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FOOD FOR THOUGHT: SUSTAINABILITY FROM COUNTER TO COMPOST

HEARING

BEFORE THE

SELECT COMMITTEE ON
ENERGY INDEPENDENCE
AND GLOBAL WARMING
HOUSE OF REPRESENTATIVES

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FOOD FOR THOUGHT: SUSTAINABILITY FROM COUNTER TO COMPOST

TUESDAY, FEBRUARY 26, 2008

HOUSE OF REPRESENTATIVES,
SELECT COMMITTEE ON ENERGY INDEPENDENCE
AND GLOBAL WARMING,
Washington, DC.

The committee met, pursuant to call, at 2:00 p.m., in room 1100, Longworth House Office Building, Hon. Edward J. Markey (chairman of the committee) presiding.

Present: Representatives Markey, Blumenauer and Cleaver.

Staff present: Danielle Baussan.

The CHAIRMAN. Good afternoon. Global warming has been linked to the cars that we drive, the energy supply, and now the food that we buy. From farm to fork, our food often travels long distances to reach our plate. The carbon dioxide emissions from these food miles traveled are compounded by the methane produced when food waste is tossed in landfills.

We cannot continue to spite the land that feeds us. The witnesses before us today are all pursuing sustainable dining options that can alleviate the impact of our food consumption on global warming. The impact is prevalent in the three responsibilities of a dining facility: procurement, consumption, and disposal. Purchasing local food reduces food miles traveled. Using renewable, biodegradable plates and utensils reduces oil consumption and waste. Turning table scraps and leftover food into compost returns nutrients to farms and reduces global warming.

The food Americans eat increasingly comes from greater distances. From 1970 to 1980, our food miles traveled increased 1,300 to 1,500 miles. A 2002 World Watch Institute report stated that food in the United States traveled between 1,500 and 2,400 miles. The typical American prepared meal contains on average ingredients from at least 5 countries outside of the United States. By favoring more local fare, the CO_2 emissions associated with food travel can decrease significantly. A University of Washington study found that a plate of Washington-sourced foods resulted in 33 percent fewer CO_2 emissions than a plate of similar foods from their most popularly imported countries or States of origin.

Even if a meal is entirely local, its contribution to global warming continues after the plates are cleared. Yard trimmings and food waste constitute 24 percent of the U.S. municipal solid waste stream, and half of the garbage at restaurants is estimated to be food waste. As this food rots in the landfill, it produces methane. If that methane escapes into the atmosphere, it traps 20 times

more heat than CO_2. Food in landfills will continue to contribute to methane emissions. A 2006 study predicted that, by 2025, food waste will increase by 44 percent worldwide. This methane build-up is deplorable because it is preventable. Food waste can be recycled into compost, resulting in fewer emissions and in new economic products. Compost soil can be used to fertilize crops and landscaping and support green jobs in food waste recycling. The reduced garbage load can result in lowered disposal fees as well. Using materials that can be converted to compost further relieves the strain on our landfills and steers facilities away from petroleum-based plastic products.

The witnesses before us today have successfully put these principles into use. I look forward to hearing from those witnesses, and I will introduce them at that point in the hearing. The chairman's time has expired.

I now turn to recognize the Ranking Minority Member, the gentleman from Wisconsin, Mr. Sensenbrenner.

[The prepared statement of the Chairman follows:]

Opening Statement for Edward J. Markey (D-MA)
"Food for Thought: Sustainability from Counter to Compost"
Select Committee on Energy Independence and Global Warming
February 26, 2008

Global warming has been linked to the cars we drive, the energy supply—and now, the food we buy. From farm to fork, our food often travels long distances to reach our plate. The carbon dioxide emissions from these "food miles traveled" are compounded by the methane produced when food waste is tossed in landfills.

We cannot continue to spite the land that feeds us. The witnesses before us today are all pursuing sustainable dining options that can alleviate the impact of our food consumption on global warming. This impact is prevalent in the three stages of a dining facility: procurement, consumption and disposal. Purchasing local food reduces food miles traveled. Using renewable, biodegradable plates and utensils reduces oil consumption and waste. Turning table scraps and leftover food into compost returns nutrients to farms and reduces global warming.

The food Americans eat increasingly comes from greater distances. From 1970-1980, food miles traveled increased from 1,300 to 1,500 miles. A 2002 Worldwatch Institute report stated that food in the United States traveled between 1,500 and 2,400 miles. The typical American prepared meal contains, on average, ingredients from at least 5 countries outside of the United States. By favoring more local fare, the CO_2 emissions associated with food travel can decrease significantly. A University of Washington study found that a plate of Washington-sourced foods resulted in 33% fewer CO_2 emissions than a plate of similar foods from their most popularly imported countries or states of origin.

Even if a meal is entirely local, its contribution to global warming continues after the plates are cleared. Yard trimmings and food waste constitute 24 percent of the U.S. municipal solid waste stream, and half of the garbage at restaurants is estimated to be food waste. As this food rots in a landfill, it produces methane. If that methane escapes into the atmosphere, it traps twenty times more heat than CO_2. Food in landfills will continue to contribute to methane emissions. A 2006 study predicted that by 2025, food waste will increase by 44% worldwide.

This methane build-up is deplorable because it is preventable. Food waste can be "recycled" into compost, resulting in fewer emissions and a new economic product. Compost soil can be used to fertilize crops and landscaping and support green jobs in food waste recycling. The reduced garbage load can result in lower disposal fees as well. Using materials that can be converted to compost further relieves the strain on our landfills and steers facilities away from petroleum-based plastic products.

The witnesses before the Committee today have successfully put these principles into practice and closed the loop for sustainable dining. The House should be proud of the "Greening the Capitol" initiative that Speaker Pelosi launched and Dan Beard has ably executed, starting with the House cafeterias. The Chez Panissse Foundation introduces elementary school students to sustainable agriculture and dining. The University of New Hampshire continues this practice while training college students for careers in eco-gastronomy. And the Department of

Agriculture composting facility returns the House cafeteria food waste to the earth. I look forward to their testimony.

Mr. SENSENBRENNER. Thank you, Mr. Chairman.

Today we are talking about the food chain and its impact on greenhouse gas emissions. It seems from the testimony we will hear today that, by making changes to the way food is delivered, prepared, stored and disposed of, we can create some positive environmental balances. But there are costs associated with these changes. In the long run, these costs may be worth it, or maybe they are not. It points to a larger problem with all things green being sold to us today.

One of the projects we will hear a lot about today is part of Speaker Pelosi's Green the Capitol Initiative. This project includes many changes to House food service operations, and we welcome Chief Administrative Officer Dan Beard here to talk about them. But do the costs associated with these changes create worthwhile greenhouse gas reductions? Simply put, are we getting the most bang for the buck? Some changes, like serving cage-free eggs or hormone-free dairy—and in Wisconsin, we only produce hormone-free dairy—will result in no greenhouse gas reductions whatsoever.

One of my four guiding principles in evaluating any global warming policy is: Will it produce tangible, measurable environmental benefit? The House food service project seems to leave that question open, which concerns me.

If the point is to reduce greenhouse gas emissions, could the money spent making wholesale changes to House food services be better focused on creating more energy efficiency in the House? It is unclear to me if there is enough transparency in this process to actually measure if these changes are worth it. Mr. Beard's testimony points toward many simple changes in lighting, heating, and cooling that could end up saving the taxpayers $20,000. And that is a good thing. It is just too bad that $89,000 in taxpayers' money has apparently gone towards questionable carbon offsets, in an effort for the House to reach its goals of its Green the Capitol Initiative.

As the Washington Post reported in late January, it seems that some of these offsets are very questionable. The report showed that these offsets produced very little in the way of additionality; that is, it was difficult to show how those taxpayers' dollars did anything to create greenhouse gas reductions that would not have occurred anyway.

This article shows to me there needs to be more transparency in dealing with all things green. It seems obvious that there are many opportunities for waste, fraud, and abuse or questionable actions to be hidden in a green cloak. Do changes in the House cafeteria produce more and better environmental benefits for the dollar than improvements in energy efficiency? Do offsets really produce greenhouse gas reductions? And, if so, how much? These are questions that both policymakers and consumers should have answers to.

Many of the changes talked about today in the food service industry will come down to consumer choice. Living in a carbon-free environment will have significant costs and trade offs associated with them. It will take consumers, and not Congress, to tell us if these lifestyle changes are worth it.

I thank the Chair.

The CHAIRMAN. The gentleman's time has expired.

The Chair recognizes the gentleman from Missouri, Mr. Cleaver.

Mr. CLEAVER. Thank you very much for being here. And I am extremely interested in having a dialogical exchange with you after your presentations. I am very much interested in sustainable eating and sustainable agriculture that could separate us from the rest of the world that, frankly, is already ahead of us in so many ways with regard to dealing with the greenhouse gases because of our geography. This Nation is a mammoth piece of property, and I think, if used wisely, we could demonstrate to the rest of the world what kinds of things can be done on a local level that could sustain life and the environment at the same time. So, I look forward to our exchange later on. And thank you so much for being here.

Thank you, Mr. Chairman.

The CHAIRMAN. The gentleman's time has expired.

The gentleman from California, Mr. McNerney, is recognized.

Mr. MCNERNEY. This is an excellent topic, because it illustrates one of the ways that our daily activities that we take for granted contribute significantly to the greenhouse gas issue. In my district, which includes portions of the San Francisco Bay Area, one of the most interesting approaches I have seen is the grease recycling project in the East Bay. Innovative ideas such as this are small yet can be effective, and these are initiatives which will lower greenhouse gas emissions.

I am interested in hearing remarks from Chez Panisse Foundation, which is based in the Bay Area, and all of the witnesses. Thank you very much.

The CHAIRMAN. The gentleman's time has expired. All time for opening statements from Members has expired, although they will be allowed to place their opening statements in the record. We now turn to our panel.

STATEMENTS OF DANIEL P. BEARD, CHIEF ADMINISTRATIVE OFFICER, U.S. HOUSE OF REPRESENTATIVES; PATRICIA D. MILLNER, RESEARCH MICROBIOLOGIST, AGRICULTURAL RESEARCH SERVICE, U.S. DEPARTMENT OF AGRICULTURE; TOM KELLY, PH.D., CHIEF SUSTAINABILITY OFFICER, UNIVERSITY OF NEW HAMPSHIRE; AND CARINA WONG, EXECUTIVE DIRECTOR, CHEZ PANISSE FOUNDATION

The CHAIRMAN. Our first witness, Daniel Beard, is the Chief Administrative Officer for the House of Representatives. Mr. Beard spent 10 years on the staff of the House Appropriations and Natural Resources Committee. He returned to the Hill at Speaker Pelosi's request to become the Chief Administrative Officer. He is well suited to Speaker Pelosi's Green the Capitol Initiative with his extensive background managing environmental issues with the Department of the Interior and the National Audubon Society. His work on Greening the Capital and the House cafeteria system has been noted by food writers for the New York Times, the Washington Post, and the San Francisco Chronicle.

We welcome you, Mr. Beard. Whenever you are ready, please begin.

STATEMENT OF DANIEL P. BEARD

Mr. BEARD. Thank you, Mr. Chairman, and members of the committee. I appreciate the opportunity to be here with you today.

Our goal with the House Food Service Operation has been to make it a premier showcase of sustainable, green, and healthy food operations. We have worked closely with our new food service vendor, Restaurant Associates of New York, to implement our changes with each of the 240,000 meals we serve each month in our cafeterias, carry outs, and other facilities.

Our highest priority was the banning of all plastic and Styrofoam from the cafeterias. In addition, we wanted to make nearly all of our waste stream compostable. As a result, all of the knives, forks, and spoons, which are in use in the cafeteria, as well as our sandwich clamshells, which has a delicious desert in it, are made from corn-based products. The plates and coffee cups are from paper. And the entree containers, which are shown here, are made from sugar cane. This material in front of me will become compost in 90 days.

The House is demonstrating, I think, with this effort and with every meal that we serve, that there is a market for U.S. manufacturers to provide green, sustainable, recyclable products. Our biodegradable items, for example, come from companies in Maine, Nebraska, Pennsylvania, and Georgia.

We send the compostable food service items, along with all of the food waste in the front of the cafeteria and from the kitchens, to a pulper which was purchased on the Longworth loading dock. The pulper then breaks down the compost into this material, which looks a lot like coleslaw or a moist confetti. So all of these items plus all the food from the front and back of the House plus all these are then ground into this kind of a mix. It is picked up once a day, and it is sent to compost facilities in suburban Maryland. Two days a week, it goes to the Department of Agriculture; three days a week to a commercial composter near Crofton. The result is, what you have in 90 days is compost material. And I brought both an example of the compost material, the start of the process, as well as the end of the process.

Now, while the new operation has only been up and running for 60 days, preliminary results are very encouraging. The waste hauler for the landfill picked up 20 tons less material in the last three weeks of December 2007 as compared with 2006. We are realizing cost savings by hauling and depositing less waste in landfills, and the compost tipping fees are 30 percent less than they are at the regular landfills.

