Transcript of Meeting of

Committee to Advise on Reassessment and Transition

Hilton Crystal City

2399 Jefferson Davis Highway

Arlington, Virginia

February 27-28, 2002

ATTENDANCE LIST

Carolyn Brickey	Institute for Environment and Agriculture (AZ)
Dr. Sarah Lynch	World Wildlife Fund (DC)
Adam Goldberg	Consumers Union (DC)
Shelley Davis	Farmworker Justice Fund (DC)
Erik Olson	NRDC (DC)
Jennifer Sass	NRDC (DC) (Day One)
Rob Hedberg	Weed Science Society (DC)
Dr. Mark Miller	American Academy of Pediatrics (CA)
Dr. Eldon Ortman	IPA to USDA (IN)
Dr. Mark Whalon	Michigan State University (MI)
Dr. Lori Berger	California Minor Crops Council (CA)
Dan Botts	Florida Fruit & Vegetable

	Association (FL)
Dr. Hugh Ewart	California Citrus Quality Council (CA)
Keith Menchey	National Cotton Council (TX)
Dr. Cliff Ohmart	Lodi-Woodbridge Winegrape Commission (CA)
John Rigolizzo, Jr.	New Jersey Farm Bureau (NJ)
Dr. Robin Spitko	New England Fruit Consultants (MA)
Steve Dierks	Wisconsin Potato Growers
Dr. Michael Willett	Northwest Horticultural Council (WA)
Cindy Baker	Gowan Company (AZ)
Ephi Gur	Makhteshim-Agan of North American, Inc. (NY)
Robert Kiefer	Consumer Specialty Products Association (DC)
Dr. Janis McFarland	Syngenta Crop Protection (NC)
Jay Vroom	President, CropLife America (DC)
Mark Greenwood, Esq.	Ropes and Gray (DC)
Steven Rutz	Florida Department of Ag and Consumer Affairs and represents

	AAPCO (FL)
Paul Helliker	Director of Pesticide Regulation, California EPA (CA)
George Wichterman	Lee County Mosquito Control District (FL)
Dr. Steve Balling	Del Monte Foods (CA)
Margaret Wittenberg	Whole Foods Market, Inc. (TX)
Robert Rosenberg	National Pest Management Association (VA)
Dr. Terry Troxell	Director, Plants and Dairy Foods and Beverages, FDA
Dr. Richard Y. Wang	National Center for Environmental Health, CDC
Robert Springer	Director, Waste, Pesticides & Toxics, Region V-EPA
Claire Franklin	Executive Director, Health Canada

Day One

February 27, 2002

PROCEEDINGS

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MR. EHRMANN: Welcome everyone -- welcome back everyone, I should say. I'd like to welcome everyone to this meeting of the Committee to Advise on Reassessment in Transition.

Welcome back to many familiar faces. We haven't been together in this exact grouping for awhile. It's good to see everybody.

What I'm going to do, initially, is turn the microphone over to our co-chairs, Linda Fisher and Jim Moseley, for some opening comments, and then I'll say a bit more about the agenda, ask you to say a bit more about your desires for this meeting, and then review, quickly, the overall agenda that we wish to accomplish over the next day and a half.

For those who don't know me, I'm John Ehrmann

from Meridian Institute and have had the pleasure of serving as facilitator of this Committee and several of its predecessors on these issues. And I would also say to the folks in the public seating that we will provide opportunity for public comment both at the end of the session today and the end of the session tomorrow. And, if you're interested in making a public comment, would ask that you sign up for that outside so we know how many people are interested and we can gage the time appropriately and, then, I'll give you some updates as we go through the agenda as to when we anticipate that public comment starting.

And with that, let me turn it over to Deputy Administrator Fisher.

MS. FISHER: Good morning, and thank you, everyone, for being here. I think this is my third or fourth iteration of a pesticide's dialogue committee. Many of you are the same folks that sat around with me at the first one, Mr. Balling being one -- Dr. Balling, in Keystone, and I want to thank John Ehrmann who has managed to facilitate every stakeholder process that I've been in over the past 10 years.

(Laughter.)

MR. EHRMANN: I haven't aged a day.

(Laughter.)

MS. FISHER: We all look young, John. But I do want to thank everyone for joining us again today. It is difficult, given all of our schedules and locations, to take the time that's necessary to devote to this process, but I think it's very important. And, so, I want to thank all of you for being here.

I particularly want to thank Jim Moseley. Jim worked -- and I worked -- together on pesticide issues back in Bush One when he was at EPA. John Ehrmann was also facilitating our relationship then --

(Laughter.)

MR. MOSELEY: Notice he's sitting between us now.

(Laughter.)

MS. FISHER: But it's a privilege for me to be the Deputy Administrator at EPA and have Jim be the Deputy Secretary of Agriculture. His understanding of -- agriculture, obviously, comes from a lifetime of experience, and his interest and concern and

understanding of environmental issues has always made the job of those of us who are trying to regulate pesticides a lot easier.

He has brought an insight into what is important to the ag community to us and I think shares a real commitment to the environment that has been a wonderful bridge between the communities. And, so, we were -- all at EPA, we were very thrilled to find out that Jim was the Deputy Secretary of Agriculture. So, Jim, it's a pleasure to have you here today. And I appreciate the amount of time that you're going to give to this.

One thing that is very clear to me today in this current job, as it was 10 years ago when I was the Assistant Administrator of the Pesticides and Toxics Program -- I had Steve's job -- is how critical it is for USDA and EPA to be joined at the hip as we move ahead and make the decisions that are in front of us on pesticides. So, we will look forward to a continuing close relationship with the Department of Agriculture.

I also want to introduce to everybody a newcomer to EPA, Adam Sharp. I don't know -- where is Adam? There he is. Adam has a number of wonderful

qualifications, the most important is that he is from Ohio and a graduate of Ohio State.

(Laughter.)

MS. FISHER: I want you to know I am filled -- I am filled with New Jerseyans.

(Laughter.)

MS. FISHER: So, when I found out that Adam was from Ohio, my heart burst with pride.

(Laughter.)

MS. FISHER: You can tell where I'm from. Let me say a few things that are important and then I'm going to turn it over to Jim.

First of all, implementing the Food Quality Protection Act is a top priority for the Administrator, for me and for Steve. We are on track to meet the deadlines in the law and in the lawsuit that followed on and we take those very seriously and we take our commitment to making the decisions that are brought to us through the law very seriously.

Secondly, we intend to make it, based on what has almost become a cliche, but it is important, and that is on the basis of sound science. We have done an awful

lot of work to try to get as much scientific input and guidance as we can on some of the very tough policy issues that face us as we implement FQPA; particularly in the area of cumulative risk. And I appreciate all of the time and the guidance that the members of this Committee and others have spent. As we have tried to move forward with those policies, we will rely on your help in the future. I think the scientific issues facing the Agency as it implements this law are as challenging as we face under any other environmental law. And I have waxed eloquently to the Assistant Administrators of the other programs to pay close attention to how we move forward in the area of cumulative risk because I think it does -- it will serve as precedent for how we implement a number of other laws, as the public is more and more asking us to look at the cumulative impacts of exposure to emissions on them, and I think the work that's being done here in pesticides is very important, not only to the pesticides program but to many other programs that EPA implements.

