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REVIEW OF THE INDUSTRY RESPONSE TO THE SAFETY OF FRESH AND FRESH-CUT PRODUCE

HEARING

BEFORE THE

SUBCOMMITTEE ON HORTICULTURE AND ORGANIC AGRICULTURE

OF THE

COMMITTEE ON AGRICULTURE HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

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HEARING TO REVIEW THE INDUSTRY RESPONSE TO THE SAFETY OF FRESH AND FRESH-CUT PRODUCE

TUESDAY, MAY 15, 2007

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
SUBCOMMITTEE ON HORTICULTURE AND ORGANIC AGRICULTURE,
Washington, DC.

The Subcommittee met, pursuant to call, at 10:00 a.m., in Room 1300 of the Longworth House Office Building, Hon. Dennis Cardoza [Chairman of the Subcommittee] presiding.

Members present: Cardoza, Etheridge, Davis, Barrow, Gillibrand, Neugebauer, Kuhl, McCarthy, and Conaway.

Staff present: Adam Durand, Scott Kuschmider, John Riley, Sharon Rusnak, Debbie Smith, John Goldberg, Pete Thomson, and Jamie Weyer.

STATEMENT OF HON. DENNIS CARDOZA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. CARDOZA. Good morning. We will call to order this hearing of the Subcommittee on Horticulture and Organic Agriculture to review the industry response to the safety of fresh and fresh-cut produce, and it will all now come to order. I want to thank you all for attending this important hearing, and I want to thank the industry and also the consumer groups for being here today.

This hearing is being called because maintaining the integrity of our nation's food supply is of paramount concern to us at this time. Not only mine as chairman of this subcommittee but as a consumer and as a parent as well. Americans spend over $1 trillion in food per year, both at home and in restaurants, and they place their faith in the agricultural industry and the federal and state regulatory agencies to ensure that those products are safe to consume.

Generally, our food supply consistently meets high benchmarks for success in safety, but there are, of course, instances where the system fails, whether it be spinach, tomatoes, meat, poultry, or countless other products, foodborne illness can strike viciously and without warning.

Ladies and gentlemen, I should know. I was personally affected by the salmonella outbreak in peanut butter earlier this year. So one can imagine my displeasure to read recent reports that the FDA knew this particular peanut butter plant had a spotty safety

record, yet they continued to certify its compliance with food safety measures.

Part of the problem may be that there are currently 15 different regulatory agencies tasked with monitoring the safety and security of our food supply. From the Food and Drug Administration to USDA to Health and Human Services, each year thousands of federal employees inspect, verify, and approve all aspects of the food distribution chain.

Together with their state counterparts, these agencies create arguably the safest food supply in the world. However, when the rare crack in the system occurs, the overall integrity and consistency of food safety in this country can be devastated. Families across the country who consume tainted products are unfairly put in harm's way, and the general public's confidence in the food supply is shaken to the core.

Furthermore, farmers and processors are often unable to recover from the financial strains of severe market disruptions from the outbreaks. None of these consequences were more apparent than during the September 2006 E.coli outbreak associated with the consumption of fresh-cut spinach. Many in this room were directly involved in these days and weeks that followed that crisis. This response to the spinach outbreak was a wakeup call for both the federal government and the fresh produce industry.

For the government, it became painfully obvious that the continued lack of support for specialty crops in the farm and food safety programs is taking its toll. Specialty crops have grown to nearly 50 percent of the farm gate value of American agriculture, yet very few federal dollars are spent on shoring up research, food safety, or best management practices for the industry.

If we are serious about preventing further outbreaks, this equity can no longer be ignored. For the produce industry, while I must applaud them for fully cooperating with the E.coli investigation and trace-back attempts, it was apparent that previous practices designed to prevent outbreaks of foodborne illnesses fell short.

The fresh produce industry has rested for too long on ill-defined and unchecked management practices that left holes in the accountability of the entire system. However, there has been significant progress by the fresh produce industry, and their actions should serve as a model to their fellow commodities who have also fallen short in recent times.

Shortly after the spinach crisis, the affected industries in California organized the California Spinach and Leafy Green Marketing Agreement, which licenses first handlers to certify compliance with best management practices for fresh produce. The agreement is a solid first step to strengthening industry practices and to quell consumer doubt in domestic fresh produce.

But food safety standards for fresh produce should not be limited to just those producers and handlers in California. If proven to be effective, the best management practices in California's Spinach and Leafy Green Marketing Agreement should serve as a nationwide model for improving food safety.

I am pleased to have Joe Pezzini, Vice President of Ocean Mist Farms and chairman of the agreement here to elaborate on food safety measures included in this agreement.

Overall, I believe consumer confidence in fresh produce is back and stronger than ever. Americans recognize and appreciate the benefits of fresh fruits and vegetables in their diets and have responded well to the efforts of regulators and the industry to correct flaws in their food safety surveillance. But unfortunately it will only take one more incident to break down this progress, to move us back to square one, and to revive the unproven claims that our food supply is susceptible to dangerous pathogens.

I remain extremely concerned that our food safety oversight is spread amongst too many different agencies, creating a systematic lack of responsibility and ownership over the food supply. I believe that one and only one federal agency should have responsibility for protecting the food supply.

The USDA currently has a better relationship with state agencies and other officials on the ground level, and there seems to be an inherent lack of understanding at FDA about the unique growing practices of boutique crops like spinach, lettuce, and other fresh produce, which may have significantly hindered their ability to react quickly and confidently in a spinach crisis.

A complete discussion of domestic food safety and reform should include a thorough examination of feasibility of USDA's control over this area in fruits and vegetables, in my opinion. The spinach crisis was not the first E.coli outbreak, and it certainly will not be the last. But as members of Congress, we have a duty and responsibility to carefully review these situations and to look for ways to improve the responses at the federal government level.

I hope that we can use this hearing to gain a better understanding of the industry response to recent food safety concerns and continue the dialogue on strengthening domestic food safety compliance. I appreciate the witnesses appearing here today, and I look forward to their comments.

With that, I would like to yield to the ranking member, my good friend, Mr. Randy Neugebauer of Texas.

STATEMENT OF HON. RANDY NEUGEBAUER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. NEUGEBAUER. Thank you, Mr. Chairman. Consumers in the United States are fortunate to have such a safe, abundant, and affordable supply of fresh fruits and vegetables. Sometimes we take for granted the many fresh produce choices available in our grocery store aisles and farmers' markets.

It takes dedicated farmers, handlers, and packers to supply us with this variety and high quality of food, and I appreciate those of you who have taken time away from your busy operations to be with us today. Just as it takes a full supply chain for growers to supply consumers with fresh produce, it also takes an entire industry to make sure that the product is safe.

You have a good track record when it comes to producing safe, high quality fruits and vegetables. And the industry has responded quickly to address problems on those occasions when food safety concerns have arisen. As producers and handlers know firsthand, the viability of your industry requires that you produce and sell a safe product that consumers remain confident in the safety of your product.

I applaud produce growers and handlers for pursuing industry-lead marketing agreements, promoting best practices, and supporting research to increase the knowledge of how to keep fresh vegetables and fruits safe. Others have suggested that extensive federal programs regulation from the farm to the table would be a better approach. However, I am concerned that a rigid regulatory approach may not allow the industry the flexibility to adapt to practices and to new technologies. It may hinder growers' ability to produce the very crops that they are trying to sell. Allowing the industry to set research-backed standards and practices and form cooperative marketing agreements can be an effective means to be able to ensure food safety when backed by government verification that standards are sound and being followed.

I would like to hear more from AMS and FDA as well as the industry panelists on how all segments can best work together and make effective use of resources so that consumers can continue to be assured of the safety and quality of fresh produce that they buy for their families.

Mr. CARDOZA. Thank you, Mr. Neugebauer. The chair would request that other members submit their opening statements for the record so that witnesses may begin their testimony and we ensure that there is ample time for questions, and we will do our very best to make sure that every member has time to ask their questions today.

I anticipate that a number of the rest of the members of the committee shall show up throughout the panel's presentation. There are a number of other hearings that are going on as we speak.

I would like to call up and welcome the first panel to the table. We have with us today Administrator Lloyd Day from the Agricultural Marketing Service, United States Department of Agriculture in Washington, D.C. Thank you, Mr. Day. And also Mr. David Acheson, M.D., Assistant Commissioner for Food Protection, U.S. Food and Drug Administration from Rockville, Maryland. Thank you, Mr. Acheson, for being here with us today. Gentlemen, if you would please begin your testimony, and welcome to the committee. Mr. Day, you are up first.

STATEMENT OF ADMINISTRATOR LLOYD DAY, AGRICULTURAL MARKETING SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE

Mr. DAY. Mr. Chairman and members of the subcommittee, good morning and thank you for the invitation to appear before you today. I appreciate the opportunity to share with you a brief overview of the activities and services of USDA's Agricultural and Marketing Service, AMS, and to be here with my colleague, Dr. David Acheson, from FDA.

As you know, the U.S. Food and Drug Administration is the Federal agency with primary responsibility for the food safety of horticultural products. At the U.S. Department of Agriculture, the Food Safety and Inspection Service holds similar responsibility for meat, poultry, and egg products. The mission of AMS is to facilitate the strategic marketing of products in the domestic and international marketplace. AMS is not a food safety agency.

The agency does respond, however, to requests from producers to support their product quality control efforts. For example, producers have asked AMS to establish programs to provide independent verification that FDA guidance is being followed. For many decades, AMS has offered voluntary, user-funded, product quality grading services as well as plant sanitation reviews based on FDA's good manufacturing practices.

In recent years, AMS has expanded these traditional services through the addition of audit-based programs based on internationally recognized quality management system protocols. Some of these newer programs incorporate food safety related elements reflecting market demand for greater food safety assurance as a quality attribute of products being marketed.

In the horticulture or specialty crops area, AMS product grading, plant sanitation review, and audit-based programs are conducted with a Federal workforce of some 800 full and part-time employees. Additionally, AMS has cooperative agreements with nearly all state departments of agriculture, under which their fruit and vegetable inspectors receive training and are granted federal licenses to assist in the delivery of AMS services and programs, adding another 3,500 skilled professionals to the agency's deployable workforce.

One recent example of an audit-based program fashioned around food safety related objectives is the Good Agricultural Practices and Good Handling Practices Audit Verification Program. This program assists farms and packing houses through verification of their adherence to FDA's Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables. It is a uniform nationwide program that is voluntarily funded by user fees. Primary users of this program include fresh fruit and vegetable growers, packers, shippers, and others in the marketing chain.

Currently audits are performed at 317 farms and facilities in 32 states and Puerto Rico, with larger numbers of participants in California, Oregon, Washington, North Carolina, and New Jersey. Nearly 100 fruit, vegetable and other specialty crops are covered. AMS staff and AMS licensed and trained state employees perform the on-site audits.

Another example of an audit-based program offered by AMS is a Qualified Through Verification, or QTV, program that assists fresh cut fruit and vegetable processors in managing food safety risks. There are currently nine fresh cut plants participating in the QTV program.

QTV is a voluntary, user fee funded program that provides third party verification of the fresh cut processors adherence to Hazard Analysis Critical Control Point, HACCP, Plan. Under the QTV program, processors identify and document critical points in their production process, measure performance of their operation at these critical points, and position themselves to detect and direct any deficiencies that might emerge.

AMS staff involved in administering this program have received training in HACCP and audit procedures. Authorized by the Agricultural Marketing Agreement Act of 1937, marketing orders and agreements assist farmers by allowing them to collectively work to solve marketing problems. Industries which voluntarily enter into

these programs in this way choose to have federal oversight of certain aspects of their operations.

Marketing orders, supported through industry referenda, are binding on individuals and businesses that are classified as handlers in the geographic area covered by the order. Marketing agreements are binding only on handlers who are voluntary signatories of an agreement. Presently there are 30 active marketing agreement and order programs covering 25 specialty crop commodities. Fees are collected from handlers to cover local costs of administrating these programs.

Under federal marketing orders, USDA considers food safety to be a quality characteristic of regulated fruit, vegetable, and specialty crops, and that the absence of harmful pathogens or toxins is a characteristic of higher quality products.

In response to producer requests for support of their product quality control efforts, AMS has incorporated food safety-related requirements in marketing agreements and marketing order regulations for many years. For example, testing for aflatoxin has been required for U.S. grown peanuts since 1965, originally under a Federal marketing agreement and subsequently through separate legislation administered by AMS.

A large majority of current active Federal marketing order programs include minimum requirements with most U.S. grade standards having criteria related to food safety. For example, lack of mold, insects, foreign material, et cetera. Since 1961, for example, the marketing order for California prunes has had inspection and fumigation requirements relative to live insect infestations. Similar requirements for insects as well as the presence of dirt or mold have been in place for California raisins since 1977.

Beginning in 2005, pistachio handlers were required to test all nuts destined for human consumption for aflatoxin, which at present, would lower the quality and market value of those pistachios. Also, for the upcoming 2007/2008 crop, almond handlers will be required to treat almonds prior to treat shipment to reduce the chance of salmonella contamination, a health hazard that can lower the quality and value of almonds shipped to the market.

Following the September 2006 E.coli outbreak linked to fresh spinach grown in the Salinas Valley, the California Department of Food and Agriculture began designing a state marketing agreement that would require adherence to good handling practices for most companies involved in shipping leafy greens in the state. The California Spinach and Leafy Green Marketing Agreement became effective in February 2007.

AMS has cooperated with CDFA in the verification aspects of the agreement, including the design and delivery of training for the California state auditors who will monitor compliance.

To conclude, Mr. Chairman, I would like to reiterate that food safety policy and the establishment of food safety standards are not within AMS's mandate. However, AMS does have significant experience and expertise in the design and delivery of marketing programs, including those involving inspections for product quality and verification of production processes. At industry's request, AMS has incorporated food safety related elements in several of its

marketing programs for the produce industry. Thank you, and I would be pleased to respond to any questions.

Mr. CARDOZA. Thank you, sir. We will now have Mr. Acheson testify, and then we will have the committee ask you questions. Thank you. Mr. Acheson.

STATEMENT OF DR. DAVID ACHESON, M.D., F.R.C.P., ASSISTANT COMMISSIONER FOR FOOD PROTECTION, U.S. FOOD AND DRUG ADMINISTRATION

Mr. ACHESON. Good morning, Chairman Cardoza and members of the subcommittee. I am Dr. David Acheson, assistant commissioner for food protection of the Food and Drug Administration. In this newly created position, Commissioner Von Eschenbach has asked me to provide advice and counsel on strategic and substantive food safety and food defense matters based on my knowledge and experience of the science behind food protection.

FDA appreciates the opportunity to discuss the recent outbreaks of foodborne illness associated with fresh produce and the measures we are taking to enhance the safety of these products. I am pleased to be joined here today by my colleague, Mr. Lloyd Day of USDA.

At FDA, ensuring that the products we regulate are safe and secure is a vital part of our public health mission. The agency regulates everything Americans eat except for meat, poultry, and processed egg products, which are regulated by USDA.

FDA is committed to ensuring that America's food supply continues to be among the safest in the world. In recent years, we have done a great deal to product the food supply from contamination, but the recent outbreaks of foodborne illness associated with fresh produce, peanut butter, and animal feed underscore the need to develop new, risk-based, farm-to-table approaches that integrate food safety and defense and focus on prevention, intervention and response.

These new strategies are necessary to meet the challenges created by changes in the global food supply, changes in farming, manufacturing, and processing practices, and changes in consumer needs. The number of illnesses associated with fresh produce is a continuing concern of the agency, and we have worked on a number of initiatives to reduce the presence of pathogens in these foods.

The fact that produce is often consumed raw or with only minimal processing without any type of intervention that would reduce or eliminate pathogens prior to consumption contributes to its potential as a source of foodborne illness. Consequently, addressing the way fresh produce is grown, harvested, and moved from farm to table is crucial to minimizing the risk of microbial contamination.

FDA has worked with many of our food safety partners to produce industry guidelines that focus on preventing contamination. We have also focused our collective efforts on research to gain a better understanding of the fundamental reasons by foodborne agents get into fresh produce and to share our knowledge to date through educational outreach with affected parties and the public.

With regard to industry guidelines, in March of this year, FDA issued a draft final version of its guide to minimize microbial food

safety hazards of fresh cut fruits and vegetables. This guide should help industry reduce the health hazards that may be introduced or increased during the production of fresh cut produce.

We have also assisted the industry in developing a number of other commodity-specific guidelines for the commodities most often associated with foodborne illness outbreaks. These include guidelines for lettuce and leafy greens, melons, and tomatoes. We are working with industry on similar guidelines for herbs and green onions.

The example of fresh sprouts illustrates how successful these efforts can be. In 1999, there were 390 reported illnesses associated with eating contaminated fresh sprouts. FDA published two guidance documents for sprouts that year. We believe that the subsequent decline in sprout-associated illness was in large part due to the industry's adherence to the FDA recommendations. In 2004, only 33 illnesses were reported associated with fresh sprouts, and in 2005 and 2006, there were none.

The recent initiative of the California Department of Food and Agriculture, the Leafy Green Handler Marketing Agreement, is another important step toward improving the safety of these foods. This program verifies and certifies that growers are adhering to good agricultural practices. We also work closely with our partners on research to enhance food safety.

For example, for the past decade, FDA has worked closely with USDA's Agricultural Research Service and Cooperative State Research, Education, and Extension Service to coordinate and mutually support our respective research efforts related to produce safety. We worked together to analyze water samples from the Salinas watershed for E.coli O157:H7 and to relate the location of bacteria to geographical, seasonal, or rainfall variation. An extension of this research will look for sources of E.coli O157:H7 in California's Salinas Valley. Information obtained from this study will be used to inform produce growers about strategies to prevent preharvest microbial contamination.

Educational outreach and the sharing of safety information with affected parties is another important component of enhancing the safety of fresh produce. In February, we participated in a forum sponsored by the Western Institute for Food Safety and Security to share information regarding the safety of lettuce and leafy greens on the farm and at packing, cooling, and processing facilities.

Also in February, the FDA affiliated joint Institute for Food Safety and Applied Nutrition, and the University of Florida sponsored a workshop to improve understanding of how tomatoes become contaminated with salmonella and other pathogens. Later this month, FDA, the National Center for Food Safety and Technology, and the University of Georgia's Center for Food Safety will cosponsor a workshop on microbial testing to reach a consensus on the role of microbial testing in ensuring the safety of produce.

In addition, the agency recently held two public hearings concerning the safety of fresh produce. The purpose of these hearings was for FDA to share information about recent outbreaks of foodborne illness related to fresh produce and to solicit comments, data, and additional scientific information on this issue. The ad-

ministrative record tied to these hearings will remain open until June 13, 2007.

In summary, FDA continues to work with federal, state, and international food safety partners and with industry to address fresh produce and broader food safety food defense challenges in our nation's food supply. As we move forward, we are focusing our attention on three key areas: preventing contamination through a strong science base, risk-based preventative controls, and leveraging with key partners; improving intervention methods by using modern technology to establish a comprehensive integrated food information system to analyze information and detect potential contamination; and by enhancing our rapid response capabilities by, for example, improving product tracking. Thank you for the opportunity to discuss FDA's ongoing efforts to improve the safety of fresh produce. I would be happy to answer any questions you may have.

Mr. CARDOZA. Thank you, Dr. Acheson. My first question goes to Mr. Day. In your testimony, sir, you testified that AMS cooperative programs are funded by producers and packing houses through user fee collections. Please tell the subcommittee how much is contributed by the industry for these purposes and can you provide briefly program-by-program detail for the record of this hearing?

Mr. DAY. I would be happy to provide more detail for the record. The audits cost essentially $75 an hour, and an audit of a packinghouse or something like that would take about 8 hours. So that is about $600 for an audit. As to the total number, the value for all the audits we perform, we did 352 last year, so you would probably multiply that times $600, and that would be the total contribution that goes to not just AMS but also to the states that do a lot of the auditing.

Mr. CARDOZA. How many packinghouses and shippers are there in the country that you should be inspecting?

Mr. DAY. I don't have the actual number of all those, but we are doing over 300 right now.

Mr. CARDOZA. Okay, sir, if you could get that for us because I think that speaks to also the issue of how many are being certified, how often that needs to be done, that would be helpful.

Mr. DAY. All right, we would be happy to provide that to you.

Mr. CARDOZA. Thank you. Sir, in my opening statement, I mentioned that I believe that there should be 1 regulatory agency that is responsible for all food safety questions so that there is accountability. I don't necessarily think that just shifting bureaucracies is always the answer. Certainly the Homeland Security Department has sort of proven that philosophy not to be necessarily the best situation.

But I would like to ask you very pointedly if you think that USDA would be a better agency to address this question of produce food safety.

Mr. DAY. Well, we believe that the existing food safety system is working, that the American food supply continues to be among the safest in the world. Since AMS is a marketing agency and we just provide assistance to potential quality attributes related to food safety, I don't think it would be in my purview to opine as to

whether AMS or USDA versus FDA would be the appropriate agency. So I will decline to comment on that, sir.

Mr. CARDOZA. Dr. Acheson, has FDA taken any actions requiring fruit and vegetable producers and processors to have written plans about contamination risks and how to address them?

Mr. ACHESON. With regard to written plans, in terms of processes, yes, there is a requirement for good manufacturing practices at the processing level. That requires the maintenance of certain records around sanitation issues. When you get down to producers at the farm level, the answer is no.

Mr. CARDOZA. Okay, where did the contamination take place in some of the most recent outbreaks?

Mr. ACHESON. You mean in the spinach outbreak?

Mr. CARDOZA. Yes.

Mr. ACHESON. Most likely the site of contamination was at the farm level and——

Mr. CARDOZA. Okay, so basically what you just told me is that you have got some regulatory measures in place, but at the level the contamination took place, there is no requirement of any plan?

Mr. ACHESON. That is correct.

Mr. CARDOZA. Was the contamination of the spinach due to systemic fluid uptake through the roots of the plant, or was it surface contamination on the surface of the plant through irrigation water splashing up or contaminants on the outside that weren't controlled by the washing? And if it was the latter, did the packaging of these products contribute to how virulently the pathogen contaminated humans?

Mr. ACHESON. In truth, we don't know exactly how the spinach became contaminated. The ideas that you just mentioned are all plausible hypotheses. That it came in through the root system, that is certainly potentially possible. Frankly, I think it is more likely that it was external contamination. Once E.coli O157 sticks to a leaf of a piece of spinach, it sticks on very tightly, and it is hard to get it off. So precisely how that spinach became contaminated, we don't know in that context. It could have been through water. It could have been through wild animals. It could have been from birds. It could have been a variety of possible sources.

Once that product is contaminated at the farm level, then clearly what has to be done is to prevent further contamination of other product. Proper processing of the spinach, proper washing with appropriate chlorine levels, et cetera, will minimize the likelihood of spread. It will not necessarily kill E.coli that are already on that spinach. But clearly processors have a responsibility to make sure that, if there is a problem, it doesn't spread to other spinach that is not contaminated to begin with.

Mr. CARDOZA. It seems to me, sir, that we need to find out these answers, that we need to know what is causing what some believe is increased outbreaks. I don't know that there is increased, or just that we are finding more of them. But what it speaks to me is that there is a lack of research dollars being put into this area. That is really the federal government's role in my mind is to make sure that we provide safety, that we provide security, and we find out what the causes are. That has traditionally been the federal government's role in research.

Has your administration put forward an increased research budget for this area?

Mr. ACHESON. First of all, I couldn't agree with you more. A fundamentally sound scientific infrastructure to make food safety decisions is critical. You cannot make good decisions if you don't have sound science and sound scientific infrastructure to do that. To get that, you need the appropriate resources, and you need the research to get the job done.

FDA is not a research agency. We are a regulatory agency. What we do with regard to research is work with our research colleagues, especially in the department of agriculture, agricultural research services, as well as CSREES in terms of working with them and looking at the critical areas, what needs to get done, what are the critical answers. So that is how we do that. We are essentially sharing our knowledge, sharing our concerns with the research agencies who can actually get the job done.

Mr. CARDOZA. Sir, I agree with what you just said, other than the part where I need to know whether your administration has asked for an increase in the research budget to get to the bottom of these problems.

Mr. ACHESON. I believe in the current FY '08 request there is an increase in research, specifically yes.

Mr. CARDOZA. Okay, one last question. There is going to be testimony here later on today by another witness that says that the number of inspections has actually decreased dramatically in the last 3 years. Is that true?

Mr. ACHESON. Yes, but I think one has to look at how inspection is done. I mean this obviously has been a focus with regard to imports, and what the agency is doing is using a risk-based strategy. Simply inspecting more foods just because they are there is not the answer to the problem. It has to be risk-based, targeted inspections. But that alone isn't going to solve the problem. What we are trying to do, and part of my new role in this new position is to create this strategic thinking, is to move back, which gets at some of your earlier comments, focus on the preventative strategies. We don't want to inspect our way out of this problem. We want to prevent it, and you have got to have the scientific infrastructure to do that.

Mr. CARDOZA. I would suggest to you, sir, that we need both.

Mr. ACHESON. I couldn't agree more, but if you prevent it, intervene, and then have a robust response system, that is the best that you can do to prevent it ever getting on the dinner plate. And if it does, to respond quickly.

Mr. CARDOZA. I have so many more questions, but I am going to turn it over to my colleagues because I know they have excellent questions as well. Mr. Neugebauer.

Mr. NEUGEBAUER. Thank you, Mr. Chairman. Mr. Day, in the last 9 months, have you seen an increase in the amount of verification in audit requests that you have had from your agency?

Mr. DAY. Yes, Congressman Neugebauer. In fact if you look at '06 inspections versus '07 inspections, we have seen an increase of about 108 percent, so certainly there is a growing demand for these kind of services by the industry. And much of that is demanded by their customers down the marketing chain.

Mr. NEUGEBAUER. Well, I think that was my question is I would suspect that people that are marketing the fruits and vegetables are probably very anxious to have that certification to give them some insurance that, in fact, that their products are going to be safe.

Mr. DAY. Yes, you are exactly right, sir. There is certainly a trend by those that are purchasing the product to have this kind of good agricultural practices or good handling practices seal of certification to add value, to add some sense of safety to the product as they receive it.

Mr. NEUGEBAUER. What percentage of the end user, the people that are marketing fruits and vegetables, what percentage of those folks do you think are requiring some kind of a certification in audit process? In other words, how strong is the market demand for that?

Mr. DAY. Yes, I don't have an actual number on that. We can try and find that number and send it to you, but it is certainly growing. Major retailers as well as restaurants are looking for more and more food safety assurances, especially given the recent outbreaks. And I think as the chairman mentioned, whether there are an increase in outbreaks or whether we are just noticing more outbreaks because of improved communication and technologies is a very fundamental question to this whole debate.

Mr. NEUGEBAUER. Maybe this is a question for Dr. Acheson, but are there disclosures to the end users on best practices of washing fruits and vegetables before consumption? I mean within the restaurants, within the packaging of the end user. Because I know that my grandmother used to wash vegetables until you couldn't tell what they actually were when she got through with them for the very reason she was concerned about that. But what kind of responsibility does the end user or the consumers have as far as taking some due diligence there? Dr. Acheson.