More important, sending the food service waste for compost also reduces our carbon footprint by preventing the conversion to methane, as the Chairman mentioned. We are now working to calculate the methane reduction and use the savings as a carbon offset for the House operations.

We have also looked at our food, the food that we serve, for sustainability improvements. Our coffee, Pura Vida coffee, is fair trade, shade grown, and organic. Our beef, chicken, and pork are hormone free. The seafood served is certified sustainable by our using the Monterey Bay Aquarium Seafood guidelines.

Under Restaurant Associates, the amount of fresh produce and meat has increased from 35 percent under the previous vendor, GSI, to 85 percent. This switch to fresher food and the resulting trimmings is complemented at the back end, with the pulper and the composting solutions that we have implemented.

The House is also promoting the buying of food produced in a 150-radius from the Capitol whenever possible. We are emphasizing the purchase of organically produced food, and providing a market for new and existing farms and businesses to meet these needs. This, incidentally, is part of the policy efforts and the direction that Restaurant Associates has used in its operations in other cities as well.

We have made a good start, but we know that there is much more that we have to do to be sustainable, greener, and to continue to reduce our carbon footprint.

I want to thank you, Mr. Chairman, for the opportunity to testify. And I would be happy to answer questions at the appropriate point.

[The prepared statement of Mr. Beard follows:]

DANIEL P. BEARD
CHIEF ADMINISTRATIVE OFFICER
US HOUSE OF REPRESENTATIVES

TESTIMONY BEFORE
SELECT COMMITTEE ON ENERGY INDEPENCE & GLOBAL WARMING
FEBRUARY 26, 2008

FOOD FOR THOUGHT: SUSTAINABILITY FROM COUNTER TO COMPOST.

Thank you Chairman Markey and Members of the Committee for the opportunity to discuss the success we have achieved in greening the House food service operations.

As Chief Administrative Officer of the House I am responsible for implementing Speaker Pelosi and Majority Leader Hoyer's Green the Capitol Initiative. This wide ranging initiative covers all aspects of the way we do business in the House including the food service operations.

Our goal with the House food services operations is to make it a premier showcase of sustainable, green, and healthy food operations. The House food service touches virtually all of the visitors to the Capitol from constituents, citizen advocates to lobbyists, federal employees and the press corps. And of course there is the House staff and Members of Congress who eat here almost every working day.

We have worked closely with our new food service vendor Restaurant Associates to implement the green changes. With each of the 240,000 meals served each month we can set high standards and send a green message in a tasty way.

Our highest priority was the banning of all plastic and Styrofoam from the cafeterias. The knives, forks, spoons, sandwich clam shells are among the items made from corn. Plates and coffee cups are made from paper. Entrée containers are made from sugarcane.

And contrary to urban myth already circulating the spoons do not melt in the soup!

All of these food service items are fully compostable. This sandwich clamshell or this fork will become dirt in 90 days at a commercial compost facility. Our biodegradable items are made in places like Maine and Nebraska, Pennsylvania and Georgia. New small businesses are being created to meet demand as food services are moving from the experimental and educational phase to actually using increasing amounts of biodegradable food service ware.

The House is demonstrating with every meal served that there is a market for U.S. manufacturers to provide green sustainable recyclable products.

While we are striving for perfection there is currently no compostable lids for coffee and hot drinks. We have been examining lids made from potatoes and are looking to implement a solution soon.

We send the compostable food service items along with all of the food waste from the front of the cafeteria and from the kitchens to a pulper. The pulper is like a giant garbage disposal that breaks down and dewaters the compost material. This reduces the volume of the compost material by a ratio of 10-1 and reduces the weight by as much as 4-1. The result is reduced hauling costs and reduced tipping fees by 60%-75%.

The food service waste that was being sent to landfills is now being taken to the Department of Agriculture composting facility at Beltsville, Maryland or to a commercial composting farm in nearby Crofton, Maryland. There we are literally turning what was garbage and going into a landfill into a commercially viable product.

Ultimately what we would like to see is some of the compost come back here to beautify the Capitol grounds.

But perhaps the real beauty is to the bottom line. While the new operation has only been up and running about 60 days, preliminary results are very encouraging. The waste hauler for the landfill picked up approximately 20 tons less material for the last 3 weeks of December, 2007 compared to 2006. This reduces the hauling costs and with tipping fees 30% less at the commercial composting facilities savings are realized on tipping fees too. And at the USDA facility there are no tipping fees at all! As noted above the pulper is reducing the weight of the compostables further reducing disposal costs by as much as 75%.

Sending the food service waste for composting also reduces our carbon foot print, a key issue for this committee. By diverting the food service waste from the landfill we are preventing it's conversion to methane--one of the most powerful greenhouse gases. We are examining ways to calculate the methane

reduction and use the savings as carbon offsets for other House operations. And we are not eating our food off items made from petroleum products.

Fully integrating a compost solution from the fork you pick up to the kitchen trimmings and sending it to be composted is a good business decision, saves taxpayer's money and is the right action for the environment.

We also looked at the food itself. The House is the largest account for Pura Vida coffee which is fair trade, bird friendly by being shade grown, and organic.

The beef, chicken, and pork are all hormone free. The seafood served is certified sustainable caught as defined by the Monterey Aquarium seafood guidelines. The shell eggs used are from chickens in a cage free environment.

When one of the workers was asked what his job was under the previous food vendor his response was "Opening cans." Under Restaurant Associates the amount of fresh produce and meat is approximately 85% up from an estimated 35% under the previous vendor. This switch to fresher food and the resulting trimmings is complemented at the back end with the pulper and composting solutions.

The House is promoting the buying of food locally defined purchasing food produced in a 150 mile radius from the Capitol when possible. The House is also emphasizing the purchase of organically produced food, and providing a market for new and existing farms and businesses to meet these needs. We are also reducing our carbon foot print by reducing the distance food has to be transported.

There are other greening stories to tell in the food service operations. The recycling stations are made from recycled glass and other material. The paint used to spruce up the cafeterias was low in volatile organic compounds. We are using electronic signage in the cafeterias to highlight daily menu specials. Bamboo flooring was used in the convenience store.

Energy and water conservation are also critical areas. All new equipment in the kitchens will meet the highest energy efficiency standards. New dish washers are being purchased to conserve water.

Vending machines is a little thought about area where significant energy savings can be found. The House is swapping out the approximately 80 old machines with the most energy efficient or Energy Star machines available. We are also changing the way the machines are operated to maximize energy savings. This includes delamping machines in well lit areas, changing compressor operations,

and letting temperatures rise in soda machines in the middle of the night. These changes are estimated to save as much as $20,000 annually.

We have made a good start. But we know there is much more to do to be more sustainable, greener, and continue to reduce our carbon foot print. We will constantly review our purchasing and operations to be at the leading of green cafeteria operations.

Chairman Markey and Members of the Committee thank you for the opportunity to tell the story of our green food service operations. Restaurant Associates has been a hard working partner in putting together one of the greenest food service operations in the United States.

Bon Appétit!

The CHAIRMAN. Thank you, Mr. Beard, very much.

Our next witness is Dr. Patricia Millner, who specializes in environmental microbiology. Her work on micro-organisms and composting has significantly influenced the design of large-scale composting facilities. She also researches how composted soil can prevent disease. She is a research microbiologist in the Sustainable Agricultural Systems Laboratory in the U.S. Department of Agriculture, where House cafeteria food waste is composted.

We welcome you, Dr. Millner. Whenever you are ready, please begin.

STATEMENT OF PATRICIA D. MILLNER

Ms. MILLNER. Thank you for the opportunity to appear here, Mr. Chairman. I would like to present some information on general aspects of composting and the environmental benefits as related to food residuals, management, and the greening practices.

Composting involves a natural aerobic self-heating process in which micro-organisms rapidly transform the raw organic materials into humus, which is a critical component for soil health. Management and testing are used throughout this process in order to ensure that the primary goals of nutrient stabilization, pathogen destruction, and odorant elimination are achieved.

When finished, compost is mixed with soil, and this helps to reduce erosion from wind and water. Compost also enhances soil structure, root penetration, and, very importantly, the water-holding capacity of soil. All of these aid in plant growth and increase the resistance to drought, disease, and other stresses. Compost also provides major and minor plant nutrients and can substitute for one-third the amount of nitrogen fertilizer usually required for turf. This means that compost use on lawns in areas like Washington, D.C., and the surrounding metropolitan area can help reduce nutrient runoff that ultimately gets into water waste such as the Potomac River and the Chesapeake Bay.

Composting can also reduce the generation and release of greenhouse gases. Recent estimates indicate that aerobic composting instead of landfilling of food residuals avoids major amounts of methane generation and release. Approximately 6 metric tons of CO_2 equivalent are saved from each metric ton of compost food residuals that are not landfilled.

Locally, at the Beltsville Agriculture Research Center, we compost 13,000 cubic yards a year of organics from our 6,500 acre farm. This picture up here gives you an aerial view of our composting site. The long rows are actually the wind rows we use. The second picture shows the compost turner, which is used in the process of turning this compost periodically.

In recent years, we have composted food residuals mixed with compostable biobased cafeteria ware from the South and Whitten Buildings. This activity now includes collectively about 40 cubic yards per week, or 6 tons, of material from the South Building and the Whitten Building, the U.S. House of Representatives Longworth Building cafeteria and a commercial organics food retailer. A commercial provider collects and hauls the material 10 miles from D.C. to our site at Beltsville, where it is mixed with sawdust from the congressional woodworking shop, along with leaves and

old hay from our farm. This public-private team effort has helped to advance the inclusion of compostable biobased cafeteria ware.

As the seasons progress, we plan to incorporate grass, landscape, and floral trimmings from the congressional grounds, the U.S. Botanical Gardens, and the USDA headquartered complex.

The residuals from the Longworth cafeteria are notably distinct from the other materials that are collected in that they are pulped, as Mr. Beard has explained. This type of processing reduces the whole mass by approximately 70 percent, with concurrent per-unit whole cost savings, and facilitates an accelerated decomposition.

Our interest in composting food residuals at BARC measures well with our field skill research studies, which include evaluations of the degradation rate of biobased cafeteria ware as part of the USDA's BioPreferred Program. And that includes things like this corn-based bottle, which is a water bottle with a chlorine filter attached inside. And there are some other articles that are being passed around the room that are also biobased.

We are also looking at the efficiency of biofiltration on reducing greenhouse gas emissions from a variety of different composting formats. Alternative uses for excess compost heat are also an important feature of our program. And, lastly, we are also always concerned with the safe production of local leafy greens, fresh fruits, and vegetables.

Currently, the compost from Beltsville is used for soil improvement on the USDA farm, the U.S. National Arboretum and the USDA Whitten Building gardens.

Looking forward, we have engaged with the Maryland Environmental Service, the Maryland Department of Environmental Protection, and members of the U.S. EPA headquartered in Region III food recycling work group to explore and encourage more food composting capacity in the D.C. metropolitan region. To address this need and to avoid long-haul distances, we are pursuing, through our cooperative research and development agreements, a variety of in-vessel composting and processing options that include energy recovery and sustainability.

In conclusion, BARC and other ARS locations continue to press forward with composting and other technologies to increase recycling of agricultural, municipal, and food residuals, to reduce the landfilling of organics, to increase energy capture, and to lessen the pollution that threatens our natural precious resources: soil, water, and air.

My colleagues and I appreciate the opportunity and the interest of your committee in the issue of recycling food residuals and compostable biobased products.

Mr. Chairman, this concludes my remarks. I would be happy to answer any questions.

[The prepared statement of Ms. Millner follows:]

STATEMENT OF DR. PATRICIA D. MILLNER
RESEARCH MICROBIOLOGIST, AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

BEFORE THE
UNITED STATES HOUSE OF REPRESENTATIVES
SELECT COMMITTEE ON ENERGY INDEPENDENCE AND GLOBAL WARMING

FEBRUARY 26, 2008

Mr. Chairman and Members of the Committee, I am Patricia D. Millner, a Research Microbiologist with the Agricultural Research Service's (ARS) Sustainable Agricultural Systems Laboratory at the Henry A. Wallace Research Center in Beltsville, Maryland (BARC). ARS is the primary intramural science research agency of the United States Department of Agriculture (USDA) with over 100 research laboratories throughout the nation.

Thank you for the opportunity to appear before the Committee today to present information on composting and its environmental benefits as related to food residuals management, 'greening' practices, and uses of the product. ARS operates a 3 acre Composting and Research Facility at BARC to recycle approximately 13,000 cubic yards per year of organic residuals from our 6,500 acre farm. Composting involves an aerobic, self-heating process in which microbes rapidly transform raw organic materials into humus, a critical component for soil health. Use of specific performance and testing criteria[1] ensures that the process and product achieve three main goals: nutrient stabilization, pathogen destruction, and odorant elimination. In addition to these three

direct benefits, mature compost provides stable organic carbon to agricultural and horticultural soils, thereby aiding landscape conservation by reducing soil erosion.

