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TOWN MEETING
THE MICROBIAL SAFETY OF FRESH PRODUCE

USDA/FDA

DECEMBER 8, 1997
Helotes 4-H Center
Helotes, Texas

97N-0451

TR8

1 MS. YETTS: Good morning. I think we're going to
2 go ahead and get started, even though the attendance is a
3 bit sparse. I've been told that we're hitting this right
4 in the middle of growing season and harvesting season, so
5 a lot of people just couldn't afford to take the time off
6 to make the trip. Welcome to today's town hall meeting on
7 President Clinton's produce safety initiative. My name is
8 Sylvia Yetts and I'll be your moderator for the day. I'm
9 trick particularly glad to be here because I grew up in
10 south Louisiana on farms. Egg farms, strawberry farms,
11 peppers, cucumbers. And then I chose a career as a
12 microbiologist with the FDA. So, this is going to be a
13 particularly interesting meeting for me and I hope it will
14 for you as well. I'd like to introduce the folks up here
15 at the table. We have Richard Barnes from FDA's food
16 safety initiative staff, Dr. John Vanderveen. He's acting
17 director of FDA's center for food safety and nutrition.
18 Down the way from him is Dennis Baker, deputy chief of the
19 bureau of food and drug safety, Texas Department of
20 Health. Next to him is Joe Baca, FDA's Dallas district
21 director; and beyond him is Al Wagner, representing the
22 Agricultural Extension Service in Texas. Now, I won't say
23 much about how we came to be here, but I do want to tell
24 you a bit about what we want to get out of today. USDA
25 and FDA, together, put together a guide on recommendations

1 for minimizing microbiological problems in fresh fruits
2 and vegetables. Today is one opportunity to get feedback
3 from you. We were hoping for feedback from a lot of the
4 growers and we do have representatives here. This is the
5 fourth of six town hall meetings across the country.
6 We've had meetings in Michigan, New York, Florida and
7 there will be meetings in California and Oregon. This
8 meeting is being transcribed. Everything we say is going
9 to be captured, particularly as we say it, so that there
10 won't be any chance for misunderstanding or anything when
11 it goes back to the scientists. There will be a chance to
12 revise the draft on the guide. You'll also have the
13 opportunity to send in written comments. The date to do
14 this is by December the 19th, but I've been told that as
15 long as we get them in through the holidays, that they
16 will be accepted. Please include the docket number on
17 your written comments. That docket number is 97N0451. It
18 should be in your packet, but in case it's not, please see
19 me and we'll have that -- the docket number and the
20 address available. This afternoon we're going to hear
21 about USDA's role in the initiative. We're going to have
22 industry group presentations and then we'll have your
23 comments. As we make the comments, if you would please
24 step up to the mike to make your comment, so that we can
25 catch everything and we have our reporter over here.

1 He'll be asking questions and asking for clarification if
2 he needs it. So, please state your name, state your
3 affiliation and then your comment. Okay. We will be
4 having a break this morning. As you can tell, the
5 restrooms are right as we came in. The -- we'll have an
6 hour for lunch and I'll go over right before we leave
7 where the restaurants can be found. So, without further
8 delay, I'd like to introduce our first speaker, Mr. Joseph
9 Baca, FDA Dallas district director.

10 MR. BACA: Good morning. As always, it's great
11 to be in San Antonio, a wonderful town. On behalf of the
12 Food and Drug Administration and the southwest region,
13 Dallas district, I'd like to welcome you to this
14 grassroots or town hall meeting. I'd like to emphasize a
15 few points about the President's initiative. The first
16 thing is it's collaborative. It includes the U.S.
17 Department of Agriculture, state and logical departments
18 of agriculture, state and local departments of health and
19 it includes you. As Ms. Yetts mentioned, this is the
20 fourth series of meetings held throughout the country to
21 ensure that the concerns of the public are considered
22 throughout this initiative. Town meetings are rooted in
23 the history of this country. Their purpose is interwoven
24 with the very principles of democracy. In the town
25 meeting form all parties have a right to speak to air

1 issues and concerns in an atmosphere of openness and today
2 I encourage you to listen carefully and speak frankly and
3 candidly on the topic at hand. I'd like to tell you a
4 little bit about FDA, then I'd like to speak more
5 specifically about the role of FDA in this initiative.
6 FDA monitors the production, import, transport, storage
7 and sale of over \$570 billion worth of products annually
8 with considerable help from the state and local
9 departments of agricultural and health. Dallas district
10 covers the states of Arkansas, Oklahoma and Texas. Our
11 main office and laboratory are located in Dallas. We also
12 have 13 resident posts scattered throughout the district.
13 Some as close as Fort Worth and as far away as El Paso.
14 The resident post may have a single investigator, such as
15 Tulsa or Lubbock; and we may have as many as 14
16 investigators, such as Houston. The southwest region
17 consists of 11 states covered by three district offices.
18 In addition to Dallas, we have the Denver district office
19 and the Kansas City district office. These offices also
20 include laboratories. The region which is headquartered
21 in Dallas covers the states of Iowa, Nebraska, Utah,
22 Wyoming, Colorado, Kansas, Missouri, New Mexico, Texas,
23 Oklahoma and Arkansas. We have approximately 450
24 investigators, inspectors, chemists, microbiologist,
25 entomologists and support and supervisory staff. The

1 regional director for the southwest region is Edward
2 Esparza. The FDA's responsibilities include assuring that
3 the foods on American tables is safe and wholesome. Part
4 of our role is to prevent problems before they occur.
5 Assessing risk is at the core of FDA's public health
6 protection duties. Based on our public health
7 responsibilities, President Clinton charged the FDA to
8 take the lead in developing a guidance document to assist
9 farmers in minimizing microbial hazards. I must emphasize
10 that we are developing guidance, not regulations. The
11 President's initiative does not require new regulations on
12 microbial safety of foods. You'll hear that repeatedly
13 throughout the course of the day and it's essential that
14 you understand that no new regulations are planned on the
15 microbial safety of foods in the immediate future.
16 Richard will address the issue of regulations more
17 specifically in his presentation. The task we have at
18 hand today is twofold. First, we plan to review some of
19 the major features of President Clinton's initiative on
20 fresh produce. Richard will give you a background on the
21 initiative and the forces that led to it. Secondly, and
22 most importantly, we need your input into the draft
23 guidance on good agricultural practices. The draft that's
24 in your information packet is just that, a draft. It
25 represents our first stab at this issue. It reflects the

1 preliminary thinking of scientists at FDA and USDA. The
2 produce subcommittee of the national advisory committee on
3 the microbial criteria of foods, an advisory body to FDA,
4 has reviewed this draft. Their comments have been
5 incorporated into the document at hand. Now, it's your
6 turn to take a crack at it, to review it critically and
7 provide your input. Comments from all over the country
8 will be considered and incorporated as appropriate in the
9 final draft that will be published in early 1998 in the
10 Federal Register. That's a government publication. You
11 will have another opportunity to provide comments after
12 publication of that draft. Eventually, the official
13 guidance document will be published in the Federal
14 Register. It will also be posted, as will the draft, on
15 the FDA web site. The address of the web site is included
16 in your information package. I'll turn the podium back
17 over to Sylvia. We're looking forward to a lively
18 discussion with you later on today. Thank you.