Mr. ACHESON. Sure. Consumers do have a responsibility, as does everybody who handles food, whether it is from the grower, the processor, the packer, the distributor, the retailer, all the way down to the consumer. Once the consumer gets a hold of that and it is the kitchen, they have responsibilities. And we have had and continue to have extensive educational programs about food safety in general, cooking, chilling, cleaning, separating in that context. We have specific consumer information on what to do with leafy greens and how to wash them and fruits and vegetables. And that is an important part of the consumer message, and as we were dealing with spinach on an ongoing basis, those consumer messages were constantly being repeated in terms of what consumers can do to help ensure the safety in their own homes.

Mr. NEUGEBAUER. I notice that FDA has issued guidance documents to producers in industry to help them understand good agricultural practices or GAPs as I believe they are referred to. Are those generic, or are they commodity specific? In other words, do you have different guidelines for tomatoes, lettuce, spinach, fresh fruit, or are these general or specific?

Mr. ACHESON. We have both. The original good agricultural practices document that was issued in 1998 was broad and focused on good agricultural practices pretty much across the board. Since

then, we have issued a number of product-specific guidelines. Melons, sprouts, fresh cut produce is the most recent one, and we are working on others as I mentioned in my oral testimony on herbs and other things. So we have the broad approach and then the more focused one.

Mr. NEUGEBAUER. Just in my final time here, if I could get each one of you to respond to this. How are the two of you working together? Explain to me interaction that your two agencies would have when it comes to the food safety for fruits and vegetables. I will start with Mr. Day.

Mr. DAY. Sure. We have an ongoing consultative relationship with FDA for its voluntary GAP and good handling practices and other audit-based programs. What happens is when they would change their guidelines, they would notify us. We would change how we actually go out and audit a program to be based on those specific guidelines for whether it is tomatoes or cantaloupes or leafy greens. And as we are out in plants, we have a memorandum of understanding. So that if we notice something that might be some kind of an egregious food safety problem, we would certainly notify FDA and FDA notifies us in the kind of things that might be related to the marketing issues that we need to be cognizant of.

Mr. NEUGEBAUER. Dr. Acheson.

Mr. ACHESON. I think my colleague here has summarized it well. We have a very good working relationship. When we develop a new scientific approach, we make sure we share it with the people who are interacting on a more ongoing basis. AMS has a great capability of actually getting boots on the ground in some of these places. It is more eyes. It is more ears, educating and looking for problems. To give you a specific example of the interaction, since food defense came on the scene, we work closely with AMS, and we had individuals over on detail at FDA to understand the nuances of the importance of food defense and how to put it into context for industry as a whole, not just produce, but it applies to produce.

So there is a very good working relationship, and I think the two of us essentially form part of this integrated team, which is what makes the food safety system what it is right now.

Mr. NEUGEBAUER. Mr. Chairman, I believe I have overextended. Thank you for your indulgence.

Mr. CARDOZA. I thank you for excellent questions, Mr. Neugebauer. The chair would like to remind members that they will be recognized for questioning in order of seniority for members who were here at the start of the hearing. After that, members will be recognized in order of arrival, and I appreciate members understanding. I would now like to recognize the gentleman from North Carolina, Mr. Etheridge.

Mr. ETHERIDGE. Thank you, Mr. Chairman. Let me thank you for holding this hearing. I note with regret though the failure of FDA to provide witness testimony in a timely manner, and I hope that will not be the case in the future because it helps us do a better job of being prepared.

As I mentioned in the full committee hearing on food safety that we held last week, our food supply here in the United States has always been referred to as the safest and most abundant in the world, and I hope we are able to keep saying that. But the out-

break that we have had in the last year of spinach in California, the problem with lettuce at Taco Bell, and now tainted pet food, and we find that some of it has gotten into the food chain of some of the chicken and pork. I just want to stress that we have got to get our hands around this whole issue so that consumers will not be suspicious of the food they are feeding their children.

And my home state of North Carolina is a major producer of fruits and vegetables for the east coast. And if we want to make sure the industry continues to grow and increase exports, it is critical that we get this done and don't have other outbreaks.

Nobody remembers how many good meals they get, but I guarantee you they are going to remember the bad ones. So Mr. Day, you mentioned several programs that AMS has implemented to ensure food and vegetable safety. Did you say that AMS agreement with California Department of Food and Agriculture to address the spinach issue was voluntary?

Mr. DAY. Yes, sir.

Mr. ETHERIDGE. Well, aren't some of the programs, such as those monitoring aflatoxin in peanuts and salmonella in almonds mandatory?

Mr. DAY. Yes.

Mr. ETHERIDGE. Why are some of these problems voluntary?

Mr. DAY. Well——

Mr. ETHERIDGE. Some are not. Doesn't this compromise the entire system?

Mr. DAY. Well, some are voluntary because they are part of the marketing agreement in which the handlers and producers voluntarily become part of that. A marketing order, on the other hand, is mandatory, and there is a referenda every 5 years so that the peanut growers, for instance, or the almond growers, they vote to be a part of this order. And once a change or some kind of a regulation is——

Mr. ETHERIDGE. I appreciate that, but doesn't it compromise the system?

Mr. DAY. Well, I don't think it compromises the system. I think it is just different systems.

Mr. ETHERIDGE. Okay, next question. Does USDA have an estimate as to the impact that last year's contaminated spinach or lettuce had on U.S. exports, and, for that matter, domestic costs?

Mr. DAY. On U.S. exports, I don't think it was tremendous, but I did hear a number that it cost the industry perhaps $100 million. I think most of that was geared toward domestic consumption decline.

Mr. ETHERIDGE. $100 million?

Mr. DAY. I heard that, but I don't know that is the accurate value.

Mr. ETHERIDGE. Okay, let me ask a question as it relates to FDA. What is the FDA doing to increase trace-back technology to hopefully limit the extent of the damage when inevitable breakdowns occur?

Mr. ACHESON. First of all, may I just apologize that you didn't get the paperwork in a timely manner. We will try to make sure that doesn't happen.

Mr. ETHERIDGE. Thank you, sir.

Mr. ACHESON. Improving trace-back is all part and parcel of where we need to be moving with this strategic plan around protecting the food supply. The trace-back piece, the response piece is when things have failed and people or pets have started to get sick, what can we do to get onto it. You asked specifically about what we are doing to develop that. At this point, we are simply trying to make sure that our current systems are robust enough to handle data when it comes in a timely way.

But I think this needs to be looked at in a more radical way. We talked about basic science around preventing the bugs getting there in the first place. I believe we need technological infrastructure to better be able to handle data to get faster tracking in such a way——

Mr. ETHERIDGE. Have you requesting funding for that, or do you need funding to make sure that happens?

Mr. ACHESON. Part of the strategic thinking that I am working on is looking at this big picture and whether that is—how that would fit into it. But there is a need to go down that road, but we are not at that point yet.

Mr. ETHERIDGE. Do you have funds in this year's budget for that?

Mr. ACHESON. That is not currently in there yet.

Mr. ETHERIDGE. Will you request that before this year is out so we can get it in the budget?

Mr. ACHESON. I don't exactly know where that is going to go, and part of my role is to develop this plan as quickly as possible. And if we can do it to get it in this year, then that would be the goal.

Mr. ETHERIDGE. We look forward to having that. Let me go back to one final question, Mr. Chairman, because you mentioned earlier that the number of inspections had dropped. You did not answer why. So I would like to know why they dropped.

Mr. ACHESON. I beg your pardon. Could you repeat that?

Mr. ETHERIDGE. In the previous testimony with the chairman, you said the number of inspections had dropped, and I wanted to follow up as to why they dropped.

Mr. ACHESON. What we are having to do at FDA is to allocate the resources that we have in the areas of maximum risk. In the context of inspections, we have shifted things around a little bit. Some things have been inspected slightly more frequently, particularly certain aspects of imports, others less. Overall, as the resources have had to be moved around, the total number of inspections have dropped. I mean that is just the way it is.

Mr. ETHERIDGE. I will close with this. It seems to me if numbers have dropped and the problems have increased and we are reallocating resources, we may need to reallocate resources again to get more inspection because it seems to me to give the confidence to the American consumer when we are importing more foods, we got a real problem if we aren't inspecting. I would ask you to take a look at that because I think that is a critical issue. Thank you, Mr. Chairman. I yield back.

Mr. CARDOZA. Thank you, Mr. Etheridge. I appreciate your questions. Now, I would like to turn it over to 5 minutes of questioning by Mr. Conaway.

Mr. CONAWAY. Thank you, Mr. Chairman. Mr. Acheson, you talked about a risk-based model that, I assume, focuses our atten-

tion on the areas of greatest risk. As the food moves from the producer to the table, can you talk to us about how you are evaluating this and what this risk-based model is and how you evaluate the various stages and what your plans are to address those risks in this model?

Mr. ACHESON. With regard to risk, you have got to look at it very broadly, and it has got to be farm-to-table continuum, and it has got to look at domestic as well as imported. But to take your specific example, let us take, since we have been talking about spinach, the risk to spinach. Clearly when you are looking at the history of spinach that is starting out in an open field, what are the risks associated with the contamination there, and how do you prevent them?

Once it is then in a processing facility, what are the risks associated with that in terms of how it is washed, how it is handled? Clearly that is not an environment where fresh contamination is likely from an external source. It is not impossible, but it is not as likely as a field. The greater risk is through spreading.

Then as you are moving down beyond the processing, let us say it is in a bag. It is prewashed. There are issues with distribution and retail in terms of refrigeration. If those products are not adequately refrigerated, if there are low levels of E.coli on there, they could potentially grow. So there is a risk in that context.

When you move it into the consumer environment, clearly the need to keep it refrigerated, there is also a risk. And then there is actually a risk of cross-contamination in a consumer environment or restaurant environment from, example, say raw meat would spread the juices onto the leafy greens. So there are different degrees of risk at different points in that chain.

And the inspection, the testing resources and the preventative strategies need to be tailored based on where that risk is because the controls and the risks on the farm are very different than the controls and risks as you move further down that chain. So it is clearly complex, and it is multifaceted. And you need to be looking at the whole piece.

Mr. CONAWAY. Right, and so do we have that in place?

Mr. ACHESON. Beg pardon? Do we have what?

Mr. CONAWAY. Do you have that model in place?

Mr. ACHESON. We do not have that model in place yet, but that is part of——

Mr. CONAWAY. And the timeframe for implementing the model, or obviously it is not going to be same model for everything we eat, but where are you in your work?

Mr. ACHESON. These broad preventative strategies focused on risk and intervention are exactly what I am working on now in my new position. It is going to take a little while before we get all this figured out because it is complicated. As to how long? I don't know exactly how long, but I can tell you it is a top priority for us to get something put in place as quickly as possible.

Mr. CONAWAY. All right. Mr. Day, you talked about the cooperation between California and USDA and what appears to be good work to the California legislature has done with respect to, I guess, lettuce and green leafy stuff. Do the states work well together across state lines? In other words, are the agriculture group in

Texas adopting the same kind of a model that California has done? Can you talk to us a little bit about the——

Mr. DAY. Sure.

Mr. CONAWAY. —cross-state cooperation?

Mr. DAY. Actually, commodity groups and major purchasers across the country are developing specific food safety programs or contract requirements related to good agricultural practices and good handling practices. Several initiatives, to just list them out of you, include California Cantaloupe, California Leafy Greens, Florida Tomatoes, California Strawberries, California Citrus Research Board, The Georgia Fruit and Vegetable Growers Association, the American Mushroom Institute, the National Watermelon Association, and some of the potato growers up in the Pacific Northwest. So there is a wide variety of groups that are looking at developing new product safety standards, most of them based on the FDA guidelines and then finding ways that they can audit toward those to ensure the customers down the marketing chain that they have improved and they have the latest good agricultural practices in place.

Mr. CONAWAY. So, in your view, do states look at each other's best models? Do the best models actually percolate across states, or is it that the commodity groups are doing it, and it spreads that way.

Mr. DAY. Yeah, there is a lot of collaboration among the state departments of agriculture on this very issue right now.

Mr. CONAWAY. The $100 million that you say the spinach lost, is that spread across the whole——

Mr. DAY. The whole country.

Mr. CONAWAY. No, I know. But the losers in that $100 million were all the way from the producers to the folks that got sick. I mean is that——

Mr. DAY. Right, from the producers——

Mr. CONAWAY. So everybody along the chain had some pain in that system——

Mr. DAY. Right.

Mr. CONAWAY. —in order to try to motivate them to fix whatever needs to be fixed?

Mr. DAY. Precisely.

Mr. CONAWAY. All right, thank you. Yield back.

Mr. CARDOZA. Thank the gentleman from Texas. I am going to now proceed to call up the gentleman from Tennessee, Mr. Davis, for questioning, but before I do that, I would like to request for the gentleman an opportunity to yield back to me for just a moment for a question for Acheson.

Mr. DAVIS. Thanks, Mr. Chairman. I yield as much time that you have allotted me that you may consume.

Mr. CARDOZA. Thank you, and we will let you go a little bit more in a just a minute. But Dr Acheson, I know you have only been on your position for a short time, and I really don't want to beat you up that it always seems like the guy that comes in to fix the problems are the ones that we end up asking the tough questions to rather than the people that were in place before they got there. So I apologize for this.

But earlier in your testimony, you told me that FDA does not support research and doesn't do research in these areas. And in fact, that is wrong. You have research centers in Mississippi, Illinois, and Maryland currently, nothing in the west coast or the western part of the United States. And there have been a number of folks, universities, working with FDA to locate FDA scientists in the West where the vast majority of fruits and vegetables in this country are grown; although, they are grown all over the country, as Mr. Etheridge mentioned earlier. In fact, the folks who, through the miracle of technology, have informed me of this fact, said that they have been working with FDA for some time getting a lot of encouragement at the lower levels but that the brass at the top has not been nearly as forthcoming with the desire to locate research on the west coast.

So I am going to allow you to speak to that, but I just wanted to correct that inaccuracy that was in the record.

Mr. ACHESON. Well, thank you for your correction. Maybe I misspoke slightly, but I think what I said was that FDA is not a regulatory agency—a research agency, I am sorry. FDA is not a research agency. That doesn't mean that the agency doesn't do some level of research. We have research labs in our offices at College Park. And, as you pointed out, we do research in various other places. What I did not want to leave you with the impression with was that FDA has the current structure and resources to be able to drive the research program that is needed with regard to solving the problems in fresh produce and other food safety areas.

Yes, we do some research, but it is not at a level of a research agency. In terms of——

Mr. CARDOZA. Just a second, Mr. Acheson. That is exactly my point. What you just said was the reason why I asked the question was that we don't have the structure currently——

Mr. ACHESON. Yes.

Mr. CARDOZA. —to do the research that is necessary. And your administration hasn't asked for it.

Mr. ACHESON. I would agree that we don't have the required structure, and that is part of what I am trying to build here is what is the research structure going to look like. And it is going to take resources and energy to make that happen.

Mr. CARDOZA. I couldn't agree more. Mr. Davis, I am going to turn it back over to you and ask this clerk to reset the clock for Mr. Davis.

Mr. DAVIS. Mr. Chairman, thank you very much, and the ranking members for holding this hearing today. And I also want to thank the witnesses who are here testifying today. It has been often said that the number one priority for those who serve in government is to be sure that Americans are protected. This not only extends to fighting terrorism in Homeland Security or making sure we have plenty law enforcement officials on the street.

Food safety is also an important issue, one that relates to our protection from tainted or unhealthy food. One of the major reasons American agriculture products are the best in the world is that they are also the safest. American consumers have a great deal of confidence in the safety of our food. The repercussions of this con-

fidence eroding would be unbelievably immense both in our domestic markets and our ability to sell our agricultural products abroad.

At the end of the day, no one benefits from consumers thinking that America's food supply is not safe. All the work that we have done with consumer marketing, with FDA and USDA has been to be sure that the consumer is protected, and we do that through being sure that the packers and the canners and the processors, not the ones who produce it but the ones who prepare in many cases what has been produced by the farmer and between that farmer and the consumer, to be sure that chain that ties the fields to the table will be safe.

It is not our job to protect the profits of the processors. It is our responsibility to protect the consuming public in America. And as a result of that, we see more and more agriculture products, consumable items, being imported into our country from other parts of the world. Could you give me a rough idea of about how much you think, what percentage of our food is imported from countries outside the U.S. that would be imported from either our continent or from Europe or from Asia or other parts of the world, compared with the food that we consume, in other words, what we produce and what we consume? Could you give me a rough estimate? Do you understand the question?

Mr. ACHESON. I do, yes. I can certainly get you a more accurate number, but I believe it is in the order of 15 percent the food that we consume is imported. It varies by commodity of food though.

Mr. DAVIS. So you are saying 15 percent of the fruits and vegetables, canned items that would be canned, processed, or prepared in other parts of the world, that may be imported in the country as well as—are you saying only 15 percent is what we import?

Mr. ACHESON. I am saying on average total is 15 percent. Seafood, for example, is much higher. It is of the order of 70 percent. Fresh produce will vary, depending on the commodity and depending on the time of year. If you want a specific breakdown of which foods, which percentage, I could provide that for you. But the 15 percent is across the board on average.

Mr. DAVIS. If you could find an accurate percentage wise, I would love for you to send that to my office. Second question is this. Obviously in our country, we have done a pretty good job of inspecting, being sure that the foods we consume are healthy, protect us. We even list the nutrition of those on the label of what we consume, but we have no ability to be able to regulate any products, except through trade, I guess, that is imported into this country. And to me, I think that is an area we may be letting down just a little bit. What percentages of inspections on imported products of the workforce that we have, what percent of our workforce is put into inspecting imported products compared to those produced and processed here in America?

Mr. ACHESON. I can get—I have some colleagues with me who could probably provide you a more specific answer, but I believe it is approximately 50 percent, 50/50.

Mr. DAVIS. It is 50/50 for the imported products compared to 50 percent of what we actually produce here in America?

Mr. ACHESON. It is of that order, and again I can provide you with a specific breakdown, but I would just say—can I—will you allow me to just sort of——

Mr. DAVIS. Yes.

Mr. ACHESON. —follow up a little bit? Certainly your question was suggesting that we have absolutely no control over the safety of foods that come from other countries, and I think that is a little bit of an overstatement in terms of the risks. We do. I mean that is what the inspectors are doing at the ports. If we find a problem, we can put out an import alert. That is what we have done with the rice protein concentrates and an example in the produce context would be cantaloupes that we imported where we had problems with salmonella. And we put an import alert out there to prevent the importation of potentially contaminated cantaloupes. So I want to, just for the record, point out that we do a lot to protect.

Mr. DAVIS. There was obviously a huge failure back a few weeks ago when some products came into America that was tainted that we were not able to locate. So the point I am making is that in the—when it is processed in a foreign country and then shipped in this country, do we have inspectors that are inspecting the food that is going to be coming into America?

Mr. ACHESON. We do not have inspectors on a regular basis going to foreign manufacturers. If there is a problem and there is a need to get an inspector out there to look at the problem, we do and we have.

Mr. DAVIS. In the area I am from, we have a lot of broiler processing, meat packing, not as much—very few in the area that I am from, but there is a certainly on-the-spot inspectors in virtually every processing plant that we have in this country. That was the point I was making to say here, we are there looking at what is being processed. In other countries, we are not, and I think that is an area where we may be failing. Thank you.

Mr. CARDOZA. Thank the gentleman from Tennessee, Mr. Davis, for your questions. We are now going to turn it over to my friend and colleague from California, Mr. McCarthy.

Mr. MCCARTHY. Well, thank you, Mr. Chairman. I appreciate you having this hearing. I know the work you have done in this area. I had a line of questions, but I just am going to follow up really in what the chairman was asking earlier. First to Administrator Day. You said you have done 300 of those inspections, but you couldn't give a number of how many total plants there were. Would you consider that to be—could you give me a percentage of the 300, how many overall? Would it be 10 percent with inspections? I mean how comfortable do you feel with that number?

Mr. DAY. Well, I can get you a total number. I don't know that it is even as high as 10 percent. We do inspect for anything that we are purchasing into the national school lunch program. All of those facilities are inspected, and they are going to be mandated to have GAPs and GHPs and all of that. And so that number is certainly growing, whether it is on the beef side or on the fruit and vegetable side. But I will have to submit for the record the actual percentage because I don't know that off the top of my head.

Mr. MCCARTHY. Okay, and Doctor, if I could follow up. The chairman asked about how the E.coli outbreak occurred from the stand-

point of how it came. And you said the answer from the standpoint—and I got—I guess I refer to the FDA and California Department of Health Services on March 23, their final report. They were unable to definitely determine how the bacteria spread onto the spinach. Were you able to eliminate any of the concerns or ways that it may have been spread on either of them?

Mr. ACHESON. No. As you point out, that report indicates a number of potential ways that it could have spread onto the spinach. We weren't there at the time. Obviously we were going in after the fact, and exactly how, you can't say one way or the other.

Mr. MCCARTHY. So to me, this is the fundamental question as we move forward. One, how did it occur? And are there any ways that we find out that it didn't? What is the plan, or do you have one, to actually get to that answer?

Mr. ACHESON. There is a lot of research already going on with, as has been mentioned, the Western Institute, with the state of California as part of that, with the other research organizations to get at some of these fundamental questions.

Mr. MCCARTHY. Do you think we will be able to answer that question?

Mr. ACHESON. We have to. I mean it may not be in the short term, but we have got to set up the fundamental systems to get at how do these bugs get into food in the first place. Because only by understanding that, what I would term microbial ecology, where are these bacteria living, how are they moving around, how are they getting from wild animals onto produce, from water onto produce, and what are the controls to prevent it? Can you ever hope to have a sophisticated preventative strategy that is going to work.

Mr. MCCARTHY. I agree with you because that is the fundamental answer we need before we move forward on how to cure this. I mean what I see in California—I just came from the legislature there—and everybody is producing legislation without really knowing it is going to answer the problem and how do we get the trust of the people.

Mr. ACHESON. Exactly right.

Mr. MCCARTHY. So from my question and your answer that is there, and prior with the chairman when it comes to research, what has been requested in the budget that can get you that answer and get the American people that answer? Earlier you requested it is not fundamental research, your agency. The chairman came back with all these different areas of where we do research. Knowing a lot of this had happened in California, coming from the area of UC Davis and others, have we requested the ability for the research and the technology, especially going forward, to answer the question?

Mr. ACHESON. Can I get back to you on the specific amount that we have requested for FY '08 for research because I——

Mr. MCCARTHY. You can get back to me, but do you have a plan that is going to answer it?

Mr. ACHESON. I will have. Part of my mission in this job is to put food safety defense number 1, and come up with a strategic approach that is going to prevent if possible, intervene if necessary, and inspect to ensure prevention is working, and then respond.

And frankly, I am not there yet with that plan. And, as I think I have said, building that research infrastructure, understanding those fundamental mechanisms of how bacteria are moving around, it is key to all of this. And it has got to be built into how do you make this work. We need to get away from reaction and focus on prevention.

Mr. MCCARTHY. I agree with you there, and I guess I want to help you help us from the standpoint——

Mr. ACHESON. Right.

Mr. MCCARTHY. —the Farm Bill is coming up, and we have a short window of opportunity here. And I think we can miss an opportunity of safety for America. If I could request of you to work with the subcommittee that we could come up with that plan because I think the American people ask that we answer that fundamental question of safety. And I think it all hinges in this whole hearing based upon did we answer how it got there. And if we can't answer that fundamental question, we really can't move forward.

So if there is an ability that we all agree that it needs greater research and a plan to answer the fundamental question, I would like to be able to do that. And I would tell you that this committee is more than willing to work with you. And I know you have a big job, and you are just getting on the job. But if we could speed that up in a manner and bring people together, especially, in the long run we need to focus on the research. And knowing how large California is and how many producers in the West, if we could move there, I know the chairman would be very helpful. I yield back my time.

Mr. CARDOZA. I would like to thank the gentleman from California for both his questioning and his expertise in this issue. It is certainly something that concerns us in our home state, and we are going to have to get to the bottom of it, as you said. I am going to be turning it over to the gentleman from Georgia in just a moment. But I want to announce to the audience and to the members that I have got to present a bill on the floor in just a moment. I will be doing that. I will be turning it over, when he returns, to Mr. Etheridge to conduct the hearing, and then I will be returning as soon as the bill has been presented. Gentleman from Georgia.

Mr. BARROW. Thank you, Mr. Chairman. Gentlemen, my areas of concern are probably going to be pitched more to Dr. Acheson than to Mr. Day, but I have some observations I would like Mr. Day to chime in on. But at the outset, Mr. Day, you referred in passing to the Georgia Fruits and Vegetables Association. Well, I have talked with those folks, and the context for my comments is going to be this background here.

You know in my part of the country we probably have the most diverse agricultural portfolio of any place in the country. We may not produce as much of most things as they produce in some bigger states, but we produce as great a variety of anything as you can find anywhere in my part of the country. And the folks in my part of the country are under intense pressure from foreign imports, and one of the areas of concern they bring up with me is to make sure that we are trading and producing on a level playing field. So I want to follow on some of the questions that were suggested by the thorough cross examination of the gentleman from Tennessee, Mr.

Davis, and just make a couple of observations as I focus in on this problem.

Actually you may have been correct in pointing out that what we are consuming from imports may be only 15 percent of what we are consuming. But at the hearing of the subcommittee on specialty crops just last week, we established that insofar as the balance of trade in food is concerned we have become a net importer for the first time in this last year. And that 15 percent you are talking about 50/50 in terms of how much we are exporting as opposed to how much we are importing.

So of that 15 percent that is the trend that we are confronting. If you want to know where you are, you want to know where you are moving. You want to know where you have been and where things are moving. And we are moving toward importing more and more of our food. Now, I want to compare and contrast what I hear you saying we are doing in your area of responsibility with what I understand to be the case with respect to the USDA when it comes to meat inspection.

When it comes to meat inspection, we have a proactive policy of protecting the American consumer by sending inspectors abroad to every processing plant that has any significant business with this country. We check it out before it gets on the boat, before it gets on the plane. We are inspecting to make sure that the processing facilities are up to our standards before it gets to the American marketplace.

You compare and contrast that with what you describe we are doing with respect to the now majority of trade in produce where our policy is largely reactive. We are standing on the shore, and if we notice something dirty, either when it arrives on our shore or after the test population shows that there is something dirty in the stream of commerce, then we put out market alerts. Then we run the stuff down. We have a proactive policy versus an essentially reactive policy with respect to a share of our ag consumption that is growing every year, and that concerns me.

With my part of the country with folks who are involved in the production of fruits and vegetables, we are highly regulated in a manner that we have accepted as the cost of doing business in this country. We regulate at the growing state, at the processing, with the chemicals and the pesticides that are applied, when it comes to harvesting, when it comes to processing. We make sure that the stuff is good enough for our marketplace so the net effect of this is we are doing a better job of protecting the foreign consumers of American produce then we are protecting American consumers of foreign produce. And that ain't cutting it. I don't think that is going to work for us.

So what I want you to do is to tell me if I am off base on that, and then I want Mr. Day to chime in and say whether he thinks the time has come for your agency to start doing more of what his agency is doing. For us to get off of a reactive approach toward this and start becoming more proactive and policing the production side of things before it enters the stream of commerce.

Now, I will let it go and let you guys have at it.

Mr. ACHESON. Thank you. First of all, let me say in support of what I said earlier, I completely agree with you. Reacting to a problem is not the way to deal with this.

Mr. BARROW. Then what are we doing to change our policy from reaction to proaction?

Mr. ACHESON. We are developing a strategy to try to do exactly that.