The stable organic carbon that compost brings to soil enhances its physical structure and tilth, deepens root penetration, and increases the soil water-holding capacity; all of which aid plant growth and increase resistance to drought and other stresses. Our research has shown that compost may be used as a soil fumigant by small local growers of strawberries. Compost provides some of all the major and minor plant nutrients, with nitrogen currently available slowly in low amounts. Research at BARC has shown that nitrogen in compost can substitute for one-third the amount of nitrogen fertilizer usually required for turf. This means that compost use on lawns in areas like metropolitan Washington, D.C. can help reduce the runoff of nutrients from lawns to storm drains and ultimately waterways such as the Potomac River and the Chesapeake Bay.

Recent estimates[2] indicate that aerobic composting of food residuals offers a significant advantage over anaerobic landfills in terms of greenhouse gases. By diverting food residuals from landfills to composting, major amounts of methane generation and release are avoided (6 metric tons of CO_2 equivalent per metric ton of food residuals).

Currently at BARC, we have been composting 40 cubic yards per week, approximately 24,000 pounds, of food residuals mixed with compostable bio-based cafeteria ware from the U.S. House of Representatives Longworth Building Cafeteria, the USDA cafeterias in the South and Whitten Buildings, and a commercial organic foods retailer. Presently, a

commercial provider, Bates Trucking Company, collects and hauls the materials 10 miles from Washington, D.C. to BARC. This has been a team effort among all the participants to ensure that staff is aware of the impact of non-compostable items on compost quality and to the greatest extent possible exclude metal, glass and plastic from the collections. Wood shavings and sawdust from the congressional woodworking shop, along with leaves and aged hay from our farm are added to achieve appropriate moisture, structural content, and carbon-to-nitrogen ratios as required for composting. As the seasons progress, the plan is to incorporate grass, landscape and floral trimmings from Congressional grounds and the U.S. Botanical Gardens into the compostable mix.

The food residuals from the Longworth Cafeteria are pulped before being collected and hauled. The handling characteristics of pulped and dewatered food residuals are favorable to all phases of the operation; this material composts especially rapidly. In addition, pulping and dewatering reduces the haul mass by approximately 70%. As more institutions use this technology, haulers will experience greater savings in hauling fuel as well.

All food residuals composted at BARC are currently used in several field-scale research studies including: 1) degradation of bio-based cafeteria-ware, including bags, plates, and utensils, as part of USDA's BioPreferred program; 2) the efficacy of compost bio-filtration on greenhouse gas emissions; 3) the amount of waste heat available for alternative uses; and 4) the safe production of leafy greens by local organic and

conventional producers. All other composts at BARC are used for soil improvement on the USDA farm and the U.S National Arboretum.

We have engaged several groups in Maryland including the Maryland Environmental Service, the Maryland Department of Environmental Protection, and members of the U.S. EPA Region III food recycling workgroup, to explore and encourage opportunities to develop more food composting and recycling capacity in the Baltimore-Washington greater metropolitan region. Currently, there is an urgent need for development of regional capacity to recycle food from numerous public and private institutions.

To address concerns with selecting sites for new facilities that avoid long-haul distances, we are pursuing, through our Cooperative Research and Development Agreements (CRADAs), a variety of in-vessel composting and processing options that show promise in overcoming some of the usual open-air system concerns by communities and provide opportunities for additional energy recovery, and sustainability. One CRADA project focuses on use of in-vessel composting to enhance process control and capture of fugitive ammonia emissions to further enhance the nitrogen content of compost to produce an organic fertilizer with stable soil carbon. The other CRADA project focuses on development of technologies for on-site use of cafeteria residuals as energy feed-stocks in rural community schools.

In summary, the ARS at BARC continues to press forward in its research and development of technologies that will utilize biological processes for energy capture and conservation of precious national resources: soil, water, and air. My colleagues and I at

BARC, USDA, and elsewhere appreciate the interest of your committee in the issue of recycling food residuals and compostable bio-based products. Mr. Chairman, this concludes my remarks. I would be happy to answer any questions.

References

[1] Thompson W, Leege P, Millner P, Watson M. 2002. *Test Methods for the Examination of Composts and Composting, 500 pp.: CD-ROM* by U.S. Composting Council.

[2] Brown S, Kruger C, Subler S. 2008. Green House Gas Balance for Composting Operations. Journal of Environmental Quality 37 (in press).

Mr. CLEAVER [presiding]. Thank you very much.

We will move now to Dr. Kelly. Thank you for being here.

STATEMENT OF TOM KELLY, PH.D.

Mr. KELLY. Thank you very much for the opportunity to testify about the essential role of the food service industry and sustainability, and the strategic value of sustainability to guide food service innovation.

I am the chief sustainability officer of the University of New Hampshire where, for the last 10 years, I have directed the University Office of Sustainability, the first endowed university-wide program of its kind in the country. The University of New Hampshire is building a culture of sustainability by organizing everything we do around its principles, our curriculum, our operations, our research, and engagement with the wider world.

Within our own campus operations, we have been building a low carbon infrastructure that will result in total emissions 57 percent below 1990 levels by this time next year, with no offsets purchased, millions of dollars saved, and energy security enhanced.

But our efforts go well beyond that in educating the next generation of citizen professionals to meet the challenges of sustainability. And building a sustainable food system is fundamental to this broader mission. I have included specific examples in my written testimony, including our local harvest initiative that links local and regional procurement with energy and water efficiency and composting, as well as the first organic dairy research farm on a land grant university in the United States. But for my purposes, for speaking, I would like to share four principles and five broader recommendations with you that we have found to be important in building a sustainable food service at the University of New Hampshire, and all of these are about business not as usual, but about collaborations and partnerships that cut across virtually every well established boundary between disciplines, management functions, and internal and external stakeholders.

First, a comprehensive approach to food system sustainability must address the important role played by the food service industry, and I applaud your actions here today to do just that. The food service industry is an increasingly important actor in the chain that links agriculture, the environment, and public health. In addition to minimizing their own direct operational impacts, sustainability practices within the food service industry can create greater demand for sustainable agriculture from the local to the global level, while providing healthy, delicious cuisine that nourishes the palate and the spirit. This means that the sustainable food system advocates from all sectors must engage the food service industry in these broader efforts.

Second, a comprehensive approach to building a sustainable food service industry must see that industry as part and parcel of the larger food system. A successful approach must go beyond food counter to compost, as this hearing is entitled, to embrace the entire food system cycle, from healthy soils to healthy farm and food enterprises to healthy communities, including composting operations, that in turn help build healthy soils. And so the cycle continues. We cannot truly have a sustainable food service industry

unless we have a sustainable food system from farm to fork to compost to food security and nutritional health.

This means that the sustainable food service advocates and enterprises need to actively engage with partners from agriculture, resource conservation, and nutrition to add their unique and critical contribution to this larger shared goal.

Third, a comprehensive approach to building a sustainable food industry must see the food system as part of the larger society in which it operates. In our communities, food, agricultural, and nutrition are linked and inseparable from climate management, biodiversity and eco systems, and to regional economies and livable wages. All of these factors interact to impact our public health and quality of life. This is the province of sustainable communities and the larger goal of sustainable development.

Within a given food service operation, sustainability means thinking up and down the supply chain and across the life cycle of its products and services, and out into the communities and regions that are working to sustain the quality of life.

Finally, in addition to incorporating sustainability practices into our food service industry, it is critically important that these practices are seen as an integral part of education and learning within a broader culture of sustainability. In higher education, sustainable food practices must be complemented by curriculum, research, and public engagement that strengthens sustainable food systems in our communities.

By cultivating the capacity of students in all fields to advance sustainability in their civic and professional lives, we can ensure that the goals of energy independence and climate stabilization benefit from and contribute to the equally important goals of food security and environmental and public health. Education is the key to empowering and inspiring the creative problem solving that can sustain and improve the quality of life for all Americans.

What is common to all these efforts that we are engaged in related to food, energy, and the environment, and quality of life is collaboration built around shared goals that are in everyone's interests. Those shared interests lie in the fact that reducing greenhouse gas emissions, so-called mitigation, is absolutely necessary but insufficient to address the issue. We must simultaneously adapt to regional impacts of an already changing climate by building resilience into the systems that sustain our communities, including food systems.

So, five points just to summarize here in closing that these, we think, are, based on our experience, principles that could help guide a national policy framework.

One, support regional approaches to food and agriculture that reflect the diversity of ecology and culture and the opportunities.

Two, link food and farming to health, nutrition, and poverty reduction.

Three, support research for sustainable approaches to biofuels that must reflect the best scientific assessments across the full life cycle of those fuels.

Fourth, support responsive land grant universities. We have a marvelous network in place, including cooperative extension that can really contribute to these problems and solutions.

And, finally, support sustainability science with the recognition from the National Research Council, National Academy Sciences of the importance of responsive science.

Thank you for the opportunity, and I look forward to discussion.

[The prepared statement of Mr. Kelly follows:]

Testimony
Tom Kelly, Ph.D
Chief Sustainability Officer
University of New Hampshire

Hearing on Sustainability and the Food Service Industry
The House Select Committee on Energy Independence and Global Warming
February 26, 2008

Thank you very much for the opportunity to testify about the essential role of the food service industry in sustainability and the strategic value of sustainability to guide food service innovation. I am the Chief Sustainability Officer for the University of New Hampshire where for the last 10 years I have directed the University Office of Sustainability, the first endowed, university-wide program of its kind in the country. The University of New Hampshire is a Land, Sea and Space Grant university that is building a culture of sustainability by organizing everything we do around its principles; our curriculum, operations, research, and engagement with the wider world are all impacted by this commitment. Building a sustainable food system is fundamental to this broad mission.

Based on our work at UNH, there are four principles I would like to share with you that we have found to be important in building a sustainable food service:

1. A comprehensive approach to food system sustainability must address the important role played by the food service industry and I applaud your actions here today to do just that. The food service industry is an increasingly important actor in the chain that links agriculture, the environment and public health. In addition to minimizing their own direct operational impacts, sustainability practices within the food service industry can create more stable and greater demand for sustainable agriculture from the local to the global level while providing healthy, delicious cuisine that nourishes the palate and spirit. This means that sustainable food system advocates from all sectors must engage the food service industry in these broader efforts.

2. A comprehensive approach to building a sustainable food service industry must see that industry as part and parcel of the larger food system. A successful approach must go beyond "food counter to compost" as this hearing is entitled, to embrace the entire food system cycle from healthy soils to healthy farm and food enterprises to healthy communities including composting operations that in turn help build healthy soils and so the cycle continues. We can't have truly a sustainable food service industry unless we have a sustainable food system from farm to fork to compost to food security and nutritional health. This means that sustainable food service advocates and enterprises need to actively engage with partners from agriculture, resource conservation and nutrition to add their unique and critical contribution to the larger shared goal.

3. A comprehensive approach to building a sustainable food industry and food system must, in turn, see the food system as an essential part of the communities and society in which it operates. In our communities, food, agriculture and nutrition are linked to climate and energy, biodiversity and ecosystems and to regional economies and livable wages. All of these factors interact to impact our public health and quality of life. This is the province of sustainable communities, and the larger goal of sustainable development. Within a given food service operation, sustainability means thinking up and down the supply chain and across the life cycle of its products and services. In other words, food service enterprises need to develop sustainable practices related not simply to food and composting, but also to energy, water, landscaping, transportation, aesthetics and community development.

4. Finally, in addition to incorporating sustainable practices into our food service industry, it is critically important that these practices are seen as an integral part of education and learning within a broader culture of sustainability. In higher education sustainable food practices must be complemented by curriculum, research and public engagement that strengthens sustainable food systems in our communities. By cultivating the capacity of students in all fields to advance

sustainability in their civic and professional lives, we can ensure that the goals of energy independence and climate stabilization benefit from and contribute to the equally important goals of food security and environmental and public health. Education is the key to empowering and inspiring the creative problem-solving that can truly sustain a high quality of life for all Americans.

Let me illustrate these principles with a specific food service example that captures many of these points. Currently we are developing a sustainable eatery, know as the UNH Dairy Bar, that is part of our dining services offerings. What makes it sustainable?

- The menu is built around local, regional and organic products that support our regional farm-food economy and sustainable agriculture. Offerings favor nutrient-dense over calorie-dense foods, which simply means that there are more vegetables, fruits, whole foods and fiber – there is no frialator, but there are salads and loca lean meats. The menu supports sound nutrition and healthy life styles for the community as well as a sense of place and seasonality that emphasizes fresh, flavorful and local cuisine.
- It is also sustainable because it is using compostable, corn-starch-based table ware, composted through a recycling infrastructure that communicates clearly where to put what and why. The table ware and food waste will contribute to the more than 100 tons of finished compost produced each year on our campus.
- The infrastructure also includes available energy star appliances and a vegetable steamer that is 40% more energy efficient than a standard unit, resulting in reduced greenhouse gas emissions and energy cost savings.

But its goal of sustainability goes beyond that. The on-campus setting is a nineteenth century Romanesque Revival train station. This is part of our architectural heritage as well as our history of transportation, that now includes renewed daily rail service between Boston and Portland, Maine on the Amtrak Downeaster. As a result of our Transportation Demand Management Policy, UNH is now the largest public transit

provider in the state. Ridership on the Downeaster has grown dramatically since the service was re-established in 2002, after having been canceled in 1968. UNH ridership alone accounts for approximately 2.4 million vehicle miles not traveled in automobiles each year. In addition to housing a sustainable eatery, the train station site has also become a transit hub that provides multi-modal alternatives to automobile travel to the campus and surrounding region.

