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To Docket Management Branch (HFA-305
US Food and Drug Administration
12420 Parklawn Drive, Room 1-23
Rockville, MD 20857

From T. Albert Yamada
Washington Representative
FRESH PRODUCE ASSOCIATION OF THE AMERICAS

Date June 29, 1998

Subject Docket Submission to **Docket Number 97N-0451**

On behalf of the Fresh Produce Association of the Americas, of Nogales, Arizona, I hereby submit comments to Docket Number 97-0451, Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables.

Attachments

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PLEASE NOTE: This docket submission was delivered this afternoon by messenger to the address and room number listed in the FDA web site for the Guide (as of June 24, 1998). The messenger was told the office had moved to Fishers Lane but when the messenger went to the address given to him, he was told the office was not located there. Consequently, this submission could not be delivered to the docket as specified in your notice and, out of necessity, is sent by Federal Express delivery service.

Attachments

Statement and Comments

1703 '98 JUN 30 A8:28

Fresh Produce Association of the Americas

30 North Hudgins Street
Nogales, Arizona 85628

submitted to the docket

Docket Number 97N-0451

Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables

June 29, 1998

Dockets Management Branch (HFA-305)
U.S. Food and Drug Administration
12420 Parklawn Drive, Room 1-23
Rockville, MD 20857

General Comments

The Fresh Produce Association of the Americas ("FPAA") recognizes the difficulty faced by FDA in developing a guidance that is sufficiently broad yet specific enough to cover a very wide range of fruits and vegetables grown in diverse conditions and climates. *FPAA, therefore, urges FDA to proceed slowly so that all recommendations, guidances, and instructions are based on proven science, internationally acceptable standards, and established practices of recognized value for promoting food safety.*

1. FDA and USDA should more clearly define the goals of risk reduction that they hope to achieve through the adoption of the Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables ("the Guidance"). A clear statement with quantifiable and transparent goals is needed--beyond just the general statement of "safer" food--because virtually all food industry and consumer groups already support the general concept of safe foods. Without a specific end-goal, however, the task of motivating the

tens of thousands of food producers and the millions of food handlers throughout this country, and in the world, will be difficult.

A 1998 article from the *Columbia Journalism Review* (see attached) shows the weakness of the rationale for the often cited number of 9,000 deaths annually due to food poisoning. The article shows how little, if any, scientific peer-review went into creating the estimate and that at least one other equally competent authority calculated a far lower number which is seldom quoted. Despite its shortcomings and dubious statistical value, the 9,000 death number appears to be driving much of the Food Safety Initiative. This statistic is relevant to the "Guidance" because it is an example of how little research has been done to substantiate the current understanding of risks.

The general point is that the Fresh Produce Association of the Americas hopes that the Administration--through FDA and USDA--will devote more resources to establish more accurate risk analysis and baselines to help guide the food industry so as to enable it to prioritize its resources on the areas that the government determines to have the greatest risks.

2. Given its lengthy and all-encompassing title, the Guidance should address the entire, and every, aspect of the process of getting food from the farm to the table.

FPAA believes the Guidance should mention the *1997 FDA Food Code* as it relates to the restaurant industry recommendations, and include recommendations for appropriate home kitchen practices that assure safety and prevent cross contamination. For example, a 1998 study by Audits International (see attached) showed that 99 percent of the U.S. household kitchens it surveyed were classifiable as "unacceptable" in food safety terms even though the food preparers in the sampled households knew they were being observed and monitored.

Furthermore, the Guidance should include a discussion of proper retailing practices, as well as appropriate consumer behavior in selecting and buying produce, whether at a large chain food store or at a roadside stand. The purpose of such a discussion is to bring to attention the possibility of contamination that exists all along the food chain and the responsibility held by each participant not to contaminate or to buy contaminated produce. An overall food safety discussion is needed in the Guidance because it is rather inconceivable that FDA would issue a separate set of voluntary guidances for roadside stands or for homeowner kitchen practices. The obvious place to raise overall awareness of food safety is in the Guidance so as to avoid creating public perception that farm worker hygiene, farm water cleanup, and avoiding raw manure will eliminate all food bore illnesses.