And, lastly, as I started out by saying through this process, the CARAT process, through implementing FQPA, and our many other programs that impact the

agriculture community, particularly in the water area, we really do want to do it in partnership with USDA. I think it is really a unique time that we can have a Deputy Secretary that actually worked at one point at EPA. And it's probably equally unique, now that I think of it, that you have a Deputy Administrator that worked for an ag chemical company...

(Laughter.)

MS. FISHER: ... but it really does offer us, I think, a unique opportunity to forge a relationship that will go forward long after Jim and I have left these jobs between the Department and between the Agency, because the challenges that we face in the laws presented to us today, I think, are footholds. I think the issues that the ag community and environmental community are going to face together over the coming several decades are important.

And, so, I take as important as making decisions under FQPA, I take the challenge to really build top-down and bottom-up relationship with the USDA as perhaps one of the most important outcomes that we hope to achieve as we move forward to implement this law.

So, with that, let me turn it over to Jim.

MR. MOSELEY: Thank you, Linda, and I want to say to each of you, thank you for taking the time to be here. I know that this is an important issue, we all know that, but also, we all have lives that are very busy and full, and this is a real commitment to come in and spend a couple of days, and I want to say thank you to each one of you.

I also want to go back and just reflect for a moment on the relationship that Linda's laid out between USDA and EPA. I did spend some time at EPA back early in the first Bush administration and that was very valuable. In fact, a friend of mine -- I was looking at going to another -- I was looking at going to USDA when I came in with Bush One, and a friend of mine made the comment to me that, you know, everything that I understand about agriculture, as I looked forward in the future, has environment surrounding it. And it just seems to me that that might be an area of excitement and it's clearly an area of need.

And, so, I ended up going over and spending some time working with Bill Riley, the Administrator, and I

got to know Linda and Steve at that point and time and a number of the other folks at EPA.

And I think that was extremely valuable from the standpoint of it gave me, and I think some people in agriculture, a better perception about EPA and what they had to accomplish and what they needed to accomplish as a result of the statutory law that's written.

At the same time, I hope and I believe that it was probably useful, as Linda indicated, to those individuals at EPA, to have someone there that really did have on-the-ground experience.

I come from a farming background, 32 years, I still have a farm. I will return to the farm when I leave Washington, D.C. I also go back to the farm and, so, you can all kind of get a sense of what my political inclinations are. I intend to go back to the farm.

(Laughter.)

MR. MOSELEY: But I think that was valuable at that time and, then, I would also share with you -- Linda missed one very important point -- she's actually been on a farm.

(Laughter.)

MR. MOSELEY: At least one. I did invite Linda to come out to Indiana and we spent -- I don't know, Linda, a day or so -- and I took her around the farm and we invited a group of farmers to come in at a social event. We just sat around and we talked and she got to understand that farmers are okay people, too.

(Laughter.)

MR. MOSELEY: And they didn't have to be lawyers. But I think that is a valuable relationship and that doesn't necessarily mean, though, that there are not difficult issues that we must address. And there's going to be division, there's going to be differences of opinion, there are those issues that have been lain on the table for a long time that need resolution. And it's going to be difficult to do.

I think the point is that I believe strongly in citizen government, in there being transparency and openness and people coming together and sitting down and in a respectful environment sharing their views. I think that's what we have the opportunity to do here, that's the purpose of this whole enterprise that we're involved in today and tomorrow, is to sit down at the table and

listen and learn.

My grandfather was a wise man and he told me when I was a little kid, and I never forgot it, that I was born with two ears and one mouth and I ought to use them in that proportion. And I think that was symbolic of his understanding that we do learn a lot more when we listen than when we talk.

And, so, that's the approach that I've always taken and I hope that that's the approach that we take here. We have a desperate need to share views and ideas, because we do have some things that keep us apart right now in terms of agreement or we wouldn't be here. But as a result of us coming together and sharing those views and those ideas in this environment, it would be my hope that we would be able to come to resolution and we'd move forward in this important area.

I mentioned I'm a farmer. Pesticides are an important part of my life. They have been. And, so, I understand the challenge and the difficulty, particular as it relates to this whole issue of transition. When we come to a point when we find that there's a need for there to be a different decision made on a pesticide, we

have to recognize -- and I know that Linda, as I worked with her when she was an Assistant Administrator, she did understand this, that there are impacts that go far beyond just the decision-making process at the Federal level. That it does have an affect on people at the ground level. And when those decisions must be made, there has to be some sensitivity about how we move forward, how we transition.

And my understanding of this session is that we're going to take up this question of transition and look at it very seriously. It's one that we need to take a look at; it's one that concerns me a lot as I sit on the ground and utilize the products that are on the table for discussion here and we find that there are some challenges that need to be addressed with them. I need to know what the next step is, that's important as a producer. So, I hope that's what we're able to get at.

I am going to have to, unfortunately -- and trust me, I would 10 -- 100 times rather stay here. I've got an appropriations hearing on the Senate side this morning. It is our ag appropriations and I've got to go

up and participate in that. I'd much rather sit here and listen to the dialogue and listen and learn, but I'm going to have to go up and, unfortunately, participate and probably answer some very difficult questions about agricultural budgets, but I will return as soon as I can.

In my stead, I want to introduce you to Deborah Atwood. Deb is my right and left-hand person at the Department. We have a very small and very capable staff -- Deb's it --

(Laughter.)

MR. MOSELEY: -- so, I'm going to leave my responsibility in Deb's hands until I can return. But I will come back just as soon as I can and I very much look forward to listening and learning from you. And let's just make a commitment that we're going to work through this and we're going to come out the other side with very positive consequences. Thank you.

MR. EHRMANN: Thank you. And in a minute, when I ask you all to introduce yourself and say a few other things, I hope you'll remember the image of Jim's grandfather.

(Laughter.)

MR. EHRMANN: And his wise words about proportionality. But before we do that, let me just quickly give you an overview of the agenda. I don't have to read to you what's on the sheet in front of you, everybody in your packet, along with other materials, should have a copy -- two-sided copy of the agenda. But the basic flow is to spend this morning, after these introductions, with an update on a set of tolerance reassessment activities and some other aspects of the cumulative risk assessment process and we'll have presentations from the folks you see designated there on the agenda on those topics.

As usual, we'll have opportunity for discussion, questions and answers, clarification as we go through those morning presentations. That will also include a presentation from a subgroup of the Cumulative Work Group and that work group has been meeting, as I think everyone knows, several times -- a number of times since the last time the full CARAT had the opportunity to meet, and they have a specific report with some specific recommendations and suggestions for a path forward there. So, we'll hear from those folks right before lunch.