19 MS. YETTS: Thank you. And now we'd like to hear
20 a welcome from Dr. John Vanderveen, FDA's center for food
21 safety and nutrition.

22 DR. VANDERVEEN: Welcome. It's nice to be back
23 in San Antonio. As a number of you know, I spent some
24 years here before going to Washington. I planned only to
25 spend a few years in Washington and come back.

1 Unfortunately, haven't gotten back here yet. On behalf of
2 the Center for Food Safety and Applied Nutrition, the Food
3 and Drug Administration and our federal partners in the
4 food safety initiative, I want to express significant
5 gratitude in you coming here today. These partners
6 include several agencies within the United States
7 Department of Agriculture -- you'll hear more discussion
8 of that this afternoon -- the Center for Disease Control
9 and the Environmental Protection Agency. I wish to
10 express not only our gratitude but also recognize that all
11 of you have been extremely busy and perhaps we would have
12 a greater turnout if it was at a different time of the
13 year here; and in some instances we appreciate also the
14 fact that you've come a long distance to attend this
15 meeting. Americans have been encouraged to eat more
16 produce. As you're aware, five a day programs and other
17 by the National Cancer Institute, the American Heart
18 Association and so forth. And I might say that looking at
19 recent data from CDC and from the NIH, this is seeing some
20 results in slowing down the risk of degenerative diseases.
21 However, we don't want to trade one risk for another. Our
22 food supply is the safest in the world and there is no
23 doubt about the fact that farmers, processors, retailers
24 are all doing an excellent job to try to provide the best
25 product that can be there; but we think there might be

1 some room. There are still some problems and we want to
2 try to address those. Today we want to tell you about a
3 produce initiative that the President announced only two
4 months ago and we're moving relatively rapidly and we
5 acknowledge that. We also want to share with you the
6 progress made in the preparation of the guide, which you
7 have all received, to improve microbiological safety of
8 produce; but our main purpose is to gain from you your
9 advice, your constructive criticism and to benefit from
10 your knowledge. We wish to acknowledge that the working
11 guide which I mentioned a second ago -- and you all should
12 have a copy of -- was based in large measure on valuable
13 information that we received from trade association and
14 other industry sources. Trade organizations and
15 industries, in particular, have funded educational
16 initiatives, which they have shared with us from time to
17 time and ask for our comments on it; and we have combined
18 that, to a large degree, in what you have here. In
19 addition, we've received information from USDA and other
20 sources to write this guide. There's more about this
21 initiative on produce that we need to emphasize. As
22 already suggested, this is a guide, not regulation. We
23 recognize that there are problems even for guides
24 sometimes; but, nevertheless, we are not intending to put
25 this into a regulation. But it's also about partnerships

1 between government agencies, farmers, transportation
2 systems, processors, retailers and the consumer. I
3 recognize that most of what we've written in this guide at
4 this point in time is directed at agriculture; but we will
5 deal with the rest of the industry on out to the consumer,
6 as part of this overall activities. So, what we're here
7 today to talk about is good agricultural practices. It's
8 about a new paradigm where the government will place more
9 emphasis on helping to prevent food safety problems by
10 establishing good agricultural practices and good
11 manufacturing practices and less on the traditional end
12 item testing that we usually pursue in regulatory
13 agencies. This is in accord, may I say aside, with the
14 administration's desire to deal with partnerships rather
15 than traditional compliance type activities. We want to
16 work with you to improve the safety of the foods. We want
17 to establish continued dialogue in this process. Today
18 isn't the end. We want to continue to discuss this. We
19 plan to help to establish sound production, processing,
20 storage, transportation and retail practices that will
21 assure consumer safety of the food produce and also that a
22 -- make sure that it's wholesome when it arrives at the
23 consumer. We don't want to compromise the nutritional
24 values of these in the process of trying to improve food
25 safety. One final point. Although this guide is being

1 developed for domestic industry, it is absolutely
2 essential for us to have such guidance to be able to
3 demand that our trading partners will meet the same
4 standard for imports. As you know, we can only impose
5 standards on imports which are equivalent to our domestic
6 standards. That's parts of our trade agreement. The
7 NAFTA, the WTO and others all suggest that the only way
8 you can impose on your imports is to have the same
9 standard at home. Again, we are here to get your input
10 and involvement in this process and we appreciate your
11 coming and participating with us in this endeavor. If you
12 don't wish to make comments today, we hope that you will
13 take the time to jot down your thoughts and send them to
14 us. We will pay attention to them, I assure you. We'll
15 go over every comment, we'll go over every record of
16 conversation here and I think you'll see that in the next
17 draft and you'll have an opportunity, as indicated
18 earlier, to talk about this again. Thank you.

19 MS. YETTS: Thank you, Dr. Vanderveen. Now,
20 we'll hear from Dennis Baker, Texas Department of Health.

21 MR. BAKER: Good morning. I'll keep my remarks
22 brief and will try not to echo some of the things that
23 have already been said by the Food and Drug folks. First
24 of all, I want to thank the FDA and USDA for the
25 grassroots meetings. I think it's a good, you know,

1 collaborative effort and it's great outreach. And then I
2 want to thank the attendees here for your attendance,
3 first and foremost; and, again, as the previous speakers
4 have said, encourage your participation and your comments.
5 You can bet that TDH will be commenting extensively. The
6 Bureau of Food and Drug Safety is a state counterpart to
7 Food and Drug; and actually USDA, as well. We actually go
8 back to 1896. So, we've been around a few years. The
9 first law in Texas was 1836 concerning food safety and it
10 was formalized in 1896 and we've been around since that
11 time. We work under a model Food, Drug and Cosmetic Act.
12 So, virtually all the requirements in this state are
13 identical to what you see on the national level. We're
14 structured in six divisions in the Bureau of Food and Drug
15 Safety. We have a meat safety assurance division, we have
16 a manufactured foods division, a retail foods division, a
17 seafood division and a milk and dairy products division.
18 We also have a drugs and medical devices division. So, we
19 are covering all foods, drugs, medical devices, cosmetics,
20 narcotic treatment programs, tanning facilities and tattoo
21 facilities. So, we have a pretty wide spectrum. We have
22 about 500 employees across the state and a budget of a
23 little under \$17 million. Our mission is to protect the
24 public health and in our instance it's protecting them
25 from unsafe, misbranded, ineffective or fraudulent