The Guidance, in fact, would be an appropriate document to educate consumers on becoming smarter and better shoppers of produce. The Guidance should highlight retailing practices that might result in contamination, and should warn consumers not to buy in such places. The Guidance also should call to attention the possibilities of

contamination at such places as the traditional roadside farm stand, especially if such operations are near pastures or if the operation is in an area where there are no obvious toilet facilities.

FDA has indicated that the Guidance is intended to address only one of the links in the food chain, but as FDA is unlikely to immediately issue similar documents for other links of the food chain, the Guidance becomes the appropriate, and perhaps the only, vehicle to discuss food safety.

In short, while FPAA recognizes the need for safe practices on the farm, FPAA also believes the Guidance would mislead the public unless it referenced the absolute need for a continuum of safe practices from field to the table. Too much emphasis on farm practices, therefore, without adequate references to the responsibilities of the consumer, retailer and shipper to contribute to the food safety chain, tends to pillorize the farmer, misleads the public into forgetting their essential roles, and gives aid and comfort to self-appointed advocates who push their self-serving agendas.

FPAA, therefore, reemphasizes the need for strong educational efforts and guidances at all stages of the food chain. FPAA recommends to FDA and USDA to include those other links in the food chain in the final version of the Guidance.

3. The Administration's Food Safety Initiative must respect the concept of national treatment on politically sensitive issues such as food safety. Every food item should be held to the same objective and transparent level of safety regardless of the country of origin. Unfortunately, that view is not necessarily universal. The Guidance document, therefore, should specifically state that its principle points will be applied fairly and objectively to all foods.

Recently, a staff member for one of the Members of Congress who authored a bill that would expand FDA authority to cover foreign inspections told FPAA that "if imports have to be ten times safer than domestic produce, then so be it." Obviously food safety is not an internationally negotiable item--either the food is safe or it is not. There can be, however, different levels of confidence or number of inspections. Unfortunately, the high costs involved in achieving extraordinary level of confidence would have the effect of barring imported produce.

This type of attitude--seeing origin as more significant than growing practices--reveals the serious shortcomings of the current public policy that encourages creation of trade barriers masquerading as food safety standards. Even more distressing is the failure by those who are in policy-creating positions to see how their politically motivated activities can seriously impact American exports. Those who push safe food agendas that favor domestic growers fail to see that their food safety concepts are really attempts to erect barriers to trade.

Both FDA and USDA have legislative affairs offices that should bear some of the responsibilities of properly educating Members of Congress so as to at least maintain a veneer of attempting to create a science-based food safety effort. Part of the education process should be to explain the proper value of equivalency agreements which are by no means magic bullets to solve food safety problems. Rather, equivalency agreements are tools that can help FDA allocate its resources more effectively when monitoring imported products. With such agreements in place, FDA then can concentrate its monitoring and testing efforts on import sources that have not established equivalency and, therefore, might need more careful scrutiny.

FPAA also would like to re-focus attention on the importance of gathering more complete data on food borne illnesses between. Between 1990 and the present, there are indications that imported foods have been associated with illnesses in roughly the same percentage as their market penetration. Thus, it would appear that even if all imports were displaced by domestic produce, the rate of food borne illnesses would not change. It is important to note that imports at present cannot be proven to cause more outbreaks than domestic produce and that food safety should be addressed from a multilateral perspective if real public health gains are to be achieved.

4. Several regions in Mexico are actively engaged in food safety programs. The growers' association in the state of Sinaloa has:

--developed guidance documents for its members,

--established a baseline survey of food safety practices for nearly 100 of its largest fruit and vegetable farms,

--assigned staff members to work individually with growers, and

--developed a worker sanitation training video.

The growers in the San Quintín region of Baja California likewise have staffers assigned to handle food safety issues, a hygiene education program, and GAPs and GMPs for their main commodities. Additionally, the state of Sonora (which is adjacent to Arizona) has authorized the hiring of 40 full-time staff members to work with all produce growers throughout the state on food safety programs.