The UNH Dairy Bar project is the result of an enlightened and innovative approach to food service by UNH's Dining program. Its success lies in the collaboration of faculty members and students from dietetics, nutritional science, hospitality management and agriculture, along with staff from Energy and Campus Development. It is also part of a larger university initiative that is helping to build sustainable food systems through innovative curriculum, research and engagement activities that include the first organic dairy research and teaching farm at a university in the country. We established our dairy in 2005 as a regional research and demonstration center for organic dairy farmers, farmers undergoing or considering transition to organic production, and students of sustainable agriculture. The key to the success of this project has been collaboration with private, non-profit and government sector partners who share the goal of building sustainable food systems and recognize that universities have their own unique contribution to make, including research and teaching that compliments our sustainable food service practices.

These and many related projects are themselves part of a larger sustainability undertaking that we call the Sustainable Learning Community: a university-wide program that focuses on empowering and inspiring all members of the community to engage their imaginations to meet the challenges and opportunities of sustainability. The approach is comprehensive in two critical ways: first, it encompasses the **C**urriculum, **O**perations, **R**esearch, and **E**ngagement (CORE) functions of university life; second, it focuses on building critical thinking and creative problem solving at the intersections of climate and energy, biodiversity and ecosystems, the food system and our western democratic culture. In practical terms this includes a landfill methane gas pipeline and cogeneration power plant that beginning next year will reduce our campus greenhouse gas emissions by 57% below 1990 levels. It will also save millions of dollars and enhance energy security over

the next two decades. In addition, it will be the focus of research and teaching in landfill science and engineering including carbon sequestration and beneficial use of recycled materials. When combined with many other innovative examples that span the science, technology and policy of sustainability we see the outlines of what a 21st century education must be if we are to meet the challenges of sustainable development.

What is common to all of these efforts is collaboration based on shared goals that are in everyone's interests. In support of a comprehensive approach to building sustainable food systems within the broader framework of sustainability, our experience suggests that the following approaches are important for developing a national legislative and policy framework that will facilitate the necessary collaboration across disciplines, sectors and political parties that will serve the public good:

1. Support Regional Approaches to Food and Agriculture

Federal policy through the Farm Bill and other related legislation should reflect the unique challenges and opportunities of regional diversity in supporting the development of regional markets, risk management tools for agricultural entrepreneurs, university research and extension and the critical link between agriculture, public health and rural development in the United States and internationally.

2. Link Food and Farming to Health, Nutrition and Poverty Reduction

Federal policy through the Farm Bill and other related legislation should systematically strengthen access to fresh, healthy food for all citizens, particularly the most at-risk populations. Public health principles including managing vulnerability through sound nutrition and poverty reduction must be fully integrated into farm, food and development policies.

3. Support Research for Sustainable Approaches to Biofules

Federal energy and agriculture policy on biofuels must reflect the best scientific assessments across the full life cycle of fuels including land use and carbon sinks, regional feedstocks, and organics recycling that conserve ecosystem integrity, strengthen

agricultural enterprises and support rural and community development and energy independence.

4. Support Responsive Land Grant Universities

The land grant system of universities and the cooperative extension service have unique and critical roles to play in building sustainable food systems and communities. Teaching, research and extension that is responsive to regional ecology, economics and culture must be supported in a variety of ways including the Higher Education Sustainability Act.

5. Support Sustainability Science

Federal policy should act on the conclusions of the National Research Council and the National Academy of Sciences that scientific research be directly linked to public policies and private actions through the development of sustainability science. Sustainability science is action oriented and responsive to the challenges and opportunities of meeting growing human needs while sustaining the integrity of the planet's life support systems

Mr. CLEAVER. Thank you very much, Dr. Kelly.

Let me apologize. The sounds you heard were aimed at getting us over to the Capitol to cast four votes, and time is running out for us to get there. Is it possible for you to stay until we can return? I would say approximately 25 minutes. I hate to do this. Congress is manic depressive; and this is not a sustainable way of doing business, but this is the way it is. So we would appreciate it very much if you could stay, and we will get back immediately after the last vote is cast. Thank you.

And, Ms. Wong, we will start with you.

Mr. CLEAVER [presiding]. I appreciate your waiting for us. I apologize. We never know when we are going to be called for a vote, except that we know we will not be now. We have taken the last vote for today, and so we are ready to resume. I cannot apologize enough.

Ms. Wong, if you would proceed.

STATEMENT OF CARINA WONG

Ms. WONG. Thank you.

I come here today as the executive director of the Chez Panisse Foundation and, more importantly, as the mother of two young children. When you have children, you begin to worry about a lot of things, and what they eat, or food, is one of them.

The Chez Panisse Foundation gets its name from a restaurant that wholly supports two farms and 85 others by buying locally, seasonally and sustainably. It was started by a woman named Alice Waters. Alice is also the founder of the Chez Panisse Foundation. We are a separate nonprofit, and our work is to support educational programs that use food to educate, empower and nurture youth to build a more sustainable future.

Twelve years ago, we started an organic kitchen and garden program at a public middle school to build a model that would change the way children relate to food. We wanted to show them how their food choices have both an impact on their health, the community and the environment. Today, the Edible Schoolyard is a program in which every child participates in growing, harvesting, cooking and sharing food at the table. Children learn about where their food comes from and math, reading and writing. They learn about proportionality with recipes and science with soil experiments and history through ancient grains that they harvest. They turn the compost pile, and the scraps from the kitchen classrooms go into it.

The original vision for the Edible Schoolyard was to include a school lunch program for all students, not just a healthy lunch but a delicious one, that is made from local, seasonal and sustainable ingredients. Our schools in Berkeley, like other schools in America, before we started this work, were serving frozen lunchmeat sandwiches in packages; something called encheritos, which I am still not sure what they are; and chicken fingers that, no doubt, had traveled what is the typical 1,500 miles to get to our cafeteria. So we funded a chef to work inside the school district to begin to make changes, not just taking the bad things out but focusing on buying locally. It was an important part of our strategy and our vision.

Lots of districts are trying to change their food and take fat out or lower the sugar, but they are not looking at their local sourcing. And we knew that local, seasonal and sustainably grown foods would be better for the environment, and they would simply taste better for kids: ripe, juicy tomatoes in the late summer, tangerines in the winter, apples in the fall, lettuces in the spring. We had a vision they would lure children into our cafeterias, but could the district, our public school district, afford these changes? They had a policy that said they should do it, but would they really do it?

So, 2½ years later, we have a salad bar in every school, much of which is organic; free breakfasts for all students; and organic milk at lunch. Thirty percent of our produce is organic and actually regionally or locally procured. We compost and recycle in all of our kitchens, 16 of them, and we have moved away from metal containers, serving buffet style with compostable trays and, in some schools, with real plates.

The Foundation does not pay for any of the food costs. We supported the cook in the development of new menus, procurement systems and in evaluation.

It sounds quite simple: Buy locally and make real food. It is as right as rain, but we face many challenges. Can you imagine that, when we started, we had to teach people who were making the food how to use a knife? Can you imagine that we do not have a stove in our central kitchen that serves 5,000 meals a day? Can you imagine that we could not even buy from a farmer from the farmers market because we had no place to store his or her produce and no way to purchase directly from them? Finally, what do you think you can make for lunch that is nourishing and delicious that is less than a dollar? Despite these challenges, we have made progress, and I do believe it can be done in other places.

For school districts, it requires more incentives and better policies. When a fruit cocktail meets nutritional guidelines set by the USDA, I think we have a problem. We need stronger language in the farm bill to support the local purchasing of all food, not just fruits and vegetables, and we need investments or loans to help farmers grow real food—broccoli instead of just corn for corn syrup.

We need pilot programs to show that this can be done in other parts of the country, both the lunch piece and the education piece.

We need more funding for food. We have to stop thinking of food as cheap. Jamie Oliver—I was recently with him—another chef from the U.K., held up an iPod, and he said, "Would you want to buy this iPod if it just cost $20?" No. You would question where it came from, and you would question what it was made of. We should be thinking about the same thing with food for our children. Do we really want to buy the cheapest beef? The beef recall, the largest in history with 173 million pounds of beef, should be a lesson to us.

We need more funding for training and for school gardens, because we have learned at the Edible Schoolyard, if they grow it and cook it, they absolutely will eat it.

Finally, it requires leadership at all levels of government and in our schools. Budgets are tight, but we can pay now or pay later. I do not need to tell you about the obesity crisis facing our children

and the CDC's telling us that this generation will be the first to die younger than its parents.

I end with how I introduced myself, as a mother who cares about what kind of world my children will live in. Children learn eating habits when they are very, very young. I have a son who is 1 and a daughter who is 3. Fortunately, my daughter loves peas. She saw a basket of them recently at Chez Panisse, and she asked to take a handful of them out of the restaurant with her. As we left, she said, "More, mama, more." But at the same time, she goes to a daycare center in Oakland where there is a lunch subsidized by the Federal Government that gives her fish sticks and chocolate pudding for lunch. There is something wrong with this picture, when a mother tries to do the right thing but the Government sends a different message.

I am so honored to be here, testifying before this committee. It means that Government, our leaders, are connecting the dots between the food system and the environment, between our children's health and the health of this economy. What we feed our children matters. The National Lunch Program serves 31 million children a day. We have a choice about what to feed them.

Thank you for connecting your efforts to create energy independence and to stop global warming with our efforts to make a very simple meal—lunch—more delicious and locally grown for children.

Thank you.

[The prepared statement of Ms. Wong follows:]

Prepared statement by Carina Wong, Executive Director, Chez Panisse Foundation
For the Select Committee on Energy Independence and Global Warming
Food for Thought: Sustainability from Counter to Compost
February 26, 2008
Washington, DC

Ten years ago, a small group of teachers, an enlightened principal and a visionary cook named Alice Waters started a project on an asphalt parking lot at a public middle school in Berkeley, CA. Alice lived nearby and imagined transforming the broken lot into a beautiful space where children could learn about the connections between food, health and the environment.

A decade later, the Edible Schoolyard, now a program of the Chez Panisse Foundation, is a thriving national model. Every week students at King Middle School participate for 90 minutes in either a kitchen or garden class as part of the academic curriculum. Our program uses food as a vehicle for a very rich and powerful experience. Students learn about volume and proportionality by measuring and making a ten-grain cereal in the kitchen. They learn about history by harvesting ancient grains like amaranth in the garden. They learn how to work in groups and take responsibility as they cook in teams and set the table for each other. And most importantly, they have the opportunity to ask questions and engage in discussions about a complex set of issues that will affect their future.

Recently, I was at the Edible Schoolyard when a group of 7th graders preparing a bed found an old shoe in the soil. One of them asked: What would happen if we threw the shoe in the compost pile? Would it decompose the way the vegetable scraps and paper does? How long would it take? I listened as each student argued what they thought would happen and why. At the Edible Schoolyard, our food system and the environment are inextricably linked.

Our vision is to create this kind of learning experience *and* a nourishing and delicious lunch that all students would eat as part of the regular school day. Two and half years ago, we started to make significant changes to the meal program in Berkeley to begin to influence what students eat for lunch. We gave the school district a grant to hire a chef who began to change the food in all 16 schools in Berkeley.

We had five criteria for the food: local, seasonal, sustainable, nourishing, and of course, delicious. The average meal travels 1500 miles before it gets to your plate. We wanted to change what students ate *and* where it came from—we also knew that local seasonal foods would just taste better. We envisioned ripe juicy tomatoes in the summer and sweet tangerines in the winter luring children into the cafeteria and to the salad bars.

After two and half years of working to reinvent the Berkeley lunch program, we are proud to report that:

- The Berkeley Unified School District (BUSD) is now 100 percent transfat and high fructose corn syrup free.
- The central kitchen serving over 5000 meals a day now uses all fresh whole produce, as opposed to frozen, pre-cut vegetables.

- All 16 schools have a salad bar featuring seasonal fruits and vegetables. About 30 percent of our produce is organic and most of it is regionally purchased.
- All 16 schools have Universal Breakfast, offered at no-cost to all students regardless of household income.
- 12 out of 16 schools use a buffet service for meals, reducing the need for prepackaged, plastic-wrapped disposable trays.
- Organic milk from Humboldt County is being served at lunch in all schools and waste reducing "milk dispensers" are used.
- BUSD began purchasing produce directly from local farms, including Full Belly and River Dog organic farms.
- All kitchens are composting and recycling.

Obstacles to Providing Fresh Food

I want to remind the Committee that the Chez Panisse Foundation does not pay for any of the food costs and the food is not 100 percent organic or all locally purchased—yet . We have supported the district by providing a chef and the resources needed for new menus, new recipes, new purveyors, a new accounting system, an evaluation and an education program for staff, students and educators.