1 products. In that effort we partnership with FDA
2 extensively. We do a lot of joint work planning and we
3 have a cooperative approach to inspections; and that
4 especially includes the food inspection arena. We perform
5 perhaps the greatest number of food inspections in the
6 state. Again, partnershiping and sharing of information.
7 We have an import partnership with FDA whereby we assist
8 in examination of products and import channels. We
9 participate with the FDA in Seco Plafest, which is a
10 Mexican export initiative to improve the quality and safety
11 of Mexican exports; and that's primarily focused at
12 pesticides. We sample produce from packing ship to
13 retail. Our authority actually extends to the field. If
14 it's food for human consumption, we have authority; and,
15 again, we generally coordinate all of our efforts for
16 sampling and whatnot with FDA. We also investigate
17 reports of foodborne illnesses and we've done quite a few
18 of those here lately and quite a bit has been associated
19 with produce coming into the country and produced within
20 this country. We share, again, all of this information
21 across federal and state channels. Finally, we have a
22 Bureau of Laboratories that's separate from our Bureau of
23 Food and Drug Safety. The Bureau of Laboratories is the
24 largest public health laboratory in the country. They do
25 a broad spectrum of things associated with clinical work

1 and also environmental work, along with our food and drug
2 work. FDA also assists us quite extensively with
3 laboratory analyses. Finally, we have a general
4 sanitation division within TDH. That's in our Bureau of
5 Environmental Health and they cover migrant labor and
6 sanitary facilities and protection of workers in the
7 fields. So, you can say we are a broad spectrum agency
8 that covers everything that comes out of agriculture.
9 That's why we're here, that's why we have a vested
10 interest in this, that's why we applaud this effort to get
11 information out and solicit comments and I'll close by
12 simply encouraging your participation here and getting
13 your comments in. Thank you.

14 MS. YETTS: Thank you. We have Dr. Wagner up.
15 We -- he doesn't exactly have a long speech, but he's
16 going to say hello and tell us how the Agricultural
17 Extension Service interacts.

18 DR. WAGNER: Thank you, Sylvia. Yes, I don't
19 have a -- my remarks will be very informal. Just to
20 recognize the role that Texas Agricultural Extension
21 Service played in this meeting as basically to help
22 identify a facility and I think we have Helen Holdsworth
23 from the Bexar County office that I think was responsible
24 for securing this facility and appreciate that and then
25 also to help them to get the word out. Maybe we didn't do

1 such a good job about that, but hopefully we -- all of our
2 country extension people were notified to notify their
3 growers and so forth; but we do have some significant
4 growers here. I recognize Bob Peterson. And also Dr.
5 Jerry Parsons is with us. He's our local -- he used to be
6 a vegetable specialist. Now he's kind of expanded. He's
7 all kinds of things. You know, blue bonnets and maroon
8 blue bonnets and all kinds of other things. So, Jerry,
9 glad to have you here. And then Tony Hinojosa from the
10 Bexar County office. Tony, it's good to see you again.
11 We're just pleased to help be a facilitator for you and if
12 there's anything that any of us can do, we will sure try
13 to take care of it. And that's all I have.

14 MS. YETTS: Now we're going to move into the
15 portion of the day's program where we're going to actually
16 be introduced to the initiative and the guide and this is
17 going to be done by Mr. Richard Barnes.

18 MR. BARNES: Thank you, Sylvia. Can y'all hear
19 me all right. I'll try this microphone. When I get
20 myself wired up, we'll be all set. Okay. I'm very
21 pleased to be here this morning and as I told Dennis Baker
22 and Dan Sowards, I said back in Baja, Oklahoma before I
23 went to FDA, I was a director of consumer protection for
24 the state health department in Oklahoma. I've been with
25 FDA about two years and had a lot of interaction with the

1 people down here in Texas. Spent a lot of time working
2 with them and working a very close relationship between
3 the health departments in both states in many different
4 areas. Dr. Vanderveen talked about the fact that this is
5 new paradigm and when I went to FDA, that was one of the
6 things that I was very interested in, was the change that
7 was taking place in the agencies; and when the food safety
8 initiative came along and I was asked to be a part of the
9 food safety initiative team and to be one of the team
10 leaders, I jumped at the chance because it was a chance
11 for me to get back out and and work on part of that
12 paradigm, which is to solicit the input of industry, of
13 people -- consumers and other people outside the agencies
14 in what's going on. It's very important. It's a very
15 important part of how we're going to do business in the
16 future. That food safety from farm to table is truly a
17 partnership. It's not the regulatory agencies. It cannot
18 be just the industry. It has to be a partnership between
19 all of us. This initiative we're going to talk about this
20 morning and the guide to minimize microbial food safety
21 hazard for fresh fruits and vegetables is a portion of the
22 food safety initiative. If you've not seen this document,
23 it's a report to the president. It was presented in May
24 of 1997. It's farm safety from -- food safety from farm
25 to table. A national food safety initiative. And it

1 covers many of the other parts of the food safety
2 initiative. The thing we're going to talk about this
3 morning, the good agricultural practices, deals with the
4 beginning of the food safety system. This document and
5 other documents cover the rest of it all the way through
6 the consumer. A national consortium that involves
7 industry, associations and consumers has been put together
8 and I'll show you a slide a little bit later that has part
9 of the fight back campaign, which is a national campaign
10 to reach consumers. In the food safety initiative we talk
11 about the 1997 food code, the initiatives to reach the
12 retail industry to make changes there. The institution of
13 HACCP, Hazard Analysis and Critical Control Points, in
14 production and manufacturing and now the use of retail --
15 at retail of HACCP principles and that's what we're
16 calling it, HACCP principles at retail. And also then
17 this portion good agricultural practices and good
18 manufacturing practices. The good manufacturing practices
19 that are in the Code of Federal Regulations, the CFRs,
20 that deal with those entities that are enclosed and now
21 the good agricultural practices that take the things from
22 the grower -- from the field, from the sheds in the field
23 directly through. So, the food safety initiative is not
24 one document and what we're going to talk about this
25 morning is a portion of that document that goes truly from

1 farm to table. Initiative that takes and covers the
2 entire food safety and makes all of us a part of the food
3 safety team. Part of the team that will protect everybody
4 in this country. Now, several people have asked about the
5 schedule. It is a very tight schedule. My boss, who --
6 our boss, I should say, who lives down on Pennsylvania
7 Avenue, set together a schedule for us that is difficult
8 to keep. This is a tentative schedule of what we're
9 trying to accomplish. In November of 1997, the 17th,
10 there was a public meeting held in Washington with the
11 National Advisory Committee for the Microbiological
12 Criteria for Foods and the Produce Subcommittee. That was
13 when this first document, the document -- the very early
14 part of this document was given to them and out of that
15 came the draft which you have in your packets this
16 morning. How many of you have had a chance to read the
17 guide to good agricultural practices? How many of you
18 have had a chance to look at that? Okay. Good. In a few
19 moments I'm going to go through the initiative, how it got
20 started, and then we're going to talk about the guide
21 itself. It's going to be a very brief description of the
22 guide. I'm certainly not going to do all of it. I don't
23 want to spend the time doing that. We're here to listen
24 to you. When you get the chance, read the document,
25 provide comments. You may not have seen it and so you