Mr. BARROW. When are we going to have a strategy and who is doing the developing?

Mr. ACHESON. I am. That is my responsibility.

Mr. BARROW. When are we going to have something to look at?

Mr. ACHESON. As quickly as I can get it.

Mr. BARROW. Any—bigger than a breadbox and smaller than the Empire State Building?

Mr. ACHESON. We will see. I mean you have raised a lot of important questions.

Mr. BARROW. Well, I represent producers who are not playing on a level playing field and consumers who aren't getting protected from the stuff that is coming into our market.

Mr. ACHESON. Food safety is our mission at FDA. That is what we are all about. I mean you mentioned a lot of trade issues, but we are a public health agency. And our focus is on making sure that when consumers put food in their mouth, whether it is grown in your state or in a foreign country, it is safe. That is the key criteria. What do we need to get there, and what we need is preventative proactive approach. I agree with you. It is not there yet.

Mr. BARROW. On the domestic front, that is our policy. We are doing it indirectly by regulating virtually every aspect of production. Mr. Day, do you have any insight as to whether or not I am barking up the right tree on this? Should we become more proactive with respect to the inspection on the foreign side of the ocean with respect to imports that are heading our way?

Mr. DAY. Well, I think you raised some very important points, Congressman. On the food safety inspection service side, which, you know, regulates meat and eggs, you are absolutely correct. They go out. Their international services division goes out to every country that is exporting beef to this country, and they inspect to the standards established by FSIS as HACCP standards.

And so the rest of the world knows exactly what they have to adhere to, and they go out, and they inspect—they don't inspect every single plant. I think eventually they do, but they inspect a sampling of enough plants to give confidence in that system so that we can have that bilateral confidence in the system.

On the fruit and vegetable side, it is a little more difficult. I think what industry is looking for is a federal solution that requires good ag practices, good handling practices that would cover both domestic and imported product. You know I have been in the trade side of things at USDA for a number of years before coming over to the Agricultural Marketing Services, and I remember a foreign trading partner complaining about not being able to export into the United States because we held them to a standard that we didn't hold our own domestic folks to. And I think what you are describing is exactly the opposite.

Mr. BARROW. Yes, exactly.

Mr. DAY. And I think what industry is looking for and I think what everyone is looking for at the end of the day when Dr. Acheson finishes his Empire State Building is that we have something that covers all food, both domestic and imported.

Mr. BARROW. Thank you.

Mr. ETHERIDGE. [Presiding] The gentleman's time has expired. The gentleman from New York, Mr. Kuhl.

Mr. KUHL. Thank you, Mr. Etheridge, and it is nice, as a Congressman from New York, to recognize that you recognize the importance of New York state to this whole process of prevention in building a system actually that will prevent what we all know is happening in California. But anyway, aside, I had another subcommittee hearing, and I didn't have the benefit of being able to sit through your testimony and haven't had a chance to read it either.

So at this point, Mr. Chairman, I would like to return my 5 minutes over to and yield to Mr. Neugebauer because I know he has some additional questions.

Mr. NEUGEBAUER. And I thank the gentleman. I want to go back to, I think my colleague from Texas was talking about making sure that we do this on a risk-based analysis, and I think that is certainly the road we need to go down because we, you know, a shotgun approach, we do not have the resources to do. So we need to analyze where the greatest risk is, but let us talk about what that risk is right now.

In a percentage of the total food supply that goes through the U.S. system today, the contamination percentage, I mean what percentage good are we? Are we 99 percent? Are we 98? Are we 90, 80? When you look at the number, what number would you tell the American people today? Can you say 99 percent sure this is good, uncontaminated number? What is that number? I don't want to put any words in anybody's mouth? Mr. Day, you want to take a crack at that?

Mr. DAY. I think I will just let Dr. Acheson handle that.

Mr. NEUGEBAUER. It is nice to have friends like you.

Mr. DAY. I am not a food safety agency.

Mr. ACHESON. Thank you. That is an excellent question. Is there a specific number? Obviously no, but if you think of it in the context of the degree of safety, of the billions of servings of food that are consumed in the United States every day by everyone of us in this room, three times a day. And the chairman explained how he had a foodborne illness recently, linked to the peanut butter.

Just ask yourself how many meals have I eaten in the last year, and how many times have they made me sick? You are 99.9 something, something, something, but it is not where we want to be. We want to be close to 100 percent. We will never reach 100 percent. Let us not be unrealistic here. You are never going to be able to grow fresh produce in an open field in an open environment and guarantee 100 percent it is never going to have bugs on it that could make you sick. You need to keep pushing those frontiers back. So we are in great shape, but the goal is to make it better.

Mr. NEUGEBAUER. Well, and I don't disagree, and I think particularly this is—one of the former colleagues were talking about, when we were talking about importation, and it is at 15 percent and de-

pending on what happens in years to come, that percentage may grow. I think food safety also becomes a national security issue, making sure that we know that the food we are importing is safe for Americans as well as the food that we produce domestically.

We probably have more control over the domestic side of it than we do the imported side, and I think as we move forward, when we look at what your risk-base analysis is, I think you probably heard most of this panel say, and you were here last week I believe, and we talked about looking at how we are moving forward both at USDA and at FDA, making sure that the countries that we are buying or importing those foods from are following some of these same standards. With that in mind, I guess one of the questions I wanted to have is you all determining some of these updated best practices. How much industry involvement is going on in working with the industry in doing the research? Is there a collaborative environment in developing those?

Mr. ACHESON. If I can respond to that first, I would say absolutely. I think there is a strong collaborative environment. Industry has a lot of expertise that we need to listen to and focus on and continue to work closely with them. We work with industry in the development of many of the guidelines and guidance documents that we have produced. So it is key, and I believe that there is a strong relationship with industry in these areas.

Mr. DAY. And I would echo the collaboration with industry that has been immense in recent months, especially after the outbreak of E.coli in spinach. You saw the leadership of the state of California and the California industry out there to develop the California Leafy Greens Marketing Agreement.

In the area of research to help out FDA and Dr. Acheson and give a plug for the secretary's Farm Bill proposals. We have proposed a billion dollars of research to be devoted to specialty crops, and perhaps as you review the Farm Bill, you might want to look at tailoring some of that toward the fundamental food safety questions that have been raised in this committee.

Mr. NEUGEBAUER. Well, that was my next question. You say it is moving forward. How do you propose to move some of that research money to fruit and vegetable?

Mr. DAY. Well, we are certainly proposing that we increase the amount of research dollars spent on fruits and vegetables by a billion dollars in the next Farm Bill.

Mr. NEUGEBAUER. Okay, thank you.

Mr. ETHERIDGE. The gentleman's time has expired. Thank you. Let me thank both of our witnesses. Thank you for your time, for being here this morning, and we thank you for coming. And we now will welcome the second panel to the table. Thank you, gentlemen.

Mr. DAY. Thank you, sir.

Mr. ETHERIDGE. Let me thank our panelists. I will, in the absence of the chairman, say to you that your full statement will be entered into the record. And we would ask each of you, after I have introduced you, to try to summarize it within 5 minutes. And we will begin with Dr. Robert Whitaker, Vice President of processing and technology for New Star Fresh Foods out of California. Our second panelist is Mr. Joe Pezzini.

Mr. PEZZINI. Pezzini.

Mr. ETHERIDGE. Pezzini, thank you. Vice President of operations for Ocean Mist Farms in California on behalf of the Western Growers Association. Dr. Martha Roberts, Personal Assistant to the Director of Florida Experimental Stations on behalf of the Florida Tomato Exchange in Florida. And Ms. Lorna Christie, Vice President of Produce Marketing Association in Delaware, and finally Ms. Caroline Smith DeWaal, Director of Food Safety, Center for Science in the Public Interest in Washington, D.C. Dr. Whitaker, please begin when you are ready.

STATEMENT OF DR. ROBERT J. WHITAKER, PH.D., VICE PRESIDENT, PROCESSING AND TECHNOLOGY, NEWSTAR FRESH FOODS, LLC, ON BEHALF OF UNITED FRESH PRODUCE ASSOCIATION

Mr. WHITAKER. Good morning, Mr. Etheridge and members of the committee. My name is Dr. Robert Whitaker, and I am vice president of processing technology for New Star Fresh Food, and fresh and fresh-cut vegetable company based in Salinas, California. Our company produces a variety of conventional and organic spinach, spring mix, and blended baby leaf salads and specialties for food distributors, retailers, and private label products for a number of retail customers.

I am also past chairman of the United Fresh Produce Association and provide comments here today on behalf of our association as well as myself. Our association is lead by a board of directors representing leaders from every sector of the industry, a 50-member food safety and technology counsel including scientific experts from our member companies and a staff with expertise in food microbiology, plant sciences and nutrition and health. I want to compliment the committee today for holding a very timely hearing, giving the ongoing focus on food safety across the produce industry.

Due to the food safety issues across our country the last few years and especially the last 9 months since the spinach crisis have been at times frustrating and confusing but simultaneously an encouraging and exhilarating period of change and reflection for the produce industry. As we have heard today, we have been through a food safety crisis that has caused death and illness, eroded consumer confidence in our products, cost our industry millions of dollars in product and opportunities lost, and precipitated an avalanche of attention and keen focus on produce food safety by the media, consumers, customers, growers, and processors.

I have been asked to speak today about how our industry has changed with regard to food safety, and what changes still need to be made in the near term and where we go from here. So today we find ourselves, as an industry, truly engaged with a wide array of very positive activities and initiatives to improve the food safety of our products.

And these include a true awareness and sensitivity to food safety has permeated the industry at every level from grower to harvester to processor, shipper, and customer. The buying community has begun to ask more questions about the suppliers' food safety programs. General good agricultural practices, or GAPS, have morphed into commodity specific guidance for tomatoes, melons,

and leafy greens. The process of developing commodity specific guidance for melons and tomatoes and GAP metrics in California for leafy greens has brought about several very important revelations for our industry.

There is a general lack of sound scientific data we can use to guide the development of certain food safety best practices, including water management, compost usage, buffer zones for wild and domesticated animals. Absent sound science, we have had to use what data is available to us and our very best profession judgment to promulgate risk management strategies and metrics aimed towards improving our industry's food safety performance.

On a positive note, we have shown that our industry can come together to share food safety information and cooperatively developed improved practices for food safety. The associations represented before the committee today, as well as others, have served as a fulcrum to organize productive discussions and hammer out decisions. This is an encouraging sign for our industry as we move forward.

So we have seen a great deal of change over the last several months with regard to food safety, but have we solved the problem? I would suggest we are only in the first stages of a culture change that our industry must go through with regard to food safety. It is one thing to hold meeting to develop improved practices, to testify before Congress, share our collective experience in food safety and hold town hall meetings on food safety in the production community. But we must change our culture and place food safety as a national priority.

As an industry, we must live our food safety programs every day. We have to make GAP and GAP metrics more than just nice notebooks of information on our office bookshelves. As a nation, we need your help in driving scientific research to help prevent future outbreaks. Many of our associations and individual companies are stepping up to fund research, and that is commendable.

Honestly, in order to reach the critical funding levels, we must have government help. We have proposed a $26.5 million annual research package devoted to produce safety research, a small price to help prevent contamination and restore public confidence in produce that is critical for them to consume and better for their health.

Specific produce safety research that is field oriented and implemented to find practical solutions is critically important, and we urge the committee to devote specific funding to this objective in the Farm Bill and to support the appropriators in their efforts.

The single biggest change we can make in our industry to stimulate the food safety culture change we need is for the buying committee to recognize and only purchase from those suppliers that have a keen focus on food safety, have implemented GAPS, embraced the GAP metrics, and placed sound risk management principles and science-based decision making to operate their business daily and who continue to push the boundaries to make their products safer.

This requires knowing our suppliers, understanding their food safety programs, and separating out those who talk about food safety from those who do food safety every day. I get tired of cus-

tomers who call and request our food safety certificate. I am not sure what that is. Food safety programs are not gold-embroidered certificates that guarantee safety and received, can be filed away. They are multi-layered risk management strategies, verification procedures and people devoted to making the safest product possible. Buyers who do not know these details about their suppliers' food safety practices are not doing their part in the food safety continuum.

By the way, processors who don't know these facts about their growers are also needing to step up to this responsibility.

The last area I was asked to comment on was to suggest what lies ahead for industry in relation to food safety. I have no magic crystal ball, but I can say that food safety will continue to be the leading priority for industry as we fight to rebuild consumer confidence in our products, improve our relationships with regulators, and create constructive dialogue and food safety partnerships with our customers.

More specifically, we will learn a great deal in the coming months from the finalization and implementation of the leafy greens market agreement and the GAP metrics they are based on. We will likely also see a coalescing of food safety programs to drive consistency and uniformity across our industry, working closely with industry groups representing multiple regions in the United States as well as importing countries, the FDA, USDA, and the Association of Food and Drug officials to help develop a consistent regulatory approach for produce food safety.

No matter how hard our industry works, public confidence ultimately depends upon government as the final health and regulatory authority to determine proper food safeties——

Mr. ETHERIDGE. We are going to need for you to wrap it up pretty quick please.

Mr. WHITAKER. Okay, I will just—there are three key principles that we would like to drive home. We believe that produce food safety standards must be consistent for an individual produce commodity grown anywhere in the United States, and consumers must have confidence that the safety standards are the same no matter where the product was produced. We also believe that achieving consistent produce safety standards will require federal government oversight and responsibility. And we believe the FDA must determine appropriate nationwide safety standards. And lastly, we believe produce safety standards must allow for commodity-specific food safety practices based on the best available science. It is a highly diverse industry that is more aptly described as hundreds of different small industries wrapped up into one, and clearly one size won't fit all.

Over time, I believe the industry will be able to employ science-based approaches that are just now being developed to minimize risk. Research that is just now in the formative stages will be brought forward over the next 3 to 4 years. And as we begin to understand how pathogens attach themselves to produce, we can develop new sanitation strategies to more effectively remove——

Mr. ETHERIDGE. Thank you.

Mr. WHITAKER. —pathogens.

Mr. ETHERIDGE. Thank you. Let me remind each of you. Your full statement will be included in the record. Please try to keep it to 5 minutes so the members will have time to ask questions. Otherwise, you will consume all the time. We will get no time to ask questions. Thank you.

STATEMENT OF MR. JOE PEZZINI, VICE PRESIDENT OF OPERATIONS, OCEAN MIST FARMS, ON BEHALF OF WESTERN GROWERS ASSOCIATION

Mr. PEZZINI. Good morning, Congressman Etheridge. My name is Joe Pezzini. I am the vice president of operations for Ocean Mist Farms. Ocean Mist Farms is a family-owned company based in Castroville, California that has been producing vegetables since 1924. We are committed to both the art and science of agriculture and have invested heavily in our plant breading, growing, harvesting, cooling, and shipping operations which are all state of the art.

I am very proud to be able to say that Ocean Mist Farms has never had an outbreak of foodborne illnesses associated with any of our products. I am also testifying on behalf of the Western Growers Association.

But no company can take food safety for granted, and when an outbreak does occur, it impacts industry as a whole and we all suffer. It is incumbent upon us as an industry to do all we can to prevent these outbreaks and to ensure that our products are safe, every bite, every time. That, I believe, is the focus of today's hearing, and I want to thank you for allowing me to provide my thoughts on how the industry and government can collaborate to prevent future outbreaks in fresh produce. In my capacity as chairman of the newly created California Leafy Greens Marketing Agreement, I believe we are raising the bar for food safety in these commodities and that elements of this novel program can provide direction and guidance as we begin to develop approaches for improving food safety throughout the country.

In essence, a marketing agreement is a legal agreement that binds signatories to a common purpose. In the case of California Leafy Greens Marketing Agreement, that purpose is to certify the safe growing, handling, and shipping of leafy green products to consumers. This purpose is carried out by the industry first by developing an agreement on baseline good agricultural practices. Second, contracting with government to verify that these baseline practices are being met. And third, communicating to buyers that the products have met the requirements of the agreement. All of this is implemented under the penalty of law using industry funding.

This collaborative partnership on the part of industry and government, while in its infancy, has three key elements that may be instructed for how to move forward on a national level. The first element is that industry in partnership with academic community is best positioned to develop the best food safety practices.

The body of knowledge and science behind food safety and the practices that may be utilized to reduce risk in produce operations is changing rapidly. The industry and academic communities are partnering to advance the understanding of risk in pathways of contamination in production, harvesting, and processing operations.

We are working to fill concurrent gaps in the understanding of the development of new tools to analyze risk, detect pathogens, and prevent contamination. This is best facilitated by the industry. It can revise their practices and requirements quickly and effectively, if not bound by government constraints inherent in the development of regulation. Today in California, over $4 million in industry funding has been committed to new research and education.

A second element is government should play a key role in ensuring that industry is indeed walking the talk. While industry and academia should take the lead on developing practices and processes to prevent contamination, the government can and should play a fundamental role in verifying that the industry is indeed implementing the best practices throughout the supply chain.

The solution as we have implemented in the Leafy Greens Marketing Agreement in California is to have USDA-trained inspectors employed by the government do the audits. It is my opinion that without direct oversight of our industry by government, we will do little to rebuild and restore confidence of our industry and practices.

And the third element is that industry and government should collaborate to enforce compliance and facilitate recognition in the marketplace. The Leafy Greens Marketing Agreement in California currently allows handlers to sign up voluntarily. While we have had great success, and the current signatories represent almost 100 percent of the leafy greens produced and sold from California, we still have a few handlers that have not yet signed the agreement.

To address the situation, we are researching the formation of a marketing order for handlers to ensure that all commercially handled leafy greens are included in the California system. Compliance with the program will be communicated in the marketplace using a mandatory service mark, which will be placed on sales documents.

In addition, we will allow for use of a certification mark, which will be placed on packaging, including those offered at the consumer level. The marks would allow suppliers to communicate that their products and practices have been verified by government auditors to have met the requirements of the marketing agreement.

To conclude, the Leafy Greens Marketing Agreement of California is a model for how we can address food safety on a national level, which we must move toward. It can serve as a template for other commodities and producer groups to pursue. The marketing agreement meshes well within the goals and objectives of the 2004 Produce Safety Action Plan issued by the FDA. In California, we have chosen to pursue this path with handlers as they account for all major commercial production and sales of leafy greens. In Arizona, handlers are currently pursuing the same tact, but not every state has the authority for marketing agreements or orders.

The leafy greens producers in California and Arizona, which constitutes more than 90 percent of the U.S. crop would like to pursue this same pathway on a national focus. We would strongly recommend that this committee consideration legislation to allow for handler-based marketing agreements and orders at a national level.

While we are proud of our food safety record, we remain resolute in our commitment to do everything feasible to prevent contamination. We look forward to working closely with this subcommittee to ensure that we are empowered to make certain we deliver products that are safe, every bite, every time.

Thank you, Congressman Etheridge and the subcommittee.

Mr. ETHERIDGE. Thank you, sir. And Dr. Roberts.

STATEMENT OF DR. MARTHA ROBERTS, PH.D., PERSONAL ASSISTANT TO THE DIRECTOR, FLORIDA EXPERIMENT STATION, UNIVERSITY OF FLORIDA, ON BEHALF OF THE FLORIDA TOMATOR EXCHANGE

Ms. ROBERTS. Thank you, Mr. Etheridge and members of the committee. I am Martha Roberts with the University of Florida, and I am here representing Reggie Brown with the Florida Tomato Exchange who is out of the country today. I have been involved in food regulatory programs, food safety programs for about 35 years, and I am here representing the fresh tomato industry of Florida, which provides 45 to 50 percent of all the fresh tomatoes in the domestic market to American consumers.

The Florida industry actively responded on several fronts after they received a letter from the Food and Drug Administration in 2004 that was directed to the lettuce industry and to the tomato industry, expressing FDA's concerns on food safety. Not only did Florida work to respond, but the Florida Tomato Exchange also worked with other tomato groups throughout North America as a member of the North American Tomato Trade Working Group, or NATTWG, which also includes the U.S., Canada, and Mexico.

Currently, we are working with the food safety division of the Florida Department of Agriculture and Consumer Services, which is the regulatory agency in Florida responsible for food safety. To establish a mandatory program of food safety for tomatoes in Florida, the Florida state legislature has passed a bill mandating a food safety program, and it is on the governor's desk for signature at this moment. The mandatory regulatory program will be the first of its kind in the country, and the regulations are being drawn up from a number of guidelines, including the ones you have heard of today, the FDA 1998 Guideline on Preventing and Minimizing Microbial Food Safety Hazards for Fruits and Vegetables, and also the 2006 NATTWG commodity-specific food safety guidelines for tomatoes.

To accomplish this, the Florida industry has worked very cooperatively with FDA and with USDA and the state department of agriculture and other members across the country to actively explore and aggressively proceed in our efforts to establish science-based regulation. The main goal is to prevent foodborne illness. Addressing this issue through science-based sound regulation allows for collaborative efforts to maintain public confidence, which is so critical.

Every segment of the supply chain must evaluate their specific risk factors and the necessary policies and procedures to mitigate these, and this is what we are working toward with all segments of the industry, from packing, handling production to ensure that virtually all of the tomatoes currently pose no risk to human

health. The focus needs to be on the relatively rare exceptions when microbial contamination occurs. And most importantly, as you have pointed out, Mr. Etheridge, we need the science. We need the research on which to base these decisions. So the establishment of uniform, science-based risk evaluations and mitigation procedures throughout the entire food chain is essential to providing the safest food supply system possible.

Nationally mandated and monitored regulations present the best opportunity for accomplishing the goal of overall risk reduction, but such a program must be based on commodity-specific systems that implement risk-reducing processes and that address legitimate, science-based food safety concerns.

The industry in both Florida and California has begun these efforts to develop functional good ag practices and Best Management Practices, and we are working together very strongly to ensure that these are uniform from coast to coast. Mandatory trace back capability is also a very key important part of this system and positive lot identification throughout the system that minimizes commingling as a part of the Florida program.

Mandatory compliance to the good ag practices and BMPs throughout a national program of regulation and regulatory oversight can significantly enhance the risk reduction provided. The risk for fresh tomatoes will not go to zero however. With current technology, significant reductions can be achieved. Direct farm marketing of small quantities doesn't pose a risk as such to the public health and should be carefully exempted.

We are very pleased that we were able to provide a tomato forum that was sponsored by the University of Florida and the Florida tomato industry in November of 2006, and we brought together seven eastern states, including your state of North Carolina to ensure that we had commissioners of agriculture, commissioners of health, all of the universities, all of the industry working together with FDA and USDA to ensure that these factors were considered.

Also, as you had mentioned earlier, we cooperated with the Joint Institute of Food Safety and Applied Nutrition to have a research priority setting workshop, and we would offer to you, for the record, a list of the priority research areas that were identified for tomato food safety.

In summary, the Florida tomato industry, along with other tomato groups such as the California tomato farmers, are proceeding on a path to improve the overall food safety environment for tomatoes. This can be accomplished with good science, common sense and cooperation of government and industry.

We are very delighted that you are having this hearing and that the federal government is proceeding, but at the moment, federal regulations take time, and Florida is not waiting for these to develop but are actively enhancing the food safety of the tomatoes we produce by going forward with the mandatory program until the federal program is in place.

Mr. ETHERIDGE. Thank you, Dr. Roberts. Ms. Christie for 5 minutes.

STATEMENT OF MS. LORNA CHRISTIE, VICE PRESIDENT, PRODUCE MARKETING ASSOCIATION

Ms. CHRISTIE. Thank you for the opportunity to be here today. We certainly commend you for holding this hearing to address produce safety. I represent the Produce Marketing Association, the largest association representing the fresh produce industry from growers and processors to wholesalers and distributors to supermarkets and restaurants.

The industry's commitment to food safety did not begin on September 14, 2006. It actually started generations ago with American farmers whose traditions of excellence really formed the very foundation of today's very sophisticated and global industry. The growth and complex nature of the produce supply chain demands that we approach food safety as a continuum and also as a collective responsibility. With that in mind, industry has spent tens of millions of dollars on the best scientific knowledge available to protect our products and our customers.

We also know that the consumer confidence in our products is very fragile. We never have and we never will take that responsibility for granted. Doing so would be irresponsible to the public and harmful to our very own livelihoods. We have a vested interest in providing consumers with safe and healthy produce, as Mr. Pezzini has said, every bite every time.

With that in mind, we helped develop the industry precursor to the good agricultural practices. We constantly are offering training and education so our members can develop robust food safety programs based on the best science available at this time. We collaborate with federal agencies and participate in industry coalitions to address produce safety.

In working with the Canadian Produce Marketing Association, we developed information technology practices that facilitate more rapid tracebacks. We are committed to doing whatever it takes to protect public health and rebuild consumer confidence. I know you share that goal, a goal that is essential in the fight to improve the nutritional health of America's consumers.

I would like to highlight some of the activities that PMA has been involved in on behalf of our members over the past several months. We have committed $2.75 million in additional resources to food safety. The chairman mentioned how important research is. We could not agree more. So we have launched the Center for Produce Safety at the University of California under the umbrella of the Western Institute for Food Safety and Security. It will coordinate fund and disseminate produce safety research by bringing together experts from industry, government, and academia to find out how to stop product contamination. We have committed $2 million initially to help launch the center. These funds have already been matched by one industry company, and we expect more to follow.

California has committed an additional half a million dollars. Please look closely at these commitments from the industry, the state, and the university and help us support the need for more research. We have committed funds for enhanced education and training as well, for all parts of the supply chain, including

$200,000 to be used in training growers on good agricultural practices.

And we, of course, applaud the work of other organizations, including the successful effort to establish a California Lettuce and Leafy Greens Marketing Agreement. In addition to the efforts I have outlined, we offer the following recommendations to address fresh produce safety. Efforts must be prioritized on risk, focusing on those commodities most likely to be associated with foodborne illness outbreaks. We need a strong Farm Bill that addresses the interests of the produce industry, including food safety research and technical assistance for companies that need it to maximize their food safety capabilities.

The actions Congress takes on the farm bill will have direct implications for fresh produce safety. We all need to be specific in our language. When we are talking about risk, there are only a few commodities identified as more likely to be associated with food safety outbreaks. Consumer communication should be specific about products and questions and not portray all produce as risky. Hundreds of commodities have never been associated with a food safety outbreak.

We need a robust, Federal, commodity-specific safety effort that is verifiable and applies to all products grown in the U.S. and abroad. This effort must be based on sound science and prioritized again by risk. And we, of course, look forward to partnering with Federal or state authorities to better define the traceability needs and those that are not being currently met by industry practices.

Our first goal, however, is the public health, which is the foundation of all of our efforts, our food safety efforts of the past 20 years, our focus on consumer education and confidence, our commitment of resources to this issue, and our collaboration with everyone who can advance produce safety. It is our livelihood. It is also our moral obligation.

Again, I thank you for the opportunity to speak here today, and, of course, I am happy to answer any questions you may have.

Mr. ETHERIDGE. Thank you, Ms. Christie. Ms. DeWaal.

STATEMENT OF MS. CAROLINE SMITH DeWAAL, DIRECTOR OF FOOD SAFETY, CENTER FOR SCIENCE IN THE PUBLIC INTEREST

Ms. DEWAAL. Thank you so much. I am director of food safety for the Center for Science in the Public Interest, a non-profit health advocacy and education organization, focused on food safety and nutrition. We represent over 900,000 consumers in the U.S. and Canada and accept no government or industry funding.