Then, after lunch, we'll have some time for a discussion, really focusing specifically on what should the process be going forward from here to August and other key milestones that may wish to be designated at that point based on the discussion we have in the morning.

Then we'll have an overview of the early noncontributors process, and then we're going to have, as you can see here, a panel on transition issues, led by Jean Marie, with a diversity of folks who are in the middle of experiencing, working on transition issues from a variety of experiences, and then we'll have our public comment and adjourn no later than 5:00.

Tomorrow morning we'll start out with the discussion on transition based on and building on the presentation and discussion we have this afternoon. We'll have a specific discussion on worker exposure issues and then discussion on that, presentation on the national report card from CVC on the environmental toxics, and then a discussion about the future of the Committee -- next step, schedule, et cetera -- and then our second opportunity for public comment.

So, it's a full agenda. I'll do my best to keep everyone on the time lines and keep moving and, I think, we should be able to accomplish our objectives here. I think it is important, as we get going here, to kind of give everybody an opportunity to get re-introduced and also to spend a minute or so just talking about the issues that each of you believe should be the priorities for discussion by this Committee and I realize there are probably questions on everybody's mind about, well, how many times are we going to meet and are we going to have more work groups and, you know, how intense is this process going to be, what are the targets for our suggestions, and those issues. And they're all very relevant and we will talk about them both throughout the day and specifically at the end of the day tomorrow as we come to that discussion about next steps.

So, if you want to reflect on those issues in these opening comments, that's great. I think it would be even more important, though, to hear substantively what are the major questions or issues that you think need to be addressed in the context of the work of the Committee and/or any subgroups that might be formed or

are already formed for the Committee, and leave the procedural questions until tomorrow, if we can, acknowledging that there are a number of them there that we're going to need to address.

We have, as you can see, a good number of people around the table. We've allocated about 50 minutes for these introductions. I would encourage you, therefore, to keep your comments to less than a minute, if that's possible. When Linda starts twitching over here, that's a signal that you've gone on too long; when I start twitching, you've really gone on too long.

(Laughter.)

MR. EHRMANN: But, really, just would like to, obviously, give us your organizational affiliation, since not everyone is known to everyone around the table. We have some new faces. And, then, two or three key points, key questions, key issues that you think the CARAT should be focusing on and if you want to just ditto what somebody has already said, that's perfectly acceptable behavior.

And what I'd like to do is rather than just go around the room in sequence, because then everybody at

the end of the line is always kind of waiting, I'm just going to pick somebody to start and just kind of ask -- just kind of do it that way -- keep everybody on their toes.

(Laughter.)

MR. EHRMANN: And add in when you get to the point where you get called on. So, I think I'm going to start with Dan Botts.

(Laughter.)

MS. FISHER: You feel like you're in school, Dan?

MR. BOTTS: The minute I put a piece of candy in my mouth I knew that was going to happen. My name is Dan Botts. I've worked for -- my official job is working for Florida Fruit and Vegetable Association as a Director for the Environmental and Test Management Division there. Florida Fruit and Vegetable Association is a grower organization. It represents grower shippers in the State of Florida. We're about 35 or 40 different commodities that we collect dues on and a bunch that we don't collect dues on.

But an additional position, I also serve as Chairman of the Technical Committee of the Minor Crop Farmer Alliance, which is a consortium that was created in 1990 in the specialty crop industry side of agriculture to deal with pesticide-related issues, and at that time I perceived a lack of a place at the table in the ongoing decision process on pesticides.

As a result of that, I think I've been on every committee that there is except the Keystone Group, and we did actually send somebody to the Grand Hotel Meeting in Alabama for that group, who worked for me, who -- you're probably better off that -- we didn't continue that affiliation because he tended to get a little excited at times.

But, basically, one of the things that this group has done and all of the other iterations of the public-input process that has gone on since FQPA passed, in my opinion, has been extremely valuable, not only to us in the stakeholder community, but also to the Agency, because it's taken a process that, I think, nobody understood or wanted to understand, and, essentially, forced the process into this role of transparency and

sound science

And, I think, everybody can argue over what sound science is, but it's put it into the position of having to explain the process to where people who are affected by it understand it.

And I don't know that we're totally there yet on some of the issues on the agenda today, but we're a lot closer than we were 10 years ago or six years or when FQPA passed. And I'll leave it with that -- it's been more than a minute.

MR. EHRMANN: Great. Thanks. Let's see, Adam?

MR. GOLDBERG: Adam Goldberg, Consumers Union. We are the nonprofit publishers of Consumers Report Magazine.

I guess, from my perspective, I think that we made a very good start on the reassessment side of things, and I'd like to continue on, as cumulative risk assessment moves forward, to look at those issues and work on that, but I am glad that we're also going to be making a start on the transition side of things, which is very important and something that I know a lot of people around this table have been pushing on.

So, I think it's very appropriate that we really delve into that in the same sort of depth that we've dealt with the reassessment issues.

MR. EHRMANN: Great. Jay?

MR. VROOM: I'm Jay Vroom, President of CropLife America, formerly ACPA, formerly NACA, formerly --

(Laughter.)

MR. VROOM: I've been coming to a lot of these meetings and we might change our name again before the next CARAT meeting, who knows?

I appreciate the chance to be here. Since there are few here at the adult table who used to sit on this side of the table, I'm curious to sort of learn what sorts of improvements in terms of metrics and how will we know what success looks like at the end of this meeting, not that CARAT necessarily wasn't beneficial in the previous administration, and we have been strong advocates to this administration that CARAT continue and that the deputies continue as co-chairs, and we very much appreciate the follow through response on that score, but I'm just curious and looking forward to sort of learning how you expect to sharpen the, you know, sort of

measurable productive outputs so that we all can help to contribute to that. Thanks.

MR. EHRMANN: Great. Margaret?

MS. WITTENBERG: I'm Margaret Wittenberg, Vice President of Government on Public Affairs for Whole Foods Market. In Washington it's known as Fresh Fields, and we have 126 natural and organic supermarkets across the U.S.

And I'm really impressed with the cumulative risk assessment work that the working group has done and the EPA has done. It's just exceptional.

You know, I was at a meeting recently and somebody brought up an idea of how to organize different issues and what's on the table and they have a WHAT? SO WHAT? and NOW WHAT?

And I see the WHAT? as FQPA; the SO WHAT? as the cumulative risk assessment; and the NOW WHAT? as the transition issues.

So, I'm really looking forward to the transition issues and hoping that we do have a working group on that because seeing what the cumulative risk assessment group has done, I think that we can do a lot with the transition issues as well.

MR. EHRMANN: Great. Robin?

DR. SPITKO: Thanks. I'm Robin Spitko, I'm representing the National Alliance of Independent Crop Consultants. We're an independent group of -- essentially advisers that work with the growers. We do IPM, ICM, nutrient management, research on alternative methods and new products.

Most of my thoughts have already been well spoken by others in the group. I was really happy to hear what Linda Fisher and Jim Moseley said about the Agency and the Department working closely together, because our major concern at this point is transition.