1 can't provide all the comments that you want to today; but
2 be sure that you go back and look at it. We want your
3 comments, as John Vanderveen said earlier. It's important
4 to us that this document be a consensus or a part of
5 everybody's opinions as it's developed. In December we're
6 doing the grassroots meeting and the working draft of the
7 guide has been put out. In January we're going to take
8 all the information from all the grassroots meetings, the
9 public meeting, put it together, all the comments that
10 everybody sends in; and from that -- those things we're
11 going to try and compile it and relook at the draft
12 document at that point in time. Also, right at the end of
13 January, right here is when we have to provide a report to
14 the President. 90 days from the beginning of the
15 initiative he asked for a report on the plans to
16 accomplish this and how we're going to do it. So, one of
17 the things that's a whole part of this is us being able to
18 put the report together for the President by the end of
19 January. Then, sometime in March the hope is that they'll
20 be able to publish a notice in the Federal Register of the
21 guide. Again, it will be open for comment one more time.
22 So, the second draft of this document will be open for you
23 to take a look at. And then sometime in May the comment
24 period and then if necessary we're going to come back to
25 you. If you ask us to come back, if you even think

1 there's a need for us to come back to you again, we'll
2 come back out again to talk to you to make sure that the
3 second draft is done. And then sometime in July or
4 thereafter, the notice of availability of the final guide.
5 Now, that's the proposed plan. That may change. The
6 times may shift somewhat. A lot of it has to do with what
7 your input is. Okay. If I can have the slides on,
8 please. Thank you. I have a light on the podium at this
9 meeting. At the last one I had to do this from memory;
10 but if I get lost I'll have to turn around and see where I
11 am. Hopefully I'll be able to keep up with my notes. Am
12 I right in your way? John's going to tell me it's the
13 glare off my head. I know that's coming. I can step
14 back. I can do that. I can walk around. That's why I
15 use this mike. I can get back out of the way a little
16 bit. Does that look better? You don't have to stare at
17 me. Okay. The initiative to ensure the safety of
18 imported domestic fruits and vegetables. Okay. October
19 2nd of 1997 the President announced the initiative which
20 is a part of the total food safety initiative that I was
21 talking about, which was a directive to improve the safety
22 of fruits and vegetables both domestic and those imported
23 from foreign countries. It is guidance. You've heard
24 several people say that this morning. I will say it many,
25 many times this morning, as well. This is guidance. It

1 is not regulation. This is something that we want all
2 people to be a part of and be involved in. It's something
3 that we want you to utilize as best as you can in your
4 fields and your growers and for your packers and your
5 packing sheds to improve the criteria or microbiological
6 criteria of fresh fruits and vegetables. The produce
7 supply is safe in this country. We know it's safe, but we
8 can make it better. Both for imports and domestic
9 produce. As John said, there have been several outbreaks
10 over the past years that have been related to those. The
11 percentage of them is small, but we need to get better and
12 better at producing a safer food supply. A part of the
13 whole continuum from farm to table. The agencies, the
14 FDA, USDA, the National Cancer Institute all support and
15 recommend people eat more fruits and vegetables. The
16 five a day thing is very important to the health of all of
17 our people as a nation and that we all consume and use
18 their dietary guidelines to the maximum benefit of all of
19 us; but we still to increase it and make it a little bit
20 safer. 30 years ago most produce sections in a grocery
21 store only had about a dozen items in them. Today if you
22 go into a grocery store, retail store, there are hundreds
23 of produce -- fruit and produce items, from domestic and
24 imports, as well. And those hundreds of items need to be
25 protected all the way through the food safety continuum.

1 We're also much, much more food conscious or health
2 conscious. We're more conscious -- you're seeing in the
3 paper and in the media about food safety; and, again, this
4 whole idea of the continuum from farm to table comes into
5 play. We want our food to be safer and be made safer all
6 the way through the process. And then we're looking at
7 new and emerging pathogens. It wasn't too long ago that
8 no heard of E. coli 0157:H7 or some strains of Salmonella.
9 They have been unheard of in -- especially in fruits and
10 produce; but now they started to show up. The environment
11 changes and things are changing. The way we produce food
12 and so on. So, these things are showing up new items,
13 like Cyclospora. Many years ago -- not too many years ago
14 no one had heard of Cyclospora and now it's something that
15 we're all very much aware of. There are several elements
16 to the initiative. First or one of them is the
17 legislative element. On November 13th of this year a
18 package was delivered to the Senate -- or to the House.
19 I'm sorry. Was introduced in the House for the
20 legislative portion of this document. It was called --
21 it's House resolution 3052, the Safety of Imported Food
22 Act of 1997; and it provides for improved safety of
23 imported and domestic foods by amending -- or the imported
24 food side, by amending the adulterated food section, 402,
25 of the Federal Food, Drug and Cosmetic Act. And

1 essentially what it says is a food shall be deemed to be
2 adulterated if it is a food offered for import into the
3 United States that has not been prepared, packed and held
4 under a system of conditions or subject to measures that
5 meet the requirements of the act. Now, there are several
6 things that have to be done in order for that to take
7 place. It is certainly a part of this initiative in that
8 all fruits and vegetables meet the same criteria, but also
9 then -- I've already lost my notes. It's very similar to
10 what the USDA already has. The USDA FSIS has the ability
11 to look at meat and poultry coming into the country. Now,
12 the difference is that we're not asking for preapproval
13 like FSIS, Food Safety Inspection Service, utilizes. Nor
14 are we looking to detain products at entry or license
15 them, for example, like we would do with low acid canned
16 foods. Instead we're asking for the ability in the Food,
17 Drug and Cosmetic Act which we do not have that will allow
18 us to look at equivalents across countries of good
19 agricultural practices. The second part of it is the
20 administrative. The guide to the industry which we were
21 talking about this morning, budget requests and then,
22 again, as I talked about earlier, the 90-day report to the
23 President. What we are supposed to do as a part of this
24 is in cooperation with FDA to issue within one year good
25 agricultural practices, good manufacturing practices, both