The Centers for Disease Control and Prevention estimates that 76 million Americans get sick and 5,000 die each year from foodborne hazards in the United States. According to CSPI's own database, which spans 15 years, fruits and vegetables and dishes made out of those products cause 13 percent of foodborne illness outbreaks and nearly 1 out of every 5 illnesses associated with those outbreaks.

A series of produce outbreaks last fall provided a wake-up call for the public about the critical state of produce safety. Following the spinach outbreak that sickened 205 people and killed at least

3, tomatoes and lettuce were both implicated in outbreaks sickening hundreds before year's end.

While the produce outbreaks of the fall 2006 have created this call for more action, large-scale produce outbreaks are not a new phenomenon in this country. Outbreaks from produce, both imported and domestic, have resulted in deaths, both severe and mild illnesses, and great market disruptions over the last 10 years. Domestic produce is largely unregulated, and FDA has done little more than coax, request, or warn producers to improve the safety of their products.

Imported produce, however, has even less oversight, and these products are also associated with a long history of outbreaks. In my written testimony, I have discussed imported raspberries, which sickened thousands of consumers, strawberries in a school lunch program that resulted in hundreds of illnesses in school children, cantaloupes from Mexico also, outbreaks that continue for 3 years, as well as a very severe outbreak from Hepatitis A in raw onions, resulting in over 500 illnesses and 3 deaths in 2003.

Fresh fruits and vegetables are at the center of a healthy diet, so it is critical that immediate steps are taken to improve their safety. CSPI has petitioned the FDA to take action to require that all fruit and vegetable producers and processors develop written plans to identify where contamination is likely to occur and how to prevent it. These plans should apply first to high-risk products, such as leafy green vegetables.

Specifically, CSPI proposes a three-prong approach. First, FDA should require all growers and processors to keep written food plans, which are designed by the farmer to address the specific environmental conditions on the farm.

Second, FDA should develop standardized criteria for use by the farmers for such items as water quality, manure use and management, and worker sanitation.

Finally, the written plan should be audited at least once per growing season by FDA, the states, or the buyers of these products. And FDA should review these audits.

The produce industry is not waiting for the FDA to take action and is moving forward in many important places with the states of California, Florida, the Association of Food and Drug Officials and others to develop specific and general standards for different commodities. These standards can ultimately provide a basis for FDA to take stronger regulatory action.

However, a big part of this problem lies with FDA itself. Last fall's produce outbreaks are just the latest symptom of an agency that is overwhelmed by responsibility but lacks the staff and resources to function effectively. Between 2003 and 2006, there was a 47 percent drop in Federal inspections, and FDA's current food program is facing a shortfall of approximately $135 million. A Harris poll has documented the result of this. Consumers have actually lost confidence in FDA. It has dropped from around 60 percent confidence level in the agency to 35 percent since 2000. This is a true and precipitous decline in consumer confidence.

In summary, to ensure safety and restore consumer confidence, prevention, early detection and control measures must be in place at every step of fresh produce production to help minimize food

safety risks. Voluntary guidelines have not been effective to prevent the food safety problems related to fruits and vegetables. Congress should take this step to mandate the food safety oversight should be in place all the way from the farm to the table. Thank you.

Mr. CARDOZA. Thank you, Ms. DeWaal. Appreciate very much you being here with us today. And thanks to all the members of the panel. I am sorry I was not present for all of your testimony, but I can assure you that I read it all last night that was submitted to us. And I will also review the record of today's testimony so that we can be fully apprised of everything that you said.

I want to start out by asking a question of Dr. Whitaker. Regarding the critical research questions of the day, who should conduct this research? How much should it cost, and what will the industry do to provide their part of this research?

Mr. WHITAKER. I think that there is a consortium of people who are capable of conducting this research. I think much of it can be done in academia. There has been a number of research proposals that have been put forward this year through the USDA CSREES program that specifically address some of the food safety issues that we have talked to today. So I would say it is a partnership between academia and the industry.

As was indicated in one of my panelists here, there have been a number of different people within the industry who have also stepped up and put funds together. The produce marketing association in conjunction with several of the processors in our industry have put money to form a fund for research on produce food safety that will ultimately go a long ways to helping us get very practical, hands-on field level type of research, which I think is important as we go forward.

As far as to the level of funding, it is way beyond my purview to be to guess what exactly that is going to cost as we go forward. However, I can't think of anything else we could spend our money on that would be—is less important because certainly the safety of our food is important to all of us, both from a consumer as well as on up through the processors.

Mr. CARDOZA. Thank you. Ms. DeWaal, in the testimony that you submitted to the committee, which I assume you presented today before I got here back from the floor, you mentioned in your written testimony that 76 million Americans have gotten sick, 325,000 are hospitalized, and 5,000 die each year from foodborne hazards.

Now, while I think that this problem is serious, I am not so sure that numbers aren't misleading about the problem we are speaking about today because frankly some of those problems are caused by the mishandling in the home, mishandling in institutions and restaurants. Those aren't farmers' problems. Those are problems that may be documentable that people get sick by the food they consume, but it isn't all the leafy green vegetables from the Salinas Valley that are causing those problems.

So I want to make sure that while we are very responsible in this committee and in this Congress about dealing with the hazards that can be presented to the American public that the farmers that grow the best, safest, and healthiest fruits and vegetables in

the world aren't maligned. And so I would like you to speak to that question please.

Ms. DEWAAL. Thank you, Mr. Chairman. I think that is a very important question. First of all, 76 million cases of illness a year is too many. It is really 1 in 4 people each year may get sick, and I think you would be surprised, as we were, to see, as we look at outbreak data, which is a very small portion of this total pool of illnesses, there is a very large contribution. I mentioned 13 percent of outbreaks are caused by fruits and vegetables, and within these outbreaks, we have also noticed that the number of people who get sick is quite large per outbreak, about averaging around 45 to 50 persons per outbreak versus about 20 to 30 for meat and poultry.

The reason for that is probably because the outbreaks aren't recognized earlier. They may be looking for E.coli in the hamburgers rather than in the lettuce. But the bottom line is that while it is probably a small proportion of the illnesses, it is still a very significant proportion. And I am sure the farmers don't want to see it as a growing proportion.

One other comment though. Consumers support farmers. There is absolutely no question that we want our food grown in the natural way on the farm, and that is not a question. The question is simply are there things farmers can be doing better, and I think the ones that have talked today would say there are, that would actually help to reduce these numbers. Thank you.

Mr. CARDOZA. Thank you, Ms. DeWaal. I am going to go for a couple rounds of questions, but I know Mr. Etheridge may have to retire from the committee on a very temporary basis. But I am going to turn it over to him for 5 minutes of questioning at this point.

Mr. ETHERIDGE. Thank you, Mr. Chairman. I will be brief. Thank you for your indulgence. Dr. Whitaker, my first question is for you. How varied are food safety standards for fresh cut produce? And the reason I ask that question is because I think I understood you to say that these vary from state to state. And also what are your thoughts on the standards that are being put in on imported fresh fruits and vegetables? Does it vary from state to state? What are the standards as it relates to those coming in this country outside the United States?

Mr. WHITAKER. Yeah, as far as the variability amongst food safety standards, most of the food safety programs that have been employed around the country are based off the FDA's 1998 guidance to reduce microbial contamination in fruits and vegetables. There is very minor fluctuations away from that, but most of the programs that I have seen have been focused on that particular set of guidelines.

Now, since that time, going back 2 or 3 years ago, some of those have been enhanced now for leafy greens, lettuces, melons, tomatoes. There is also one in production right now for green onions and herbs. They are basically an attempt to fortify those a little bit with very specific guidance for the specific processes that are used to develop those crops.

And then lastly, the latest iteration, of course, is in California with the leafy greens documents, which have really attempted to put measurable metrics in place. So when we talk it, it is not good

enough to say that the water quality should be appropriate agricultural use. Now, we actually define what that standard should be, and so that we can measure against it and verify against that as we produce our crops. And there are several other examples of that.

As far as imports go, it really is dependent upon where in the world the products are produced. There are a number of different ways of looking at this. Certainly companies such as my own that import products from Mexico, we employ the very same standards in Mexico that we do in the United States. And so the very same high level of standards that we have put together on good agricultural practices are exactly what we impose upon ourselves as we produce our crops.

Mr. ETHERIDGE. Does that also mean the same kind of pesticides et cetera that you use in Mexico that you use in the United States?

Mr. WHITAKER. Yes, sir. Our company employs the same practices there. The market for our product is the United States, so we want to make sure that the chemicals, any treatments we use are absolutely appropriate for the United States.

Mr. ETHERIDGE. Good. Thank you, sir. Ms. DeWaal, let me ask you a question as a consumer advocate. To what extent, as far as you know, that the CDC and the state departments of agriculture are coordinating with USDA and FDA on food safety? And if this is occurring, is it occurring at an adequate level from a consumer standpoint?

Ms. DEWAAL. Representative Etheridge, we have been very concerned that food safety is really spread out too broadly in the federal government. The Centers for Disease Control——

Mr. ETHERIDGE. In your comments, would you also give your thoughts as it relates to one agency or one group handling all this?

Ms. DEWAAL. Centers for Disease Control actually manages the outbreak investigation, which originate really at the state level. But they don't even know until they identify the food that is causing the illness, they don't know which federal agency to call it. Is it USDA if it is the meat? Or is it FDA if it is the spinach or the lettuce? We have long taken the position that we need to have a unified food safety system, which includes all products under the same umbrella, the same budget, and the same administrator or agency head. We don't have that today.

We have supported an effort to make this an independent agency with a direct line to the president. We think that is appropriate. It is how our environmental protection standards are handled today, and we believe that food safety deserves the same. We have not supported—and recently I issued a release saying that we don't believe the Department of Agriculture is the right place, which I know some members of this committee have supported, to consolidate. And the reason is exactly what Mr. Day said earlier from the Agricultural Marketing Service. They are not a public health agency, and so it wouldn't be correct to put a public health agency into that department. Thank you.

Mr. ETHERIDGE. Thank you, ma'am. Thank you, Mr. Chairman. I yield back.

Mr. CARDOZA. Mr. Kuhl.

Mr. KUHL. Yes, thank you, Mr. Chairman. Mr. Pezzini, I don't want you to feel left out. Nobody is picking on you yet, so let me be the first. And actually I will throw you a big softball. Tell me why your industry preferred to use the California Leafy Greens Agreement rather than pursue Federal mandatory or state regulation?

Mr. PEZZINI. Well, we felt in California that we had to act. We had to act quickly, deliberately but quickly. And so the fastest vehicle for getting food safety on a mandatory level was to use the marketing agreement vehicle. And so it was really a matter of expedience, and it was the easiest mechanism to put this in place.

Mr. KUHL. Okay, and you also mentioned obviously that your industry is able to respond to research more quickly and efficiently, I think, in your testimony. The reasons why the industry is in the best position to develop the best management practices?

Mr. PEZZINI. Well, I think because largely the industry is the one working with these practices. We have the expertise, we feel, to collaborate with government in coming up with these best practices. And truly the good agricultural practices, the new ones that have been accepted into the marketing agreement are a collaboration between the private and public sector.

In fact, the whole marketing agreement ideas are a real collaboration. Here we have the industry coming forward with standards that have been developed in collaboration with government including the FDA and the Department of Health Services in California. And bringing those forward to have government auditors come out and verify that we are doing these on the farm. This is the first program that has government auditors out on the farm looking to see that good agricultural practices are been employed.

It is an audit of process, and, I mean, this is where the rubber meets the road right here.

Mr. KUHL. Okay, great. Appreciate your response. And, Mr. Whitaker and Dr. Roberts, I don't want you to feel left out either. So I am particularly concerned about your support for the mandatory food safety standards, and it appears that your producers support that. I am curious as to whether or not your farmers would be willing to pay for those inspections.

Mr. WHITAKER. In a sense, Congressman, we are already paying for it any time that we have an outbreak like we just had where it costs the industry $100 million. I know in my own company, it costs us almost $4 million, and we are just a small player. So in a way, we are paying a great price right now for this uncertainty.

We are also audited frequently. I know that it may not appear that way, but for several years have had independent third-party audits on our ranches. It is something we are very used to. It is something we are very accustomed to having. It is not an unusual occurrence for us, and we recognize too that we are only as strong sometimes as our weakest link. So by having a federal program where everybody is subjected to the same standards, we basically take the competition part of it out of it, and you put in place a program where everybody has to follow the same standards. I think there is a lot of benefit to that for our industry.

Mr. KUHL. Well, I can understand the benefit, and I think everybody in the room can. The question really comes down to can the

Federal government—I mean you have heard some of my colleagues rail on the fact that there wasn't mandatory and complete inspection on every facility and every farm across the world. And I think most of us agree that is a tremendous task, but the point is here you are asking for mandatory safety standards to be put in place. And the question really comes down to are your people willing to actually pay a price? Now, I know there is a price to be paid in the marketplace for this quote/unquote tinge, if you will, of having and growing unsafe products. That is a personal one, but this is a program that you are seeking, from my understanding of your testimony, that would actually require the Federal government to employ people to go out and actually do these kinds of things.

And I am questioning as to whether or not your farmers, your producers, would be willing to pay a percentage or a total cost of that to actually implement the program.

Mr. WHITAKER. Well, again, we are now. We are already paying for third-party audits to come through to our facilities and to our farms. Part of the marketing agreement, of course, will be also a fee associated with that. So it is something that we are living with already. I think most important on that it is not so much who pays but to have a standard that we can all work to so that we remove a lot of the competing entities and basically have a standard that we can work to make sure that our products are as safe as they can be.

Mr. KUHL. Great. Dr. Roberts, would you like to speak to that?

Ms. ROBERTS. Yes, I would. Thank you very much for the question. I agree with Dr. Whitaker that most of our tomato growers in Florida already are paying for individual third-party audits that are mandated by their buyers. However, they have also voluntarily chosen to offer to pay for the regulatory inspections that are set up under the new mandatory state regulatory program. They have voted to voluntarily adopt these good ag practices and BMPs until such time as the food safety regulatory program in the state can set up the mandatory audits. And then they will pay cost reimbursement for those because they feel like even though they already have the third-party audits, they feel for increased public confidence that it is being done properly. It is good to have that governmental oversight.

Mr. KUHL. So it would be a cost of doing business then so to speak.

Ms. ROBERTS. Yes, sir.

Mr. KUHL. Okay. Mr. Chairman, I am over my time, and I know you have some questions.

Mr. CARDOZA. Thank you, Mr. Kuhl. I do have some further questions. I would like to start off by asking the entire panel, especially from the producers' perspective and the processors' perspective. Is it not true that your customers, the grocery store chains and others, are requiring higher standards of the produce that they sell in their chains? And isn't that part of some of this well, that the consumers are really demanding a higher level of security? For example, one grocery store chain in California that I am familiar with promotes that they test the fruits and vegetables that they sell in their store.

Mr. WHITAKER. Yeah, you are right. I mean we have a number of different customers, all of whom have various food safety programs. Luckily, like I said before, most of them are based on GAP metrics and things like that. But in general we have had a long history of programs in place where we provide audits and data from our food safety programs to various retail customers as well as food service customers and club store customers. So it is something that is quite common right now in the industry.

I will say since last September, the focus on this has heightened even more. There has been more oversight and more questions, which is a good thing for our industry.

Mr. PEZZINI. Mr. Chairman, if I might add, Dr. Whitaker is right. We are all pushed by our customers. Everyone has a different idea of what they want, what their expectations are, but I think from a producer's perspective, we want that to be science-based. If one company or the metrics say now that you have a 20-foot buffer zone for a particular adjacent land use, and then we have another customer come along and say well, I want 100-foot buffer or I want 500 feet or 1,000 feet or a half mile. What is the science behind that? Are they asking something that is really not science based and is going to cost us all a great deal of money to implement. I mean that is really a critical issue for us.

So what we are hoping for, through the marketing agreement, that we will establish a standardized audit and a standardized set of best practices that everyone will buy into because they will be science based and there will a rational reason for that buffer to be a certain distance.

Mr. CARDOZA. That is exactly the reason why I asked the question. I will let the others of you respond as well, but that is exactly the reason why I asked the question because having uniformity—you are only as good as your weakest link. And I recall two things. I mean I grew up in an agricultural region. I still live there. I used to work on weekends with my second father, a wonderful gentleman that owned a slaughterhouse. And he was an older man, and I would go and be his young boots on the ground, scurrying around helping him on weekends.

And he talked about the fact that USDA inspectors were a real pain to him, but it was the cost of doing business. That he didn't always like what they told him that he had to do, but it was—he would complain the entire afternoon about the USDA inspector. At the end of the day, he said but you know what, they do the right job, and they do the right thing, and they keep this industry healthier than it was before.

And then he would lament the guy down the street who, under certain kinds of regulatory schemes, didn't have to participate in the same thing because he was a small guy, and it gave the industry a bad name. And what I remember from my childhood, I think, is absolutely applicable to today's climate. That the vast majority of producers can do everything right, but one small producer, for example, cannot get the message and can really mess things up for the entire industry. And isn't that what you are speaking to in a large degree?

Mr. PEZZINI. Absolutely. We have all been painted with the same broad brush, and yes, different producers have had different height

and sense of food safety. But what we have tried to do with the marketing agreement is raise it up to a mandatory level. Companies still can go above and beyond that, but the question really is what they are doing really enhancing food safety or not? And that comes from the buying community as well.

We are hoping in time that we can coalesce this database, this information, and really prove the best practices.

Mr. CARDOZA. Very briefly for the rest.

Ms. ROBERTS. If I could respond a little bit, we have all got responsibilities in food safety, all along the chain, you know from a consumer all the way back to the grower. And the food retail stores and the food processors have responsibilities in the way they handle that food, just as the grower and the person transporting and the person packing it. So every single individual area has to have some science-based practices that they are required to follow to ensure that the food is safe all the way through.

And that is exactly what we need, and we are so pleased that we hear you talking about the need for increased research because we have identified some very key areas in tomato food safety that, quite frankly, there are no scientific answers on which to base the practices that we want to follow. And I think everyone on the panel would agree. At the moment, we are basing metrics on the best science available, but oftentimes we are basing it on the science of water or other scientific areas in the absence of some truly valid science to give us a sound foundation.

So every one of these areas has food safety practices that they should be required to follow.

Mr. CARDOZA. Thank you for that. I think you are absolutely right, and I will have to tell the panel and the members of the committee as well that I was thoroughly disappointed today in FDA's response to those questions of research and an action plan. We need significantly more research in this area.

To admit to the committee today that they don't know what caused the problem, and I understand some things are not just so knowable. But we have to figure out how pathogens come up the food chain. That is something that we have to understand, and that is something that the Federal government is truly responsible for doing for everyone in the country. It is not appropriate for just California Department of Food and Agriculture to do research when it is also going to benefit Florida. That is when the Federal government has traditionally stepped up its research roles, and the fact that we don't have, in my mind, an adequate plan for how we are going to advance in the future speaks volumes on this problem.

Now, I want to get back to Ms. Christie and allow her to speak, and then I will turn it over.

Ms. CHRISTIE. Thank you. You know, the word science based really is the key factor here. It is also one of the reasons why PMA is so pleased to be able to create the center for produce safety at UC Davis. It is to actually accelerate the very much needed research and make sure that our industry members are actually all seeing the same research so we can utilize the best science available to help improve our practices.

Mr. CARDOZA. Thank you. Ms. DeWaal.

Ms. DEWAAL. Thank you, Mr. Chairman. I want to make two quick points. One is your grandfather was right. Cheap food sells. So the problem with relying on the retail sector to police this program is that there will always be somebody selling the food that they didn't buy. So it is critical to get a level playing field both domestically across the board and for imports that FDA step in and fill in these roles.

The second thing I do want to bring to your attention though is that we have over 600 produce outbreaks in our database. So we have a very comprehensive look at the problem. Forty percent of the outbreaks are neuro-virus, which are human-transmitted problems. Another 25 percent are salmonella or E.coli. So as you look across the board, I mean whether they know how that specific E.coli got onto that specific spinach is less important to my mind than putting in place the standards for manure, for water, for farm worker sanitation that will address across the board the problems that we are seeing.

Mr. CARDOZA. Well, I have to follow up on a couple points with regard to your answer just now. I think it is important to do both. I think it is important to have the standards, and I think it is important to understand what caused the problem because how do you develop the standards if you don't know what caused the problem? And so there is a significant amount of research. It is not either/or, and that is the problem frankly I had with the FDA's response is that it is not either/or. It is a comprehensive look at what is causing the problem and how do we build confidence in the system back to where it should be.

Frankly, we have probably always had these challenges, but now we are learning more, and the media allows us to communicate these outbreaks much more effectively. And groups like yourselves are doing very responsible work, are compiling the data for us, and so we are learning more.

So once we know, don't we have the responsibility at that point to then do a better job with our practices? And I think the answer to all this, we will agree, is yes. So the problem is not so much in my mind finding fault for what has happened in the past, but I do find significant fault in how we don't seem to have a plan for how to get to the better place with the exception of the California group that has self-imposed their own marketing system. And even they admit that I don't think that they feel that is the definitive answer to this question, but that it needs more research and more discussion and more thoughtful communication that will bring us all together ultimately.

I am going to let Mr. Kuhl ask a couple more questions, and then I am going to come back to you, Ms. DeWaal, because I want to talk about what department this really needs to go in and how we achieve that goal.

Mr. KUHL. Thank you, Mr. Chairman, for the additional time. It is a question for the panel because it seems as though we have reached the point that everybody agrees that there is need for additional research and it would appear to me, and I think the chairman probably has a better handle on this, that Congress will be providing, in this next farm bill, some additional research.

The question I am concerned about is, knowing that there is going to be some additional funding for research dealing with issues like this, how can we best coordinate that kind of additional supplement coming from the Federal government with what the industry has already done? And you probably all have a little bit different perspective, and that is why I am asking the question to you as a panel. Dr. Whitaker, do you want to start first?

Mr. WHITAKER. One of the big things that we could do right straight off is just address some very basic questions with research about how these bugs get into our environment? Once they are on the food, how do they live there? How do we get them off? And how long do they persist in the environment?

Certainly additional research funding, whether that be through the CSREES type of grant proposals that come through to academia or whether they are done institutionally by the USDA or the FDA, can help us address those specific issues. We need to make sure that the research that we do is practical, that can reach back out onto the farm so that we can come up with procedures or methodologies that we can put in place to mitigate against those occurrences happening on our food products.

I think the apparatus exists through the traditional granting agencies. I think the focus is what is necessary. It seems that we haven't really focused any research monies on food safety in the past, or at least to a large extent. And so if we can do that, I think there is plenty of very capable people out in academia and within the USDA, FDA and various agencies to conduct this type of research in collaboration with the industry.

And I think that is really important. I think the industry needs to help play a role in setting some of these research priorities and helping the various researchers understand what that data means on a real-time, real-life farm experience.

Mr. KUHL. Mr. Pezzini.

Mr. PEZZINI. I would add that certainly a very good vehicle would be this Western Institute for Food Safety, the newly created Center for Produce Safety. That is a collaboration between academia, government, and the industry, and you have the three legs of that stool put together there. And that would be one great vehicle for initiating research, practical research, and Dr. Whitaker is absolutely right about that. It has to be something that can be implemented on the farm. It has to be good, practical research that has a lasting effect on food safety.

Mr. KUHL. Dr. Roberts.

Ms. ROBERTS. I fully agree that it has to be cooperative and collaborative. That is why, in cooperation with GIP SAM, we try to pull together all the researchers across the country from California to Florida to New York to North Carolina to try to at least look at the one commodity, tomatoes, first of all, identifying what research had already been done, trying to have these researchers cooperate with each other so that with the minimal resources we have we didn't duplicate studies that were out there, and then to try to identify all the data gaps from both the industry's perspective as well as the regulators as well as at the divisions themselves.

It has to be collaborative. It has to be cooperative. Not only common sense, but it has to be economically feasible for someone to immediately adopt it and to enhance food safety.

Mr. KUHL. Ms. Christie.

Ms. CHRISTIE. I am not sure I could add anything as far as the need for the research and the type of research that the industry needs at this time. I can tell you that the goal of the center for produce safety, and one of the major goals, is to create a clearinghouse of existing research to prevent the duplication that my copanelists have talked about.

We are actually meeting next month with industry leaders, academics, as well as members of the government. We actually have an ongoing survey right now to address these very issues that we are talking about and provide a global resource for anyone in the produce industry so they know what is actually ongoing, what has already been done. One of our members has already donated $1 million of privately funded research that is ongoing to the CPS. That is unprecedented, and it gives you an example of the collaboration that is going on right now.

Mr. KUHL. Okay, Ms. DeWaal.

Ms. DEWAAL. Thank you. We have talked already about how a problem may originate on the farm, but you can make it worse or you can actually add problems to otherwise safe produce. So I think some of the key research that would help us in our advice to consumers is on the impact of washing. We know it won't eliminate the hazard, but what kind of reductions can consumers expect by washing in the kitchen?

The other question I have been asking is whether checking the first wash water in a triple wash operation could actually provide a critical control point. If you are checking that first wash water and eliminating contaminated product before it gets mixed in with other products from other farms, could that actually provide a significant new hurdle?

And finally the impacts of refrigeration. We had to make some adjustments to our advice. We give advice to our 900,000 consumer members, and a lot of that gets picked up by the media. And we changed advice by telling consumers that refrigerating this fresh-cut produce is very, very important, but let us check the impact of that kind of advice.

So I can see advice going, not only to the farm level, but also to the retail and to the consumer level.

Mr. KUHL. Okay, thank you. I yield back, Mr. Chairman.

Mr. CARDOZA. Thank you. I want to conclude this panel with this final series of questions, and I want to start with Ms. DeWaal in this. And I have suggested the USDA is the right agency. You suggested that you don't think so, and I am going to assume that the reason why you don't think so is because there is a marketing branch and a promotion branch to USDA as well as the food safety.

But I am going to disagree with your premise for a little bit, and I want to challenge you. And then I want your feedback on it because as I talked about my experience growing up in the slaughterhouse, meat, poultry, and eggs are in fact regulated by USDA. And from my anecdotal response to you, you know that my second father wasn't at all happy with having to go through the regulatory

scrutiny and felt they were oftentimes too tough on plants like his in exactly that situation.

Nobody likes to be the guy under the thumb of the regulator, but there is also the acknowledgement that regulation is necessary in cases like this. I would also submit to you that the USDA stamp of approval is the gold standard in organics and in meat. When you see that blue or purple label on meat, people feel much better about the fact that USDA is looking at it. And I am going to give you another reason why I believe USDA is the right. I believe, a I believe that you said or someone else, maybe it was the gentleman from FDA himself, said that American public believes that the farmers are the good guys in this process, that they want to do the right thing and they want to comply.

And the problem, as I see it, is FDA is divorced from the farmer. And USDA actually has the components through the extension services and others that are routinely working on a day-to-day basis with farmers. So if USDA got information that a new practice was the best practice, they could easily disseminate that information where FDA doesn't even have a mechanism to do that unless they go through another agency to do it.

And so I would submit to you that if you separate the enforcement branch from the promotion branch, that they in fact can and will do a good job at USDA. Secondly, I would submit to you that, as the growers here and the packers and shippers have all mentioned, that they have an inherent self interest in making sure consumer confidence is up. And so when we are all trying to do the right thing, the question is how do we get to the right thing, and how do we ensure consumer confidence. And based on that premise that I have set up, I would like you all to comment, starting with Ms. DeWaal.