Every regulatory decision that's made is transitioning agriculture. It's happening each time, you know, a new decision is made, and we really feel that since we're working with growers on the farm level, actual implementation, growing the crops, that we need to have a better handle on the economics of what's -- the outcome of what's happening with the decisions that are made, and we just feel that it's an incredibly complex situation that we need to have the Agency and USDA working closely together; FDA and international trade

issues are as much a part of the future of agriculture as what's happening in this room and what's happening at USDA.

So, we fully support the transition process. We think that's really important right now and we really encourage all aspects of Washington to work together towards helping strengthen our agricultural system, because we're, honestly, in pretty serious trouble when you go down to the economic bottom line.

Thanks.

MR. EHRMANN: Great. Cliff?

DR. OHMART: Cliff Ohmart, I'm with the Lodi-Woodbridge Winegrape Commission. That is a group of about 750 winegrape growers in California. It's just south of Sacramento. It's the largest winegrape district in the United States.

And I'm here for transition. I've worked with growers for about 10 years now and it just is so obvious that we don't have a shortage of good ideas, what we have a shortage of is getting those ideas out to the farm. And, so, that's what I'm focused on.

MR. EHRMANN: Great. Bob Rosenberg?

MR. ROSENBERG: This is very intimidating.

(Laughter.)

MR. ROSENBERG: My name is Bob Rosenberg, I represent the National Pest Management Association, which is a trade association that represents 6,000 companies that do structural pest management, including cockroaches, termites, fleas, and things like that.

I think maybe being the odd-man-out, I think I would hope that this group would continue to be attentive to the issues that are related to the quality and the reliability of the data and methodology being used to conduct residential exposure risk assessments.

MR. EHRMANN: All right. Phil? Or Paul, I'm sorry, Paul.

MR. HELLIKER: That's all right. Paul Helliker, I'm the Director of the Department of Pesticide Regulation in California. And with all this talk about transition, it's making me worried about November in California --

(Laughter.)

MR. HELLIKER: -- but let's hope that we don't have to worry about that.

Anyway, it's a pleasure to be here and having worked with the gang on the cumulative risk assessment work group, I think that that's been very helpful not only to the people on the work group but I hope for EPA as well, and I'd like to see something similar transpire over the course of the next year with respect to the transition issues as well. Although I know they are much more complex.

MR. EHRMANN: Jennifer?

MS. SASS: They are not my TastyKakes --

(Laughter.)

MS. SASS: I'm Jennifer Sass, I'm with the Natural Resources Defense Council, and my only -- other than what the other people have said, which I basically agree with -- I agree with Dan that I think the process of transparency and the process of input and dialogue between the Government agencies and the stakeholders and interested groups is extremely important, especially to help us have a better handle on what's happening so that we can comment and aid better.

I would also encourage you to proceed and so transition, I think, is the one we have to get it done

now.

MR. EHRMANN: Okay. John?

MR. RIGOLIZZO: I'm John Rigolizzo, I'm a farmer -- I'm from New Jersey --

(Laughter.)

MS. FISHER: They always send a babysitter for me.

(Laughter.)

MR. RIGOLIZZO: And, well -- actually, please say hello to Christy for me, I haven't seen her since we shared some Oreos awhile back.

MS. FISHER: How many years ago was that?

MR. RIGOLIZZO: I was just a young boy.

(Laughter.)

MR. RIGOLIZZO: Anyway, I'm here -- I'm the President of the New Jersey Farm Bureau, and I'm here representing American Farm Bureau. I've got to tell you that I really like the -- I love the science of this process that we're doing here and I'm glad to be a part of it.

I not only represent farmers around the country, but I think that I represent in many ways farm workers as

well, because I'm very interested in how we look at their part of our whole system.

But transition is what we're talking about and I always thought transition to me means change and I'm very concerned about how we -- what we change to or become.

So, from my point of view, I tend to focus on the logistics or the economics of the change. How it's going to affect our farmers and our farm workers, and how it's going to affect, eventually, focusing on what we call farm viability. And, to me, that means more than just sustainability. I'm talking about keeping an industry growing, an industry that's in trouble for a whole lot of other reasons, but it definitely could be impacted in a major way, negatively or positively, with the outcomes of what we do here.

So, I'm hoping that it becomes positive and I, you know, keep promoting the future of agriculture and keeping young people on the farm. I think that's important to our economy as a nation, as well.

So, I look forward to the whole proceedings today, especially, and then to the future.

I just want to mention, also, that one of my

other hats is I'm a mosquito commissioner at home in New Jersey and I have been very much involved in issues like west nile virus and how that -- all those things, just as a mosquito commissioner, affects the public health.

So, I get a pretty broad view of what we're doing here, and I do appreciate everything that's gone on so far. And Adam Sharp is really not a bad guy.

(Laughter.)

MR. EHRMANN: Steve Balling?

DR. BALLING: My grandfather was a wise man as well, and he told me not to grow up to be a farmer. Unfortunately, he didn't tell me to not grow up to be an entomologist. And I'm beginning to find out that that is just as unprofitable in the context of trying to get anything accomplished as being a farmer.

I'm going to get my minute this afternoon, so I will step back from at least discussions about where I think this group ought to go, but I do want to mention that it's very much a USDA Committee, as well as an EPA Committee, and I noticed the balance up there at the front desk, front table. I think USDA needs to assure us that they will stay intimately involved in this whole

process and I want to be assured that there is support from USDA.

MR. EHRMANN: Okay. Shelly?

MS. DAVIS: My name is Shelly Davis, I'm the Co-Executive Director of the Farmworkers Justice Fund.

In the year 2001, a study came out showing that members of the United Farm Workers Union in California had elevated rates of leukemia and brain cancer, which are associated with exposure to pesticides.

So, I feel like I'm here as kind of the reminder of the urgency of protecting the health of farm workers and their families and that's why we have to move toward transition as quickly as possible.

I also feel like, although this process been excellent in terms of transparency, that one of the values that has gotten short-shrift so far has been protecting the health of farm workers and their kids, and that's what I would like to see get more prominence in this process.

MR. EHRMANN: Thanks. Rob Hedberg?

MR. HEDBERG: I'm Rob Hedberg with the Weed Science Society of America. I represent about 4,000 weed

scientists around the country who are working day in and day out on transition issues.

Basically, when we talk about transition, to my way of thinking, we're talking about information, education, research and using all of these to change practices.

So, my members do this day in, day out, it's their career and I'd like to see us applied in the process.

I'm very concerned that we move this along quickly because the clock's ticking and I want to stress the importance of herbicides in agriculture and if you take insecticides and fungicides combined, herbicides will be used about twice as much as those two products combined.

So, they're extremely important to farmers. There's an extreme need out there and right now I'm concerned that through the transition process or through the FQPA implementation there is a potential for significant disruptions and the clock's ticking in terms of implementing changes to develop the research and the types of changes that will be needed.