1 of them being guidance to the industry, and that both of
2 us -- both agencies, the FDA and USDA, will coordinate
3 assistance and educational activities to both the domestic
4 and the foreign industry; and the Cooperative Extension
5 Service will be greatly involved in this, the Foreign
6 Agricultural Service. There will be many different
7 entities, including some private entities like industry
8 associations, private organizations that may be involved
9 in educating both the foreign industry and the domestic
10 industry in both the good agricultural practices and good
11 manufacturing practices. Again, it's guidance, not
12 regulation. And here is the Fight BAC campaign that was
13 announced last month. The secretaries of USDA and HHS,
14 Secretary Shalala, Secretary Glickman, were there to --
15 when the character Fight BAC, BAC as he's called, was
16 introduced and the entire campaign that is geared towards
17 the other end, the table end of the food safety initiative
18 came out; and it contains almost -- if contains four
19 areas. A lot of the same four areas we're going to talk
20 about all the way through this whole food safety process.
21 Clean hands, cross contamination, cleaning items, cooking
22 temperatures, holding temperatures, et cetera. So, it's a
23 part of, again, this farm to table continuum. The good
24 agricultural practices -- the Guide to Minimize Microbial
25 Food Safety Risk for Fruits and Vegetables is a very broad

1 scope document. Please understand that. It is a very
2 broad scope document. It is not intended to cover
3 specifically your industry. It is covered -- designed to
4 cover the very broad industry itself in the growing and
5 production of food products. There are parts of it that
6 may not apply to you. You may have regulations or laws,
7 either federal, state or local, that may already cover the
8 things that are in the good agricultural practices. You
9 must follow those laws. The laws come first. This is
10 guidance. So, if you have a water conservation law here
11 in Texas that says where you can get your water from, how
12 much you can use, that is what you have to go by. The
13 guidance then is a backup to that and says, you know,
14 there are certain things that you want to be aware of,
15 make sure that these things stay in your mind. We're not
16 asking you to go out and test your water supply, like I'll
17 talk about later, if it is the responsibility of some
18 other regulatory or government agency. They'll do it,
19 they'll have the records. What we are asking you to do is
20 to use this document as a type of -- to use another word,
21 a self assessment of your growing practices, of your
22 packing sheds, of other places where there's a possibility
23 that the microbial contamination of fresh fruits and
24 produce can occur, either increased or be added to the
25 product at that point in time. Again, we've gone through

1 these. Today also in Washington, D.C. there's an
2 international meeting taking place. There is going to be
3 a grassroots meeting for the international community in
4 Washington exactly like this one. As a matter of fact, it
5 should be going on right now. They may be a little --
6 they're an hour ahead of us, so they're -- that's also
7 taking place. And, again, it's guidance with public
8 input. The President said that this has to be a
9 partnership. It has to be have as much input as possible
10 into this process. He wants it to be a document that has
11 everybody's input. I got this wrong in -- Stacy -- I got
12 this wrong in Palm Beach; but we'll try again. They talk
13 about specific good agricultural practices and good
14 manufacturing practices for foreign fresh fruits and
15 vegetables during FY '98 and then possibly identifying
16 other fresh fruits or vegetables for specific good
17 agricultural practices later on. I said in Palm Beach
18 that we were reconsidering the proposal. We're not
19 reconsidering the proposal, we're reconsidering how to
20 make this happen; and we need from you what you think
21 about this idea of specific good agricultural practices
22 and of good manufacturing practices for specific fruits
23 and vegetables. What is your input to this? In other
24 words, we have not selected any, we do not have the
25 criteria; but we would like for you to tell us how we

1 could do this, how much involvement you would like to have
2 in it, what do you think of the idea of good agricultural
3 practices for specific commodities, what affect that has
4 on your commodities and so on and so forth. So, what we
5 are doing is reconsidering the process of going through
6 this for fresh fruits and vegetables. Okay, Stacy?
7 Again, outreach and educational activities are a big part
8 of this process. A very large part of it. Because it's
9 guidance, we need to be able to have as many people as
10 possible understand it, know how to use it, be able to
11 incorporate it into their practices. So, the assistance
12 to the U.S. farmer from FDA, USDA and the foreign
13 agricultural farmers, as well, foreign producers, from
14 both USDA, Extension Serve and FDA and other groups,
15 Industry groups and associations, is a big part of this
16 initiative. Again, the technical assistance to the
17 foreign countries, developing different types of training
18 modules to put this whole package together so that there
19 is an equivalence across the board for fruits and
20 vegetables both domestic and foreign. Again, it's
21 international guidance and the goal is to minimize risks.
22 What are the guiding principles. The guiding principles
23 for this is that it is a risk-based approach. That means
24 we're basing the good agricultural practices and good
25 manufacturing practices on the available scientific

1 evidences available for these practices on the farm and
2 the processing facility. There are many, many gaps in the
3 scientific evidence and part of the initiative is to
4 increase research by FDA and USDA, within the Cooperative
5 Extension, universities, et cetera to fill in those gaps.
6 I'm going to talk about manure a little bit later. There
7 are many gaps in what we know about composting manure.
8 What temperatures for how long under what conditions, what
9 humidities, et cetera, et cetera; but that -- hopefully,
10 the research will fill in those scientific gaps so that
11 we'll have a better understanding in the use of that very
12 valuable commodity. Secondly, it is to minimize the
13 burden on industry. We're committed to minimizing the
14 burden the initiative places on farmers. Again, it's
15 guidance, not regulation. We want that to be that way.
16 It provides for equal treatment of domestic and foreign
17 firms so that we have one set of regulations, one set of
18 standards, good agricultural practices for everything that
19 we consume in this country, And, finally, it's
20 consistent with any trade agreements that we have. WTO,
21 World Trade Organization, NAFTA, et cetera. That the
22 document stays consistent with all of those. So, that's
23 the initiative. That's how it got here. Are there any
24 questions up to this point? Anybody have a question about
25 this part of it? If not, I'll go on and actually talk

1 about the guide itself. No? Good. Okay. The document.
2 Guide to Minimize Microbial Food Safety Hazards for Fresh
3 Fruits and Vegetables. As you can, it's divided into
4 several different sections. One of the initial sections,
5 of course, is the definitions. Now, the definitions that
6 we have placed in there are not all-inclusive. We've
7 already talked about it and from some of the other
8 grassroots meetings found that there are some other ones
9 that we may need to place in there. If you have
10 additional suggestions, please make those as well. Excuse
11 me for a moment. My voice doesn't go away. Why good
12 agricultural practices, why good manufacturing practices?
13 Recent outbreaks have raised many concerns about the
14 safety of foods, including fresh fruits and vegetables
15 that are not processed to eliminate pathogens. As I know
16 of yet, I don't know that -- unless Dan -- there's a new
17 place in Texas that serves fried lettuce sandwiches. I
18 don't know of any. Okay. It's not something that people
19 look for. And, therefore, any pathogenic organisms that
20 may be in fresh fruits and vegetables, for the most part
21 there is not a kill step. To talk about Hazard Analysis
22 and Critical Control Points. There's not a kill step
23 involved in the use of these products that will get rid of
24 it. So, what we have to do is try to minimize microbial
25 contamination all the way through the process and you know