Ms. DEWAAL. Thank you, and I appreciate your thoughtful question because it is a great one. The bottom line though, the difference that your grandfather was observing compared to what FDA is that they are operating under two different statutory structures, both of which are 100 years old, 101 this year.

The Meat Inspection Act sets up a system whereby USDA looks at every single chicken carcass, beef carcass, and then they look at it additional times as that carcass is processed into the meat that we all consume. This is probably one of the most regulated industries in the world. It is a very intensive oversight system where the plant simply can't operate, they can't open their doors if it is a slaughter plant, until those USDA inspectors are online. And, yes, they do get that seal of approval.

The FDA-regulated products, again, based on a law passed in 1906, are much more passively regulated. They regulate products if they are adulterated or mislabeled. It is kind of after the fact, and that is why we have ended up with an agency who looks a lot like a fire department. They are running in to address the problems with spinach or the Taco John and Taco Bell outbreaks or the peanut butter problems, and now it is pet food and animal feed.

But they look very much like a fire department because they simply don't have the inspectors. USDA literally has almost 10 times more inspectors than FDA does to regulate food commodities, much fewer in terms of the number of food commodities.

My real issue, when it comes to USDA versus HHS versus an independent agency, is looking at what role will the secretary really play when it comes to food safety. And unfortunately, I have observed in this administration and others that the secretary of agriculture sees his or her principle mission as promoting agriculture products.

You know this current secretary has spent far more time in Japan trying to get the Japanese to buy U.S. beef following BSE than he has on food safety issues in his tenure. And that tends to happen to most of the secretaries. So we have supported legislation sponsored by Congresswoman DeLauro and Senator Durbin. It is called the Safe Food Act. It does create a single, unified agency separate from both HHS and USDA. Thank you.

Mr. CARDOZA. Thank you.

Ms. CHRISTIE. Well, this issue is still very much under discussion with the PMA. We believe in an appropriately funded FDA can do the job it needs to do to help protect the food supply.

Ms. ROBERTS. I would say that the public nor the growers care which letters identify the agency. They just want to have a universal collaboratively decided position that promotes food safety. We are following the issue very closely with our industry. We believe that there should be a unified food policy for this country that involves food safety as one of its tenants. And we will just look to the wisdom of Congress and all of the agencies to see how this is dealt with.

We work cooperatively with FDA, USDA, but there are so many other agencies that have a component of food safety. EPA is such a critical one with all of the chemical agents that we have to use. So it is not just those two agencies. So we strongly support a unified sound food safety policy for this country, and we look to the wisdom of Congress to sort this out.

Mr. CARDOZA. Mr. Pezzini.

Mr. PEZZINI. We have collaborated with all those agencies in establishing or creating the new good agricultural practices. I will say that we are using, and I mentioned this in my testimony, USDA-trained inspectors to do the auditing. They have the expertise on the farm. So from that perspective, the USDA is much more familiar with agriculture in its setting.

Mr. WHITAKER. I would say I agree with a lot of what has already been said. My principle interaction, since I have been in the produce industry, has been with the FDA. And 1 of the things that I think that stands well for them is they do take a science-based approach to problem solving, and they have certainly shown a great deal of focus on food safety, as in recent years with a number of guidelines that have been issued that I went through today. But also onsite visits into Salinas on fact-finding tours to help develop the best food safety programs possible, but also to help educate themselves as to the problems that we see on the farm level.

So again I think certainly what Mr. Pezzini said stands. We currently work with USDA inspectors because of their on-farm expertise. But a properly or appropriately funded FDA could also bring something to bear on this issue.

Mr. CARDOZA. Thank you. Well, it is clear that there is still a lot of work to be done to further ensure American consumers have ac-

cess to the safest food supply possible. We have the safest food supply available at this time, but all know that we can do better. However, in our zest for action, we must be careful not to create a regulatory environment that stifles the industry while failing to meet the goals of increased safety. I want to caution this because at 1 point during the height of the spinach outbreak, I was informed that some grocers were considering requiring 8-foot fences around their suppliers' lettuce farms. Not only was this a hasty idea that was ill conceived, but it would have offered little protection for further outbreaks and could have been extremely costly to farmers and to consumers.

Food safety outbreaks are not the place of knee-jerk reactions even though that may be what some would like to see happen. Instead, I firmly believe that there is room for partnership and cooperation here in responding to food safety concerns. My colleagues in Congress, both in the House and the Senate and on both sides of the aisles, should learn from California's leafy green industry, in my opinion, and Florida's tomato industry on how to integrate science, research, institutional knowledge into a comprehensive industry-wide response.

But we must also carefully examine the strengths and weaknesses of our current food safety structure, especially the utility of several regulatory agencies, as opposed to 1 central location, as Ms. DeWaal has testified.

I look forward to continuing to dialogue on preventing foodborne illness, and I again thank the witnesses for their thoughtful comments and their helpful insight in this matter. You truly have helped us in our goal and effort to craft a more effective policy for the country.

With that, under the rules of the committee, the record of today's hearing will remain open for 10 days to receive additional material and supplementary written responses from the witnesses to any questions posed by a member of the panel.

This hearing of the subcommittee on horticulture and organic agriculture is thereby adjourned.

[Whereupon, at 12:42 p.m., the Subcommittee was adjourned.]

OPENING STATEMENT CHAIRMAN DENNIS CARDOZA
Subcommittee on Horticulture and Organic Agriculture
Public Hearing to review the industry response to the safety of fresh and fresh-cut produce.
Tuesday, May 15, 2007
Room 1300 Longworth House Office Building
10:00 a.m.

Thank you all for attending this important hearing to review the industry response to food safety concerns of fresh and fresh-cut produce.

Maintaining the integrity of our nation's food supply is a paramount concern of mine, not only as the Chairman of this Subcommittee, but as a consumer and as a parent. Americans spend over $1 trillion in food per year—both at home and in restaurants—and they place their faith in the agriculture industry and federal and state regulatory agencies to ensure those products are safe to consume.

Generally, our food supply consistently meets high benchmarks of success in safety, but there are instances where the system fails. Whether it be spinach, tomatoes, meat, poultry, or countless other products, food-borne illness can strike viciously and without warning. I should know—I was personally affected by the salmonella outbreak in peanut butter earlier this year.

So one can imagine my displeasure to read recent reports that FDA **knew** this particular peanut butter plant had a spotty safety record, yet they continued to certify its compliance with food safety measures.

Part of the problem may be that there are currently 15 different federal agencies tasked with monitoring the safety and security of our food supply. From the Food and Drug Administration to USDA to Health and Human Services—each year thousands of federal employees inspect, verify and approve all aspects of the food distribution chain.

Together with their state counterparts, these agencies create arguably the safest food supply in the world.

However, when the rare crack in this system occurs, the overall integrity and consistency of food safety in this country can be devastated. Families across the country who consume tainted products are unfairly put in harm's way and the general public's confidence in the food supply is shaken to the core. Furthermore, farmers and processors are often unable to recover from the financial strains of severe market disruptions from outbreaks.

None of these consequences were more apparent than during the September 2006 *E. coli* outbreak associated with the consumption of fresh cut spinach. Many in this room were directly involved in the days and weeks that followed this crisis.

The response to the spinach outbreak was a wake-up call for both the federal government and the fresh produce industry.

For the government it became painfully obvious that the continued lack of support for specialty crops in federal farm and food safety programs is taking its toll. Specialty crops have grown to nearly 50% of the farm gate value of American agriculture, yet very few federal dollars are spent on shoring up research, food safety or best management practices for the industry. If we are serious about preventing further outbreaks, this inequity can no longer be ignored.

For the produce industry, while I must applaud them for fully cooperating with the *E. coli* investigation and trace-back attempts, it was apparent that previous practices designed to prevent outbreaks of food-borne illnesses simply fell short. The fresh produce industry has rested too long on ill-defined and unchecked management practices that left holes in the accountability of the entire system.

There has been significant progress by the fresh produce industry—and their actions should serve as a model to their fellow commodities who often fail to act so expeditiously. Shortly after the spinach crisis, the affected industries in California organized the California Spinach and Leafy Green Marketing Agreement, which licenses first handlers to certify compliance with Best Management Practices for fresh produce.

The Agreement it is a solid first step to strengthen industry practices and to quell consumer doubt in domestic fresh produce. But food safety standards for fresh produce should not be limited to just those producers and handlers in California.

If proven to be effective, the Best Management Practices in the California Spinach and Leafy Green Marketing Agreement should serve as a nationwide model for improving food safety. I am pleased to have Joe Pezzini, Vice President of Ocean Mist Farms and Chairman of the Agreement here to elaborate on food safety measures included within this Agreement.

Overall, I believe consumer confidence in fresh produce is back and stronger than ever. Americans recognize and appreciate the benefits of fresh fruits and vegetables in their diets and have responded well to the efforts of the regulators and industry to correct flaws in their food safety surveillance. But unfortunately, it will only take one more "incident" to break down this progress, move us back to square one, and revive unproven claims that our food supply is susceptible to dangerous pathogens.

I remain extremely concerned that our food safety oversight is spread amongst too many different agencies; creating a systemic lack of responsibility and ownership over the food supply. I believe that one—and only ONE—federal agency should have responsibility for protecting the food supply. USDA clearly has a better relationship with state agencies and other officials on the ground level and there seems to be an inherent lack of understanding at FDA about the unique growing practices of boutique crops like spinach, lettuce, and other fresh produce which may have significantly hindered their ability to react quickly and confidently in the spinach crisis.

A complete discussion of domestic food safety reform should include a thorough examination of the feasibility of USDA's control over fruits and vegetables.

The spinach crisis was not the first *E. coli* outbreak and it most certainly will not be the last. But as Members of Congress we have the duty and the responsibility to carefully review these situations and look for ways to improve responses at the federal level.

I hope that we can use this hearing to gain a better understanding of the industry response to recent food safety concerns and continue the dialogue on strengthening domestic food safety compliance.

I appreciate the witnesses appearing today and I look forward to their comments.

With that, I yield to the Ranking Member Mr. Neugebauer.

CLOSING STATEMENT CHAIRMAN DENNIS CARDOZA
Subcommittee on Horticulture and Organic Agriculture
Public Hearing to review the industry response to the safety of fresh and fresh-cut produce.
Tuesday, May 15, 2007
Room 1300 Longworth House Office Building
10:00 a.m.

It is clear that there is still a lot of work to be done to further ensure American consumers have access to the safest food supply possible. However, in our zest for action, we must be careful to not create a regulatory environment that stifles industry while failing to meet to the goals of increased safety.

At one point during the height of the spinach outbreak I was informed that some grocers were considering requiring 8 foot fences around their supplier's lettuce farms. Not only was this hasty idea ill-conceived, but it would have offered little protection for further outbreaks and could have been extremely costly for those farmers. Food safety outbreaks are not the place for knee-jerk reactions.

Instead, I firmly believe there is room for partnership and cooperation in responding to future food safety concerns. My colleagues in Congress in both the House and Senate and on both sides of the aisle should learn from California's leafy green industry and Florida's tomato industry on how to integrate science, research and institutional knowledge into a comprehensive industry-wide response.

But we must also carefully examine the strengths and weaknesses of our current food safety structure—especially the utility of several regulatory agencies as opposed to one centralized location.

I look forward to continuing the dialogue on preventing food-borne illnesses and I again thank the witnesses for their thoughtful comments and helpful insight.

Opening Statement of Ranking Member Randy Neugebauer
Subcommittee on Horticulture and Organic Agriculture
Hearing to review the industry response to the safety of fresh and fresh-cut produce
May 15, 2007

Consumers in the United States are fortunate to have such a safe, abundant and affordable supply of fresh fruits and vegetables. Sometimes we take for granted the many fresh produce choices available in our grocery stores aisles and farmers markets.

It takes dedicated farmers, handlers and packers to supply us with this variety and high quality of food, and I appreciate those of you who took time away from your operations to join us today.

Just as it takes the full chain from growers through shippers to supply consumers with fresh produce, it also takes the entire industry to make sure the produce is safe. You have a good track record when it comes to producing safe and high-quality fruits and vegetables, and the industry has also responded quickly to address problems on those occasions when a food safety concern has arisen.

As producers and handlers know first-hand, the viability of your industry requires that you produce and sell a safe product and that consumers remain confident in the safety of your produce. I applaud produce growers and handlers for pursuing industry-led marketing agreements, promoting best practices and supporting research to increase knowledge of how to keep fresh vegetables and fruits safe.

Others have suggested that extensive federal government regulation of the farm-to-table would be a better approach. However, I am concerned that a rigid regulatory approach may not allow the industry the flexibility to adapt practices to new technologies. It may hinder growers' ability to produce their crops. Allowing the industry to set research-backed standards and practices and form cooperative marketing agreements can be effective means to ensure food safety when backed by government verification that standards are sound and are being followed.

I would like to hear more from AMS and FDA, as well as the industry panelists, on how all segments can best work together and make effective use of resources so that consumers can continue to be assured of the safety and quality of the fresh produce they buy for their families.

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Opening Statement
Chairman Collin C. Peterson
Subcommittee on Horticulture and Organic Agriculture
Review of Industry Response to the Safety of Fresh and Fresh-cut Produce
May 15, 2007

Thank you, Chairman Cardoza, for calling this hearing today and for your leadership on this issue.

Last week, this committee held a hearing on the safety of our food supply following reports of tainted imported food products showing up in pet food and animal feed. Those in the fresh and fresh-cut produce industry, remember a food safety crisis of their own that developed late last year. A series of outbreaks in several varieties of fresh produce caused multiple cases of food-borne illness, leading to product recalls.

Such events can cause serious damage throughout the agricultural food chain, from producer to processor to retailer to consumer. Surveys showed that last year's outbreaks not only cost

the produce industry millions of dollars over several months, but it had a lasting effect on consumer confidence as well.

Growers in the produce industry have responded to these outbreaks with a voluntary marketing and certification program comprised of a series of quality assurance standards covering product processing, handling, measuring and grading. These standards, called the California Spinach and Leafy Green Marketing Agreement, became effective in February 2007. The agreement is enforced by the Department of Agriculture's Agricultural Marketing Service.

While AMS is not a food safety agency, their design and delivery of marketing programs that use safety as a food attribute can play a key role in ensuring product quality across the market. For example, 99 percent of the leafy greens produced in California are now under the control of handlers who have signed the marketing agreement.

I look forward to hearing from Administrator Lloyd Day this morning to learn how AMS is working with producers to support their quality control efforts and follow FDA health and safety guidelines.

As recent food safety incidents have shown us, buyers want to know more about their food; where it comes from and how it was prepared. I look forward to hearing from today's witnesses and their ideas for a collaborative approach to food safety and how programs like voluntary marketing agreements can help producers exceed food safety guidelines while restoring consumer confidence in healthy, homegrown food products.

Once again, I welcome the witnesses and I look forward to their testimony today. Thank you, and I yield back my time.

Opening Statement of Bob Goodlatte
Subcommittee on Horticulture and Organic Agriculture
Hearing on fruit and vegetable safety
May 15, 2007

Thank you Mr. Chairman.

This morning the subcommittee will consider issues associated with the safety of fresh fruits and vegetables. As I'm sure every Member and witness will agree; the United States enjoys the safest, highest quality, most abundant, affordable and diverse food supply in the world. We are also fortunate that we have both a regulatory apparatus that works with industry to constantly improve food safety, and a disease reporting infrastructure that functions to quickly alert regulators to potential problems thus ensuring a quick and effective response.

The system we have today encourages a cooperative spirit of rapid reporting and aggressive response. Because of the public nature of our regulatory system, media attention devoted to food recalls has increased ensuring that information is disseminated to a broad audience. The fact that more and more information is available to consumers is a good thing as this information helps educate consumers regarding their

responsibility in ensuring proper food handling and preparation.

Today we will hear from regulators, fruit and vegetable producers and processors, and consumer interest groups. While some will advocate policies which facilitate voluntary compliance with existing Good Agricultural Practices, others will use recent events to justify mandatory regulations at the farm level. While I personally support the former approach, I think we can all agree that before any regulations are even considered, more research is desperately needed to determine what measures can be taken at all levels of production and processing to improve the safety of fresh fruits and vegetables.

I am grateful that Secretary Johanns has included a robust specialty crops research agenda in the Administration's farm bill proposal. It is my hope that the legislation this Committee works on will be able to achieve many of these goals. I yield back.

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WORD COUNT: 294

Statement of Lloyd Day, Administrator
Agricultural Marketing Service
U.S. Department of Agriculture

Before the
Subcommittee on Horticulture and Organic Agriculture
House Committee on Agriculture

May 15, 2007

Mr. Chairman, and members of the Subcommittee, good morning and thank you for the invitation to appear before you today. I appreciate the opportunity to share with you a brief overview of the activities and services of USDA's Agricultural Marketing Service (AMS).

As you know, the U.S. Food and Drug Administration (FDA) is the Federal agency with primary responsibility for the food safety of horticultural products. At the U.S. Department of Agriculture, the Food Safety and Inspection Service holds similar responsibility for meat, poultry, and egg products.

The mission of AMS is to facilitate the strategic marketing of agricultural products in the domestic and international marketplace. AMS is not a food safety agency. The agency does respond to requests from producers to support their product quality control efforts. For example, producers have asked AMS to establish programs to provide independent verification that FDA guidance is being followed.

AMS Audit-Based Programs

For many decades AMS has offered voluntary, user-funded, product quality grading services as well as plant sanitation reviews based on FDA's Good Manufacturing Practices. In recent years, AMS has expanded these traditional services through the addition of audit-based programs based on internationally recognized quality management system protocols. Some of these newer programs incorporate food safety-related elements reflecting market demand for greater food safety assurance as a quality attribute of products being marketed.

Audit-based programs tend to focus on the management of production and handling systems. They provide a basis for third-party verification of conformance to production and handling standards, methods, or procedures. Through these programs, it is possible to verify that processes are working within established limits. Production and handling systems are documented, specific processes are monitored and measured, and product identity and traceability are required. Processes specifically relating to the management and minimization of food safety risks may be included.

In the horticultural or specialty crops area, AMS product grading, plant sanitation review, and audit-based programs are conducted with a Federal workforce of some 800 full and part time employees. Additionally, AMS has cooperative agreements with nearly all State Departments of Agriculture, under which their fruit and vegetable inspectors receive training and are granted Federal licenses to assist in the delivery of AMS services and programs, adding another 3,500 skilled professionals to the agency's deployable workforce.

Good Agricultural Practices and Good Handling Practices Audit Verification Program

One recent example of an audit-based program fashioned around food safety-related objectives is the Good Agricultural Practices and Good Handling Practices (GAP/GHP) Audit Verification Program. This program assists farms and packinghouses through verification of their adherence to FDA's *Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables*. It is a uniform, nationwide program that is voluntary and funded by user fees.

The GAP/GHP Program originated from a request by the New Jersey Department of Agriculture and the Association of Fruit and Vegetable Inspection and Standardization Agencies. A program was sought that would enable growers and packers to demonstrate adherence to Good Agricultural Practices and Good Handling Practices as was being required by their retail customers.

As identified in FDA's guidance materials, participants in this program demonstrate control in several areas of their operations to minimize microbial hazards, including water supplies, manure management, worker health and hygiene, sanitary facilities, field and parking area sanitation, transportation, and product traceback.

Primary users of this program include fresh fruit and vegetable growers, packers, shippers, and others in the marketing chain. Currently, audits are performed at 317 farms and facilities in 32 States and Puerto Rico, with larger numbers of participants in California, Oregon, Washington, North Carolina, and New Jersey. Nearly 100 fruit, vegetable, and other specialty crop products are covered. AMS staff and AMS-licensed and trained State employees perform the on-site audits.

Qualified Through Verification Program

Another example of an audit-based program offered by AMS is the Qualified-Through-Verification (QTV) Program that assists fresh-cut fruit and vegetable processors in managing food safety risks. There are currently 10 fresh-cut plants participating in the QTV program.

QTV is a voluntary, user-fee program that provides third-party verification of a fresh-cut processor's adherence to its Hazard Analysis Critical Control Point (HACCP) plan. Under the QTV program, processors identify and document critical points in their

production process, measure performance of their operation at these critical points, and position themselves to detect and address any deficiencies as they might emerge.

Third-party verification by AMS involves initial document review and subsequent on-site audits. The frequency of audits begins at two week intervals with reduced frequency possible based on a firm's performance. AMS staff involved in administering this program have received training in HACCP and audit procedures.

With FDA's March 2007 release of its *Guide to Minimize Microbial Food Safety Hazards of Fresh-cut Fruits and Vegetables*, AMS has modified its QTV program to incorporate this guidance regarding the identification and implementation of appropriate measures to minimize the risk of microbial contamination during the processing of fresh-cut produce. In addition, participants in the QTV program will be required to source products only from growers that adhere to Good Agricultural Practices as outlined in FDA's *Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables.*

Marketing Orders and Agreements

Authorized by the Agricultural Marketing Agreement Act of 1937 (AMAA), marketing orders and agreements assist farmers by allowing them to collectively work to solve marketing problems. Industries voluntarily enter into these programs and in this way choose to have Federal oversight of certain aspects of their operations. AMS oversees marketing orders and agreements to ensure that they operate in the public interest and within legal bounds.

Presently, there are 30 active marketing agreement and order programs, covering 25 specialty crop commodities. Fees are collected from handlers to cover the local costs of administering these programs.

Marketing orders differ from marketing agreements. Marketing orders, if supported through industry referenda, are binding on all individuals and businesses that are classified as "handlers" in the geographic area covered by the order. Marketing agreements are binding only on handlers who are voluntary signatories of an agreement.

Food Quality and Safety Issues under Federal Marketing Orders

Section 608c(6) of the AMAA provides authority to regulate the quality of various commodities through Federal marketing orders and agreements. USDA considers food safety to be a quality characteristic of regulated fruit, vegetable, and specialty crops and that the absence of harmful pathogens or toxins is characteristic of higher quality products. In response to producer requests for support of their product quality control efforts, AMS has incorporated food safety-related requirements in marketing agreement and marketing order regulations for many years. For example, testing for *Aflatoxin*, considered a possible human toxin, has been required for U.S. grown peanuts since 1965,

originally under a Federal marketing agreement and subsequently through separate legislation administered by AMS.

A large majority of the currently active Federal marketing order programs include minimum grade requirements with most U.S. grade standards having criteria related to food safety (e.g., lack of mold, insects, foreign material, etc.). Since 1961, for example, the marketing order for California prunes has had inspection and fumigation requirements relative to live insect infestations. Similar requirements for insects as well as the presence of dirt or mold have been in place for California raisins since 1977. Beginning in 2005, Pistachio handlers were required to test all nuts destined for human consumption for *Aflatoxin*, which, if present, would lower the quality and market value of pistachios. Also, for the upcoming 2007-08 crop, almond handlers will be required to treat almonds prior to shipment to reduce the chance of *Salmonella* contamination, a health hazard that can lower the quality and value of almonds shipped to market.

California Marketing Agreement

Following the September 2006 *E. coli* outbreak linked to fresh spinach grown in the Salinas Valley, the California Department of Food and Agriculture (CDFA) began designing a State marketing agreement that would require adherence to good handling practices for most companies involved in shipping leafy greens in the State. The California Spinach and Leafy Green Marketing Agreement (Agreement) became effective in February 2007.

The CDFA Agreement is a voluntary program. This program licenses signatory handlers to use a certification mark to certify the handling, shipping, and sale of leafy green products in accordance with Best Practices (Good Agricultural and Good Handling Practices). For signatory handlers, the sale of such products without verified Best Practices and trace back systems is considered an unfair trade practice. The use of the certification mark would be denied to those firms found in violation. The Agreement also mandates that shippers source their leafy greens from growers who comply with a specified set of Best Agricultural Practices.

AMS has cooperated with CDFA in the verification aspects of the Agreement, including the design and delivery of training for the California State auditors who will monitor compliance. During the week of April 16, 2007, AMS and CDFA conducted the first informational audit assessment under the Agreement. This informational assessment allowed program managers to test procedures and to evaluate the checklist that will be used during audits. During the week of April 30th, AMS and CDFA worked together to administer additional training for the 10 AMS-licensed California Federal-State Inspection Service graders who will perform the official audits that CDFA expects will begin in mid-May at spinach and leafy green farms throughout the State.
According to CDFA, to date, handlers representing more than 99 percent of the leafy greens produced in California have signed the Agreement.

To conclude, Mr. Chairman, I would like to reiterate that food safety policy and the establishment of food safety standards are not within AMS' mandate. However, AMS does have significant expertise and experience in the design and delivery of marketing programs, including those involving inspections for product quality and verification of production processes. At industry's request, AMS has incorporated food safety-related elements in several of its marketing programs for the produce industry.

Thank you. I would be pleased to respond to questions.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
Rockville MD 20857

STATEMENT OF

DAVID ACHESON, M.D., F.R.C.P.

ASSISTANT COMMISSIONER FOR FOOD PROTECTION

FOOD AND DRUG ADMINISTRATION

BEFORE THE

COMMITTEE ON AGRICULTURE

SUBCOMMITTEE ON HORTICULTURE AND ORGANIC AGRICULTURE

UNITED STATES HOUSE OF REPRESENTATIVES

MAY 15, 2007

RELEASE ONLY UPON DELIVERY

INTRODUCTION

Good morning, Chairman Cardoza and Members of the Subcommittee. I am Dr. David Acheson, Assistant Commissioner for Food Protection at the Food and Drug Administration (FDA or the Agency), which is part of the Department of Health and Human Services (HHS). I am pleased to be here today with my colleague, Mr. Lloyd Day of the U.S. Department of Agriculture (USDA). FDA appreciates the opportunity to discuss the recent outbreaks of foodborne illness associated with fresh produce and the measures we are taking to enhance the safety of these products.

FDA is committed to ensuring that America's food supply continues to be among the safest in the world. In recent years, we have done a great deal to protect the food supply from both unintentional and deliberate contamination. We have made significant progress in both, but the recent outbreaks of foodborne illness underscore the need to renew our focus on multidisciplinary and integrated food safety strategies.

The Commissioner of Food and Drugs, Dr. Andrew von Eschenbach, recently appointed me to the newly created position of Assistant Commissioner for Food Protection. My first priority in this position is to develop a new strategy for food safety and food defense that will address changes in the global food safety and food defense system, identify our most critical needs, and serve as a framework to help us address the challenges we face. The goal is to ensure a comprehensive and robust food safety and food defense program that is tailored to meet the risks posed by the types of foods we regulate and that focuses on prevention, ensures compliance with preventive controls, and rapidly responds when contaminated food or feed is detected, or when there is harm to humans or animals.

The number of illnesses associated with fresh produce is a continuing concern of the Agency, and we have worked on a number of initiatives to reduce the presence of pathogens in these foods. Fresh produce presents special challenges. For example, consumption of produce, particularly "ready-to-eat" products, has increased dramatically during the past decade. This is a positive development from a nutrition perspective, but also a new dynamic that challenges our food safety efforts.