We face obstacles every day to improving school lunch. Infrastructure and facilities: The central kitchen that serves over 5000 meals a day does not even have a stove or a walk in refrigerator. Most of the kitchens are antiquated and local bond money paid to upgrade them slightly. Human resource development: Many of the men and women who prepare the meals had never even held a knife before we started our work; they only unwrapped frozen processed foods. When we started baking raw chicken, they had to learn how to handle raw food. School districts have to hire people who can and want to cook. Procurement and distribution: One of the biggest challenges is creating the distribution systems and policies to promote buying locally and seasonally. Most school districts are not set up to deal directly with farmers who sell whole products and the farmers often cannot deliver to multiple sites. One of our vendors allows us to buy from local farmers but we try to buy directly from the farmers whenever possible. We know that by developing a relationship with them we can be certain of the quality of the food.

Buying and eating locally is a very simple concept that could have a huge impact on the environment if big public systems like schools districts, cities, parks and hospitals and private businesses all began to do it. Imagine the way that we could stimulate local economies and reduce food miles by simply choosing to eat what is in season and buying locally from sustainable farms?

The recent recall of 143 million pounds of beef produced by the Westland Hallmark Meat Company should be a lesson to us. Thirty seven million pounds of beef were distributed to school lunch programs! Earlier recalls about tainted spinach should also be a warning to us. If we care about the health of the planet and future generations, we need to care where our food comes from and how that food is grown or raised. The Founder of my organization, Alice Waters, says it best:

"I believe there is something very wrong with the way most people in our culture relate to food, and this is something that seems to me to be absolutely central to the future of environmentalism. Even the environmental visionaries who seem to be seeing the trees awfully well, even some of these brilliant revolutionaries keep missing the forest. And the forest is, that learning to make the right choices about food is the single most important key to environmental awareness—for ourselves, and especially for our children."

How do we create change?
Is it possible to create the kind of edible education we offer at the Edible Schoolyard and make the kinds of changes we've made to the school lunch program in other cities? Yes, but it takes leadership. We need leaders at all levels of government and in the schools who understand why buying local is important and can advocate for policies and pilot programs to catalyze changes in public institutions.

In addition, school districts need incentives to buy locally and increased funding to support purchasing real food — apples instead of canned fruit cocktail; chicken instead of nuggets; food that is delicious and ripe; food that will lure children in with pleasure. We've learned after a decade of working with children: if they grow it, and cook it, they eat. We don't have to teach them about nutrition—I've seen children devour plates of simply cooked chard. We don't have to tell them why we don't use chemicals in the garden. They taste and know the difference.

Finally, buying locally will require new funding. Sadly, the federal government reimbursement for school lunch is $2.49 per student; the state allocation in California is 21 cents; the commodity foods program brings in about another 18 cents for a total of $2.88. (The commodity program is the same program that brought so many school districts the recently recalled beef.) When payroll and overhead are factored in, there is only about 80 cents left for food costs. What kind of lunch can you buy for less than a dollar? We are trying to buy locally, sustainably and transform an entire food system on very little money. It can't be done at scale without increased resources and more creative policies/incentives.

Most districts have to make a profit on their school lunch program and do not receive additional reimbursements from their district's general fund (which we fortunately do in Berkeley). But budget cuts in education each year in California threaten the changes we've worked so hard to make. A fresh fruits and vegetables program was recently scrapped in the California legislature.

We believe that state and federal governments must come up with increased funding and better policies to support purchasing real—local, seasonal and sustainable foods. I realize that budgets are tight and we are facing difficult economic times throughout our country, but we can pay now or pay later. We send a message to our children when we say we don't care what we feed them. I know that changing the regulations is not the purview of this Committee but it is an important issue that all legislators should understand.

I am so honored to be testifying before this Committee. It means that government— our leaders—are connecting the dots between our food system and the environment, between our children's health and the future of our economy. What we feed our children matters. The

national school lunch program serves 31 million children a day. We have a choice about what to feed them. I close with a quote from Alice Waters:

"If you choose to eat mass-produced, fast food you are supporting a network of supply and demand that is destroying local communities and traditional ways of life all over the world—a system that replaces self-sufficiency with dependence. And you are supporting a method of agriculture that is ecologically unsound—that depletes the soil and leaves harmful chemical residues in our food. But if you decide to eat fresh food in season—and only in season—that is locally grown by farmers who take care of the earth, then you are contributing to the health and stability of local agriculture and local communities."

Thank you for connecting your efforts to create energy independence and stop global warming with our efforts to make a very simple meal more delicious and locally grown for all children.

The CHAIRMAN [presiding]. Thank you, Ms. Wong, very much.

The Chair recognizes the gentleman from Missouri, Mr. Cleaver, for a round of questions.

Mr. CLEAVER. Thank you, Mr. Chairman.

Mr. Beard, I returned to Washington this past Sunday night, and I came to my office at about 11 o'clock at night, which is just a slight symbol of the fact that I have no life. When I arrived at 11 o'clock at night, all around the offices, the lights—in our offices, we have changed all of the lightbulbs. There is a rule to turn off the lights when you leave, and the television is not supposed to be on all night. However, when I looked out my window, I could see that there were very few other Members practicing that kind of stewardship, if I can use an etiological term.

Although I think we are making some strides, is there anything that you can suggest that would help us get across to the people here in the Capitol the events that we are doing?

I had hoped, when word got out about all of the changes that you have implemented in the dining room, that that would be a subtle suggestion that maybe we ought to do something in our offices and even in our district offices.

I have a mobile unit in my district in Missouri, in Kansas City, Missouri. We have a mobile unit that runs off of grease. We get the grease, of course, at restaurants, so it ends up being recycled. You cook a Big Mac in it. We drive with it.

I think, as we are trying to get the Nation to even think about the sustainability of our food supply, of our dining, that maybe we need some moral authority to make those pronouncements. I am not sure we do have that, based on what is going on on the Hill right now.

Do you have any ideas or suggestions?

Mr. BEARD. Yes, I do, Mr. Cleaver. I happen to think that what we need to have is a night lighting policy. You know, we need to direct that the lights in the offices be turned off at a reasonable hour, whatever that may be. Until we can go back and retrofit all of the offices with motion-detector lights, we do not really have any choice other than to mechanically flick those—make sure, direct that those lights are turned off.

The system that is currently used by the Architect of the Capitol is to have the cleaning crews, as they leave, turn off all of the lights, but that is an inconsistent pattern. It does not work. I think a better solution would be to work with the Architect of the Capitol to implement a night lighting policy.

We have already worked with the Architect to reduce the run time on the fans, for example, for the heating and cooling systems. We have reduced the run time by 14 percent, which, in turn, you know, is having an impact on our carbon footprint and on our overall operations. We are also trying to install better controls so that we are not running the air-conditioning systems, you know, 24/7 at a very low temperature.

So I happen to think the easiest way to go about this is to work with the Architect of the Capitol to come up with a night lighting policy so that we turn those lights off. If a Member is there and wants them on, all he has to do is flick the switch, but otherwise, they are off, and we ought to make sure that they are off. There

is a significant savings that can be had, you know, both in terms of carbon and the costs of electricity.

Mr. CLEAVER. Now, when this committee first began its work, at one point, we had the largest carbon footprint in Washington; Capitol Hill did. Is that still the case? If so, how do we expand what you are doing?

Mr. BEARD. I am not always sure we have the largest carbon footprint in Washington, but you have to remember, the 7,000 employees of the House of Representatives who are here in Washington on this campus do business in very old structures. I mean, the Capitol is 1793, finished in 1810. Our newest building is the Rayburn Building, 1965, so it is 42 years old. You know, the Ford is 1939, the Longworth is 1933, the Cannon Building is 1908.

Now, each one of those buildings was built to the fire, safety, health, heating and cooling standards of their day, and we have had to go back and retrofit every one of them. Some buildings, like the Capitol, leak like a sieve. I mean, there is no other way to describe it. That is just because we have had a hodgepodge development.

So we have very old, very aging infrastructure where, for a long time, no one made any improvements in the heating and cooling systems, in the metering or in any of the other aspects of building operations. So we have a long ways to go to be able to address that.

Our carbon footprint of 91,000 tons for a community, a small city of 7,000 people in the District, is probably larger than normal, but I do not think that it is too outrageously high. There are other bigger institutions like Georgetown and GW, but most of them have buildings that are a lot newer than ours. Ours do not change very much, frankly.

Mr. CLEAVER. Thank you.

The CHAIRMAN. The gentleman's time has expired.

The Chair recognizes himself for a round of questions.

Mr. Beard, what was your most difficult challenge in attempting to green the Capitol?

Mr. BEARD. That is an interesting question.

I think there were really two big problems. The first was getting our arms around all of the factual situation. What is our carbon footprint? Luckily, the General Accounting Office had been asked to prepare that information a couple of years ago, and they made it available to us. So that solved that problem.

I think the second problem has been getting people to realize that they have to do business in a different way. That is everyone from Members and other agencies like the Architect of the Capitol or the Senate or the Capitol Police, or whomever it may be, and our employees. We need to do business in a different way, but it is not that expensive, it is not that difficult, and it certainly does not take new technology. It is all off-the-shelf, and we are not doing anything different than any other major corporation or institution in America is doing at the present time. Wal-Mart or Harvard or any company worth its salt is investing in and is making energy-efficient improvements to affect the bottom line.

The CHAIRMAN. Are there any other commercial cafeterias that close the loop for procurement, consumption and disposal, as the House cafeteria does?

Mr. BEARD. I do not know of any in the Washington, D.C., area. Rutgers University has a very good one. The Harvard Business School has one. Google, both in the Bay Area as well as in New York, has pretty modern facilities. But I do not know of any others in the D.C. area that have taken the kind of steps that we have.

The CHAIRMAN. How have you been able to create a corporate-model, sustainable cafeteria without a price premium?

Mr. BEARD. Well, it does cost a little bit more, but I am convinced that you make it up on the back end by increased sales. You know, our restaurant is a commercial operation, if I can put it in those terms. We have a vendor. The vendor prepares the meals, sells the food, and then the House receives a payment as a percentage of those sales. So, the more meals we serve, the more money we make, in a sense, if I can use that analogy.

Last year, we received $275,000 in revenues under GSI. We anticipate that will go up to $1.2 million this year with Restaurant Associates, primarily because we are presenting a better product in a better environment, and the food is better, it is fresher, and we are getting on a per capita basis greater attendance at the cafeteria than we have had in the past.

I do not know how that will work out, you know, 6 months from now, but certainly, it goes back to the testimony that we received about the schoolchildren in school cafeterias. It is not that difficult; it is very easy. You know, you want to make available the best product you can to the employees who work here and to the Members and to our guests that we possibly can. If we are willing to invest a little bit to do that, we will get money back on the back end.

It cost us, for example, $90,000 to purchase and install the pulper, but we will make that money back over probably a 6-year period of time. I think it was a good investment.

The CHAIRMAN. So, in the end, though, it is not a price premium, if you think about it. It is the overall life cycle.

Mr. BEARD. It may be in the first year, but in the second, third, fourth, and fifth years, it is not.

The CHAIRMAN. It is not.

Dr. Millner, the Beltsville composting facility that is operating, is that operating at capacity?

Ms. MILLNER. Yes, at the present time, we are. We actually expanded ourselves a little bit more than we originally intended, but with some additional modifications and some processes with the in-vessel systems, we are able to handle things.

The CHAIRMAN. How many facilities like that are there in the United States?

Ms. MILLNER. Composting facilities in general? I am going to think that there might be about 4,000 or 5,000 total. A lot of these do not handle food composting particularly. Most of them handle yard trimmings and that sort of thing.

The CHAIRMAN. You discussed new facilities to avoid long-haul distances.

Ms. MILLNER. Yes.

The CHAIRMAN. What are the constraints of finding a location for a composting facility?

Ms. MILLNER. Well, there are actually quite a few. Most of them center around community concerns about potential aspects that maybe there might be some odor or maybe there might be some additional traffic or as to the aesthetic appearances of an outdoor composting facility where you see the piles and that sort of thing instead of an enclosed, in-vessel type of system.

The CHAIRMAN. So what are the opportunities for expansion?

Ms. MILLNER. Well, in an urban area, what we are looking at is—there are a variety of different in-vessel systems that are available within the United States, so that is what we are looking at. What is the most efficient type of system for the food-type operations? Particularly, how do they compare with regard to gaseous emissions that impact global warming? What are their energy costs for operating them? Because they obviously do utilize some kind of forced aeration, so that has to be taken into account.

The CHAIRMAN. So, can you answer that? Can you deal with that question for a second? What are the expenses related to composting?

Ms. MILLNER. The expenses are the capitalization, if you are talking about a brand-new facility. If they have to get a facility up and going, it is whatever is required for the permitting of that facility. Then there are operations and maintenance costs, in addition to any of the capital items for the equipment that you need to purchase to move the materials around.

The CHAIRMAN. How commercially profitable is the compost after it has been processed?

Ms. MILLNER. That depends on what they decide to do in the beginning. I often tell people you have to start with the end in mind. In that regard, I say that if you are really looking to produce a very high-end horticultural product, then you need to do certain things within the steps in making that product to get to that very high end. You can ask a very large price for that because horticultural producers want a reliable, high-quality product.