1 some of the organisms. We talked about them earlier.
2 Fresh fruits and vegetables are not generally subject to
3 those steps. We don't cook them, although some are; and,
4 again, in this guide we want to be sure that you -- that
5 the farmer looks at how his product is going to be used.
6 There is a difference for tomatoes that are going to be
7 grown for the fresh market as concerned -- as compared to
8 tomatoes that might be grown for tomato soup, a product
9 that's going to go through the low acid canned food
10 process or the canning process that's going to receive
11 heat treatment in a kill step. So, taking the steps to
12 reduce the contamination is very important, especially for
13 raw produce. For that there is not a kill step. For
14 those things where nothing happens. The potential
15 vehicles for contamination are what the guide is made up
16 of. Four primary. Water; manure and municipal sewage
17 sludge; worker, field and facility sanitation hygiene;
18 transportation; and actually there's a fifth part here
19 which we're now calling positive lot identification, which
20 is a part of transportation and tracebacks. In your thing
21 it talks about tracebacks and we're changing now to
22 positive lot identification. Tracebacks is what we do in
23 following a product back; but positive lot identification
24 is what we're going to talk about for the industry. It's
25 intended as guidance only, again; and we want the growers

1 and the packers to take a pro-active role in this thing.
2 In reducing the food safety risks. You are a part of the
3 food safety team. You are a part of the farm to table
4 continuum and all of us working together improve the
5 safety of all our food products. We want the best advice
6 we can get from everybody. From the scientists that are
7 working on the document to the growers. What works in one
8 part of the country where I just came from, in Florida,
9 may not work here. I told them in Florida this time of
10 year in Oklahoma and Texas the cattle are all grazing on
11 the winter wheat fields. Eating the green tops off the
12 winter wheat. That -- you know, that's one of the things
13 the guide talks about is minimizing animal -- those type
14 of animals, cattle and so on and so forth, on certain food
15 crops. Well, you don't use it on fruits and vegetables,
16 maybe; but in some places we've heard that they graze
17 cattle in orchards. Okay. So, those are the kind of
18 things that we're going to be concerned about and they're
19 different, regionally, across the country; and we need to
20 be concerned about that. The document focuses on common
21 elements in growing, production and distribution that will
22 reduce microbial contamination. There are many gaps, as I
23 said earlier, in the science. Several people have said,
24 "Well, we shouldn't do anything until we have all that."
25 Until we have all the science. One of the persons that

1 got up in Miami Beach talked about the many times science
2 lags behind the epidemiological evidence. That until we
3 find things, we know them, can the science catch up and
4 find out where they come from and how they got there. And
5 so many times we're going to be dealing with the
6 epidemiological evidence before the science catches up and
7 before the research can catch up to what we see happening.
8 Remember, the life cycle of an organism is much, much
9 shorter than the life cycle of our scientists. Okay? And
10 so they change very rapidly and it takes a long time for
11 us to catch up with procedures and different types of
12 things. When I first went through college, it was amazing
13 to us to be able to measure -- in biology, to be able to
14 measure things down to parts per million and now we're
15 talking about things in parts per trillion. An incredibly
16 small amount that wasn't even -- when I was first in
17 college, it wasn't even -- nobody thought we would ever
18 get to that point in time. Again, it's intended to
19 provide practical advice. Practical advice. You know,
20 that's what we want this document to do. If the advice in
21 the document is not practical -- there's a section in
22 there that talks about covering reservoirs. That
23 shouldn't be in there. That was intended to be taken out.
24 We were both amazed when we sat down and looked at it that
25 we had all missed it. We're not talking about covering a

1 reservoir. We're talking about -- the scientist that
2 wrote the document talking about covering a reservoir,
3 we're talking about a reservoir, not a reservoir. Okay.
4 And that's some of the things that we need to clarify,
5 because many people said, you know, you've got to be
6 kidding us, you can't do that. Well, what we were talking
7 about was a water reservoir essentially being a tank, not
8 a Lake Dallas. No. If you could cover that, I'm sure the
9 voters would appreciate it. In some areas the guides may
10 be properly more specific, such as when practice is
11 subject to federal, state and local laws. That's what I
12 said earlier. Laws -- federal, state and local laws, all
13 the laws that are already there, the environmental laws,
14 those things are still there. They take precedence. The
15 guide is meant to supplement that. To cover areas that
16 may not be covered under those kind of things. To make
17 the grower and the producer aware of the things that can
18 happen where the microbial contamination of foods may
19 occur. Many packinghouses, the solid buildings that are
20 permanent, that have four walls and everything else, are
21 covered under the 21 series of Code of Federal
22 Regulations, especially Part 110, which is good
23 manufacturing practices; but many of the packing sheds
24 that you use that are mobile or temporary, that are only
25 used during the period of time that there's actual harvest

1 going on, don't come under the good manufacturing
2 practices, but still many of the things that are in those
3 sections can apply to those types of facilities. There
4 are common vectors for pathogens in all fresh fruits and
5 produce such as water and manure. On the other hand,
6 there's also an enormous difference regionally, even
7 within the state of Texas, in the way things are done. In
8 one part of the state people may be using drip irrigation;
9 and I know in the far western part they're using overhead
10 rain birds, the big circle irrigation systems from deep
11 wells. There's climatic differences, there's soils
12 differences, different types of fertilizer sources,
13 different types of employee -- or availability of
14 employees to do work in the field, whether they're always
15 part of it, whether they're migrant workers, whether they
16 come through; and then all the practices, as well. The
17 practices that have grown up over the years regionally and
18 locally for different types of food products. Cultural
19 practices have an affect on the types of produce and the
20 different varieties and different specific types of
21 produce that are produced; and here's the question. How
22 can we best provide practical concrete advice to growers
23 that will move us toward safer produce without being
24 unnecessarily costly to growers? That is why we're here,
25 that's the reason for the meeting. How can we work

1 together to protect the microbial safety of these food
2 products? Water. I think I'll have some, or part of it.
3 Diet Coke is really salt water with color in it, I guess,
4 Dan? No calories, no anything else. We're very concerned
5 about water because of two aspects. It's an inherent
6 source of contamination within itself. It can and will
7 carry pathogenic organisms to or be a source of
8 contamination. All of you are very aware of the
9 Cryptosporidium outbreak that caused the illness of
10 403,000 people and no one knew it was there. I mean, you
11 turn on your water tap, that water is safe; right? That's
12 what all the people in Michigan thought, too. In other
13 words, an organism called Cryptosporidium that wound up
14 going through the treatment process survived the treatment
15 process and wound up -- and caused illness. We know it's
16 there. Secondly, it's also a vehicle for spreading
17 pathogens in the field or at harvest time. The water may
18 be clean when it starts; but things that we do to it can
19 contaminate it. Things that we do by washing things in it
20 and reusing that wash water for conservation purposes, for
21 ecological purposes can -- if the water -- we aren't sure
22 of what's in that water, what we've added to that water
23 product, we can use it to spread contamination. These are
24 some of the things -- the organisms that can be spread
25 through water. Water's a potential source of pathogenic