5. The existence of the programs cited above (at section 4) point to the need for recognition of the concept of regionalization in establishing equivalency. That means--as with phytosanitary issues and chemical residue inspections--the U.S. government should establish protocols to recognize regions and groups of growers that meet, or exceed, all U.S. regulations and standards. Establishing regional or grower-specific equivalency approvals is far more realistic, and ultimately more effective, than trying to judge and evaluate an entire country's food safety system. In most likelihood, virtually all nations have similar or like food safety regulations so that the mere existence of "equivalent" laws and systems is relatively meaningless. Food safety is an universal concern but the actual delivery of safe foods is specific. Therefore, if a region or a group of specific producers is proven to be a safe source, its output should be allowed access to the United States.

Specific Comments Relative to the Guidance

I. Definitions

Sanitize--The definition is vague. What is the starting point for a "5 log" reduction in pathogens? Is this a rodent feces covered piece of equipment being hosed off or a generally clean implement that is brought to a surgically sterile condition?

II Water

2.1 General Considerations

In regard to water used for a series of processes, the Guidance at 2.1 says the dump tank water quality need not be as good as the water used for the last spray contact point. Based on other comments in the document, however, the quality of the dump tank water may be of critical importance as the differential between pulp temperature (as in the case of tomatoes) and water temperature makes the dump tank a likely place for water infiltration to the interior of the fruit.

Maintaining a positive temperature differential in the dump tank might be of little value if there is failure to maintain water quality, unless there is clear proof that infiltration will not take place.

2.2 Wash Water

Use appropriate wash methods.

There is need to explain the reason for the choice of hot water and surfactant if this recommendation is to be made.

Consider the wash water temperature for certain produce.

If internalization of pathogens is reason to consider temperature, then there should be less emphasis on tomatoes and greater emphasis on the point that all fruits and vegetables that have harvesting scars should take pathogen internalization into consideration.

IV. Sanitation and Hygiene

C. Field

2.1 General Harvest Considerations

Repair or discard damaged cartons in an effort to reduce....

Change "*cartons*" to "**containers**" as the term cartons has a specific connotation within the industry and its use is limited to the final packing container.

General Conclusions and Comments

FPAA has created its own abbreviated produce safety guidance and is urging its members to have their growers follow it as a starting point in an always continuing effort to achieve maximum food quality and safety.

In today's large farm operations that are computerized, mechanized, automated, and regulated, the likelihood of microbial contamination is very low, relative to all the other opportunities, locations, and conditions to which fresh produce are exposed. The incidence of on-farm contamination appears to be minuscule, especially in regard to nationally marketed produce sold in large-scale chain food stores.

The Guidance, therefore, will best serve its purpose if it becomes as much a broad-scope educational and instructional tool as an operational manual for the farm. The cause of food safety will not be served by merely imposing the Guidance on large-scale farm operations. It must become required reading for every farm operation, large and small, national and local.

FPAA is sympathetic of the difficulties facing FDA in developing a guidance that is fair, objective, and sufficiently broad enough to cover a very wide range of fruits and vegetables grown in diverse conditions and climates. *FPAA nevertheless urges FDA to proceed slowly with caution so that all recommendations, guidances, and instructions are based on proven science, utilize established practices of recognized value in promoting food safety, and include internationally acceptable standards.*

As has been widely noted at public hearings, *the Guidance has a high likelihood of evolving into official regulations and de facto requirement that American growers must meet to sell nationally and internationally.* There is no doubt that just as American buyers expect safe foods, international buyers of American fruits and vegetables will expect no less. The Guidance, therefore, stands to become an international document that will help, or plague, American farm exports. *There is consequently a great need for FDA to proceed with caution to make sure that the guidance imposed on American farmers do not become regulatory traps that victimize them in overseas markets.*

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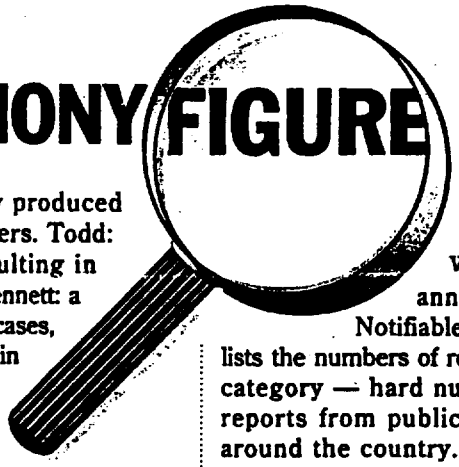
FACTOID WATCH

FOOD POISONINGS' PHONY FIGURE



About 9,000 Americans die every year from food poisoning . . .
The Associated Press, December 17, 1997

When food-borne illness became a major public policy issue, propelled by a series of high-profile outbreaks over the past four years, the press naturally wanted to know how many die from it. A figure of 9,000 Americans per year emerged. But where did the figure come from?