With that said, I think one of our priorities is to make sure we have minimal disruption of American agriculture in the process because I don't think any of us will gain either economically or ecologically if we disrupt the process and drive our production overseas, where we don't have the safeguarding systems that we have in place today, either for the environment or for human health.

So, what I would like to do is see the transition process identified, the priorities that we need and start laying out, through the work group, a road map for implementing those, and I think we have to do it sooner rather than later because American farms, they take time. They're fine-tuned systems right now and they don't change on a dime. It's like oil tankers, it's going to take many years for them to implement these changes and work them into their system.

So, we've had six years since FQPA passed and we haven't really been working on any of the herbicide issues now, but I think we need to.

MR. EHRMANN: Thanks, Rob. Cindy?

MS. BAKER: I'm Cindy Baker, I'm the President

of Gowan Company, which is a small family-owned business that does crop protection materials from Yuma, Arizona.

I admit I'm an FQPA-aholic. I haven't been to a meeting since January of 2002.

(Laughter.)

MS. BAKER: I think one of the more important things that we can probably do with this Committee is that we're in the home stretch, I think, of the cumulative risk assessment process. I think the work that we've done through the cumulative work group that people have already mentioned has been very valuable, not only to the people around this table, but to the people out in the country, hopefully to EPA and to USDA, in terms of getting a better understanding of what it is that you guys have put in place with this complicated process.

But I think some of the most critical pieces are going to happen between now and the August deadline that we'll talk about later. And, so, I think it's important that we have some continuity and continuation of the process that we've had in place and that we've put into place -- a process for what we do between now and August

and even after August, in terms of transition things.

One of the great benefits, I think, of the work group is that we were able to really get into some issues, we were really able to talk about some specific things. I think we gave some good input and advice to both the Agencies and I guess the best benefit are these TastyKake cupcakes. This is a gift from Adam Goldberg from Consumers Union that he brought to me this morning because at our last group meeting we talked about the recipes within the model and they talked about TastyKake and I said I don't even know what that is, Adam, and so he brought me TastyKake. So, if you guys get hungry later, we'll pass them around, but --

(Laughter.)

MS. BAKER: -- we formed some strong bonds in our work groups, so thank you very much, Adam.

MR. EHRMANN: Great. Steve?

MR. RUTZ: I'm Steve Rutz with the Florida Department of Agriculture. I'm the Pesticide Program Director and do some other things also, and I'm also here representing the Association of State Pesticide Control Officials.

Probably the biggest thing from a state perspective that we're interested in when talking about CARAT is the state partnership responsibilities that we have relative to the implementation of the Agency's decision, whether they be cancellation, litigation, labelling, or what have you, but we're the folks that have to assure compliance in the field, so we're very interested in the practicability of the mechanisms that are developed in terms of what it actually means relative to the relationship between us and the growers and the other folks that we work with. So, consultation is very important there.

We're also, as state agencies, typically in agriculture departments, very concerned with the transition issues that we'll be talking about later on today, particularly in process, and most importantly, what the implementations of the August deadline are relative to the amount of time that will be provided after August to deal with transition issues.

And the last thing, I guess, from a state perspective is although the states have varying capabilities, we do, of course, deal with compounds,

specific management issues, and there are opportunities, I think, out there for the states to be more involved in dealing with specific management issues and to perhaps work and collaborate more closely with the Agency to come up with some innovative ways to work on that.

MR. EHRMANN: Great. Mark Miller?

MR. MILLER: I'm Mark Miller, I'm a pediatrician and I represent the American Academy of Pediatrics and I think that I've tried to have my role be to remind everybody that the impetus behind this was children's health and that we ought to be explicit that we're addressing children's health issues throughout the whole process.

It will be interesting to see what that role is in the transition.

MR. EHRMANN: Ephi?

MR. GUR: I'm Ephi Gur, with Makhteshim-Agan of North America, a company that produces pesticides, based in Israel, and since the implementation of FQPA, I've spent hundreds, probably thousands, of hours explaining in many places around the world, including Israel, what this is all about.

I guess I'll spend some more of these in the future as well. The process is interesting and I think, again, fascinating to see and I'm here to listen and be able to speak and talk later.

(END OF TAPE)

UNIDENTIFIED MALE: -- has specific ramifications and I think the importance of moving forward into this is that we use the same basis that we used in our other work groups and committees to work on transition and that is transparency, looking at sound science, looking at the facts as they are and understanding those. So, I'm really looking forward to transition being used in that way.

The other thing I want to do is to thank the people on the work group on cumulative and also the staff for all their efforts. I think it was a very successful process and I'm very happy to say that, you know, that CARAT didn't really have a lapse for me because we continued that work.

So, I'm very happy that the whole CARAT with that and that we can continue on with the program because I think by keeping that work group going and the work

they did, we have the momentum to move on into the next phase.

MR. EHRMANN: Thanks. Sarah?

DR. LYNCH: I'm Sarah Lynch and I represent World Wildlife Fund, an international conservation organization. We have about a million members here in the United States and five million worldwide, and I'm a long-time TRAC/CARAT participant, as well, and I'm delighted to see USDA and EPA viewing themselves as joined at the hip, because I think that's exactly right. I think that one of the things that the CARAT process can help us generate is a vision of what is ecologically sustainable and economically viable agriculture looks like so that we all can be heading toward it collectively.

I think that it is not just our purpose and function here at CARAT to think about how we can substitute one set of newer chemicals for some hotter older chemicals, that that's a mistake for agriculture because there are so many forces that play on the field for farmers that they are facing in terms of clean water, clean air, healthy food, safe food, et cetera, that it

would be a mistake just to be focusing on yesterday's problems and not trying, at the same time, to address the whole array of forces that farmers are facing.

And I also think that we don't want to see transition as just something that farmers go through. There's a whole food sector that needs to be encouraged and engaged in transition. I'm thinking of the wholesalers, retailers, processors -- we need to make them partners in transition so that they are not, you know, to coin the phrase what Henry Ford said, we'll give them everything they want -- every color they want as long as it's black. I think we have to figure out ways that the marketing sector can give consumers and producers an opportunity to produce things with new value added attributes that are desired.

We have to engage the input suppliers and those folks that are on the field providing information and technical assistance to growers.

We need to also engage the research community on targeted, focused, on-the-field, multi-disciplinary types of research that will help growers address these problems.

And, also, as everybody has mentioned, all the different government agencies from the local level to the international level to support, to recognize, to encourage, to facilitate and to reward transition.

MR. EHRMANN: Okay. Why don't we go to George.

MR. WICHTERMAN: I'm George Wichterman and technically I'm the entomologist for the Lee County Mosquito Control District in Fort Myers, Florida, and I also represent the American Mosquito Control Association, which is composed of over 900 different mosquito control operations throughout the United States, consisting of around 2,100 individuals.

I would like to applaud both EPA and USDA for involving public health control in this process and it's been very enlightening to us since we have been included in FQPA, and I would thank you for the transparency relating to that.