1 organism. Growers need to carefully analyze the practices
2 involving water and seek to limit the possibility for
3 waterborne contamination. Okay. A lot of research has
4 been done on the risk of microbial contamination of sewage
5 and sewage sludges and so on; and with water products.
6 The environmental literature is full of things that have
7 been looked at in water; but not much has been done
8 looking at growing water. We've assumed that it's potable
9 water and that needs to be done. We need to recognize the
10 potential for a water source to contain pathogens. We
11 have to use water of sufficient quality for its intended
12 use. Now, we have not defined sufficient quality and
13 that's one of the things that we need to ask you about.
14 What would be sufficient quality? We know, for example,
15 that in the final rinse in a packinghouse for a product
16 that the water quality of that point in time needs to be
17 much better than the water quality that's used when the
18 product's initially picked up in the field and rinsed off.
19 The mud and dirt is rinsed off of it. There's a
20 difference in the water quality that needs to be used for
21 that. And, again, sufficient quantity has not been
22 defined at this point in time. Identify the source of
23 water used in different operations; and it varies with
24 use. It needs to be tailored to the needs of this
25 particular operation. However, again, if you have state

1 or local laws that limit the type of water that you can
2 use, if you're not allowed to take water out of a river,
3 for example, or you're only allowed to use so much water
4 from the aquifer per year, all of those things need to be
5 taken into account as you look at the different operations
6 that you're using. Again, the guidance does not preempt
7 any of the laws. Identify and review the sources of water
8 used on the farm. What type of water do you normally use,
9 what happens if that water supply is not available, what
10 if you have to go to an alternate source of water? As the
11 degree of water to product content increases, so does the
12 need for good quality water. The final rinse, again, must
13 be better quality water than the initial rinse and you
14 certainly don't want to use that water. That same water.
15 If you do use it, you want to be counter to the flow.
16 Want to be counter to the flow of the produce through the
17 thing. So, your cleanest water is used for the final
18 rinse. If it's reused again or recycled, it becomes -- it
19 goes backwards, toward the field, so that it's used at a
20 dirtier product. You don't want the water that's used
21 initially to rinse the stuff off of the food going forward
22 to be recycled to where it's going to be used for a final
23 rinse. So, it needs to be backwards. The review can --
24 may include determining whether the source of the water is
25 from a well, open canal, reservoir, reused irrigation

1 water, municipality, et cetera, et cetera. Depending upon
2 what your source of water is depends upon the quality of
3 the water; and, again, what you've done to it. I just
4 replaced last week -- as a matter of fact, the day after
5 Thanksgiving, replaced the pump on my well and for the
6 last four days the water tasted a whole lot like bleach
7 because we had to decontaminate the well. We contaminated
8 the thing. It was full of E. coli as a result of changing
9 the pump. Of playing with it, being -- you know, raising
10 the pump up and down out of the well. Things that you do
11 to your well can make a difference in the quality of that
12 water. What happens to it? You need to be aware of those
13 things and how they impact on your products. Controls may
14 include delaying water use until the water quality
15 improves. Think about that statement. You know, that's
16 something that we need comment on. Is that possible?
17 Could you do that as a grower? Let's say that you're
18 taking water from a river and it was announced in the
19 paper that the sewage plant upstream from you had to
20 bypass. Something went wrong and they pumped raw sewage
21 in the river. Could you wait four or five days before you
22 water your crops? Do you have an alternate water source?
23 I see people going -- okay. That's the kind of things we
24 need to know about. You know, those are the kind of
25 things that you can tell us as a grower what you have

1 available to you, what could be done. Irrigation water.
2 Dennis or Dan, the laws in Texas pretty much control the
3 use of irrigation water from aquifers and from surface
4 water?

5 MR. SOWARDS: Pretty much.

6 MR. BARNES: Your environmental laws?

7 MR. SOWARDS: Yeah, and every year -- every
8 legislative session it's -- (inaudible).

9 MR. BARNES: Right. So, that's certainly one of
10 the factors that influences the grower's choice of water
11 and what he can use. So, what happens is that you need to
12 look at the factors that influence it. In many states
13 we've talked about the difference between spray irrigation
14 and drip irrigation. We listened to citrus growers talk
15 about targeted irrigation directly at the root source of
16 the trees, where none of it gets onto the fruit or
17 anything else. What type of irrigation system are you
18 using, compared to the type of water. If you're providing
19 that type of an irrigation system that goes directly to
20 the roots of the product or drip irrigation for certain
21 types of fruits that are spoiled by water or contaminated
22 by water, that makes a difference in the quality of the
23 water that you're going to use. Water used to mix and
24 load pesticide sprays should be considered a source of
25 potential pathogens. A pesticide or herbicide in a water

1 -- added to water does not necessarily eliminate the
2 pathogens. Some pathogens can suffer that. Now, there's
3 not a law -- somebody said show me some document. I don't
4 know of any of that because I've not been involved in
5 that; but on the other side of it, showing where
6 pesticides have contaminated water supplies, there is an
7 enormous amount of it in the environmental literature
8 where cross contamination or back siphonage has occurred
9 and these types of products have wound back up in the
10 water supply. So, what's happened is that if you're --
11 besides pathogenic organisms, you need to be aware of how
12 that water being used for pesticide application is, what's
13 the quality of the water. If the water -- if you add
14 pesticides to river water and it does not kill off the
15 pathogens and you spray it directly on the crop itself, is
16 it going to be a source of contamination for that. Wash
17 waters. Safe and sanitary water is recommended for the
18 use of washing produce in the field and in the packing
19 environment. Again, I've talked about this already. You
20 want to use better quality water as you get closer and
21 closer to where it's going to the consumer. You don't
22 want to add contamination to your product. If you've used
23 drip irrigation or direct -- root irrigation directly to
24 the roots of a tree in an orchard, you don't want to then
25 now -- you've got a clean fruit, you don't want to wash it

1 with a dirty water that may add contamination to it. So,
2 you need to be aware of what kind of water you're using to
3 wash your fruits and vegetables. Even with sanitizers --
4 even with sanitizers, it may reduce the pathogen load, but
5 may not eliminate it. I use the example of a swimming
6 pool. Many of you are aware of swimming pools. Chlorine
7 is used -- is primarily one of the biggest sources or
8 biggest uses in swimming pools as a disinfectant. So,
9 what happens if you put two kids in your swimming pool?
10 The chlorine level stays pretty much the same. What if
11 you invite all the kids in the neighborhood and you put 50
12 of them in that same pool; what happens to the chlorine
13 residual? It goes to zero. It's very hard to keep up.
14 The microbiological contamination in the water eats up all
15 the chlorine and there's no reduction of the pathogens at
16 that point in time because there's no free chlorine left
17 to take care of that microbial load. So, because you say
18 I've added chlorine to the water, if you're not monitoring
19 it, if you're not sure that you still have chlorine
20 available to reduce the microbial load, it doesn't
21 necessarily mean anything. Secondly, pathogens using the
22 water, if it is there, may enter through the flesh of the
23 tomato and apple through the stem scar, for example, and
24 so washing -- washing even has a less effect. If
25 pathogens are not removed or inactivated, they can spread