A Nexis check shows that some stories attributed it to a variety of sources, including the U.S. Department of Agriculture, the Centers for Disease Control and Prevention, the General Accounting Office, and congressional testimony. Many more, if not most, did not attribute it at all, as if the number were one of those accepted truths that require no attribution, like "squirrels have bushy tails."

But it isn't. My editor told me to locate the source and determine its veracity. "If that many people are dying of food poisoning," she asked, "why haven't we heard of a case locally?"

I found dozens of stories that used the same figures — a range of 6.5 million to 33 million people are sickened and approximately 9,000 die each year. I focused on the fatality figure because it is a number that can be quantified. Deaths are recorded.

I started with the USDA. A spokesman said the department uses the number, but that it came from the Centers for Disease Control and Prevention in Atlanta. A spokesman there said the number comes from a scientific paper known as the Altekruse report. She faxed it to me.

And there it was, that same number, only footnoted. The footnote revealed the number came from something called the Council for Agricultural Science and Technology, or CAST, a think tank located in Ames, Iowa. In 1994 it issued a report, "Foodborne Pathogens: Risks and Consequences," which I obtained.

A task force created by the think tank specifically to study the foodborne pathogen issue had relied upon two researchers — Dr. Ewen Todd, a microbiologist, and Dr. John Bennett, medical doctor — to come up with annual estimates of illnesses and deaths caused by food poisoning. They produced wildly different numbers. Todd: 12,581,630 cases resulting in 522.7 annual deaths. Bennett: a lower number of total cases, 6,485,755, but resulting in a higher 8,982 deaths. Both scientists had used mathematical models to arrive at an estimate. Neither model was based on known cases.

When its report was issued with an accompanying press release, CAST adopted Bennett's 9,000 figure. Todd's fatality estimate was not used.

Before getting on the phone, I called up the Centers for Disease Control's Web site for the annual Summary of Notifiable Diseases, which lists the numbers of recorded deaths by category — hard numbers based on reports from public health officials around the country. The differences between those numbers and Bennett's were striking.

According to Bennett, for example, 1,000 people die annually from trichinosis, a pork parasite. According to the CDC, only one trichinosis death has been recorded in the past *ten* years. Bennett posited 28 deaths per year from typhoid fever, which is carried by shellfish; the CDC recorded a total of 21 over a ten-year period. (The CDC has not been tracking E.coli deaths long enough to have a number.)

I put all this to Dr. Tanya Roberts, co-chairman of CAST's task force. "Notifiable deaths are horribly under-reported," she said. What the CDC has, "is a legal record, not a medical record."

Roberts concedes that some of Bennett's numbers may be inflated: "Until we do a good analysis I would say we don't know for sure. I don't know where the truth lies, and I don't think anyone else does. I said *up to* 9,000 deaths [in the press release]. I don't think Todd is accurate and I don't think Bennett is accurate. The truth is somewhere else, or in between."

Still, Roberts said she leans towards the higher number, because "Bennett's science is the best to date."

Nonetheless: numbers that were based on one researcher's best guess have achieved the status of unassailable truth simply by being run through several spin cycles until they were adopted without attribution by many reporters.

Somewhere in the cycle comes a new phenomenon; I call it unattributed-numbers bracket creep. This from *U.S. News & World Report*, November 24: "Each year up to 81 million Americans suffer a food-borne illness; 9,100 die." And this from *USA Weekend*, January 23: "Deaths from tainted food topped 10,000 last year . . . ." In neither story were sources cited for the rising numbers. —**Dan Wilson**

Wilson is a reporter for the Appleton, Wisconsin, Post-Crescent.