Because most produce is grown in an outdoor environment, it is vulnerable to contamination from pathogens that may be present in the soil, in agricultural or processing water, and in manure used as fertilizer, or due to the presence of animals in or near fields or packing areas. Produce also is vulnerable to contamination due to inadequate worker health and hygiene protections, environmental conditions, inadequate production safeguards, and inadequate sanitation of equipment and facilities. The fact that produce is often consumed raw or with only minimal processing, without any type of intervention that would reduce or eliminate pathogens prior to consumption, contributes to its potential as a source of foodborne illness. Consequently, addressing the way fresh produce is grown, harvested, and moved from field to fork is crucial to minimizing the risk of microbial contamination.

In my testimony today, I will describe HHS's role concerning activities related to food safety. Then, I will describe some of the specific efforts that FDA is taking to enhance the safety of fresh produce to prevent future outbreaks.

HHS's ROLE IN FOOD SAFETY

FDA's primary mission is to protect the public health. Ensuring that FDA-regulated products are safe and secure is a vital part of that mission. FDA is the Federal agency that regulates everything we eat except for meat, poultry, and processed egg products, which are regulated by our partners at USDA.

Although FDA has the lead responsibility within HHS for ensuring the safety of food products, the Centers for Disease Control and Prevention (CDC) has an important complementary and non-regulatory public health role. CDC is the lead Federal agency for conducting disease surveillance and outbreak investigation and routinely monitors the occurrence of specific illnesses in the U.S. attributable to the entire food supply. The disease surveillance systems coordinated by CDC, in collaboration with states, provide an essential early-information network to detect dangers in the food supply and to reduce foodborne illness. Two key surveillance components of our nation's early information network are PulseNet and OutbreakNet. PulseNet is a national network of public health laboratories that perform DNA fingerprinting on foodborne bacteria that result in human illness. The PulseNet network permits rapid comparison of these fingerprint patterns through an electronic database at CDC. OutbreakNet is a network of public health epidemiologists who, under CDC's coordination, investigate suspected foodborne disease outbreaks to determine which foods may be involved and, thus, which control strategies may be needed. CDC's ability to detect and investigate outbreaks of foodborne illness through its networks enables CDC to alert FDA and USDA about implicated food products associated with foodborne illness. CDC also provides expert scientific evaluations of the effectiveness of foodborne disease prevention strategies.

FDA contributes financially and scientifically to the Foodborne Diseases Active Surveillance Network (FoodNet), the principal foodborne disease component of CDC's Emerging Infections Program (EIP). FoodNet is a collaborative activity of CDC, FDA, the Food Safety and Inspection Service (FSIS) of USDA, and ten EIP sites. Through this active surveillance system, these sites actively seek out information on foodborne illnesses identified by clinical laboratories, collect information from patients about their illnesses, and conduct investigations to determine which foods are linked to specific pathogens. This surveillance system provides important information about changes over time in the burden of foodborne diseases. For example, data from FoodNet help public health and food safety agencies evaluate the effectiveness of current food safety initiatives and plan future food safety activities to prevent and reduce emerging foodborne illnesses.

In addition to working closely with CDC, our sister public health agency, FDA has many other food safety partners – Federal, state, and local agencies; international food safety partners; academia; and industry.

INITIATIVES TO ENHANCE PRODUCE SAFETY

To reduce the risk of foodborne illness at all points in the food chain, FDA has adopted a "farm-to-fork" approach to food safety. This approach systematically applies risk management principles at each step as food moves from growers and producers to consumers. While FDA has been working to enhance produce safety for a number of years, the Agency has sharpened its focus in response to the recent produce-related outbreaks.

FDA has focused its food safety efforts in three key areas:

- strengthening the scientific basis for FDA's food safety program with an emphasis on prevention;
- enhancing effective partnerships; and
- improving risk-based targeting of inspection resources.

I will elaborate on these below.

Strengthening the Scientific Basis for FDA's Program to Improve Food Safety

Strengthening the scientific basis for FDA's program to improve food safety is essential to improving FDA's effectiveness at protecting public health. FDA's existing research program includes activities involving microbiological contamination, chemical contaminants, biotechnology/allergenicity issues, seafood safety, dietary supplements safety, color additives safety, and consumer studies. The determination of microbiological and chemical risk and its mitigation drives our research program. In addition, FDA is doing extensive research on the detection, characterization, and behavior of foodborne pathogens, microbial genetics, and molecular virology. These efforts are vital in our attempt to develop risk assessment models for pathogens and intervention strategies to reduce the public health risk that these pathogens present. FDA's research in the area of chemical contaminants focuses on the development of detection methods and toxicology studies.

Collaborative research efforts further strengthen the scientific basis for our food safety programs. For example, for the past decade, FDA has worked closely with USDA's Agricultural Research Service (ARS) and Cooperative State Research, Education, and Extension Service (CSREES) to

coordinate and mutually support our respective research efforts related to produce safety. This relationship allows FDA to augment its research resources and gain access to facilities and expertise we do not have. In this spirit, we collaborated with ARS and CSREES to analyze water samples from the Salinas watershed for *E. coli* O157:H7, and to relate the location of bacteria to geographical, seasonal, or rainfall variation. An extension of this research will look for sources of *E. coli* O157:H7 in California's Salinas Valley. Information obtained from this study will be used to inform produce growers about strategies to prevent pre-harvest microbial contamination.

We also strengthen the scientific basis for our program by collaborating and learning with others, such as participating in many scientific and technical meetings on food safety. In February, we participated in a forum sponsored by the Western Institute for Food Safety and Security to share information on assessing industry approaches to address the safety of lettuce and leafy greens on the farm and at packing, cooling, and processing facilities. Also in February, the FDA-affiliated Joint Institute for Food Safety and Applied Nutrition and the University of Florida sponsored a workshop to improve understanding of how tomatoes become contaminated with *Salmonella* and other pathogens. This month on May 30th and 31st, FDA, the National Center for Food Safety and Technology, and the University of Georgia's Center for Food Safety will co-sponsor a workshop on microbial testing to reach a consensus on the role of microbial testing in ensuring the safety of produce.

In response to the recent outbreaks, FDA recently held two public hearings concerning the safety of fresh produce. The purpose of these hearings was for FDA to share information about recent

outbreaks of foodborne illness related to fresh produce and to solicit comments, data, and additional scientific information on this issue. We are soliciting input from all our stakeholders on ways to improve the safety of fresh produce. The administrative record will remain open until June 13, 2007.

Enhancing Effective Partnerships

To succeed in our science-based efforts to promote food safety, we need to enhance our collaborations with stakeholders interested in food safety, particularly with respect to fresh produce. Fresh produce is produced on tens of thousands of farms, and contamination at one step in the growing and processing chain can be amplified throughout the following steps. FDA has worked with the public and private sector to encourage industry to follow the recommendations and standards contained in FDA guidances. After enlisting the help of the scientific community and industry, FDA published the "Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables." This guide, published in 1998, recommends good agricultural practices and good manufacturing practices that growers, packers, and shippers can take to address common risk factors in their operations. FDA and USDA issued the guide in several languages and have conducted significant outreach, both domestically and internationally, to encourage its implementation. In addition, FDA has assisted industry in developing a number of commodity-specific food safety guidelines for the commodities most often associated with foodborne illness outbreaks. These include guidelines for lettuce and leafy greens, melons, and tomatoes. We are working with industry on similar guidelines for herbs and green onions.

The example of fresh sprouts illustrates how successful these efforts can be. In 1999, there were 390 reported illnesses associated with eating contaminated fresh sprouts. FDA published two guidance documents for sprouts that year. In 2004, only 33 illnesses were reported associated with fresh sprouts and, in 2005 and 2006, there were none. We believe that the decline in sprout-associated illnesses was in large part due to the industry's adherence to the recommendations FDA provided in those guidance documents through our outreach and inspection efforts.

FDA's efforts in this area are ongoing. In March, FDA issued a draft final version of its "Guide to Minimize Microbial Food Safety Hazards of Fresh-cut Fruits and Vegetables" (the Fresh-cut Guide). This guidance is intended for all fresh-cut produce firms, including, among others, those that process fresh-cut spinach and lettuce/leafy greens, to enhance the safety of fresh-cut produce by minimizing the microbial food safety hazards. In addition, based on FDA's efforts, the Codex Alimentarius Commission, the international food safety standards body, has asked the Food and Agriculture Organization/World Health Organization (FAO/WHO) for an expert consultation on the microbiological safety of fresh produce to support the development of commodity-specific annexes to the hygienic code. FAO/WHO just announced that this consultation will occur during 2007 and early 2008.

In August 2006, FDA launched its "Lettuce and Leafy Greens Initiative," which assesses practices and conditions at select farms and facilities in California, in collaboration with California's Department of Health Services and its Department of Food and Agriculture. We will continue to work with Federal, state, local and international food safety partners and with

laboratories in FY 2007, compared to 30 participating laboratories in March 2004 (near FERN's inception). The FERN network proved to be a critical asset in the *E. coli* O157:H7 outbreak associated with fresh spinach. FERN analysts worked closely with CDC's Laboratory Response Network personnel to harmonize and approve a modified FERN method for detecting *E. coli* O157:H7 in spinach. This method allowed for substantially improved testing of spinach samples as it allowed for the detection of *E. coli* O157:H7 at lower levels.

Improving Risk-Based Targeting of Inspection Resources

FDA is significantly improving its ability to target its inspection resources at the greatest risks to public health. However, inspections cannot and will not identify every potential food safety problem. Improving the processes and operations of all participants in the food production and distribution process offers the greatest protection for American consumers, and inspections are only one component of this activity. To make best use of available resources, FDA uses a targeted, risk-based approach to inspections. For example, we inspect almost all high-risk food establishments on an annual basis. FDA's electronic screening system for imported food shipments also uses a risk-based approach and allows us to focus our physical inspection resources on what appear to be higher risk shipments. In 2006, FDA performed over 89,000 security reviews on shipments of food and animal feed offered for import and flagged as high risk by our screening system. In addition, we performed over 94,000 field exams on imported food products selected for physical examination by our risk-based screening criteria. To enhance our ability to target our inspections, we are working toward a system that will include information from all points on the import life cycle, from production to consumption, in order to better protect consumers.

CONCLUSION

FDA is working hard to ensure the safety of food, in collaboration with its Federal, state, l and international food safety partners, and with industry, consumers, and academia. As a r of this effective collaboration, the American food supply continues to be among the safest world. We have made progress, but the recent incidents of contaminated food and animal f demonstrate the challenges we face and the need to enhance our efforts. As I noted at the beginning of my testimony, we are working on a new strategy for food safety and food defe that will address changes in the global food safety and food defense system, identify our mo critical needs, and serve as a framework for addressing the challenges we face. We will continue to strive to reduce the incidence of foodborne illness to the lowest level possible.

Thank you for the opportunity to discuss FDA's continuing efforts to improve the safety of fr produce. I would be happy to answer any questions.

Prepared Statement

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Before the
U.S. House of Representatives Committee on Agriculture
Horticulture and Organic Agriculture Subcommittee

May 15, 2007
Washington, DC

Good morning Mr. Chairman and Members of the Committee, my name is Dr. Robert Whitaker and I am Vice President of Processing & Technology for NewStar Fresh Foods, a fresh and fresh-cut vegetable company based in Salinas, California. Our company produces a variety of conventional and organic spinach, spring mix and blended baby leaf salads and specialties for foodservice distributors, retailers and private label products for a number of retail customers.

I received my Ph.D. in biology from the State University of New York at Binghamton in 1982, and have spent my career in microbial and plant biochemical genetics, the use of biotechnology to develop new plant varieties, and management of food safety/quality assurance operation in the processing of fresh value added vegetables. In the past five years, I have been responsible for overall process operations of our company's processing business and overseen the construction of two state-of the-art value added vegetable processing facilities.

I am also past chairman of the United Fresh Produce Association, and provide comments here today on behalf of our association as well as myself. Our association is led by a Board of Directors representing leaders from every sector of the industry, a 50-member Food Safety and Technology Council including scientific experts from our member companies, and a staff with expertise in food microbiology, plant sciences, and nutrition and health. I want to compliment the committee today for holding this very timely hearing given the ongoing focus on food safety across the produce industry.

Due to food safety issues across our industry, the last few years and especially the last 9 months since the spinach crisis have been at times frustrating and confusing, but simultaneously an encouraging and exhilarating period of change and reflection for the produce industry. As we have heard today, we have been through a food safety crisis that has caused death and illness, eroded consumer confidence in our products, cost our industry millions of dollars in product and opportunities lost and precipitated an avalanche of attention and a keen focus on produce food safety by the media, consumers, customers, growers and processors. But, these events have also catalyzed unprecedented action on the food safety front. I have been asked to speak today about how our industry has changed with regard to food safety, what changes still need to be made in the near term and where we go from here.

As I sat down to prepare my testimony, I realized just how difficult these questions were. Our industry is a complex and fragmented patchwork of large, medium and small companies. It is and has been difficult to initiate a sea change with regard to food safety across such a fragmented and independent thinking industry. It is akin to changing the direction of a large ocean liner on a dime to miss looming icebergs, difficult to do but necessary to ensure that our entire industry is taking all needed steps to assure the safety of our products.

So we find ourselves as an industry truly engaged with a wide array of very positive activities and initiatives to improve the food safety of our products:

- A true awareness and sensitivity to food safety has permeated the industry at every level from grower to harvester to processor, shipper and customer. Too often in the past there has been uneven or inconsistent attention paid to food safety with some producers rigorously implementing food safety programs and others only talking about food safety or ignoring it altogether.

- The buying community has begun to ask more questions about their suppliers' food safety programs. With the events that transpired last September, some have even begun to realize that growers/shippers/processors are more than just suppliers, but partners in their corporate identity and brand equity. Many others are still grappling with how to deal with food safety issues along such a complex supply chain and the structural changes that requires.

- Certainly, the acronyms: FDA, DHS, CDC and others have become more common in our everyday conversations and business planning.

- General Good Agricultural Practices or GAPs have morphed into commodity specific guidance for tomatoes, melons and leafy greens. Commodity specific guidance for lettuce and leafy greens has now evolved into GAP Metrics for leafy greens which represent our best attempt, with significant input from FDA and the California Department of Health Services, to provide some quantitative measurements to verify enhanced GAP practices. GAP metrics have now become the technical basis for a marketing agreement in California for leafy greens which while still in its formative stages, is moving rapidly as a tool that may help institute a culture of change and spawn a similar national commitment to food safety. Other commodity groups such as tomatoes and melons are currently revisiting their commodity-specific GAP documents to bolster their strength in risk management.

- The process of developing commodity-specific guidance for melons and tomatoes and GAP metrics in California for leafy greens has brought about several important revelations for our industry:

    - There is a general lack of sound scientific data we can use to guide the development of certain food safety best practices including water management, compost usage, buffer zones for wild and domesticated animals. We do not have the science to permit a data-based understanding of the basic biology and the genetic and physiological plant/bacterium interactions of pathogens like *E. coli* O157:H7, Salmonella and Shigella.

- Absent sound science, we have had to use what data is available to us and our very best professional judgment to promulgate risk management strategies and metrics aimed toward improving our industry's food safety performance.

- On a positive note, we have shown that our industry can come together to share food safety information and cooperatively develop improved practices for food safety. The associations represented before the committee today as well as others have served as a fulcrum to organize productive discussions and hammer out decisions. This is an encouraging sign for our industry as we move forward.

So we have seen a great deal of change over the last several months with regard to food safety, but as my kids used to say when they were young, "Are we there yet?" Have we solved the problem? I would suggest we are only in the first stages of the culture change that our industry must go through with regard to food safety. It is one thing to hold meetings to develop improved practices, testify before Congress, share our collective experiences on food safety, and hold town hall meetings on food safety in the production community, but we must change our culture and place food safety as a national priority:

- As an industry, we must live our food safety programs every day. We have begun to turn that ocean liner but the icebergs are still out there. We have to make GAP and GAP metrics more than just nice notebooks of information on our office bookshelves. This industry will make some tough decisions going forward in 2007 in order to manage food safety risks more effectively. As an industry, we are only as good as our weakest link and it is all of our responsibilities to strengthen those links. We have to elevate the emphasis on food safety throughout the supply chain from grower to end user. This is not just a grower or processor issue, this is an industry issue that reaches up to buyers, consumers, regulators and researchers. I have seen some amazing progress by growers, harvesters and processors over the last few months. I have met with growers who, for the first time in the 10 years I have been in this business, have really taken on food safety as a challenge and put risk management practices into place that they would not have dreamed of only a few months ago. Growers are using the ingenuity and energy they are noted for and are tackling food safety as a challenge that must be met.

- As a nation, we need your help in driving scientific research to help prevent future outbreaks. I mentioned earlier that we have found ourselves without sufficient data to base risk management decisions on and we have not really been able to learn much of practical use regarding the root causes of recent food safety outbreaks. In fact, the recent investigations surrounding the September spinach outbreak raised more questions than they answered. The current scientific literature provides some directional information developed largely via lab-based systems, but is largely devoid of real world agricultural data developed using pathogenic strains, current lettuce or spinach varieties and growth conditions that resemble key growing areas or seasons.

  However, it is extremely encouraging to see researchers around the country stepping up to study produce food safety. Recently, over 100 R&D proposals dealing with various aspects of food safety were reviewed by a select USDA panel on which I was privileged to serve. Many dealt with critical questions for our industry such as:

  - Where are the pathogens coming from?
  - How do they attach themselves to produce?

- How can we kill them or wash them off? And,
- Once in the environment, how long do they persist?

Many of our associations and individual companies are stepping up to fund research, and that is commendable. However, there is still minimal money available today to fund these important projects. Honestly, in order to reach the critical funding levels, we must have governments help; a significant increase in government funding toward food safety research is needed. We have proposed a $26.5 million annual research package devoted to produce safety research, a small price to help prevent contamination and restore public confidence in produce that is critical for them to consume for their better health. Specific produce safety research that is field oriented and implemented to find practical solutions is critically important, and we urge the committee to devote specific funding to this objective in the Farm Bill, and to support the appropriators in their efforts.

As one small step forward, United Fresh's Board of Directors approved last week that the association move forward with a project that would organize a confidential database of microbiological testing data for the industry. This blinded database would allow for the consolidation of ongoing testing information on an industrywide basis. This is an effective way to establish baselines that could be measured over time and provide benchmarks against which companies could measure their own tests. Similar industrywide efforts in the past by the beef and dairy industries have proved extremely valuable to regulators and industry alike.

- The single biggest change we can make in our industry to stimulate the food safety culture change we need is for the buying community to recognize and only purchase from those suppliers that have a keen focus on food safety, have implemented GAPs, embraced the GAP metrics, employ sound risk management principals and science-based decision making to operate their businesses daily and who continue to push the boundaries to make their products safer.

  Make no mistake, I am <u>not</u> suggesting that the buying community set food safety standards for growing, harvesting or processing, or in any way add to the multiple, and often conflicting requirements that already exist. I would implore them not to set up specialized audits in an attempt to separate themselves within the marketplace based on food safety.

  Rather, produce food safety audits should all be based off the same set of guidelines, scientific principles and existing regulations. No audit can make our products safer by itself. They are only snapshots in time of existing food safety programs. Rather, I am suggesting that buying groups consistently and without exception elevate food safety to the same level of importance as quality and price when making purchase decisions. This requires knowing our suppliers, understanding their food safety programs and separating out those who "talk" about food safety from those who "do" food safety every day. I get tired of customers who call and request our "food safety certificate." What is that? Food safety programs are not gold embroidered certificates that guarantee safety and when received can be filed away. They are multi-layered risk management strategies, verification procedures and people devoted to making the safest products possible. Buyers who do not know these details about their suppliers' food safety practices are not doing their part in the food safety continuum. By the way, processors who don't know their growers' food safety status also need to step up to this responsibility.

Recognize, also, that food safety does not come without a cost. Land left fallow because it represents potential food safety risks, remedial actions enacted to eliminate risks, water testing and other specific food safety activities cost money, and these costs need to be part of the business discussion between suppliers and customers. Believe me, a collaborative supplier/customer approach will do more to accelerate the development of a culture of food safety and promote the adoption of innovative thinking to achieve safer produce than most any other activity in this arena.

The last area I was asked to comment on was to suggest what lies ahead for our industry in relation to food safety. I have no magic crystal ball, but I can say that food safety will continue to be the leading priority for our industry as we fight to rebuild consumer confidence in our products, improve our relationships with regulators and create constructive dialogue and food safety partnerships with our customers. More specifically:

- We will learn a great deal in the coming months from the finalization and implementation of the leafy greens marketing agreement and the GAP metrics they are based on. I think we will learn what works and what is most important about the new GAP metrics. I feel confident, from all that I have heard, that we will be able to fine tune the GAP metrics as we gain more scientific information and data and perhaps focus our resources on new actions and mediation steps that will make our product safer.

- We will also likely see a coalescing of food safety programs to drive consistency and uniformity across our industry. We are working closely with industry groups representing multiple regions of the United States as well as importing countries, the FDA, USDA and the Association of Food and Drug Officials to develop a consistent regulatory approach for produce safety. No matter how hard our industry works, public confidence ultimately depends upon government as the final health and regulatory authority to determine proper food safety standards and ensure that they are being met. Let me review three key principles we believe to be critical for our nation's food safety regulatory framework.

  - **Consistent Produce Food Safety Standards –** First, we believe produce safety standards must be consistent for an individual produce commodity grown anywhere in the United States, or imported into this country. Consumers must have the confidence that safety standards are met no matter where the commodity is grown or processed. Because of the variation in our industry's growing and harvesting practices in different climates and regions, flexibility is very appropriate and necessary. For example, some production areas use deep wells for irrigation while others use river water supplied from dams. Some farms use sprinkler irrigation, others use a drip system laid along the ground, and still others use water in the furrows between rows of produce. But the common factor must be that all uses of water for irrigation must meet safety standards that protect the product. That must be true whether the produce is grown in California, Florida, Wisconsin or Mexico.

    We strongly applaud industry groups in different states and regions that are working to enhance local practices. Their work demonstrates the industry's commitment to do all we can to enhance safe growing and handling practices. But to build consumer trust, strong scientific standards we're developing for one region can only be successful if applied consistently across the industry.

- **Federal Oversight and Responsibility –** Second, we believe achieving consistent produce safety standards across the industry requires strong federal government oversight and responsibility in order to be most credible to consumers and equitable to producers.

  We believe that the U.S. Food and Drug Administration, which is the public health agency charged by law with ensuring the safety of the nation's produce supply, must determine appropriate nationwide safety standards in an open and transparent process, with full input from the states, industry, academia, consumers and all stakeholders. We are strong advocates for food safety standards based on sound science and a clear consensus of expert stakeholders.

  But in a situation where science tells us there can be no zero risk, and there is no cooking step for our product, the public must be able to trust in an independent, objective government body as the ultimate arbiter of what is safe enough. In the future, we must be able to stand side-by-side with government to reassure the public that together, we have done everything necessary to implement and comply with strong mandatory government standards to protect public health.

  Let me say a word here specifically about USDA's role in helping our industry enhance safety. USDA is a strong ally and offers a number of means to assist the produce industry in safely growing, handling and processing fresh produce. First, as a diverse agricultural industry, marketing orders have been an extremely useful means of setting quality standards, conducting research and promoting specific commodity groups. These orders fall under the Agricultural Marketing Service of USDA, and are increasingly being looked at as a potential means to stimulate good food safety practices as well. Growers of a commodity can come together and vote to require specific practices that then become mandatory for all growers of that commodity.

  In addition, USDA through AMS offers several auditing programs that assist the industry in measuring good agricultural practices, good handling practices, and HACCP programs in processing plants. These are good education and training programs, as well as a means to measure individual operators' understanding and implementation of food safety practices.

  We believe these programs can be very helpful, and are an important element in enhancing food safety systems. Yet, while these programs are an important means for specific sectors of the industry to enhance performance, long-term public trust requires that FDA set the most appropriate regulatory safety standards. That is simply a call that industry cannot make alone.

  And, FDA must have the ultimate responsibility to ensure that industry is complying with these standards. That does not mean that FDA has to hire 5,000 new inspectors to visit every farm in America and travel around the world. But it does mean that FDA must have relationships with other governments, USDA, and state agriculture and regulatory officials to ensure that compliance is taking place. Cooperative agreements between FDA and the states have been extremely effective in providing oversight of food safety standards.

Our analysis is that FDA has the regulatory authority today to promulgate any needed rules and regulations, issue guidance that compels industry action, enter into agreements with states to support field investigations, and generally set all necessary standards to protect the public health.

- **Commodity-Specific Scientific Approach –** Finally, we believe produce safety standards must allow for commodity-specific food safety practices based on the best available science. In a highly diverse industry that is more aptly described as hundreds of different commodity industries, one size clearly does not fit all.

  For example, the food safety requirements of products grown close to the ground in contact with soil are far different from those grown on trees. And, the large majority of produce commodities have never been linked to a foodborne disease. Every produce commodity is different, and our food safety regulatory approach must contain needed scientific flexibility to address specific commodities differently based on their unique production and handling practices.

  This will be an extremely important point in looking at produce safety. Government and industry alike must be careful that broad strokes do not result in requirements that should not apply to specific commodities, and do nothing to enhance safety. Taking a general approach would be far too easy to add regulatory costs and burdens to sectors where those requirements are unneeded, without doing anything to enhance safety where most critical.

  We support the approach currently taken by FDA to establish broad Good Agricultural Practices (GAPs) applicable to all producers at farm level. FDA's 1998 GAPs guidance continues to provide an effective roadmap for producers, and cooperative agreements with USDA and states can assure compliance with these guidelines based on today's science and as they are modified by FDA in the future to reflect increasing knowledge.

  We also support FDA's scientific approach to develop commodity-specific GAPs where there is a demonstrated need. This must be a scientific process, looking at outbreak history and potential risk factors to ensure that resources are not diluted trying to address hundreds of commodities that have never been linked to illnesses. These principles are embodied in commodity specific guidance documents that are being developed for tomatoes, melons, leafy greens and green onions, as well as FDA's already published guidance document for fresh sprouts.

- Over time, I believe the industry will be able to employ science based approaches that are just now being developed to minimize risk. Research that is just now in the formative stages will be brought forward over the next 3-4 years. As we learn more about genes that *E. coli* O157:H7 expresses to live on the surface of a lettuce leaf, we can develop mitigation strategies to prevent that expression and perhaps eliminate the bacterium. Exciting and similar research is also underway with Salmonella species and tomatoes. As we begin to understand how pathogens attach themselves to produce, we can develop new sanitation strategies to more effectively remove them in the field or at processing.

- I think the most forward looking retailers, foodservice companies and club stores will begin to work more closely with their suppliers not to dictate food safety practices but to agree on mutual standards and data requirements and performance expectations. This will ultimately help control costs, eliminate some redundancies, create focus and foster safer products.

I believe that food safety will become an integral thread in the fabric of our industry's culture. You can see it happening now starting with forward thinking growers who have stood up to embrace food safety practices. I have already described some examples of this and I have had the opportunity in the last year to attend two different food safety meetings organized by individual growers who brought in experts in *E. coli* biology and water management and quality to discuss these aspects of food safety so they could better understand how to make their operations safer.

You can see it with harvesters who have designed and built harvest equipment constructed of sanitizable materials and you can see it with processors who are investing heavily in fine tuning food safety practices, testing improved wash systems and sanitation programs and supporting industry associations on research and training programs.