However, we still have concerns at the Department of Health and Human Services, which I notice is conspicuous by their absence today, that they --

(Laughter.)

MR. WICHTERMAN: -- okay, thank you -- I stand

to be corrected, but I would ask you to please participate with us in this process and there is a two-fold mandate by HHS -- one is consultative and you have done a very nice job memorializing the MOU with EPA and HHS -- but, also, in the area of data collection, you folks have not participated in this venue and we do have one product that is apparently not going to be supported by a registrant and we are going to lose this tool in our very limited arsenal, since we have nothing else in the que.

So, I would like for you to please participate and encourage you over the balance of this process. And thank you.

MR. EHRMANN: Thanks. Let's see. Lori Berger.

DR. BERGER: Good morning. My name is Lori Berger and I'm an entomologist by training. I am with the California Minor Crops Council, which is an organization which represents many growers and producers of a lot of the wonderful fruits and vegetables that we all enjoy. This includes everything from pears, peaches, plums, strawberries, kiwi fruit, celery and a number of others. And after seeing Keith Menchey eat a Snickers

bar for breakfast and between the TastyKakes and also observing, and I must say, sharing a number of Gummy Bears with Jennifer Sass, I'd like to remind everybody to eat their five a day.

(Laughter.)

DR. BERGER: As I said, I was a part of the cumulative risk assessment working group and I really learned a lot about the process that led to the CARAT's work group or the FQPA groups that have been organized, and as a person that's more field oriented, I'm very anxious to be involved with transition and offering comments from the field and learning how we can contribute to the great transition that's going on in agriculture right now, and I'm willing to learn and contribute and really appreciate this opportunity to be together with the group.

MR. EHRMANN: Okay. Bob Kiefer.

MR. KIEFER: Thank you. Robert Kiefer, I am Director of Scientific and International Affairs for the Consumer Specialty Products Association, formerly CSMA, since last time we met.

We represent non-agricultural residential use

pesticides and public health pesticides, including home, lawn and garden pesticides, insecticides, repellents, pet products with rodentocides, and also antimicrobial products, including disinfectants and sanitizers.

My main interest in this CARAT group has been mainly in the science and the residential exposure portion as well as the issues surrounding it.

CSPA also administers the residential exposure joint venture which is currently conducting a comprehensive national diary survey looking at pesticide product use in the home.

I have also participated in the cumulative work group process and have found that to be very valuable and would like to see that continue.

And, I guess, all in all, my main interest is to ensure the continued use of these consumer protection health benefit products.

MR. EHRMANN: Okay. Michael?

DR. WILLETT: My name is Mike Willett and I work for the Northwest Horticultural Council -- many of you know the Northwest Horticultural Council because of Wally Ewart's long involvement with this group, but this is my

first CARAT meeting and I'm a new CARAT member and I'm pleased to be here.

For those of you who don't know the Northwest Horticultural Council, it is a group that represents all deciduous group growers in the Pacific Northwest states of Oregon, Idaho and Washington -- about 4,000 family farmers, and they share all the concerns that have been mentioned, and Wally has represented those concerns to you folks over the years.

One issue that hasn't been mentioned that I'd like you to keep in mind when you move forward on this is I represent people that individually may export as much as 30 to 40 percent of what they grow -- peaches, pears, cherries -- and the issues we face as we move through the CARAT process and move through transition are really two-fold:

One, as we think about exporting, we have to meet the sanitary requirements set up by foreign countries, those countries that we are exporting fruit to. And that can be very challenging and involves the use of IPM systems extensively.

And the other issue, which is becoming more and

more important in this country, is our ability to meet the maximum residue limit requirements for the pest control tools we do have as we export those fruits to different countries. And we're seeing far greater challenges trying to do that.

I know that a number of people around this room are looking at that and are addressing those issues already.

So, thanks for having me on the Committee and I'm very pleased to be here.

MR. EHRMANN: Great. Eldon?

DR. ORTMAN: Eldon Ortman, I'm an entomologist by background and I'm here representing Agriculture Research, the Land Grant Experiment Stations throughout the 50+ states in the U.S.

My primary interest here is in transitions, looking for a sound scientific base for transitions and good practices, interested in the continuum for transitions from research to implementation.

I would say that I observed the cumulative risk assessment group and hard work -- excellent work -- they have done. I hope we can be effective in the working

group for transitions.

MR. EHRMANN: Great. Let's see -- Janis?

DR. MCFARLAND: I am Janis McFarland and I'm head of NAFTA Regulatory Affairs out of Greensboro, North Carolina.

I first wanted to mention that many of us a few years ago really wouldn't have predicted this science progress that was made by the Agency in the aggregate and cumulative risk assessment, and I think the stakeholder involvement fell through the crack and then, subsequently, the CARAT has really contributed to that, but there's really -- nobody would have predicted how much progress has been made in that area on the science side.

I think what I'd like to see happen at this meeting is, first of all, on the process for stakeholder involvement between now and August 3rd is that we actually outline critical key steps that are connected to key policy methodology areas that are in development and that haven't been vetted out, like the 99.9 and the 10X.

Secondly, in the area of transition, I look at transition in three different areas:

One is the great opportunity that we'll be hearing something about in the -- actually promoting research and education to look for alternatives.

The second, I actually think is harder. It's when you look at alternatives, it's how are you going to truly compare the alternatives from not only a pest and economic side but also the areas of the environmental protection and risk assessment side, like how the alternatives do with beneficials or risk management strategies.

And the reason that's difficult is because we are assessing alternatives class by class and, so, we're going to have to be predicting how some of those alternatives are looking before we've actually been able to make the scientific assessments. So, I'd like some discussion on that.

The third area in actually in the transition period is if in the event you have a risk cup that looks too full, what will the transition group do to have a process for deciding or prioritizing risk management steps?

And I think a key part of transparency

methodology for that actually has to do with how we're going to be doing benefits assessment. And people often don't want to talk about benefits assessments because it's not part of tolerance reassessment, but in transition, benefits assessments are key.

So, the transparency and processing policy for benefits. Thank you. I appreciate the chance to be here.

MR. EHRMANN: Thanks. Keith?

MR. MENCHEY: I'm Keith Menchey with the National Cotton Council, and first of all let me apologize for my breakfast.

(Laughter.)

MR. MENCHEY: You can never know what the Agency is going to do, I guess, budget restraints have prevented them from giving us a nice spread of muffins like they have in the past.

(Laughter.)

MR. MENCHEY: And I was counting on that. I'm sitting in for Bill Lovelady, who is a cotton producer from the El Paso, Texas, area. Bill was not able to make it up this particular time.

The interest in FQPA, of course, from the National Cotton Council's perspective, is its final impact on our ability to produce.

As far as the cumulative risk assessment goes, there's quite a few areas that the Council can applaud the Agency. We think they've made a lot of good decisions.

However, there are still a lot of questions that still remain that will really determine the outcome and the impact on agriculture.