LANGUAGE CORNER

"MEDIA" MATTERS

We can skip examples of the use of the word as a singular. They're practically infinite, and maybe the holdouts (like CJR) for "media" as a plural will be overrun someday. But there are arguments for trying to mount a counterattack.

One has to do with literacy. The word has a useful and much-used singular form, "medium." It came from the Latin into English along with its Latin plural, "media," and both have been established in English since time immemorial. (The Anglicized "mediums" is rare these days, except in reports on the spirit world.) How can "medium" and "media" both be singular? It's not logical, and really not literate, despite myriad examples of misuse.

Another argument for the plural is philosophical. Public figures like to blame journalists and journalism for all that isn't lovely in their lives. They consistently say sneeringly that "the media is" whatever, as if all of us in the ol' news game were the same. But even in a period when traditionally responsible news outlets wallow in sleaze from time to time (and agonize later), it's unfair to imply that the best and the worst among us are indistinguishable. Subtly, "the media is" does that. We do well to fight for the plural, and to be even clearer by specifying "the news media" when we aren't talking about the trash peddlers or infotainment folks. A subtle counterattack is fair, and literate.

—**Evan Jenkins**

For more on the language, see CJR's Web site at www.cjr.org.

MOFFETT CECIL

Home Food Safety

Audit of consumer food handling practices shows that 99% of households do not meet food safety standards

RICHARD W. DANIELS
The author, a Professional Member of IFT, is President, Audits International, 1899 Second St., Highland Park, IL 60035. (847) 433-0900.

Current estimates of the number of cases of foodborne illness in the United States range upward from 80 million annually, including more than 9,000 deaths. The deaths, the time lost due to illness, even the gastrointestinal discomfort for those who experience mild food poisoning, make it overwhelmingly important that, as a society, we do everything possible to minimize this problem.

There are many debates surrounding food safety. These include whether foodborne illness is increasing; whether bacteria are becoming stronger and more resistant; whether the population is becoming more susceptible; and whether there is an impact from globalization of the food supply. Regardless of the outcome of these arguments, home food safety is a topic which must be at the forefront.

People's behavior at home is probably a good reflection of their knowledge or at least what they believe is important. Numerous reports describe what consumers can do to improve food safety in their own households. Yet, little information exists identifying the frequency at which specific food handling practices are performed in a less-than-safe fashion. The lack of this specific information has allowed most of us to believe that food safety is "somebody else's problem."

While a great deal of research has been done on manufacturing, processing, and distribution, information regarding consumers has been largely anecdotal. To replace the consumer behavior information currently available with objective data, we designed a study to observe the food handling practices of consumers, specifically to determine how often proper food safety practices are employed as part of home food preparation. The results of such a study could prove useful in (1) raising public awareness of the most important issues, (2) personalizing the inadequacy of current practices, and (3) encouraging more and better public school and agricultural extension programs.

Home Practices Observed

Audits International routinely collects objective field information on issues of food safety as part of our foodservice facility inspection program. In this study, we used the same techniques that we use in our standard audits of restaurants. We collected data from 106 households located in 81 cities across the U.S. and Canada. Household selection was not random. Rather, auditors asked acquaintances if they were willing to have their meal preparation practices evaluated as part of this survey. Those who participated knew they were being evaluated, probably believed they would perform well, and were better educated than the average U.S. population (73% had a college degree, only 2% did not complete high school). It is our belief that each of these design biases suggests that the selected households were likely to perform better than if we had used an unannounced stratified random sampling.

The auditors observed meal preparation, service, post-meal cleanup, and leftover storage. The

nspection process required 45–60 minutes of evaluation time, but the evaluation was spread out over as much as four hours from preparation to final handling of leftovers. Each auditor utilized a consistent and objective critical control point approach for home evaluation in a similar fashion to the food safety inspection they conduct in restaurants. Performance was compared to standards from the 1997 *Food Code* (FDA, 1997).

The following issues were evaluated: temperature-taking practices; storage and rotation practices (time, temperature, etc.); hot and cold ingredient preparation and holding (time, temperature, and product handling); sanitation and chemical storage; personal practices (cross-contamination, handwashing, safety-related habits); and general kitchen condition (infestation, maintenance, plumbing, etc.).