We have come a long way in the last several months regarding food safety and we do have some tough road ahead. There will be more changes and pressures but, in the end, this will only strengthen our industry. We produce products that are healthy and desired by consumers and we will work together to make our products safer, restore consumer confidence and move forward. As long as we remember that people, kids, grandparents, mothers, fathers, sisters and brothers eat our products, public safety has to be our number one priority. When we use that to guide our everyday actions, we will be successful in firmly establishing and growing a culture of food safety in our industry. Thank you.

House Committee on Agriculture
Subcommittee on Horticulture and Organic Agriculture
Hearing on Safety of Fresh Produce
May 15, 2007
Mr. Joseph Pezzini
Vice President – Operations, Ocean Mist Farms

GOOD MORNING MR. CHAIRMAN. MY NAME IS JOE PEZZINI AND I AM THE VICE PRESIDENT OF OPERATIONS FOR OCEAN MIST FARMS. OCEAN MIST FARMS IS A FAMILY OWNED COMPANY BASED IN CASTROVILLE CALIFORNIA THAT HAS BEEN PRODUCING VEGETABLES SINCE 1924. WE ARE COMMITTED TO BOTH THE ART AND SCIENCE OF AGRICULTURE AND HAVE INVESTED HEAVILY IN OUR PLANT BREEDING, GROWING, HARVESTING, COOLING AND SHIPPING OPERATIONS WHICH ARE ALL STATE OF THE ART. I AM VERY PROUD TO BE ABLE TO SAY THAT OCEAN MIST FARMS HAS NEVER HAD AN OUTBREAK OF FOOD BORNE ILLNESS ASSOCIATED WITH ANY OF OUR PRODUCTS. I AM ALSO TESTIFYING ON BEHALF OF WESTERN GROWERS TODAY.

BUT NO COMPANY CAN TAKE FOOD SAFETY FOR GRANTED AND WHEN AN OUTBREAK DOES OCCUR IT IMPACTS THE INDUSTRY AS A WHOLE AND WE ALL SUFFER. IT IS INCUMBENT UPON US AS AN INDUSTRY TO DO ALL WE CAN TO PREVENT THESE OUTBREAKS AND TO ENSURE THAT OUR PRODUCTS ARE SAFE EVERY BITE, EVERY TIME.

THAT I BELIEVE IS THE FOCUS OF TODAY'S HEARING AND I WANT TO THANK YOU FOR ALLOWING ME TO PROVIDE MY THOUGHTS ON HOW THE INDUSTRY AND GOVERNMENT CAN COLLABORATE TO PREVENT FUTURE OUTBREAKS IN FRESH PRODUCE.

IN MY CAPACITY AS THE CHAIRMAN OF THE NEWLY CREATED CALIFORNIA LEAFY GREENS MARKETING AGREEMENT I BELIEVE WE ARE RAISING THE BAR FOR FOOD SAFETY IN THESE COMMODITIES AND THAT ELEMENTS OF THIS NOVEL PROGRAM CAN PROVIDE DIRECTION AND GUIDANCE AS WE BEGIN TO DEVELOP APPROACHES FOR IMPROVING FOOD SAFETY THROUGHOUT THE COUNTRY. IN ESSENCE A MARKETING AGREEMENT IS A LEGAL AGREEMENT THAT BINDS SIGNATORIES TO A COMMON PURPOSE. IN THE CASE OF THE CALIFORNIA LEAFY GREENS MARKETING AGREEMENT THAT PURPOSE IS TO CERTIFY THE SAFE GROWING, HANDLING, AND SHIPPING OF LEAFY GREEN PRODUCTS TO CONSUMERS. THIS PURPOSE IS CARRIED OUT BY THE INDUSTRY BY: 1) DEVELOPING AND AGREEING ON BASELINE GOOD AGRICULTURAL PRACTICES; 2) CONTRACTING WITH GOVERNMENT TO VERIFY THAT THOSE BASELINE PRACTICES ARE BEING MET AND 3) COMMUNICATING TO BUYERS THAT THE PRODUCTS HAVE MET THE REQUIREMENTS OF THE AGREEMENT. ALL OF THIS IS IMPLEMENTED UNDER THE PENALTY OF LAW USING INDUSTRY FUNDING.

THIS COLLABORATIVE PARTNERSHIP ON THE PART OF INDUSTRY AND GOVERNMENT, WHILE IN ITS INFANCY, HAS THREE KEY ELEMENTS THAT AS I MENTIONED BEFORE MAY BE INSTRUCTIVE FOR HOW TO MOVE FORWARD ON A NATIONAL LEVEL:

FIRST: INDUSTRY IN PARTNERSHIP WITH THE ACADEMIC COMMUNITY IS BEST POSITIONED TO DEVELOP THE BEST FOOD SAFETY PRACTICES.

THE BODY OF KNOWLEDGE AND SCIENCE BEHIND FOOD SAFETY AND THE PRACTICES THAT MAY BE UTILIZED TO REDUCE RISK IN PRODUCE OPERATIONS IS CHANGING RAPIDLY. THE INDUSTRY AND ACADEMIC COMMUNITY ARE PARTNERING TO ADVANCE THE UNDERSTANDING OF RISKS AND PATHWAYS OF CONTAMINATION IN PRODUCTION, HARVESTING AND PROCESSING OPERATIONS. WE ARE WORKING TO FILL CURRENT GAPS IN UNDERSTANDING AND DEVELOP NEW TOOLS TO ANALYZE RISK, DETECT PATHOGENS, PREVENT CONTAMINATION, SANITIZE WORK ENVIRONMENTS AS WELL AS MANY OTHER PROJECTS. ALL OF THIS EXPANDING KNOWLEDGE NEEDS TO BE RAPIDLY DISSEMINATED TO THE INDUSTRY AND INCORPORATED INTO THE BASELINE BEST PRACTICES.

THIS IS BEST FACILITATED BY INDUSTRY WHO CAN REVISE THEIR PRACTICES AND REQUIREMENTS QUICKLY AND EFFICIENTLY IF NOT BOUND BY GOVERNMENT CONSTRAINTS INHERENT IN THE DEVELOPMENT OR REGULATION.

TODAY IN CALIFORNIA OVER $4 MILLION IN INDUSTRY FUNDING HAS BEEN COMMITTED TO NEW RESEARCH AND EDUCATION EFFORTS WITH THE UNIVERSITY OF CALIFORNIA AND OTHER INSTITUTIONS.

SECOND: GOVERNMENT SHOULD PLAY A KEY ROLE IN ENSURING THAT THE INDUSTRY IS INDEED "WALKING THE TALK".

WHILE INDUSTRY AND ACADEMIA SHOULD TAKE THE LEAD ON DEVELOPING PRACTICES AND PROCESSES TO PREVENT CONTAMINATION, THE GOVERNMENT CAN AND SHOULD PLAY A FUNDAMENTAL ROLE IN VERIFYING THAT THE INDUSTRY IS INDEED IMPLEMENTING THE BEST PRACTICES THROUGHOUT THE SUPPLY CHAIN. THE SOLUTION AS WE HAVE IMPLEMENTED IN THE LEAFY GREENS MARKETING AGREEMENT IN CALIFORNIA IS TO HAVE USDA TRAINED INSPECTORS EMPLOYED BY THE GOVERNMENT DO THE AUDITS. IT IS MY OPINION THAT WITHOUT DIRECT OVERSIGHT OF OUR INDUSTRY BY GOVERNMENT WE WILL DO LITTLE TO REBUILD AND RESTORE CONFIDENCE IN OUR INDUSTRY AND PRACTICES.

THERE IS ANOTHER POTENTIAL BENEFIT TO A GOVERNMENT ROLE IN VERIFYING THAT BASELINE BEST PRACTICES ARE UNIVERSALLY EMPLOYED. THAT BENEFIT WOULD BE ASSISTING THE INDUSTRY IN MOVING TO A STANDARDIZED SET OF BEST PRACTICES. THE CURRENT PARADIGM IS ONE IN WHICH THIRD PARTY AUDITORS MARKET THEIR OWN UNIQUE FOOD SAFETY AUDITS TO BUYERS. THE SUPPLIERS BEAR ALL THE COSTS AND FREQUENTLY HAVE TO EMPLOY SEVERAL DIFFERENT SYSTEMS IN ORDER TO QUALIFY TO SELL TO DIFFERENT BUYERS. THE LEAFY GREENS MARKETING AGREEMENT PROVIDES A STANDARDIZED AUDIT BASED ON THE BEST PRACTICES DEVELOPED BY INDUSTRY AND AUDITED BY GOVERNMENT.

THIRD: INDUSTRY AND GOVERNMENT SHOULD COLLABORATE TO ENFORCE COMPLIANCE AND FACILITATE RECOGNITION IN THE MARKETPLACE.

THE LEAFY GREENS MARKETING AGREEMENT IN CALIFORNIA CURRENTLY ALLOWS HANDLERS TO SIGN UP VOLUNTARILY. WHILE WE HAVE HAD GREAT SUCCESS AND THE CURRENT SIGNATORIES REPRESENT ALMOST 100 PERCENT OF THE LEAFY GREENS PRODUCED AND SOLD FROM CALIFORNIA WE STILL HAVE A FEW HANDLERS WHO HAVE NOT YET SIGNED THE AGREEMENT. TO ADDRESS THIS SITUATION WE ARE RESEARCHING THE FORMATION OF A MARKETING ORDER FOR HANDLERS TO ENSURE THAT ALL COMMERCIALLY HANDLED LEAFY GREENS ARE INCLUDED IN THE CALIFORNIA SYSTEM.

COMPLIANCE WITH THE PROGRAM WOULD BE COMMUNICATED IN THE MARKETPLACE USING A MANDATORY SERVICE MARK WHICH WOULD BE PLACED ON SALES DOCUMENTS SUCH AS INVOICES, BILLS OF LADING AND CERTIFICATES OF SALE. IN ADDITION WE WOULD ALLOW THE USE OF A CERTIFICATION MARK WHICH WOULD BE PLACED ON PACKAGING INCLUDING THOSE OFFERED AT THE CONSUMER LEVEL.

THE MARKS WOULD ALLOW SUPPLIERS TO COMMUNICATE THAT THEIR PRODUCTS AND PRACTICES HAVE BEEN VERIFIED BY GOVERNMENT AUDITORS TO HAVE MET THE REQUIREMENTS OF THE MARKETING AGREEMENT (OR ORDER). OUR COLLECTIVE INDUSTRY APPROACH SHOULD BE TO ASSURE THAT ALL PRODUCE IS PRODUCED, HANDLED AND OFFERED FOR SALE USING THE BEST PRACTICES.

CONCLUSION

THE LEAFY GREENS MARKETING AGREEMENT IN CALIFORNIA IS A MODEL FOR HOW WE CAN ADDRESS FOOD SAFETY ON A NATIONAL LEVEL, WHICH WE MUST MOVE TOWARD. IT CAN SERVE AS A TEMPLATE FOR OTHER COMMODITIES AND PRODUCER GROUPS TO PURSUE. THE MARKETING AGREEMENT MESHES WELL WITH THE GOALS AND OBJECTIVES OF THE 2004 PRODUCE SAFETY ACTION PLAN ISSUED BY THE FDA.

IN CALIFORNIA WE HAVE CHOSEN TO PURSUE THIS PATH WITH HANDLERS AS THEY ACCOUNT FOR ALL MAJOR COMMERCIAL PRODUCTION AND SALES OF FRESH LEAFY GREENS. IN ARIZONA, HANDLERS ARE CURRENTLY PURSUING THE SAME TRACK. BUT NOT EVERY STATE HAS THE AUTHORITY FOR MARKETING AGREEMENTS OR ORDERS. THE LEAFY GREENS PRODUCERS IN CALIFORNIA AND ARIZONA WHICH CONSTITUTES MORE THAN 90 PERCENT OF THE US CROP WOULD LIKE TO PURSUE THIS SAME PATHWAY ON A NATIONAL FOCUS. WE WOULD STRONGLY RECOMMEND THAT THIS COMMITTEE CONSIDER LEGISLATION TO ALLOW FOR HANDLER BASED MARKETING AGREEMENTS AND ORDERS ON A NATIONAL LEVEL.

WHILE WE ARE PROUD OF OUR FOOD SAFETY RECORD WE REMAIN RESOLUTE IN OUR COMMITMENT TO DO EVERYTHING FEASIBLE TO PREVENT CONTAMINATION AND ILLNESS AND WE LOOK FORWARD TO WORKING CLOSELY WITH THIS COMMITTEE TO ENSURE THAT WE ARE EMPOWERED TO MAKE CERTAIN WE DELIVER PRODUCTS THAT ARE SAFE EVERY BITE, EVERY TIME.

Statement of
Martha R. Roberts
University of Florida, Institute of Food and Agricultural Sciences
On Behalf of Reginald L. Brown
Executive Vice President, Florida Tomato Exchange
For the
U.S. House of Representatives
Agriculture Committee, Subcommittee for Horticulture and Organic Agriculture
May 15, 2007

My name is Martha Roberts, Personal Assistant to the Director of the Florida Experiment Station who is also the Dean for Research of the Institute of Food and Agricultural Sciences at the University of Florida. I am here today representing Reggie Brown, Executive Vice President of the Florida Tomato Exchange. I have worked in the food safety arena for over 35 years and I have been working diligently with the Florida tomato industry over the past few years as they worked to formulate and implement food safety practices. When Mr. Brown was out of the country today I was asked to represent him.

The fresh tomato industry in Florida is the largest in the United States and supplies 45 to 50% of all domestic tomatoes to American consumers. The Florida industry actively responded on several fronts after they received a letter in 2004 directed from FDA/CFSAN to growers, packers and shippers expressing FDA's concerns about fresh lettuce and fresh tomatoes. Not only did Florida work to respond; the Florida Tomato Exchange also worked with other tomato groups throughout North America as a member of North American Tomato Trade Working Group (NATTWG) including the U.S., Canada and Mexico to address these concerns. Currently we are working with the

Food Safety Division of Florida Department of Agriculture and Consumer Services (the regulatory agency in Florida responsible for food safety) to establish a mandatory state regulation of food safety for tomatoes in Florida. The State Legislature passed the needed legislation and it awaits the Governor's signature. This mandatory regulatory program will be the first of its kind in the country. These regulations are being drawn from a number of guidelines including, the 1998 *FDA Guide to Minimize Microbial Food Safety Hazards for Fruit & Vegetables*; the 2006 NATTWG: *Commodity Specific Food Safety Guidelines for the Fresh Tomato Supply Chain and others*.

To accomplish this, we have actively worked with FDA, USDA and FDACS and others across the country to actively explore and aggressively proceed in our efforts to establish the most effective science-based regulations to address the food safety risk factors for fresh tomatoes. Regulations developed with sound science and common sense proved the best solution.

The main goal must be to prevent food borne illness. Addressing this issue through science based sound regulation allows for collaborative efforts to maintain public confidence in the purchase and consumption of fresh tomatoes. The impact of the loss of public confidence is extremely high and will result in injury to all segments of the public and the tomato industry.

Every segment of the supply chain must evaluate their specific risk factors and the necessary policies and procedures to manage them. While the risks are universal, the mitigating processes and procedures must be established with consideration for specific

production, packing and distribution systems and geographical areas as they exist throughout the entire supply chain. Practices that pose significant risk of microbial contamination should be evaluated and mitigation practices established to reduce them. Responsible production, packing and handling procedures based on guidance documents available to the industry result in virtually all tomatoes posing no risk to public health. The focus needs to be on the relatively rare exceptions when microbial contamination occurs. And, most importantly we need the science – we need the research on which to base these decisions.

The establishment of uniform science-based risk evaluations and mitigation processes and procedures throughout the entire supply chain is essential to providing the safest food supply system possible. Nationally mandated and monitored regulation presents the best opportunity for accomplishing the goal of overall risk reduction. Such a program must be developed based on commodity specific systems that implements risk reducing process and procedures that address legitimate science based food safety concerns. The industry in both Florida and California has begun those efforts to develop functional Good Agricultural Practices (GAPs) and Best Management Practices (BMPs) for tomatoes.

Tomatoes, due to the unique market structure of repacking and distribution, present real challenges to the traceback process. Rapid accurate traceback is essential to all interest and should be pursued aggressively when outbreaks occur. Mandatory traceback

capability is the only acceptable solution to this issue. Positive Lot Identification (PLI) throughout the system that minimizes commingling is a part of the Florida program and must become the requirement if traceback is to be used to limit injury to the public and to the industry. Rapid use of this tool can provide valuable information on the specific route through which microbial contamination occurs.

Mandatory compliance to GAPs and BMPs through a national program of regulation and regulatory oversight can significantly enhance the risk reduction provided by these practices. The risk for fresh tomatoes will not go to zero with current technology but significant reductions can be achieved with such an effort. Direct farm marketing of small quantities of tomatoes poses a very limited risk to public health. Such activities could be carefully exempted from portions of such regulations to avoid unreasonable impacts provided significant circumvention would not be encouraged. After all, it is fundamentally in the interest of all participants in the industry to produce the safest tomatoes possible.

To enable this cooperative effort with other states producing tomatoes, the University of Florida cosponsored a Tomato Food Safety Forum in November 2006 in cooperation with the Florida tomato industry. We brought together the federal regulators, the Commissioners of Health and Agriculture as well as researchers and industry in the 7 main tomato producing states in the eastern U.S. We had the owners and principals of over 90% of the U.S. fresh tomato market participating. We are following through on recommendations of this forum: the Association of Food and Drug Officials has been

asked to form a group to establish a national uniform model code for produce safety; we have increased communication and reports of applicable published scientific research to all parties involved (see http://research.ifas.ufl.edu/tomato); and the University of Florida held a 2 day workshop with the Joint Institute of Food Safety and Applied Nutrition (JIFSAN) in Maryland in late February where researchers around the country identified and prioritized the gaps in scientific information that need to be filled to enable us to protect the tomato food supply (http://www.jifsan.umd.edu/tomato_wkp2007.htm). For the record, I would like to add the ten *High Priority Research Needs* from the Tomato Safety Food Safety Research Needs Workshop held in College Park, Maryland, February 21-22, 2007.

In summary, the Florida tomato industry, along with other tomato groups such as the California Tomato Farmers are proceeding on a path to improve the overall food safety environment for tomatoes. This can be accomplished with good science; common sense and cooperation of government and industry. I appreciate the cooperation and ongoing discussions with both USDA and FDA on this critical issue. While we strongly support federal efforts to mandate regulation, in Florida we are not waiting for these to develop but are actively enhancing the food safety of the tomatoes we produce. Thank you for the opportunity to express our thoughts on these important issues.

Tomato Safety Research Needs Workshop
February 21-22, 2007
Wiley Building, College Park, Maryland

High Priority Research Needs

Are there alternate processing technologies (particularly 'dry' processing systems that can be used to reduce either the presence or spread of microbiological contamination?

- Use of dump tanks, flume systems and "wet" packing of tomatoes represent unique challenges in terms of potential cross contamination of both product and the packing environment, potential infiltration of the tomatoes, and the need to maintain careful control of water temperature and antimicrobial levels. Lessons learned from other foods, including other fruits and vegetable, show that reducing the exposure of foods to excess amounts of water can be an effective means of reducing contamination. Additionally, reduced use of water provides a means for reducing concerns associated with water supply and disposal issues. The research is needed to determine if moving to less water-intensive packing procedures for tomatoes is feasible and could lead to reduced risk of contamination.

Are specific seasons, microclimates, or weather events associated with contamination of tomatoes in the field?

- Preliminary epidemiological and field investigations suggest that specific seasonal and microclimate environmental conditions, as well as weather events, can lead to increased risk of contamination of tomatoes with human pathogens. However, these observations have not been verified systematically, nor have the mechanisms by which these factors contribute to susceptibility to contamination been established. Potentially, the identification of such risk factors could lead to practical guidance in terms of harvest procedures, planting location, and post-harvest packing/processing. Such knowledge would be an important determinant in the development and implementation of different intervention strategies.

What vectors and vehicles are important in transmitting pathogens to tomato plants and fruits? What are the mechanisms of pathogen movement?

- A number of potential scenarios have been proposed by which tomatoes become contaminated either in the field or during subsequent harvesting and packing; however, to date the relative importance of these vectors and vehicles have not been established. Without such knowledge, the science-based selection of risk mitigation strategies and intervention sites and technologies is not possible and the industry and FDA are forced to use much less focused and cost effective umbrella approaches to hazard control.

How long can pathogens persist in tomato fields, in plant waste, chemical sprays, etc.?

- Critical to making informed decisions regarding commodity specific good agricultural practices that will lead to improved microbiological safety of

tomatoes is an improved understanding of the microbial ecology of the farm environment. In particular, an improved understanding of survival and persistence in the farm environment is critical to the assessment of a particular farm for risk, the persistence of *Salmonella* in adjacent environmental or animal reservoirs, and the development and timing of on-farm interventions.

Are bodies of water in close proximity to tomato fields significant reservoirs for pathogen contamination of tomatoes? How are the populations of pathogens in the soil and water related?

- A series of initial studies have suggested that water in the primary agricultural environment may be an important source of *Salmonella* for tomatoes. However, these studies have not established the relative importance of the water sources, the effective physical separation distances needed to prevent the transfer of Salmonella from the bodies of water in the environment, and potential means for preventing those transfers. This information is critical for developing potential intervention technologies and the implementation of improved tomato-specific GAPs.

What are the cooling and cold chain requirements (aka temperature management) that are needed to prevent growth of pathogens on tomatoes?

- Past research has clearly identified the potential of tomatoes to support the growth of *Salmonella* in the pulp if the fruit is held at temperatures that support growth. This is particularly true when tomatoes are sliced. However, there is little information available to assess what portion of the microbiological food safety risks associated with tomatoes is attributable to inappropriate temperature management (both too warm and too cold). This information is critical to developing reasonable product pathway risk assessments for tomato and tomato products, the articulation of enhanced GAPs and GMPs, and the development of "secondary barriers to growth" of *Salmonella* in tomato products at increased risk (due to the ability of tomatoes to support the growth of the pathogen).

What proportion of tomato producers have implemented GAPs, and to what extent? What are the barriers to GAPs implementation?

- Reduction in the risk of a food serving as a vehicle for *Salmonella* infections is dependent not only on the identification of effective mitigation strategies but also on the extent to which these strategies are consistently implemented. In the case of tomato production, this reflects the extent to which producers and packers are adhering to recommended GAPs and related GMPs. At this stage, it is difficult to determine whether ongoing tomato outbreaks are due to non-adherence to existing GAPs or whether these GAPs are insufficient to control key risk factors. Determining the adequacy and adherence to GAPs and GMPs, and differentiating between them, is critical to making decisions on future food safety strategies, and the need for more research and more oversight. The ability to measure the adherence to GAPs and GMPs is critical to effective priority setting, risk

assessments, education programs, and consumer outreach initiatives. This information can lead to development of more effective interventions.

What is the relative importance of internalization vs. surface contamination of tomatoes in the field?

- The selection of effective post-harvest interventions to reduce *Salmonella* associated with tomatoes and tomato products is dependent on understanding the location of the microorganisms on or in the fruit. Most antimicrobial treatments based on surface application are ineffective for internalized microorganisms. Thus, if contamination is largely limited to the surface of the fruit, surface treatment may be sufficient as an intervention technology. Conversely, extensive internalization will require the development of alternative technologies. This information is needed to determine which interventions are likely to be effective and is thus critical to the direction of future research efforts.

Are there specific microbial serotypes or genotypes associated with tomatoes? Are certain varieties of tomato more likely to carry pathogens?

- Initial studies have suggested that there may be substantial differences in the ability of different *Salmonella* strains to contaminate, survive and growth on tomatoes. The identification of the factors contributing to this differential response will provide information needed for assessing the risk of tomatoes serving as a vehicle for *Salmonella* and possibly lead to targeted interventions strategies.

Are there effective approaches that can be used to inactivate internalized or attached pathogens? What interventions will reduce the risk of contamination?

- Current approaches for reducing the presence of *Salmonella* on tomatoes are largely restricted to those capable of reducing the pathogen on the surface of the fruit. Most of these treatments are not effective against internalized *Salmonella* and they are likely to be less effective against the pathogen if embedded in a biofilm.

Produce Marketing Association

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Thank you for this opportunity to present our thoughts on the safety of fresh produce. Produce Marketing Association is the largest association representing fresh produce marketers worldwide across the entire supply chain – from growers and processors through wholesalers and distributors to supermarkets and restaurants. This unique supply chain orientation gives PMA the benefit of a 360-degree view of the world of produce.

Also, as a founding member of the Partnership for Food Safety Education – which involves federal agencies including FDA and CDC as well as food industry and consumer groups – we are committed to ensuring that we always see produce safety as a continuum stretching from farm to table.

I commend the Horticulture and Organic Agriculture Subcommittee for convening this hearing to address produce safety.

September 14, 2006 was not the beginning of the produce industry's commitment to food safety. That commitment started generations ago with American farmers whose tradition of excellence forms the very foundation of today's highly sophisticated produce industry.

We also recognize that the growth and complex nature of the produce supply chain in recent decades demands that we approach food safety as a collective responsibility. Industry has spent tens of millions of dollars to employ the best and most recent scientific knowledge to protect our products and our customers. We've demonstrated commitment to good agricultural practices on our farms, good manufacturing practices in our processing plants, and ongoing education for food handlers and the public.

PMA's latest member survey just concluded makes that abundantly clear once again. Consumer confidence in our products is as fragile as the tender leaves of the freshest salads. We never have and we never will take that confidence for granted. Doing so would be irresponsible to the public and harmful to our own livelihoods. We have a vested interest in doing what is right – every bite, every time.

We helped develop the industry precursor to the Good Agricultural Practices that have been in place since 1998. We've prepared our members through training and education so that they would have robust food safety programs. We've collaborated with the federal agencies, particularly the Center for Food Safety and Applied Nutrition at the Food and Drug Administration. We have participated in industry coalitions, including the one we formed with United Fresh Produce Association in the summer of 2004 to

address commodity-specific food safety guidance together with FDA. Working with the Canadian Produce Marketing Association, we've been at the forefront of adopting information technology that facilitates rapid tracebacks – including a pilot program and a best practices document.

Our efforts have not been limited to industry. Through the Partnership for Food Safety Education, in 2004 we funded guidelines to help consumers handle fresh produce safely. Consumer education is important, and we welcome and encourage your support for these ongoing education efforts. Industry and government must do their parts to deliver safe, nutritious fruits and vegetables, and consumers have a role to play in food safety as well. PMA also regularly tracks consumer confidence in fresh produce nationwide through ongoing research.

PMA takes its role as an industry leader seriously. We are committed to doing whatever it takes to protect public health and rebuild consumer confidence in the delicious, healthful products our members grow and market. That is a goal I know the subcommittee shares with us, a goal that is essential in the fight to improve the nutritional health of our increasingly over-weight and under-exercised public.

Let me highlight what PMA has done in recent months and what is being planned:

We have committed two and three quarter million dollars in additional resources to food safety.