1 so that a significant proportion of the produce is
2 contaminated instead of sporadic items. The old one bad
3 apple in the barrel. If you're washing apples and you've
4 got bad apples that have a high pathogen load or high
5 microbial load and now you bring in apples that don't have
6 a high microbial load and you're not monitoring the water,
7 now all the apples may have a microbial load on them. So,
8 it's important that you look at the water so that you
9 don't contaminate good product with product that has been
10 contaminated in the process of trying to rinse it off.
11 Again, chlorine is commonly used to help prevent cross
12 contamination; but, again, it has its own inherent
13 hazards. How much do you have to add? You know, does
14 that mean that the farmer's going to have to walk around
15 with material data -- my mind just went blank. Yeah,
16 those. You know. I've used them, but I can't remember
17 the name. Cooling operations. Water and ice used in
18 cooling operations have been shown in many cases to be a
19 potential source of contamination. An outbreak of
20 Shigella and Shigellosis have been associated with cooling
21 and with ice, specifically, because of using a
22 contaminated water in the cooling process. You need to be
23 aware of the ice that you pack produce in for short
24 shipment that may -- it may contaminate it. May
25 contaminate and add to the microbial contamination of the

1 produce. Growers need to be aware of the water source
2 used to make ice if you're using it in the cooling
3 process. So, water is a vehicle for spreading localized
4 contamination. There are many ways that the water can
5 become contaminated or that we can contaminate the water
6 in the process of using it. Whether it's used as
7 irrigation, whether it's used for washing produce in the
8 packing shed or directly in the field, whether it's used
9 for cooling or whether it's used for ice that's used for
10 cooling. How about we do manure and then take a break.
11 Does that sound all right? I told Dan Sowards that the
12 reason they selected me for this was that I'd been on the
13 manure list for so long they figured I could talk about
14 this without any problem. When I first went to Oklahoma
15 and I traveled around the state, you know, making myself a
16 little more aware of the countryside and -- I went there
17 from Kansas. I used to work for the university in Kansas.
18 And when I first went to Oklahoma, Dana and I were driving
19 around Oklahoma, we came to a town with a big sign,
20 V-I-C-I. I said, "Oh, we're in Vici, Oklahoma." She
21 said, "No, Oklahomans don't talk that way, remember?" I
22 said, "Yeah, it's got to. I mean, how else can you say
23 it, V-I-C-I. It's got to be Vici, Oklahoma." Well, just
24 like -- you know how that goes. You're going down the
25 road and she says, "You ought to stop and ask for

1 directions." Well, that argument went on for about 10
2 minutes and I had about all I could stand. So, finally
3 pulled into a place, got out of the car, walked up -- went
4 inside. I walked up to the counter and I said, "Would you
5 please tell her exactly where we are and say it nice and
6 slow so she understands"; and the man leaned over the
7 counter and looked right at Dana and said, "Dairy Queen."
8 And that's why we're here at the grassroots meetings, to
9 make sure that we're talking the same language, make sure
10 we understand those things. Manure and sewage sludges.
11 Health officials and scientists all agree that animal
12 manure and human fecal matter represent a significant
13 source of human pathogens. The fecal-oral route. The
14 fecal-oral route is how most of these things get into
15 people. Result from manures -- animal manures, human
16 fecal material, it winds up some -- on a product or on
17 hands or whatever and gets into someone else's mouth and
18 the source -- and the cycle is repeated. So, the
19 fecal-oral route is what we're concerned about in the uses
20 of sludges and manure. Now, the use of manure or
21 municipal sewage sludge in the production of produce has
22 to be closely managed to limit the potential for pathogen
23 contamination of the produce. Growers must also be alert
24 to the presence of human or fecal matter that may be
25 unwittingly introduced in the produce growing and handling

1 environment. Do you know what kind of fertilizers you're
2 using, has it been treated. During this weekend I was
3 watching -- Bob Vela was doing one of his -- I can't
4 remember the name of the program; but, you know, they
5 always rebuild houses. It was very interested on this
6 one. They were moving trees and stuff around this house
7 that they were rebuilding and what they were using as they
8 transplanted the trees was municipal sewage sludge as a
9 soil conditioner and as activated municipal sewage sludge,
10 to help the growth of the trees when they retransplant
11 them; and here they're talking about adding the municipal
12 sewage sludge to the ground as they -- in the big pit
13 where they were putting the tree ball in and they were
14 talking about what it does and everything else; and all of
15 a sudden, in the middle of it he said, "Now, you don't
16 want to use this activated sludge on fruit trees because
17 of the possible for contamination of the fruit." I went,
18 "Oh, I have to use that tomorrow." You know, here it is.
19 So, that's the kind of thing that -- common sense guidance
20 that we want to have in the document. Okay. That people
21 understand that on certain things you can use an activated
22 sludge, a sludge that has not been -- all the pathogens
23 have been reduced from or eliminated from on certain -- on
24 certain types of crops; but you can't use it on crops
25 where contamination would occur. Properly treated manure

1 or municipal sewage sludge can be an effective and safe
2 fertilizer and soil conditioner. I told the people the
3 other day that there were many times that I use to go down
4 to the sewage treatment plant in the spring and get tomato
5 plants out of the sludge drying beds. Tomato plants.
6 Nice ones. Okay. It certainly was a good reservoir for
7 them to grow and we were certain that the sludge had been
8 inactivated and had gone through the digesting process and
9 the only thing I was concerned about, even they'd been
10 tested at that point in time before it was gotten rid of
11 for heavy metal. So, there are many other things you need
12 to look at; but we want to be sure that the sludge -- if
13 it's used as a fertilize to improve soil structure or
14 enter surface water through runoff, it does not contain
15 pathogens that can contaminate produce or other products.
16 Although it -- we don't know -- we don't how widely
17 municipal sewage sludge -- from the literature it says
18 that it's not widely used in the growing fields of fresh
19 produce; but much research has been done on municipal
20 sewage sludge that has not been used in manures and so
21 there's some -- we can look at some of the things that are
22 done for municipal sewage sludge and look at manures as
23 well; and how properly treated municipal sewage sludge has
24 been shown to be beneficial to agricultural uses. Use of
25 untreated or improperly treated manure nearby composting