Violations were categorized as minor, major, or critical. A critical violation (Table 1) is defined as one that, by itself, can potentially lead to a foodborne illness or injury. Major violations (Table 2), on their own, are very unlikely to cause foodborne illness but are frequently cited as contributing factors. Although we collected information on minor violations, this report deals only with critical and major issues.

Table 1 Critical violations[a]

Violation	Description
Cross-contamination	A practice causing the potential transfer of harmful substances or disease-causing microorganisms from one food or food ingredient to another. Other than neglected handwashing, the most frequently observed forms of cross-contamination are (1) storage of raw materials above ready-to-eat foods; (2) utensils used for tasting being put back into food under preparation; (3) foods prepared in an unclean sink; (4) washed produce placed back into original containers; (5) smallware or equipment touching unsanitary surfaces and then used in food preparation; (6) cutting boards not washed or sanitized between uses; (7) unclean scissors or blade used to open bags of food; and (8) failure to wash whole produce
Handwashing neglected	Failing to wash hands (1) when first starting to handle food; (2) after using the phone; (3) after touching face, hair, body, or other people; (4) after handling garbage, dirty dishes, or cleaning; or (5) after using the restroom
Hot and cold water available at all sinks	Each faucet should allow hot and cold water to mix to a temperature of at least 110°F
Hot ingredient holding too cool	Maintaining hot food at temperatures which permit rapid bacteria growth (<140°F)
Improper chemical labeling	Failure to keep household chemicals in labeled containers
Improper chemical storage	Chemicals stored in such a way that they may contaminate food, food contact surfaces, or equipment
Improper cooling of leftovers	Any food that is not cooled after cooking or hot holding from 140°F to 70°F in 2 hr and to 41°F in an additional 4 hr for a total of less than 6 hr cooling time
Improper glove usage	Failure to cover bandages with gloves may permit the introduction of pathogenic bacteria to food
Refrigerated temperature too high	Refrigerated product and ingredient temperatures which permit rapid bacterial growth (>45°F)
Severely damaged cans	Observation of any can which is swollen, or has flawed seals, seams, rust, dents, or leaks
Sick/symptomatic food handlers	Food handlers with cold or flu-like symptoms may cause food to be contaminated

[a]Adapted from NRA (1995)

Problems in Most Households

To be classified as acceptable, a home was allowed zero critical violations and no more than four major violations. This classification method has been used in foodservice institutions, which have demonstrated the ability to consistently meet and exceed these criteria. Of the 106 households evaluated, fewer than 1% met the minimum criteria for acceptable performance. The number of critical violations per household ranged from 0 to 8 and averaged 2.8. At least one critical violation was observed in 96% of the households. The number of major violations per household ranged from 2 to 9 and averaged 5.8.

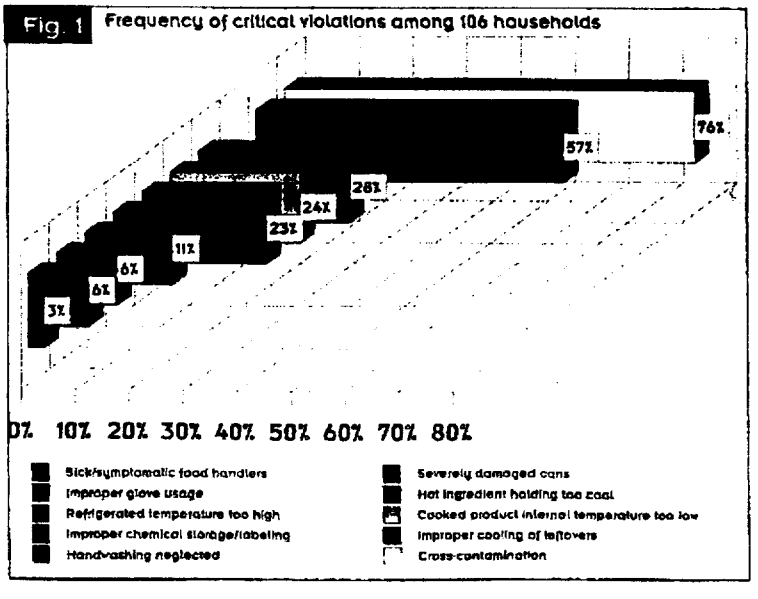
The data shown in Figs. 1 and 2 demonstrate that poor food safety practices are universal in North America. Ninety-nine percent of households performed unacceptably according to our foodservice evaluation system as well as widely accepted food safety standards. In effect, the survey demonstrates that safety must become everyone's concern.