If, on the other hand, you are producing a product that you are just using for general field application for corn or for some other commodity, you may not need to go to that high of an end to produce a high-quality product. Consequently, you do not have to put in as much capital investment.

The CHAIRMAN. All right. Thank you.

Ms. Wong, what aspect of the School Lunch Initiative has the greatest influence on children, in your opinion?

Ms. WONG. I think the greatest aspect of it is—a simple example is a salad bar, just having fresh, local produce where kids can see and choose. Kids like to choose things. So, when they see it, they want to eat it. And it really makes a difference in both their health and in the environment.

The CHAIRMAN. Are you interested in expanding to other school districts?

Ms. WONG. Absolutely. We are always looking for different partners, and we have been contacted by folks in Chicago and in New York and in Los Angeles. While we may not run the program, for we are a very small organization, we absolutely support and are trying to link up funders to support this kind of program in other school districts.

The CHAIRMAN. Well, let me ask this question to any of you down there. What has been the response from diners as you move to this new model? What are you hearing back from the people who consume this food?

Mr. BEARD. Well, speaking for the House anyway, when the New York Times' food critic came to taste the food, after tasting the food, she walked around and talked to people. She randomly talked to people in the Longworth cafeteria. She came back and said, "Well, that was a surprise." I said, "What was?" She said, "The number-one answer I got back was people were excited about being able to participate in a composting exercise." They like the food, but it is just as important that we are composting. So I think that was, to me at least, one real testament.

I also judge the number of negative e-mails I get. Usually when we make some kind of change around here, I get a lot. I guess it is part of the job. But I would have to tell you that I have not received any bad e-mails. Now, I have received e-mails about we need additional information on various aspects and problems with people with special diets, but I have yet to receive an e-mail where somebody said this is lousy food, so——

The CHAIRMAN. Ms. Wong, what kind of comments are you receiving from diners?

Ms. WONG. In our kitchen classroom, some of the kids serve lunch. Kids make a dish, and they grow the food. I can tell you, on countless occasions I have been in there and have seen young boys and girls devouring plates of Swiss chard and kale. How many times have you seen that? I see it every time I go down there in the winter because they have been involved in growing it and cooking it, and it tastes good because it is straight from their garden that they have been growing it.

Another story is one of the programs we implemented was a free breakfast program, so we would source apples and other fruits and vegetables locally from the farmers market. Teachers can do it or not do it, but it is available to all of the kids. At one school in particular, there was a classroom; one teacher was too lazy to go down and get the food in the cafeteria and bring it back up. One of the young students called the food service director and said, "Why is everyone else getting this great free breakfast with this fruit and these muffins, and I don't have it?"

So students really are noticing differences. The longest line in the high school is the salad bar line.

The CHAIRMAN. Interesting.

Mr. BEARD. If I could interject, Mr. Chairman, I would also have to say that, at least in our case, the best test is a market test. You know, we have long lines and a lot of people coming back, and the use of the cafeteria is greater now than it was when we compare it back to a year ago.

The CHAIRMAN. So you are saying that revenues are up?

Mr. BEARD. Revenues are up. More people are eating. And they are satisfied customers, which is ultimately the strongest test. You don't usually go back for another bad meal at a restaurant. That has been my experience. You get only one chance.

The CHAIRMAN. Yes, I agree with that, so that is quite a tribute.

The Chair recognizes the gentleman from Oregon, Mr. Blumenauer.

Mr. BLUMENAUER. Thank you, Mr. Chairman. You picked up on a point that I think is very important, in terms of customer satisfaction.

I appreciate, Mr. Beard, that you have a big operation, lots of moving parts that you are dealing with, but you are already seeing, as your testimony pointed out, cost savings just in the area of solid waste, customer satisfaction and more people actually taking advantage of the healthier, more environmentally sensitive areas.

Do you have a sense of, as we are going forward, what the cost implications of that will be over time? I noticed you referenced the $20,000——

Mr. BEARD. Right.

Mr. BLUMENAUER [continuing]. Just as one little example.

Mr. BEARD. Well, I would not be surprised if, overall, we were going to be up around $200,000 in savings just in the kind of investments we have made in going to energy-efficient equipment and in the changes to the tipping fees. We also are not going to be purchasing as much carbon offsets, so that is a savings. So I would not be surprised, at the end of the year, if we would reach $200,000 in savings. It is not unusual.

Mr. BLUMENAUER. Well, I would add my voice to what you were saying as to how positive the transition has been. You do not usually see that when you are talking about changes, and particularly when there are a few people who had decided to be cranky before they had even seen it. I have been stunned at just the chatter, as I dip down in there for a few minutes to try and grab something, and at the positive feedback from our office and with the young men and women on the Hill who we come in contact with and with visitors.

This is something that I don't think has been given proper attention, but we have millions of visitors who are on Capitol Hill every year, and the opportunity to watch the modeling and the feedback that they get is an opportunity to carry that message. Up to this point, based on the feedback from my constituents and from the folks we pick up on, it has been very positive, and I appreciate it.

I would pose a question to you, Mr. Beard, and to our other panelists about the lessons that this suggests for other areas of the Federal Government. I think it is important for us to model the behavior we want from the rest of America on Capitol Hill, but the Federal Government is the largest landlord, landowner, employer, probably the largest provider of food services in the United States. As you sort of run this all out, it has a pretty significant potential impact.

I wondered if any of you had thoughts or observations from these lessons about what changes we should have in Federal policy to be able to accelerate this change to capture these savings and to increase customer satisfaction.

Mr. BEARD. Do you want to go ahead?

Ms. WONG. I mentioned earlier in my testimony that the farm bill is now in conference, but there are things in it that encourage and provide incentives for participating locally. So those are important pieces of legislation that need to be strengthened, as well as

encouraging loans for farmers to really begin to produce real food. Those are two very strong examples that I think, policy-wise, support our efforts.

Mr. BLUMENAUER. I will send you my Food and Farm Bill of Rights legislation——

Ms. WONG. Terrific.

Mr. BLUMENAUER [continuing]. Some of which got into the farm bill.

Ms. WONG. I am sure I will agree with it.

Mr. BEARD. Well, I think my observation would be that it is not that hard. We are not talking about rocket science here. This is not brain surgery or anything. We are talking about obtaining locally produced products and providing fresh food to our customers.

I really have to put in a plug for our vendor. Restaurant Associates has been a fantastic vendor for the House. I met with the president of Restaurant Associates in November, and I told him that success, to me, would be that in a year people would come to Washington, D.C., and say, "We have to go to the House of Representatives cafeteria because it is a green and sustainable operation."

I think we are almost there. I mean, I think, frankly, with some more publicity like this hearing, we will be having that kind of an impact. It really is not that hard. It does not cost that much more. And you make the money back, you know, in the long term by having greater revenues.

So I guess the other thing is—in terms of policy, I think the suggestions about the farm bill are very, very interesting and very worthwhile. We have actually made these changes, incidentally, without the benefit of getting as many products from local providers as we would like to have because of the time of the year we are in. I think, when you see it in the spring and in the fall here, you will see a lot fresher products. Our apples, peaches and other kinds of things that you will see will be local products.

As you walk into the Longworth cafeteria, for example, or into the Rayburn, you will notice a little sign, and it says, "Our local partners." What it shows is the local farms that are supplying food that day. I have talked to Restaurant Associates about having some of those farmers come into the restaurants and, you know, talk some about the kinds of things that they are doing and about their products, so it can build a link between our cafeterias and our suppliers, the farms that we are using.

So there are a lot of exciting things that we can do, and Restaurant Associates has been more than willing to participate in that.

Ms. MILLNER. I would just say there is hardly a week that goes by when I do not receive a call from other Federal agencies around here in the Washington metropolitan area who would like to be able—they are interested in doing the composting of food residuals and are trying to get on board with the bio-based products.

So I think there is a huge, pent-up demand among the Federal agencies to do that. As soon as there is more composting capacity for food waste in the area, I can see that going forward rather rapidly.

Mr. BLUMENAUER. Super. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentleman from Oregon.

We are going to ask now each one of you to give us your best 1-minute summary of what you want us to remember about this phenomenon so that we can retain that in our minds. Feel free to use the props which you have brought as part of your summation.

Ms. Wong, we will begin with you for 1 minute.

Ms. WONG. I would like to give a quote from my organization's founder. I think this sums it up. Alice Waters said, "I believe there is something very wrong with the way most people in our culture relate to food, and this is something that seems to me to be absolutely central to the future of environmentalism. Even the environmental visionaries, who seem to be seeing the trees awfully well, even some of these brilliant revolutionaries keep missing the forest. And the forest is that learning to make the right choices about food is the single most important key to environmental awareness for ourselves and for our children."

The CHAIRMAN. Thank you, Ms. Wong, very much.

Dr. Millner.

Ms. MILLNER. I would just sum up by saying that composting is Mother Nature's natural process for decomposing and recycling. It starts and ends there.

The CHAIRMAN. Beautiful. Thank you.

Mr. Beard.

Mr. BEARD. I think I would use a little bit of a variation of that. Again, you know, we start with the food itself. The materials are compost material, you know—I guess I call it my coleslaw—leading us into compost. So it is a life cycle, and you have to think about it in life-cycle terms and look at this in a much more comprehensive fashion.

Then, I think the last thing that I would say is that I would encourage you to visit the Members' Dining Room, the Longworth or the Rayburn cafeteria. Bon appetit!

The CHAIRMAN. Thank you very much.

Mr. BEARD. Thank you.

The CHAIRMAN. I am doing that, and it is really great. I want to congratulate you.

Mr. BEARD. Thank you.

The CHAIRMAN. You know, we are daily diners, but I think Members might want to try Chez Panisse too. That might be a good congressional trip for us.

We thank you all very much for your patience.

This hearing is adjourned.

[Whereupon, at 4:15 p.m., the committee was adjourned.]

THE SELECT COMMITTEE ON
ENERGY INDEPENDENCE AND GLOBAL WARMING

March 27, 2008

Dear Mr. Beard,
Following your appearance in front of the Select Committee on Energy Independence and Global Warming, members of the committee submitted additional questions for your attention. I have attached the document with those questions to this email. Please respond at your earliest convenience, or within 2 weeks. Responses may be submitted in electronic form, at aliya.brodsky@mail.house.gov. Please call with any questions or concerns.

Thank you,
Ali Brodsky

Ali Brodsky
Chief Clerk
Select Committee on Energy Independence and Global Warming
(202)225-4012
Aliya.Brodsky@mail.house.gov

1) I am concerned about consumer protection as we look at the labeling of so-called-green ideas. What guarantee does a consumer have that if a food is labeled as "locally grown" that it really is in fact from a local farm?

Restaurant Associates (RA) works with their suppliers to identify local producers. The ice cream is from Gifford's which is a long established local business for instance. Local suppliers are listed on the white boards outside of the various food service units.

2) Can you define "local" – is it within 50 miles, 100 miles? And where is that measured from? How can certain non-agricultural regions purchase local foods when the nearest farm might not be for a hundred miles? What about the opportunity for choice? Should individuals purchase Pennsylvania cheese rather than Wisconsin cheese regardless of the difference in quality and taste?

The definition of locally grown used by the House and RA is 150 miles from the Capitol. The signage in all food service units has a map with a circle showing the radius. The emphasis is on local where possible to reduce transportation costs and reduce the carbon footprint. This can also

provide markets and income for farmers who are trying to resist the threat of urban sprawl. The emphasis is to purchase local not that it be exclusive.

3) On average, what is the cost increase that is experienced when purchasing locally certified organic food? Can you show us the consumer price menus side by side – if not here, then for the record?

When comparing locally grown organic to nationally grown organic, the pricing is similar. Comparing organic to non-organic food is dependent on the item itself. Produce is a commodity item with weekly price fluctuations which doesn't lend itself to a set price.

4) What issues arise in terms of the variety of foods available in local markets – for a simple example Florida is not an apple producing state; Wisconsin is not an orange producer. What about seasonal availability? What are we giving up in order to focus on local foods?

What the House is getting by focusing on local foods is good fresh produce and other items that are often tastier as opposed to produce that is grown primarily to be transported several thousand miles and with a long shelf life. Regarding seasonal availability, again the emphasis is on locally produced.

5) In terms of farming as a livelihood – wouldn't you agree that the ability to ship to other markets, both domestic and abroad, are important for the economic viability of farms?

There are many ways a farm can be economically viable including selling to local markets.

6) With respect to the concept of "additionality" as it relates to carbon offsets, how would the methane reduction activity you identify meet the additionality threshold?

The House has diverted from landfill more than 50 tons of food service waste since mid-December when the program started according to preliminary estimates. This is the kind of

waste that turns into methane gas. By composting it the House is preventing the creation of this potent greenhouse gas. As a result there are additional reductions in greenhouse gas due to the fact that this is a new activity.

7) Does "hormone free" meat and milk really make a positive impact on carbon emissions and sustainability?

It is consistent with trying to provide the healthiest food choices in the House food service.