One of them being, of course, some of the policy issues involving the safety factor and the percentiles. We're also concerned about the process that goes on between now and August 3rd, and we really feel that it's important at this time that there's other avenues or other opportunities for us to look at the process and to provide further input.

And, finally, as we move into discussions on transition, I hope we -- I hope we bear in mind, ultimately, that food security is quite important, particularly post-9/11.

MS. FISHER: This has cotton seed oil in it.

MR. MENCHEY: Let me get my hands on that box. There's lunch.

MR. EHRMANN: Mark Whalon? You've been sitting here long enough now to figure out what we're doing, so I wanted to get to you.

(Laughter.)

DR. WHALON: I'm a quick study, so you know.

MR. EHRMANN: I know, I know you are.

DR. WHALON: What's really good here, John, is I've only had a few minutes to write this down, so I've only got about a 20-minute presentation.

MR. EHRMANN: Is that all, oh, okay.

(Laughter.)

DR. WHALON: I'm Mark Whalon, I'm an entomologist at Michigan State University. I've been past IPM coordinator for the state and initiator for the Center for Ingrade Plant Systems.

Right now I'm primarily concerned about transition in minor crops in Michigan. And Michigan is a minor crop state and when I think about the impact of FQPA and the kind of effort that has gone on through TRAC and now through CARAT to reverse a kind of top-down

regulatory process to a bottom-up or a more engaged clientele who are most affected. I think that's been a tremendous step forward, but there are a lot of transition issues left.

One for us that's really important is de facto cancellation. Are we put in a place in our commodities in the state where we can't use chemistries just because of the REI and PHI regs that have been established?

Also, I am, personally, engaged in research and adoption and implementation with several grower communities in true alternatives. Alternatives that work and can stand alone, and that's a real challenge. And one of the things that we're facing is is that and an agency has helped and especially USDA has kind of spearheaded the process of developing an EUP process that we can actually get true evaluation of these new alternatives in the field in such a way that we can make robust adoption recommendations.

Beyond that, I think that in our state we have tremendous innovation going on with the growers that remain in minor crops, and the selection process is very strong, very strong.

So, we've seen a lot of thermal and technology adoption, which is quite a bit more expensive, but coming down with scale-of-use features; more insect growth regulators, for example, and different kinds of disease management strategies in place.

I personally do a lot of organic research and have for 10 or 12 years. When I look at the impact of the new compounds that we're trading off for the old, one of the processors in the State of Michigan, which will go unmentioned, but the comment "happy residue" comes to mind.

And what they mean by that is that we're trading off no residue for long residues -- systemic compounds that produce long residues in fruit and vegetables.

We're also concerning about GM issues and the adoption. They represent an alternative and how we're going to move in that direction in the state, given the public's stance there, and it's not without irony that I look at the disruption process and point the finger at ourselves. I mean, when we look at water and we look at what we're doing to water, actually human contraceptives and our therapeutic lifestyle contribute much more than

pesticides, scientifically, now.

So, what are we going to do there? We have a world view class, essentially, and a law. And, so, that's going to affect the Viagra generation and the new Prozac generation coming along.

I'm also concerned about the ecological impacts of FQPA because this is an area we haven't focused on very much, but when we get to transition, we're really going to have to look at it, because a lot of the compounds that we're looking at as alternatives and as we set up more integrated systems in the field, I think we face a real challenge to assess the ecological impacts in the long-term sustainability of agriculture under these systems.

MR. EHRMANN: Okay.

DR. WALTON: I think those are important. One other point --

MR. EHRMANN: Okay.

DR. WALTON: -- one of the things that we're working hard on and this follows on a point that Sarah Lynch made earlier, and that is that we've got a serious investment in processor disinfestation, particularly in

the cherry industry where there's a zero tolerance for white worms in red cherries.

We've invested a lot in that and, unfortunately, it doesn't look very good. It doesn't look at this point, without major economic devastation to the cherry industry, that we're going to be able to transition to absolute removal of worms from the fruit in the process of lime.

That doesn't mean that that can't change, but we've made about a half a million dollar investment in that from the state and from the commodity and no light at the end of the tunnel.

So, I'm looking to transition to actually save industries.

MR. EHRMANN: Great. Steve?

MR. DIERKS: I'm a new member, too. Steve Dierks, I'm replacing John Wallendal from Wisconsin. I'm a potato grower and we're in the transition phase right now of trying to change our producing in Wisconsin with a group of growers.

And, also, just to comment on the group, I -- John met with this group, probably early, and he said it

was one of the most frustrating groups he has ever worked with because of the divergence of opinions, and it doesn't seem that way now. Maybe it's changed since he's been here last, but I will give it my best shot and I think that transition has to be fed from the local level up because from what we've found it's almost field-specific and it takes a lot of research and it takes much more management skills at the prime level than traditional agriculture does.

Thank you.

MR. EHRMANN: Thanks, Steve. Let's see, who have I got left? Terry?

UNIDENTIFIED MALE: Carolyn.

MR. EHRMANN: I know, I know, Carolyn -- you come late, you've got to wait until the end of the line.

(Laughter.)

DR. TROXELL: I'm Terry Troxell --

MS. FISHER: Maybe they're saving the best for last.

DR. TROXELL: I'm Terry Troxell, representing the Food and Drug Administration, the Center for Food Safety and Applied Nutrition. Also, an agency, by the

way, in the Department of Health and Human Services.

Our mission is food safety and our primary role here is in the end game -- whatever comes out of all the re-evaluations, the re-assessments, we will have to enforce those tolerances. I'm here principally to listen and to contribute to the extent I can.

I would like to point out in the context of our overall mission on food safety that the use of pesticides in a variety of situations can, for example, reduce the level of micro-toxicants because they knock down the pest damage to corn and, therefore, the outgrowth of microtoxicants in, say, corn and so on.

And, also, the other interest we have in helping to minimize food-borne illness, of course, is the availability of disinfectants. Now, that might not be an issue here, but a wide availability of these kinds of products will help reduce food-borne illness from micro pathogens and so on.

So, those are kind of our perspective and we're here to listen and to be part of this process. Understand, I think the whole picture is very important

to us doing our job.

MR. EHRMANN: Okay. Mark?

MR. GREENWOOD: I'm Mark Greenwood, I'm with the law firm Ropes and Gray. I'm your friendly NACEP representative. NACEP is the umbrella organization under which CARAT was created. Now, I don't know what that means I'm supposed to do here particularly, but I am here and I think what it does mean is that I'm not here representing any particular interest or faction and will do whatever I can to help make some incremental progress on some fairly tough issues.

MR. EHRMANN: Great. Carolyn?

MS. BRICKEY: What did I miss?

(Laughter.)

MS. BRICKEY: I'm Carolyn Brickey, I'm with the Institute for Environment and Agriculture, and I'm interested in the same stuff I've been interested since August of 1996, which is getting the law implemented. It's taking a long time, it's moving pretty slowly, we'd like to see some aspects of this move a lot faster.

