. The company commissioned some market research to gauge consumer sentiment; it also carefully monitored public opinion as revealed in calls and letters to the company and discussions on public electronic bulletin boards, such as America Online.

The company also had to consider its financial situation. Remarkably, despite the recall, sales for the quarter ending November 30, 1996, were actually 14 percent ahead of the same period for 1995 because of excellent sales prior to the outbreak. The E. coli incident, however, had caused significant operating losses. By the end of November, the recall had cost the company about \$5 million. Expenses had included the cost of retrieving and destroying product, legal and professional fees, and increased marketing costs. At the end of the fiscal quarter, Odwalla had a cash position of about \$9 million, down from \$12 million at the time of the outbreak.

On December 5, Odwalla announced that it had decided to flash pasteurize its apple juice. In a statement to the press, Williamson stated:

Odwalla's first priority is safety. After much consideration and research, we chose the flash pasteurization process as a method to produce apple juice. It is safe, yet largely preserves the great taste and nutritional value allowing Odwalla to remain true to its vision of optimal nourishment. Importantly, we will continue to aggressively pursue the research and development of alternative methods to bring our customers safe, unpasteurized apple juice.

The following day, all apple juice and blended juice products were reintroduced to the market with flash pasteurized juice. The label had been redesigned to indicate that the product had been flash pasteurized, and Odwalla coolers prominently displayed signs so advising customers.

At the same time, the company moved forward with its expert panel to develop a comprehensive Hazard Analysis Critical Control Points (HACCP) (pronounced hassip) plan for fresh juice production. HACCP was not a single step, but a comprehensive safety plan that involved pathogen control at multiple points in the juice production process, including sanitation of the fruit, testing for bacteria, and quality audits at several points in the process. The company also continued to monitor new, alternative technologies for controlling bacterial contamination.

Regulating the Fresh Fruit Juice Industry

In the wake of the E. coli outbreak, public concern about food safety mounted, and federal and state regulators began considering stricter regulation of the fresh fruit juice industry. On December 16, the FDA sponsored a public advisory hearing in Washington, D.C., to review current science and to consider strategies for improving the safety of fresh juice. Debate at the two-day hearings was wide-ranging.

Steltenpohl and Williamson represented Odwalla at the hearing. In their testimony, the Odwalla executives reported that they had decided to adopt flash pasteurization but argued against government rules requiring all juice to be heat-treated. "Mandatory pasteurization would be a premature and unnecessary step in light of the vast new technologies emerging," Steltenpohl told the hearing. He warned the panel that mandates could "lead to widespread public fears about fresh food and beverages."

Steltenpohl and Williamson called on the FDA to continue to explore different methods for producing fresh juice safely. In addition, they called for industry self-regulation aimed at adoption of voluntary standards for safe manufacturing practices and hazard control programs. The Odwalla executives reported that they viewed flash pasteurization as the last line of defense in a comprehensive program to eliminate pathogens.

Some other juice makers and scientists supported Odwalla's position. Several small growers vigorously opposed mandatory pasteurization, saying they could not afford the expensive equipment required. A representative of Orchid Island Juice Company of Florida asked, "What level of safety are you trying to achieve? We don't ban raw oysters and steak tartare, although the risks are much higher. Nor do we mandate that they be cooked, because it changes the flavor." A number of food safety experts testified about emerging technologies able to kill pathogens without heat treatment.

Some scientists and industry representatives, however, were on the other side. Two major firms, Cargill and Nestlé, both major producers of heat-treated juice products, argued vigorously for a government mandate, saying that "other technologies just won't do the job." Dr. Patricia Griffin of the Centers for Disease Control and Prevention noted that "current production practices do not guarantee the safety of apple cider, apple juice, and orange juice." She called for pasteurization of apple juice and cider, as well as product labels warning customers of potential risk. A representative of the Center for Science in the Public Interest called for a label warning the elderly, infants, and persons with suppressed immune systems to avoid fresh, unpasteurized juice.

Several days after the hearing, the advisory panel recommended against mandatory pasteurization, for the moment at least, calling instead for "good hazard control" at juice manufacturing plants and in the orchards that supplied them. However, an FDA spokesman added, "We can never say that forced pasteurization is completely off the boards." The agency indicated that it would continue to study a number of alternative approaches to improving juice safety, including mandatory pasteurization.

Looking to the Future

In May 1997, Steltenpohl reflected on the challenges facing Odwalla:

Our task now is to rebuild a brand and a name. How you rebuild . . , these are important decisions. You can make what might be good short-term business decisions, but they wouldn't be the right thing. The decisions we make now become building blocks for the [company's] culture. We have to look at what's right and wrong. We need a clear moral direction.

Discussion Questions

- What factors contributed to the outbreak of E. coli poisoning described in this case?
 Do you believe that Odwalla was responsible, wholly or in part, for the outbreak?
 Why or why not?
- What do you believe Odwalla should have done as of October 30, 1996? As of November 11, 1996? In each instance, please list at least three options and state the arguments for and against each.
- 3. What steps, if any, should Odwalla take as of the point when the case ends?
- 4. Do you consider Odwalla's voluntary recall decision to be an act of corporate social responsibility? Why or why not?
- 5. What is the appropriate role for public policy in the area of food safety? Assess the role of government authorities in this case. In your view, did they act properly?