8) How do you verify that the milk sold comes from "dairy cows that have never received injections of synthetic bovine growth hormone" as you advertise on your website?

RA relies on the integrity of their suppliers.

9) Are you compliant with FDA labeling regulations for dairy products advertised as rbST-free?

RA uses hormone free dairy products and relies on the integrity of their suppliers.

10) Why the insistence on using "cage-free" eggs when the associated carbon impact is greater?

The carbon impact is de minimus.

11) In both of these cases (hormone-free meat and cage-free eggs), the reality is that your choices have increased the House's carbon footprint. Is it fair to say that the forces driving these decisions are part of a different agenda and not an agenda focused solely on carbon emissions and sustainability?

Many top chefs, like Wolfgang Puck for instance, believe that cage free eggs are of higher quality. The agenda is to provide quality, healthy food in the House food service.

12) What is the percentage of time such an approach is even viable, given seasonal impact on the availability of local produce?

Insignificant. RA is purchasing food on a daily basis.

13) Does this mean that all dairy products are purchased from the Maryland/Virginia Dairy Cooperative?

RA purchases all dairy products from a local distributor Cloverland Dairy.

14) When was the contract with Restaurant Associates signed?

August 14, 2007

15) Were modifications necessary in order to meet your goal of making the House restaurants the "premier showcase of sustainable, green" operations?

The CAO worked closely with RA toward the joint goal of implementing the greening initiatives.

16) How were these modifications negotiated, and what was the resulting price impact on the customers?

Again, the CAO worked with RA to be at the cutting edge of green food service practices. With only a limited time of operations the costs and cost savings are still being determined.

17) The House's contract with Restaurant Associates (RA) is an "option" tied to the primary food service contract (also with RA) for the CVC. What, if any, of the contractual

provisions for sustainability and local and organic food purchases are also in the contract for the CVC?

The food service contract for the CVC is between the Architect of the Capitol and RA.

18) Who has certified that the on-site "pulper" you referenced is sanitary? Why are we frequently confronted by terrible odors in the Longworth basement as a result of this operation? What is being done to correct that?

The Office of the Attending Physician oversees the sanitation of all of the food service operations. The pickup times to take the pulped food service material have been changed so the material is not staying here as long. Also, a charcoal air filter has been installed.

19) What have been the average cost increases for the average Hill consumer now that the cafeteria has switched over to Restaurant Associates? Restaurant Associates state on their website, "Prices remained the same though might have been adjusted based on portion sizes, ingredients and preparation style," yet whereas a 32 oz. soft drink previously cost $1.35 a 20 oz. soft drink now costs $1.65. The portion size shrank over 37%, the ingredients and preparation remained the same and the price rose 22%. How can the House conduct business with a vendor that is clearly misleading consumers?

Prices are the same for like items with no price increase.
The price of a 20 oz fountain soda is $1.25.

20) How do you reconcile the fact that a 20 oz. fountain drink from the cafeteria costs $1.65, while a 20 oz. bottle from the vending machine costs $1.25? Are you planning on raising the price of a bottle for soda from the vending machine?

A 20 oz fountain soda costs $1.25.

21) What has been the total cost incurred by the House of Representatives to date of the entire "Green the Capitol" initiative?

All told, the Green the Capitol Initiative cost $2 million to initiate and fund for an entire year.

22) One concern I have about the change in packaging for carry out is that the food does not stay hot or cold as desired – given how busy staff and members are, that is more than a passing nuisance. Don't you think that there should be an option to have a more temperature sensitive container for those who are not sure they will get to eat their meal immediately after purchasing it? How do these items hold up in a microwave for re-heating?

The biodegradable containers are as effective in temperature control as the petroleum based containers. There are a wide variety of food options available at the House food service outlets for those who intend to save their meal for another time. The sugarcane containers, the brown ones, are microwavable. It is not recommended to microwave either the plastic or corn containers.

23) You note that the last three weeks of December 2007 resulted with approximately 20 tons less of trash. Weren't the cafeterias closed for a week this year to facilitate the cafeteria transition?

Only Rayburn Cafeteria and Cannon Carryout were closed for renovations the last several weeks of December. The other food service operations were open.

24) As part of a "sustainable" cafeteria plan knives, forks, spoons, and sandwich shells are now corn-based. Currently demand for corn-based ethanol has skyrocketed which has driven up prices for numerous corn-based products including tortilla prices and the price of meat. In this context, do you think it is a good idea to further strain the corn market by making utensils from corn?

It is a better alternative than making the items from a non-renewable resource, oil, whose price has skyrocketed significantly more than corn with oil now over $100 a barrel and prices are expected to continue to escalate. Also with the biodegradable items we are turning what once was garbage into a commercial product as opposed to the plastic and Styrofoam which will sit in a landfill for 100 years. The House is turning trash into top soil in 75 days.

25) On Restaurant Associate's website they explain how they replaced Atlantic cod with Pacific cod. Aren't they supposed to be reducing the number of miles the food travels? Doesn't this action contradict the mission statement of Restaurant Associates?

As in any endeavor there are tradeoffs. In this case using the Sustainable Seafood guidelines to reduce pressure on Atlantic cod populations won out.

26) One of the great draws of Washington are the free museums and monuments that allow lower income families to experience their Capitol without breaking the bank. Particularly as we look at providing food service for the Capitol Visitors Center, I am concerned that our constituents get an inexpensive meal. What can be done to assure that prices are kept under control even as we implement these so-called green measures?

As can be seen from the packed cafeterias with school groups, families and citizen advocates our Capitol visitors are getting healthy, tasty food at very reasonable prices. Like items, a cheeseburger for instance, is the same under RA as the previous vendor. In the House, price changes have to be approved by the CAO. Again, for the CVC the contract is between RA and the AOC.

27) I understand that part of the composting process is happening on site, but I am concerned by the complaints of many staff that the stench from this process overwhelms the hallways every few days. Are you certain that this process is safe? Is there anything that can be done to eliminate the olifactory offense?

There is no composting taking place on site. The compostable material is taken to a commercial composting site in Crofton, Maryland. The material is pulped on site to reduce volume and weight. Also please refer to the answer to question 18.

Response to Questions from the
Select Committee on Energy Independence and Global Warming
Submitted by Dr. Patricia Milner

1) **I am concerned about consumer protection as we look at the labeling of so-called green ideas. What guarantee does a consumer have that if a food is labeled as "locally grown" that it really is in fact from a local farm?**

   ANSWER: We don't have information on how states are handling labeling and marketing claims of 'locally grown'. However, many consumers are increasing their purchases from farmers markets, community supported agriculture (CSA), food cooperatives, u-picks, farm stands, and other direct marketing channels. These are common means by which consumers directly connect with local producers. The number of farmer's markets in the United States has grown steadily from 1,755 markets in 1994, when USDA began to track them, to approximately 4,400 in 2008 (http://apps.ams.usda.gov/FarmersMarkets). Farmers participating in these types of direct marketing approaches are responding to heightened demand for locally grown and/or organic products.

   Beyond these direct to consumer marketing outlets, many retail supermarket firms (independent grocers and chains alike) have begun to showcase locally grown food as a way of differentiating themselves from the competition. In many of these cases, the labels on the locally grown food contain the name and location of the specific farm/producer organization that produced these foods, while in some instances, the retailer will provide point of sale displays or background literature about the source of these foods.

2) **Can you define "local" – is it within 50 miles, 100 miles?**

   ANSWER: The term 'local' refers to a community food system and has been used to describe a range of farming scales: simple, complex, local, global, and regional. While the term "locally grown" means different areas to different groups of people, respondents in several surveys conducted on this topic indicate that buying "locally grown" food means they are supporting their community food systems and economy and thereby are

helping to preserve nearby farms and farm-related businesses. In a published survey taken in Oregon, "locally grown" meant to the majority of respondents 'grown in Oregon' (Clarke, 1999). A survey of random households in southeast Missouri (Brown, 2003) found that:

> "Consumers defined locally grown as a regional concept that could cross state boundaries rather than strictly statewide. Most important when purchasing produce were quality and freshness, and most consumers perceived local produce at farmers' markets to be of higher quality and lower price."

The market research firm Packaged Facts defines "locally grown" foods as "those foods that are sourced within relatively close range of their ultimate point of sale, typically within a 250 mile radius, or at most no more than a day's drive away". This definition of local largely comports with our observations of how the term is commonly used throughout the country. Nonetheless, the specific interpretation of "locally grown" does vary somewhat in different parts of the country, given variations in climate, cropping patterns, land values, and farm density. Areas with drier climates and fewer numbers of diverse farms tend to have a more expansive definition of local. In New Mexico, a multi-store food coop has started a local food distribution system for the entire state, with local being defined as food grown within 300 miles. That part of the country simply does not offer the same abundance of diverse food production, especially fruits and vegetables, that one might see in New York or Wisconsin, where local may be commonly interpreted as being within a 100-150 mile radius. By contrast, in northern California, where diverse crop production is abundant, local may be defined as originating within the same county or within 50 miles of a market outlet's location. In general, however, "locally grown" food is commonly considered to be food that is sourced within a comfortable day's drive from the market outlet.

And where is that measured from?

ANSWER: In terms of general usage, the size comprehended by community food systems may encompass a somewhat small area, such as a neighborhood, or increasingly

larger areas such as towns, cities, counties, regions, or bioregions. Responses from consumers are likely to vary considerably as the terminology has been quite flexible.

The term "locally grown" is also used in several USDA nutrition programs, WIC Farmer's Market Nutrition Program (http://www.fns.usda.gov/wic/fmnp/fmnpfaqs.htm) and Senior Farmers' Market Nutrition Program (SFMNP) (http://www.fns.usda.gov/wic/SeniorFMNP/SFMNPmenu.htm). The latter programs use the definition of 'locally grown' as:

> "foods that are grown within the borders of the State that the project serves. State agencies also have the option to define "locally grown" to mean foods grown in areas of States adjacent to that State, as long as such areas are part of the United States, and/or to use a more stringent definition than the one established by FNS."
>
> (Federal Register, 2006)

In fiscal year 2005, 2.6 million WIC participants received farmers' market benefits.

How can certain non-agricultural regions purchase local foods when the nearest farm might not be for a hundred miles?

ANSWER: Purchasing locally produced commodities may not be possible for all cultivars and commodity types (e.g., pineapples in continental US) at all locations within the United States. If 'locally' is constrained by a specific number of miles away from the consumer's individual capacity to reach the farm site or for the farm producer to directly market to the consumer many commodities would be excluded. This is not the purpose of considering community food systems. Rather, the purpose is to broaden market opportunities to local community members.

What about the opportunity for choice? Should individuals purchase Pennsylvania cheese rather than Wisconsin cheese regardless of the difference in quality and taste?

ANSWER: Consumers are free to make their own food choices based on their own preferences and budgets.

3) **On average, what is the cost increase that is experienced when purchasing locally certified organic food?**

ANSWER: Locally grown is not necessarily organic, although it may be. We have not seen any comprehensive price comparison studies of locally grown (non-organic) vs. non-locally grown (non-organic) produce, though anecdotal case study evidence (as presented by farm-to-school program coordinators at various conferences) suggest that at least some locally grown produce items can be price-competitive with traditionally sourced produce shipped over long distances. As the cost of fuel continues to rise, one might reasonably expect the price differential between traditionally sourced food and locally grown food to narrow, especially to the extent that increased market access to nearby markets permits local producers to scale up their production volumes.

For organic, USDA-Economic Research Service noted in their report Price Premiums Remain High (http://www.ers.usda.gov/Briefing/Organic/Demand.htm):

"USDA does not yet systematically report organic prices at the farm and retail level. However, USDA's Agricultural Marketing Service (AMS) has reported wholesale prices for a few organic fruits and vegetables for about a decade, and recently added price premiums for poultry and sales volume for milk.

- AMS *Market News* publishes organic prices for fruit and vegetable crops in a number of the 15 terminal markets where prices are collected, including Boston and San Francisco. See an ERS analysis of organic farmgate and wholesale prices for a comparison of organic and conventional prices from 1999 to mid-2005.

- *Market News* began reporting organic poultry prices in the weekly *Organic Poultry and Egg* report in January 2004. The report tracks prices paid to poultry or egg companies by the first receiver (such as a retailer, distributor, or manufacturer).

- In January 2006, AMS began reporting sales (in volume) of organic fluid milk products in monthly milk marketing order reports.

- in January 2007, *Market News* began biweekly reporting on organic grains in the Upper Midwest and Eastern Cornbelt (use the main AMS page to access the latest biweekly reports).

Several private firms also collect and publish organic price data. A private firm based in Florida, Organic Food Business News, has been publishing a weekly organic price report since the early 1990s and a nonprofit, the Rodale Institute, began publishing online weekly price reports in 2003.

ERS has conducted a number of studies to examine organic prices (primarily farmgate and wholesale), and these studies have shown significant organic premiums for fruits, vegetables, grains, and milk in the 1990s and beyond—see our recommended readings page for a complete list of ERS reports and papers on organic price premiums. "

Can you show us the consumer price menus side by side – if not here, then for the record?

ANSWER: I have no information on consumer menu comparisons.