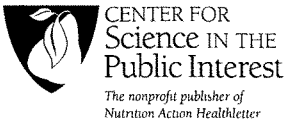
- Last month, at the University of California in Davis, PMA was joined by California Secretary of Agriculture A.G. Kawamura as we launched the Center for Produce Safety at Davis under the umbrella of the Western Institute for Food Safety and Security. Aimed at coordinating, funding, and disseminating research to enhance the safety of fresh produce worldwide, this Center will bring together experts from industry, government, and academia to find answers to how our products can get contaminated and what we can do to stop that. We were delighted that we were joined by officials from federal and state government, including FDA, as we launched the Center.
- PMA has committed two million dollars specifically to help launch the Center for Produce Safety – and we fully expect that more will follow as we see results. Those funds have already been matched with another two million by one industry company and we expect more to follow. The State of California has committed another half million dollars. I urge you to look very closely at these commitments from industry, the state, and the university and to do everything you can to support this effort to improve our understanding of produce safety and supply answers to critical questions. Let me be clear about our goal: We intend to create nothing less than a world-class center of excellence for produce safety research and outreach.
- We are also committing funds for enhanced education and training for all parts of the supply chain, including two hundred thousand dollars to be used in training growers on the best Good Agricultural Practices.

We applaud the work of other organizations, including the successful effort to establish a California Lettuce and Leafy Greens Marketing Agreement, founded on strong, science-based food safety protocols and state verification.

In addition to these efforts I've outlined, we offer the following recommendations to address fresh produce safety:

- No one can be everywhere at all times. Food safety efforts must be prioritized based on risk. FDA has identified those commodities more likely to be associated with foodborne illness outbreaks, and efforts should be focused there.
- We need to have a strong Farm Bill that addresses the interests of the specialty crop industry, including fresh fruits and vegetables. We need food safety research. We also need technical assistance for companies that need it to maximize their food safety capabilities. The actions Congress takes on the Farm Bill will have direct implications to fresh produce safety.
- We all need to be specific in our language when talking about produce safety. We sometimes speak of produce as if it is one industry, and in some ways it is. But when we are talking about risks, there are only a few commodities that FDA has identified as more likely to be associated with foodborne illness outbreaks. Consumer confidence in fresh produce overall was damaged by the outbreaks last fall, even though the outbreaks clearly were linked to a handful of items. To properly communicate with consumers, communications should be specific about products in question and not portray all produce as risky. There are hundreds of commodities that have never been associated with a foodborne illness outbreak, yet they are all indicted whenever consumers hear the term "produce" rather than more specific language.
- As I said, we applaud California's efforts to create a marketing agreement for lettuce and leafy greens, and we believe that those efforts as well as a host of others are all important components to enhance produce safety. PMA believes that the initiative in California needs to be followed by a robust federal effort that is verifiable and applies to any products grown in the U.S. or abroad. We need that to promote public confidence and avoid a patchwork approach. We should have commodity-specific protocols based on sound science and prioritized by risk.
- I mentioned traceability earlier. We plan to partner with federal food safety authorities to better define the specific needs for traceability that are not currently being met by industry practices. We have a strong foundation in the work already done in the United States and Canada to define traceability best practices. We want to work hand in hand with regulators to target what it is that industry can do to better meet needs and expectations moving forward. Our goal is to create the tools so industry can quickly help narrow the scope of any future outbreak.
- Our first goal, however, is public health. It is the foundation of all of our efforts -- our food safety efforts of the past 20 years, our focus on consumer education and consumer confidence, our commitment of financial and human resources to this issue, and our dedication to collaborate with everyone who can advance produce safety. It's our livelihood, and it's our moral obligation.

Again, I thank you for this opportunity to speak here today. I'm happy to answer any questions and look forward to working closely with you in the future.



Addressing Modern Hazards in the Food Supply:
Ensuring the Safety of Fresh and Fresh-Cut Produce

Testimony of Caroline Smith DeWaal
Director of Food Safety
Center for Science in the Public Interest
before the
United States House of Representatives
Subcommittee on Horticulture and Organic Agriculture

Washington, DC
May 15, 2007

My name is Caroline Smith DeWaal, and I am Director of Food Safety for the Center for Science in the Public Interest (CSPI). CSPI is a nonprofit health advocacy and education organization focused on food safety, nutrition, and alcohol issues. CSPI is supported principally by the 900,000 subscribers to its *Nutrition Action HealthLetter* and by foundation grants. We accept no government or industry funding.

The Center for Disease Control and Prevention (CDC) estimates that 76 million Americans get sick, 325,000 are hospitalized, and 5,000 die from foodborne hazards each year in the United States. According to CSPI's database of 5,000 foodborne illness outbreaks, fruits and vegetables caused 13 percent (639) of outbreaks with an identified food and pathogen and nearly 21 percent (31,496) of the associated illnesses between 1990 and 2004. Norovirus, *Salmonella* and *E. coli* 0157:H7 illnesses have been traced to a wide variety of produce, including lettuce, salads, melons, sprouts, tomatoes, and many fruit- and vegetable-containing dishes.[1] In fact, foodborne illnesses from these produce outbreaks surpassed those from all other foods, including

[1] Center for Science in the Public Interest, *Outbreak Alert!* (Revised and updated – 2006). This database of foodborne illness outbreaks is maintained by CSPI. It contains 15 years of data, from 1990–2004. Outbreaks are classified by both food vehicle and disease-causing agent. Food is classified by which agency regulates the product. During the years 1990 – 2004, there were 3,323 foodborne illness outbreaks from FDA-regulated foods (e.g. seafood, produce, eggs, milk); USDA regulated-foods (e.g. beef, poultry, pork) caused 1,344 outbreaks.

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beef, chicken and seafood. Equally troubling is that the average size of these outbreaks is larger than outbreaks from other foods, thus affecting more people. It is time for Congress to take action to better ensure the safety of our food supply and to protect Americans from these preventable illnesses and deaths.

Fall 2006 Produce Outbreaks

A series of produce outbreaks in the fall of 2006 was a wake up call for the public about the critical state of produce safety. Beginning in August, a nationwide outbreak of *E. coli* 0157:H7 from bagged fresh spinach sickened 205 and killed at least three.[2] Then in late September, *Salmonella* found in tomatoes sickened 183 restaurant patrons in 21 states throughout the nation. *E. coli* O157:H7 appeared in produce once more before the year's end when two separate incidents of contaminated shredded iceberg lettuce sickened a total of 152 individuals at chain restaurants Taco Bell and Taco John.

While many produce outbreaks occurred prior to 2006, the spinach outbreak provided the smoking gun that sourced the cause all the way to the farm. The Food and Drug Administration (FDA) traced the exact strain of the *E. coli* bacteria to a California spinach farm, finding it in nearby manure piles, in a creek and even in a wild pig.[3] These findings definitively proved that the *E. coli* contamination that sickened so many people started right on the farm.

The Case for Produce Regulation

While the produce outbreaks of fall 2006 have triggered a wake-up call for produce safety, large-scale produce outbreaks are not a new phenomenon in this country. Outbreaks from produce, both imported and domestic, have resulted in deaths, illnesses, both mild and severe, and great market disruptions. Domestic produce is largely unregulated, and FDA has done little more than coax, request, and warn producers to improve produce safety.

- In February 2004, following fourteen outbreaks linked to lettuce and tomatoes, FDA sent a letter to firms that grow, pack, or ship fresh lettuce and/or fresh tomatoes asking them to review their current operations in light of the agency's guidance.[4]

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[2] FDA News. "FDA Finalizes Report on 2006 Spinach Outbreak" March 23, 2007. <http://www.fda.gov/bbs/topics/NEWS/2007/NEW01593.html>

[3] ProMED-mail. E. coli O157, spinach – USA (multistate)(20). ProMED-mail 2006; 27 October: 20061027.3067. February 23, 2007. <http://www.promedmail.org>

[4] FDA, CFSAN (2004). *Letter to Firms that Grow, Pack, or Ship Fresh Lettuce and Fresh Tomatoes.* Feb. 5, 2004. March 5, 2007. <http://www.cfsan.fda.gov/~dms/prodltr.html>.

- After seeing 18 outbreaks since 1995 involving *E. coli* 0157:H7 in lettuce, FDA sent another letter in November 2005 specifically to California lettuce firms outlining actions the industry should take in order to ensure lettuce safety.[5]
- At a June 2004 public meeting to discuss the proposed Produce Action Plan, Dr. Robert Gravani of Cornell University's Food Science Department reported that a Good Agricultural Practices Survey of Farm Workers in New York State showed that approximately 30 percent of producers were unaware of Good Agricultural Practices (GAPs) for their particular crop. The numbers show the need for a mandatory regulatory program for fresh produce and the same should go for fresh-cut produce.
- A qualitative study examining food safety practices used by Iowa produce growers was conducted by researchers from Iowa State University. Observational and in-depth interview techniques were used to assess current food safety practices at each operation. Producers were conscious of product safety, but levels of awareness about risk varied. Areas that needed improvement included improved hand washing facilities and practices; provision of employee training; and the development of cleaning and sanitizing protocols for both products and food contact surfaces.[6]

Imported Produce

While it is important that we clean up our domestic produce industry, we must also look to improving standards in the countries that export produce to the U.S. as well. Americans seek a variety of fresh fruits and vegetables year-round, and supplying this demand has greatly increased the importation of produce from around the world. In fact, one-quarter of our fruit, both fresh and frozen, is imported.[7] A troubling realization is that imported fruits and vegetables have caused numerous large and sometimes deadly outbreaks.

Imports of berries, melons and even green onions, from areas with substandard hygiene practices have sickened thousands of Americans in the last ten years. In 1996 and 1997, thousands of people became ill in both the U.S. and Canada from the parasite, *Cyclospora,* on

[5] FDA, CFSAN (2005). *Letter to California Firms that Grow, Pack, Process, or Ship Fresh and Fresh-cut Lettuce.* November 4, 2005. March 5, 2007. <http://www.cfsan.fda.gov/~dms/prodltr2.html>.
[6] J Ellis, et al. (2005). "Assessing On-farm Food Handling Practices of Iowa-grown Produce and Eggs in Regard to Food Safety." *Food Protection Trends,* 25(10): 758-61.
[7] Bridges, A. "Imported food rarely inspected." *Washington Post.* April 16, 2007.

raspberries grown in Guatemala.[8] Then in 1997, over 256 cases of Hepatitis A were associated with the consumption of frozen strawberries imported from Mexico and distributed through a U.S. Department of Agriculture (USDA) school lunch program in several states.[9]

Cantaloupe imported from Mexico caused three multistate outbreaks of *Salmonella* serotype Poona infections in the spring of consecutive years during 2000-2002. FDA traceback investigations of the cantaloupe farms identified numerous hygiene failures including contaminated irrigation and processing water and poor hygienic practices of handlers.[10] In the fall of 2003, raw green onions from Mexico spread Hepatitis A to hundreds of people in four different states. In Pennsylvania alone, 555 people became ill from Hepatitis A after eating salsa with the contaminated green onions at a single restaurant.[11]

Most of these outbreaks were traced to imported fruits and vegetables that were grown or processed under substandard and unhygienic conditions. In addition to imposing standards on domestic growers and processors, FDA must ensure that the fruits and vegetables being imported into our country are produced under equally rigorous standards.

Consumer Confidence

Consumer confidence in the safety of the food supply, and in FDA's ability to protect consumers, has declined steadily in recent years. According to the Coalition for a Stronger FDA, a Harris Poll showed that consumer confidence in FDA plummeted by 25 percent in the last six years, with 20 percent of that decline occurring between 2004 and 2006. Those who thought FDA was doing an "excellent" or "good" job went from 61 percent in 2000 to 36 percent in 2006 while nearly 60 percent of respondents ranked FDA as doing only a "poor" or "fair" job.

Consumers want to eat fresh vegetables and fruits and we love the convenience of bagged salads that allow us to have a salad on the table in few minutes. But consumer confidence in the safety of these bagged products has certainly declined since the fall.[12] A January 2007 survey by

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[8] J Hoffman *et al* (1996). "Update: Outbreaks of *Cyclospora cayetanensis* Infection – United States and Canada, 1996." July 19, 1996. *MMWR* 45(28): 611-612.

[9] Centers for Disease Control (1997). "Hepatitis A Associated with Consumption of Frozen Strawberries—Michigan, March 1997." *MMWR*. 46(13): 288-295.

[10] SM Anderson *et al.* (2002) "Multistate Outbreaks of *Salmonella* serotype Poona Infections Association with Eating Cantaloupe from Mexico—United States and Canada, 2000-2002." November 22, 2002. *MMWR*, 51(46);1044-1047.

[11] V Dato *et al.* (2003) "Hepatitis A Outbreak Associated with Green Onions at a Restaurant—Monaca, Pennsylvania, 2003." *MMWR,* 52(47): 1155-1157.

[12] In November 2006, the Food Policy Institute at Rutgers University conducted a telephone survey of 1,200 adults to assess consumer attitudes on bagged leafy greens. The survey found that consumers were confused over which products were recalled and that some consumers were hesitant to resume consumption of bagged leafy greens.

the Food Marketing Institute (FMI) reported declines in consumer confidence in supermarket and restaurants foods.[13] The survey also reported that 38% of consumers stopped buying certain products; 71% of these consumers stopped buying spinach and 16% stopped buying lettuce. The spinach outbreak had as many fatalities as Jack in the Box hamburger outbreak of 1992. It may prove to be a tipping point for consumer confidence – not only in FDA but in the food it regulates – unless the industry and the government act quickly to provide solutions to the risks that are now so evident. Consumers want FDA to put in place a regulatory system that will prevent these outbreaks from occurring.

The American public wants safe food. A 2006 poll from the National Center for Food Protection and Defense at the University of Minnesota revealed that U.S. residents believe that for every $1 spent to protect against a terrorist attack from an aircraft, $1.13 should be spent to protect America's food supply.[14] Unfortunately, these sentiments have not translated into a budget reality.

A Roadmap to Recovery

Fresh fruits and vegetables are at the center of a healthy diet, so it is critical that steps are taken to improve their safety. FDA should consider emergency regulations requiring all fruit and vegetable producers and processors to focus on the hazards associated with their products and have written plans in place to identify where contamination is likely to occur and how to address it. This approach is appropriate for both large and small growers and processors. It targets resources to critical areas and reduces risk by using prevention. The FDA should adopt mandatory hazard control programs for farms and fruit and vegetable processors. These programs should address all major sources of contamination, including the following areas:

Manure: The grower must manage the application of manure to ensure that it does not contribute to the contamination of crops, including limitations on the crops where and the times when it may be applied.

Cutie, Cara Ph.D., et al, *Public Response to the Contaminated Spinach Recall of 2006.* Food Policy Institute, Rutgers University. (February 5, 2007).

[13] Food Marketing Institute. "FMI Consumer Trends 2007: Confidence in Food Safety Down, Energy Costs Changing How People Shop." *News Release.* May 7, 2007. <http://fmi.org/media/mediatext.cfm?id=873>

[14] Stinton TF, et al. "How Should America's Anti-Terrorism Budget Be Allocated? Findings from a National Survey of Attitudes of U.S. Residents about Terrorism." The Food Industry Center, University of Minnesota. March 2006.

Water: Growers and producers should ensure that the water supply used for irrigation and in food processing plants is suitable for its intended use. Growers should assess the microbial and chemical quality of the water used in primary production.[15]

Hygiene: Growers and processors should ensure that employees have close access to bathrooms and that handwashing facilities are visible to supervisors. Employees with direct and indirect access to the production areas should be trained in preventive controls that will help to eliminate or minimize contamination of produce.

Sanitation: Processors should establish mandatory standard operating procedures for sanitation, including cleaning procedures for equipment, storage areas, air systems, and water storage areas.

Traceback: Processors should mark packaging to ensure easy traceback when fruits and vegetables are implicated in an outbreak. Package markings should be specific enough to extend all the way back to the farm/farms of origin.

Adoption of mandatory regulatory requirements is the best way to ensure that growers and others in the produce supply chain address the risks inherent in the production of fresh produce. FDA should also regularly conduct random inspections of farm fields and facilities that process produce, prioritizing by size and risk potential. Where states or third party auditors are being used, FDA should oversee audits and exercise more rigorous enforcement actions, including product seizure and criminal sanctions whenever adulterated products are sold.

FDA's Budget Problems

Unfortunately the solution to cleaning up the produce industry is not as simple as imposing regulations. Steps taken by industry players, such as the Western Growers Association, are important first steps because FDA currently lacks the funding and authority to act on its own. But FDA alone is empowered to enforce uniform standards across growers in all states and importing countries.

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[15] United Nations Codex Alimentarius Commission (2003). *Codex Code of Hygienic Practice for Fresh Fruits and Vegetables. Section 3.2.1.1.* November 15, 2006. <http://www.codexalimentarius.net/download/standards/10200/cxp_053e.pdf>See also: Beuchat LR (1998). "Surface decontamination of fruits and vegetables eaten raw: A review." *Food Safety Issues.* World Health Organization.

Last fall's produce outbreaks are just the latest symptom of an agency that is overwhelmed by responsibility, but lacks the staff and resources to function effectively. The agency responds to crisis after crisis rather than preventing them. Current FDA funding shortfalls have reached a critical level and budget cuts have left the agency with fewer inspectors, even as their workload continues to increase. In fact, since 1972 inspections conducted by the FDA declined 81 percent. Since 2003, the number of FDA field staff dropped by 12 percent and between 2003 and 2006, there was a 47 percent drop in federal inspections.[16]

In 2006, FDA's food program had a funding shortfall of $135 million, which an FDA budget official described as equivalent to a 24 percent budget cut.[17] This means that many other parts of the agency's responsibilities are just not getting attention – things like obesity, dietary supplements, and oversight of new food technologies. In addition, funding shortfalls do not allow the FDA to develop more modern testing technologies and leave the U.S. at a competitive disadvantage compared to other developed countries.

Equally important is the fact that the federal agencies' food safety expenditures are disproportionate to the risk posed by the foods they regulate. USDA regulates 20 percent of the food supply, which causes 27 percent of outbreaks, yet its food safety appropriations are double that given to FDA.[18] This means that while USDA has the resources to inspect meat and poultry plants daily, the FDA inspects food facilities it regulates on average just once every five to ten years.

The Bush Administration's 2008 budget proposal brings no relief to the ailing agency. The recent budget proposal gives USDA $104 million in new money for food safety.[19] The FDA, which regulates 80 percent of the food supply, including produce, will only get $10.6 million in new food safety money.[20] It is a food safety budget that defies logic.

Foodborne illness outbreaks related to fresh produce are a major public health problem. Prevention, early detection, and control measures must be in place at every step of fresh produce production to help minimize food safety risks. Voluntary guidelines are not an effective public

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[16] Waxman, Henry. *Fact Sheet: Weaknesses in FDA's Food Safety System.* Representative Henry Waxman. (October 30, 2006); Andrew Bridges, Seth Borenstein, "AP Investigation: Food Safety Inspections Lanquish," Associated Press, February 29, 2007.

[17] Frank Claunts, Office of Management, Food and Drug Administration, FDA: Financial realities, at 14. (Aug. 10, 2006, updated Aug. 17, 2006).

[18] Center for Science in the Public Interest, *Outbreak Alert!* (Revised and updated – 2006).

[19] United States Department of Agriculture. *FY08 Budget Summary and Annual Performance Plan.* <http://www.obpa.usda.gov/budsum/fy08budsum.pdf>

[20] Food and Drug Administration. *Summary of FDA's FY 2008 Budget.* <http://www.fda.gov/oc/oms/ofm/budget/2008/summary.html>

health response to address the food safety problems related to fruits and vegetables. And while FDA can likely cobble together the authority it needs to regulate on the farm from existing statutes, there is no clear mandate from Congress that ensures food safety oversight all the way from the farm to the table. Food safety is critically important to consumers' health and to the health of the industries that produce food; yet, it is governed by laws that are 100 years old. It is time to modernize food safety.

Modernizing the Law: The Safe Food Act

Following September 11, 2001, Congress enacted the Bioterrorism Act of 2002 but left the most frequent traveler across U.S. borders — imported food — under the supervision of a fragmented system of food regulation. According to the National Academy of Sciences, "[a]t least a dozen federal agencies implementing more than 35 statutes make up the federal part of the food safety system."[21]

In response to the problems identified by the National Academy of Sciences, Government Accountability Office, and other agencies, several Members of Congress have introduced legislation—the Safe Food Act—that would modernize the outdated inspection system and give clear authority for on-farm programs. The new system would rely on preventative control systems implemented by the industry and performance standards monitored and enforced by the government.

In a post-September 11 world, with risks of bioterrorism and natural hazards such as *E. coli* O157:H7, the U.S. food safety system has become an issue of national security. The existing regulatory framework is simply insufficient to handle these challenges. The Safe Food Act was introduced February 15, 2007 by Senator Richard Durbin (D-IL) and Representative Rosa DeLauro (D, CT-3rd) as a solution to the myriad of problems in the food system. The Act would streamline food safety at the federal level by consolidating food programs at the FDA, USDA, EPA, and several other key food agencies into a new, independent, unified, science-based Food Safety Administration. In addition, the Safe Food Act would create new authorities to address the development of preventative processing controls, sanitation standards,

[21] Institute of Medicine, National Research Council. *Ensuring Safe Food from Production to Consumption.* (Washington, DC: National Academy Press, 1998)

performance standards for contaminants, adequate recordkeeping to monitor compliance, and a sampling program to ensure that the process controls are effective.[22]

The key to creating a modern food safety system is to implement science-based programs to prevent contamination. The Safe Food Act calls for the implementation of science-based process controls to ensure that food contamination is minimized throughout the production process. The bill would require all food establishments to implement appropriate measures to control and reduce the levels of harmful contaminants in food and meet performance standards for harmful pathogens. The bill builds upon existing Hazard Analysis of Critical Control Points (HACCP) programs, a prevention-based food safety system, but would not limit the agency administrator to rely solely on this program.

In addition, the Safe Food Act would create a system of risk-based inspection, "determined by the type of food handled and the type of processing to which the food is subjected."[23] Food establishments would receive a rating of between one and five, based on public health considerations and strong scientific evidence, to determine the frequency and timing of inspections. The risk-based inspection program would continue the "carcass-by-carcass" inspections by government employees at slaughterhouses and perform daily inspections of high-risk products. All facilities now regulated by the FDA would be inspected at least annually, with many inspected much more often. This system of risk-based inspection would allow for the best use of government resources while still providing safety checks along the entire "farm-to-fork" continuum.

Consumption of imported foods continues to rise exponentially, and the Safe Food Act recognizes and addresses this important component of our food supply.[24] Due to limited resources, the FDA currently inspects only about one percent of food entering the U.S., and does little to evaluate foreign food safety systems or inspect foreign plants.[25] The Safe Food Act would give the Food Safety Administration the authority to evaluate and certify a country's food safety program to ensure that it is "at least equivalent to the food safety program in the United

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[22] United States. Congress. House of Representatives. 110th Congress, 1st Session. *H.R. 1148, The Safe Food Act of 2007.* [introduced in the House of Representatives 16 February 2007]. 110th Congress. Congressional Bills, GPO Access. < http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h1148ih.txt.pdf>

[23] Congresswoman Rosa L. DeLauro. <http://www.house.gov/delauro/safe_food_act_109.html>

[24] Jerardo, Alberto. *The Import Share of U.S.-Consumed Food Continues To Rise.* United States Department of Agriculture. FAU-66-01 (July 2002) <http://usda.mannlib.cornell.edu/usda/ers/FAU/2000s/2002/FAU-07-03-2002_Special_Report.pdf>

[25] General Accounting Office (GAO), Food Safety. *Overview of Food Safety and Inspection Service and Food and Drug Administration Expenditures* (GAO/T-RCED-00-300T). (September 20, 2000) (statement of Lawrence J. Dyckman, Director, Food and Agriculture Issues, Resources, Community, and Economic Development Division, GAO). <http://www.gao.gov/archive/2000/rc00300t.pdf>

States."[26] The Administration would have the authority to audit the certified countries and would ensure continued compliance at least every five years.[27] The proposed law also requires routine inspections of foreign food imports to ensure that the food is safe and properly labeled. Under the Safe Food Act, foods would no longer have an "open visa" to enter the U.S. without inspection or regulation.

The Safe Food Act further mandates the establishment of a national system for "tracing food and food producing animals from point of origin to retail sale."[28] The Act would allow companies to issue voluntary recalls should their product be deemed unsafe, but also grants authority for the Food Safety Administration to issue a mandatory recall if the company fails to do so. This will ensure quicker removal of contaminated products from the market and increase consumer confidence in the food supply.

Because our understanding of foodborne illness is constantly evolving, the Safe Food Act recognizes the importance of outbreak investigations and scientific research to improve the safety of the food supply. The legislation would require the CDC and state health departments to share outbreak investigation information with the Food Safety Administration. The bill also would give the Food Safety Administration the responsibility to maintain an "epidemiological system dedicated to food-borne illness identification, outbreaks, and containment."[29] Detailed food attribution data is critical for risk assessments and also for the identification of emerging foodborne pathogens that could endanger the public.

The Safe Food Act would create a single food agency with the necessary authority to fulfill its mission to put safe food on America's tables. The Administration could detain imported food and recall tainted food from the market. It would provide the necessary authority to penalize persons or organizations for violating food safety laws, allowing both civil and criminal penalties, and also provide whistleblower protection for individuals who disclose food safety violations.

The Safe Food Act would work to prevent foodborne illness and bioterrorism without grand schemes or an inflated budget. Instead, it ensures a strong national program, outbreak surveillance, and effective, honest public communication. The food industry remains the first

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[26] United States. Congress. House of Representatives. 110th Congress, 1st Session. *H.R. 1148, The Safe Food Act of 2007.* [introduced in the House of Representatives 16 February 2007]. 110th Congress. Congressional Bills, GPO Access. < http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h1148ih.txt.pdf>
[27] *id.*
[28] *id*
[29] *id*

line of defense, but the Act recognizes that effective industry programs require government monitoring and oversight.

U.S. food safety laws are more than a century old and were not designed to deal with modern issues such as bioterrorism, antibiotic resistance, or tainted produce. The September 11, 2001 terrorist attacks demonstrated the need for enhanced national security, and the recent produce outbreaks serve as a reminder that much more must be done to protect the food supply. The Safe Food Act draws from these recommendations and creates a program that puts public health at the forefront of food safety in America.

Administrator Lloyd Day
Agricultural Marketing Science
USDA

Supplemental Requested Material for the hearing record

1) The total fees collected form participating industry members are approximately $189,600, plus travel expenses. State partners collect approximately 95 percent of the fee (~$180,000); USDA collects approximately 5 percent of the fee (~$10,000). Local staff is utilized as much as possible to minimize the travel expenses. The figure is based on the average audit of 8 hours x the $75/hr audit fee x 316. The heaviest concentrations are 74 in California, 44 in Oregon, 42 in Washington, 19 in New Jersey and North Carolina.

2) There are 316 total companies which have been audited in the last year, including: 179 packers audited for the packing house/facility portion of the audit checklist, 136 growers/shippers audited for the farm review/field harvesting/field packing portion of the audit checklist, 37 wholesale distribution centers/terminal warehouse portion of the audit checklist. Please note that some companies include growing, shipping, packing and warehouse operations but are counted once in the total (316).

3) Based on the USDA 2002 Ag Census, there were 166.751 farms producing fruits, vegetables, nuts, etc. that market products of more that $1,000.00 in value. In additions, USDA licenses some 15,000 entities under the Perishable Agricultural Commodities Act. These include shippers/growers, commercial merchants, brokers, retailers, processors, wholesalers, and a limited number of farmers (growers who sell only product that they grow are not required to be licensed, although some choose to be licensed). Added together, this represents a total of approximately 180,000 potential customers. Based on this figure, the 300+ audits currently being done represent less that 0.2 percent of the industry.

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