This survey was designed to address performance, not individual perceptions or specific knowledge of food safety. When a violation was observed, there was no followup to identify whether the violation was due to lack of knowledge or to perceived lack of importance. Exploration of this issue should be incorporated into future studies.

Our foods may be the safest in the world, but that doesn't mean they are as safe as they can be. The threat of foodborne illness is real. At a minimum, anyone preparing a meal should take the simple commonsense precautions necessary to protect themselves, their families, and their friends. We can complain about processing facilities, distribution systems, supermarkets, and restaurants, but we must also take responsibility for ourselves. Food safety starts on the farm and ends where food is consumed. Proper preparation at home is the last step, and in some cases, the last chance we have to protect ourselves.

Continued on p. 56

Fig. 1 Frequency of critical violations among 106 households



Home Food Safety CONTINUED

Must Heighten Awareness

The results of the study quantify the magnitude of the food safety problem but do not address any of the following questions:

- Why is there such poor performance in an area that both the regulatory and scientific communities believe to be so important?
- Is the failure due to a lack of consumer knowledge or a general disbelief as to the importance of specific practices?
- Do consumers believe that safety has changed for the worse, or do they believe that the increased attention to food safety is due to media hype?
- What measures can be taken to induce the public to stop blaming others and motivate a change in personal behavior?

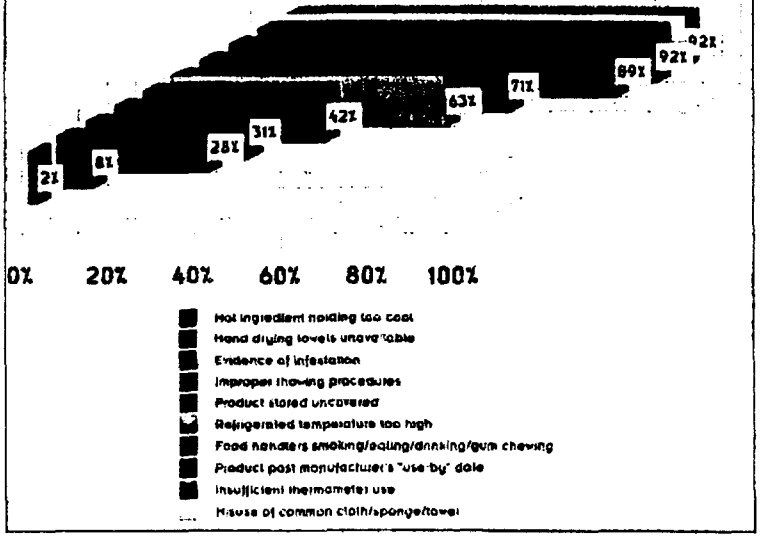
What is evident from this study is a need for change in attitude and behavior regarding food safety. For the food professional, greater emphasis must be placed on continuous training. And it is important to understand that practices we have used are no longer adequate. When it comes to food safety, it is incumbent on all food professionals to lead by example.

Table 2 Major violations[a]

Violation	Description
Evidence of infestation	Any indication that a foodservice area is inhabited by pests (insects/rodents)
Food handlers smoking/ eating/ drinking/gum chewing	These habits encourage mouth-to-hand-to-food contamination and can lead to the introduction of a foreign substance to food, which may cause a foodborne illness
Hand drying towels unavailable	To prevent the use of aprons or clothing for drying hands, each handwashing sink should have towels available
Hot ingredient holding too cool	Maintaining hot foods at temperatures which permit rapid bacteria growth (140–144°F)
Improper handling of leftovers	Failure to transfer leftovers to a shallow pan less than 2 inches deep or to small containers. Large bulk slows cooling and permits prolonged bacterial growth
Improper thawing procedures	Food not brought from frozen temperatures to those suitable for cooking by using one of four proper techniques: (1) in a refrigerator; (2) under running drinkable water at 70°F or lower within 2 hr; (3) as part of the cooking process; or (4) in a microwave (this method should always be followed by immediate cooking)
Insufficient thermometer use	Failure to regularly measure temperatures of held or prepared foods
Misuse of common cloth/ sponge/towel	Separate cloths, sponges, and towels should be used for washing dishes, wiping counters and tables, wiping hands, and drying clean dishes. Using a common towel for more than one of these purposes could allow cross-contamination
Product past manufacturer's "use-by" date	Expiration times are meant to maintain product quality and safety. Any ingredient past manufacturer's "use-by" date should be discarded
Product stored uncovered	Ingredients stored in the refrigerator or dry storage must be covered to keep foreign objects out of food
Refrigerated temperature too high	Refrigerated product and ingredient temperatures which permit rapid bacterial growth (42–45°F)