4) **What issues arise in terms of the variety of foods available in local markets – for a simple example Florida is not an apple producing state; Wisconsin is not an orange producer. What about seasonal availability? What are we giving up in order to focus on local foods?**

ANSWER: Buying "locally grown" commodities is not intended to exclude any commodities from the array of consumer choices, either by season or commodity type, but rather to provide consumers a choice to purchase from local farms. Consumers are not required to give up foods in order to purchase locally produced commodities.

"U.S. farms are diverse, ranging from small retirement and residential farms to enterprises with annual sales in the millions. Nevertheless, most U.S. farms—98 percent in 2004—are family farms. Even the largest farms tend to be family farms. Two features of family farms stand out. First, there are many small family farms (< $250,000 annual sales), making up 90 percent of all U.S. farms. Second, large-scale family farms account for 60 percent of all production." (Hoppe et al., 2007. http://www.ers.usda.gov/Publications/EIB24/).

5) **In terms of farming as a livelihood – wouldn't you agree that the ability to ship to other markets, both domestic and abroad, are important for the economic viability of farms?**

ANSWER: Yes, farmers need access to markets--local, regional, national and international. However, ensuring open markets in and of themselves will not necessarily

provide equal access to all farm operations. Generally, national and international markets are more difficult for smaller-scale farmers to access. By and large, such farms do not have the volume of product or infrastructure to meet the demands of national and international markets. Therefore, increased development of community-based food systems, which provides enhanced access to local and regional markets, can be expected to be particularly beneficial for smaller-scale producers who are ill-equipped to compete successfully in the national or export market arena. Also, to the extent that their involvement in local and regional markets allows such producers to reduce their dependence on intermediaries, the expansion of local and regional marketing channels can enable producers to retain a greater percentage of consumer food expenditures.

6) **Is the Agricultural Research Service's Sustainable Agricultural Systems Laboratory in Beltsville dedicated solely to operation for the House of Representatives? What other government agencies share the composting facilities?**

ANSWER: No, the composting facilities receive materials from several departments across the Federal government, including the House of Representatives. The ARS-Beltsville Area Research Center (BARC) Composting Facility has been operating for approximately 10 years and was established to produce compost from the on-farm organic residuals from BARC animal (dairy, beef, swine, calf) and greenhouse/field crops research operations. BARC composts approximately 15,000 cubic yards of organic residuals from its own research-farm operations per year.

In 1999, we conducted a 3-month pilot food composting study with the Department of the Interior in their Washington, D.C. headquarters cafeteria in conjunction with a bio-based cafeteria-ware producer. In 2005, we conducted a second pilot food and bio-based cafeteria-ware composting study with USDA-Departmental Administration (DA) with a broader range of bio-based items used in the USDA Whitten Building employee cafeteria. In 2007, USDA-DA established an on-going operation of collecting food preparation residuals from the South Building cafeteria as part of their overall Bio-Preferred Initiative program which included introduction of bio-based products in the

USDA South Building cafeteria. We have tested a range of bio-based cafeteria-ware products to determine their ability to be composted in static aerated piles and in containerized (in-vessel) composting systems.

In addition to the USDA Headquarters cafeteria, we have recently started a pilot food composting program with the main employee cafeteria at NASA Goddard Space Flight Center in Greenbelt (our next door neighbor). The Smithsonian Institution, the National Institutes of Health, the Environmental Protection Agency, the Department of Interior, and the General Services Administration have indicated their interest in cafeteria food residuals and biobased cafeteriaware composting.

7) Has your research been applied in other settings throughout the country?

ANSWER: Yes, through workshops, conferences, and national meetings with the composting and biodegradable products industries and scientists, we have shared results and outcomes of the projects conducted. The proceedings from these workshops have been published through USDA-Cooperative State Research Education and Extension Service Program (http://www.csrees.usda.gov/nea/plants/pdfs/cafeteriaware.pdf). There has been strong interest from compost producers about the compostability of the biobased cafeteria-ware and films.

Compost use in high value cropping systems for fruits and vegetables is continuing to increase. This is related to continuing increase in consumer demand for organic produce.

What timeframe do you foresee expanded commercial usage of the composting process you are developing?

ANSWER: In the next 1-4 years as credit for new project development becomes available, and permits are approved by local entities, new facilities and/or additional capacity will become available in the Baltimore-Washington metropolitan and other areas.

References Cited

Brown, C. Consumers' preferences for locally produced food: A study in southeast Missouri. American Journal of Alternative Agriculture, Volume 18, Issue 4, December 2003, Pages 213-224.

Clarke, D. 1999. 1999 Pre/post Attitude Survey Results compiled for The Food Alliance – Portland, Oregon. USDA–NRCS–Social Sciences Institute. 4 pages.

Federal Register: December 12, 2006. 7CFRPart249. Senior Farmers' Market Nutrition Program Regulations; Final Rule. Volume 71, Number 238, Pages 74617-74654.

Hoppe, Robert A., Penni Korb, Erik J. O'Donoghue, and David E. Banker. Structure and Finances of U.S. Farms: Family Farm Report, 2007 Edition. Economic Information Bulletin No. (EIB-24) 58 pp, June 2007.

Response to Questions from the
Select Committee on Energy Independence and Global Warming
Submitted by the Chez Panisse Foundation
April 2008

1. **I am concerned about consumer protection as we look at the labeling of so-called-green ideas. What guarantee does a consumer have that if a food is labeled as "locally grown" that it really is in fact from a local farm?**

   Locally-grown is not an officially defined term. There are, however, organic labeling organizations that certify where a product is from and how it was grown. The best way for people to know if they are buying food that was produced closer to, rather than farther from their home, is to buy from farmer's markets or to get to know the local farms and farmers in their area.

2. **Can you define "local" – is it within 50 miles, 100 miles? And where is that measured from? How can certain non-agricultural regions purchase local foods when the nearest farm might not be for a hundred miles? What about the opportunity for choice? Should individuals purchase Pennsylvania cheese rather than Wisconsin cheese regardless of the difference in quality and taste?**

   Again, "local" does not have an official definition. There are movements advocating that consumers buy as much as they can from within 150 miles (called "locavores"). There are also movements to create farms (or at least large gardens) in close proximity to urban areas to provide communities with more access to, and education about fresh foods. We realize some things cannot be purchased locally, like tea or coffee. But most things can and we want to encourage local purchasing as much as possible. We also want to encourage local producers to produce for local economies. If a certain cheese is made in Wisconsin and people in Pennsylvania want to eat it, we should be encouraging Pennsylvania cheese makers to enter that market and create a local cheese for consumers.

3. **On average, what is the cost increase that is experienced when purchasing locally certified organic food? Can you show us the consumer price menus side by side – if not here, then for the record?**

   The Berkeley Unified School District (BUSD) has turned over 100% of its vendors in order to purchase fresher and healthier food. About 30% of the food procured by BUSD is purchased from sustainable farms and all of our food is regional (with the exception of bananas and the commodity foods). These improvements have been accomplished with a $0.50 increase in the cost per lunch. This includes the continued use of government subsidies and commodity foods. If we were to create 100 percent organic lunches and buy locally (this is our vision), we estimate meals would cost twice as much as they do now. That extra cost would be an investment in the local economy and the health of our children. As I said in my testimony, we can pay now, or pay later in health care costs and damage to the environment.

4. **What issues arise in terms of the variety of foods available in local markets – for a simple example Florida is not an apple producing state; Wisconsin is not an orange producer. What about seasonal availability? What are we giving up in order to focus on local foods?**

   Some citrus might still have to be shipped north and some apples might have to be shipped south. The idea is that we shouldn't be buying apples (or other fruits) from other countries when we can grow them seasonally in the United States. North Carolina might be the closest place for Florida to get apples from, instead of California. The idea is that we buy locally as much as possible from as close to where we live as possible. We want to honor our local farmers and local economies as much as possible by buying what they can produce.

5. **In terms of farming as a livelihood – wouldn't you agree that the ability to ship to other markets, both domestic and abroad, are important for the economic viability of farms?**

   We're not experts of the economy and trade. We're mostly concerned with how to support local farms, fishermen and ranchers that can contribute to local economies. We believe that given the right supports, incentives and access to markets, local family farms can thrive in our economy. Also, when you ship perishable food overseas, you don't know how long it will be stored or how it will be treated.

6. **Are you aware of a current OMB rule that prohibits showing geographic preference when school districts make purchases over a certain threshold? If this rule were overturned, do you have any concerns that political considerations might interfere with purchasing decisions? If a local farmer were on the school board, do you see an instance where procurement officers might feel compelled to give undue consideration to that farmer's products? Or there might be an appearance of impropriety if the farmer was awarded a school district contract?**

   Yes, we are aware of that rule and the rule and the changes that are being considered in the current Farm Bill. I think there can be rules established around conflict of interest in the case of the farmer. Buying the freshest foods from farmers who take care of the land is our priority—we want to give our children the highest quality food. What happens now in schools is that there are no incentives to buy local and fresh products, so children end up with fruits or vegetables shipped from all over the country that are often tasteless and highly processed.

7. **I was alarmed when I read your statement about the obstacles in infrastructure and facilities – you say on page two "the central kitchen does not even have a stove or a walk-in refrigerator." So what exactly do they have? I ask this because it seems to me that this is a 20/20 piece on the poor quality of school structures waiting to happen. Further, shouldn't financial resources first be directed towards purchasing those necessities rather than buying organic food?**

Devoting financial resources to improving the infrastructure is as important as the quality of food in school lunch programs. You have to make both investments: one in fresher food and one in the equipment to store and cook it. The central kitchen now has two walk-in refrigerators, and a variety of cooking equipment that includes: two double-stack convection ovens, a steamer, a tilt skillet, a steam-jacket kettle, and two slow-cook ovens. The goal is to create systems that allow school districts and other institutions to buy both locally and organically. The reality is that the debate is not really conventional versus organic in districts; the debate is about processed versus fresh. At least moving towards fresh is a step in the right direction.

8. **You also say "Many of the men and women who prepare the meals had never even held a knife before we started our work." Even in their own homes they have never held a knife? Are you now implementing kitchen safety programs because I would think that the school kitchen has just become a very dangerous place!**

   The men and women who prepare the school meals undoubtedly use knives in their home kitchens – but they did not use them for the preparation of food in school kitchens before our effort. A kitchen without knives means that no cooking is going on—the food is processed and reheated. Fresh fruits and vegetables, and "real" meat require real tools to prepare them. In response to the concerns about safety – we are in fact implementing kitchen safety programs, which include trainings in knife skills, sanitation, and product storage.

9. **How many people have lost their jobs so that you could hire people who knew more about cooking?**

   No one has lost their job as a result of the School Lunch Initiative. From the 03-04 school year to the 08-09 school year, personnel expenses as a percent of revenue decreased by 7%, but this is due to greater work efficiency, and not lost jobs. In fact, we have created new jobs by hiring two Sous Chefs and a purchaser who are knowledgeable about cooking and who have played a significant role in training current staff. Some staff have left food services voluntarily to seek out higher-paying janitorial jobs in the district. This scenario further illustrates the work that needs to be done to make feeding our children healthy food a priority.

10. **On the issue of distribution systems, are you familiar with the Farm-to-Cafeteria initiative? It was combined with a School Gardens program when finally approved by Congress. It would provides annual grants of up to $100,000 to school districts or nonprofit organizations to create farm to cafeteria projects but needs to be funded through the annual appropriations process. Is this they type of program that would help with setting up your local distribution system?**

    Farm-to-Cafeteria programs are helpful in augmenting the supply of fresh, whole food in the lunch program. However, these programs often only result in modest additions such as salad bars or apple slices. While this is a step in the right direction, taking processed

food off the "center of the plate" remains a challenge. Farm-to-Cafeteria programs need more funding to accomplish this. Furthermore, school kitchens need improved facilities in order to prepare and cook the whole foods that farms can provide.

11. **As with so many interesting ideas, it always comes down to money, which you state clearly in your testimony – two thirds of your school lunch program funds go for overhead and payroll. What are you doing to decrease overhead costs to provide more money to go to the actual food in your program?**

    To clarify, two thirds of our school lunch program funds do indeed cover overhead and payroll, but most of that is for payroll; our overhead costs are less than 10%. Over the last few years, we have reduced overhead and payroll costs and devoted more funds to actual food. Personnel expenses as a percent of revenue decreased by 7% from the '03-'04 to the '08-'09 school year. This has been accomplished by staff becoming more efficient in producing meals.

12. **Has there been parental involvement in your programs? Have you gotten feedback from the parents and students about their satisfaction with the school food? Do you think they are willing to pay higher taxes to help fund the schools' food programs?**

    Parents were behind the efforts to improve school meals in the 1990s, and they played a role in defining district goals for nutrition, nutrition education, and physical fitness that are described in the district's wellness policy. Our work is made possible because of their constant pressure on the school district. For example, the community has sponsored a measure that funded the development of a cafeteria and kitchen at the Martin Luther King, Jr. School where the Edible Schoolyard is, and a renovation of the central kitchen. The opening of the cafeteria at King and the central kitchen renovations have been planned for this next year.