[a]Adapted from NRA (1995)

Fig. 2 Frequency of major violations among 106 households



For the general public, it is critical that home cooks make conscious efforts to improve their safety practices. With a minimum of time and effort, immediate improvement can be made in four areas: avoiding cross-contamination, washing hands at appropriate time during meal preparation, cooking to the appropriate temperatures, and cooling leftovers properly.

At least 80 million cases of foodborne illness and more than 9,000 deaths per year demand that something be done to improve food safety. It is time to re-evaluate and improve curricula in both the public education and agricultural extension systems. We hope that the results of this survey can be used to heighten consumer awareness and to encourage improvements in food safety training and education.

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FDA. 1997. "Food Code." Food and Drug Admin., Washington, D.C.

NRA. 1995. ServSafe® Serving Safe Food Certification Coursebook. Educational Foundation, Natl. Restaurant Assn., Washington, D.C.

Edited by Neil H. Mermelstein, Senior Associate Editor

SPH22

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3 To

Recipient's Name **Dockets Management Branch(HFA-305)** Phone **(301) 827-2410**

Company **U.S. Food and Drug Administration**

Address **12420 Parklawn Drive** **Room 1-23**
(To "HOLD" at FedEx location, print FedEx address here) Dept./Floor/Suite/Room

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City **Rockville** State **MD** ZIP **20857**

For HOLD at FedEx Location check here

☐ **Hold Weekday** (Not available with FedEx First Overnight)
☐ **Hold Saturday** (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)

☐ **Saturday Delivery** (Available for FedEx Priority Overnight and FedEx 2Day only)
☐ **NEW Sunday Delivery** (Available for FedEx Priority Overnight only)

8 0 5 2 3 4 1 3 1 9 3 7

4a Express Package Service *Packages under 150 lbs.* — Delivery commitment may be later in some areas.

☑ FedEx Priority Overnight (Next business morning)
☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx First Overnight (Earliest next business morning delivery to select locations) **(Higher rates apply)**
☐ FedEx 2Day (Second business day)
☐ FedEx Express Saver (Third business day)
FedEx Letter Rate not available. Minimum charge: One pound rate.

4b Express Freight Service *Packages over 150 lbs.* — Delivery commitment may be later in some areas.

☐ FedEx Overnight Freight (Next business day)
☐ FedEx 2Day Freight (Second business day)
☐ FedEx Express Saver Freight (Up to 3 business days)

(Call for delivery schedule. See back for detailed descriptions of freight services.)

5 Packaging

☑ FedEx Letter ☐ FedEx Pak ☐ FedEx Box ☐ FedEx Tube ☐ Other Pkg.
Declared value limit $500.

6 Special Handling (One box must be checked)

Does this shipment contain dangerous goods? ☑ No ☐ Yes (As per attached Shipper's Declaration) ☐ Yes (Shipper's Declaration not required)

☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg.
☐ Cargo Aircraft Only

*Dangerous Goods cannot be shipped in FedEx packaging.

7 Payment

☐ Obtain Recipient FedEx Account No.

Bill to: ☑ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
(Enter FedEx Account No. or Credit Card No. below)

Total Packages	Total Weight	Total Declared Value*	Total Charges
		$ .00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See **SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY** section for further information.

Credit Card Auth.

8 Release Signature

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

Questions?
Call 1·800·Go·FedEx® (800)463-3339

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