I'm also interested in working on the ground with growers and others in the food industry to try to do

what we can to make the transition away from OPs and some of the other riskier pesticides more tenable, both financially and environmentally.

MR. EHRMANN: Great. Anyone that I missed? The folks up here are going to have their opportunities in order forums but, obviously, if anyone on this side of the table wants to say anything at this point, here's the chance.

Okay. Anybody else that I missed?

First of all, let me thank everyone for your concise and, I think, very helpful opening comments. I know it takes awhile to get around the table, but I think it's very helpful just to get a sense of what's on everybody's mind and it will help us tee up our work for the rest of today and tomorrow.

We're a bit ahead of schedule, but what I would suggest, rather than break up the presentations that are going to be following, why don't we go ahead and take our 15-minute break now and let's get back -- whatever your watch says, add 15 minutes, and we'll come back at that point and pick up with the Tolerance Reassessment Update.

Thanks.

(Whereupon, there was a recess.)

MR. EHRMANN: Turning to Lois Rossi and Margaret Stasikowski to provide us an overview of recent activities in Tolerance Reassessment and, I believe, you have some materials in front of you which they'll draw your attention to and, basically, we'll go through the presentation, have an opportunity for any questions, comments, particularly of clarification or reactions to anything you hear, then we'll do the same on the Cumulative Risk piece, as well as hear from the work group. And, again, have questions, comments, perspectives and, then, after lunch, we'll come back to talk specifically about the next steps and the timeline and the milestones and the number of issues that people raise that were of interest as we went through our introductions.

So, let me turn to Lois and Margaret. Lois?

MS. STASIKOWSKI: Thank you, John. I'm going to give some background information for today's session that will review the public process that was referred to in some of the introductions that was largely a product of the work group's efforts, and then discuss the overall

status of Tolerance Reassessment that's usually a standing agenda item on these meetings.

And, Margaret, will follow with an update on the technical aspects of the cumulative risk assessment.

The Agency recognized that there's a great deal of public interest in cumulative risk assessment, including both the development of the generic methods for the cumulative risk assessment and the application of these methods, particularly to the organic phosphate pesticides.

As a result, the Agency worked closely with USDA and the CARAT work group, which was referred to many times this morning, on the cumulative risk to develop a public process for the preliminary OPQ motive risk assessment and, then, the risk management.

As a result of the cooperative stakeholder and Agency effort, there was the development of an efficient and effective process for what has been a very complex and difficult task.

The preliminary OP cumulative risk assessment is one of the most complicated, complex and sophisticated risk assessments ever conducted by EPA.

It required development of many ground breaking, scientific techniques and the collection and development of extensive actual data on pesticide use and residues.

The cumulative risk assessment includes a variety of new methods. In order to develop a common understanding of the assessment, it was necessary to develop a common understanding of these methods and this way of looking at risk in the case of multiple pesticides.

We've said many times in many public meetings that the cumulative risk assessment is different in the questions that are asked. It focuses on issues such as the co-occurrence of pesticides, the proper methods of combining multiple chemical exposures and multiple types of exposures such as food, water and residential exposures.

The different questions that it addresses have resulted in the development of new methods and it was imperative that there be a common understanding of this new way of looking at risk and the associated new methods before there could be any meaningful dialogue or even a hope of meaningful dialogue on the regulatory outcome.

We believe that the Agency working with USDA and the work group has built a solid foundation of stakeholder understanding and we intend to continue to build on that foundation. And I'd like to emphasize that was a very two-way street. I think the Agency learned a lot as it was going along, not only on how to explain many of the concepts, but in flushing out some of the finer points of it.

In developing an understanding of any new method, a key area of interest is analyzing the sensitivity of the method.

For analysis as complex as the OP cumulative assessment, this is extremely important. Therefore, a big focus of our efforts in understanding the new methods has been, and will continue to be, as we go through getting to August 3rd, will be analyzing the sensitivity of the risk assessment.

For example, what are the major factors contributing to risk? That is, what matters and what doesn't? If an area becomes significant in the analysis, we will examine our information sources, consult with stakeholders and ensure that we have used all the best

available information, similar to how we have been conducting the individual risk assessments on the organic phosphates.

Where we find the risk in areas where it is important to do so, we will characterize the areas on uncertainty in the assessment and the affect that they may have. The Agency is committed to following this course in its analysis.

Our initial focus has been on developing a common understanding of the methods and data used in the assessment. The Agency believes that this common understanding has prepared stakeholders for the release of the preliminary assessment which occurred in December, and provided them with a foundation for an effective review and ability to comment on the preliminary assessment. The comment period is closing March 8th.

In particular, a clear understanding of the methods will make it easier for stakeholders to discern what is important in the preliminary risk assessment.

It will assist stakeholders in providing the most useful possible inputs which can be used in conducting appropriate refinements to the preliminary

risk assessment.

The Agency expects and welcomes a public comment period to help us fine-tune these assessment techniques.

Stakeholders also have a proper foundation to understand the science and science policy questions which are not yet decided, and ultimately, this preparatory work will provide the proper foundation for analyzing risk mitigation, if necessary.

I would like to very briefly review some of the types of the public process that have been utilized up to this point. There is a handout in your packet, this legal-sized piece of paper, which is the timeline which displays some of these elements.

This one sheet of paper actually represents a great deal of work on everybody's part, the stakeholders as well as the Agency and the Department.

We had six meetings of the CARAT work group since June 28, 2001, with the most recent meeting being in January. All of these meetings were well attended and included a broad spectrum of stakeholders.

We had four full-day technical briefings, starting in August, covering hazard, drinking water

exposure, food and residential exposure and, finally, the preliminary risk assessment itself in January.

The Agency has produced several nontechnical documents designed to aid stakeholders' understanding of this new and complex assessment, including several accompaniments to the preliminary risk assessment. We had a summary, an overview, a question and answer piece, as well as the more detailed plain english guide to the assessment.

There was a stakeholders outreach program designed to ensure that our mailing list for cumulative was as complete as could be, the electronic emailing list. And we have a website devoted solely to cumulative risk assessment. It was established and contains copies of all the available materials related to cumulative risk, including all the data files used in the assessment as well as the part of the software used that is publicly available.

In our technical briefings that we held on the cumulative risk assessment, we summarized the extent of the scientific peer review that has gone into producing the risk assessment for the organophosphates. There is a

handout related to the cumulative risk assessment, developing the methods, available papers and where they are located.

This has included over 22 SAP reviews -- Science Advisory Panel -- reviews of the methods used in the assessment. The SAP review of the risk assessment case study, as well as a four-day science advisory panel review of the preliminary OP risk assessment that was earlier this month.

Additional scientific input has been provided by the International Life Sciences Institute as well as several groups which have developed software programs to estimate cumulative risk, and you'll hear about that in a few minutes.

Clearly, this is an unprecedented level of effort in both the transparency for stakeholders and independent scientific review and input. I think, collectively, we can all be proud of what has been accomplished to this point in dealing with this very difficult task.

We are now ready to make the remaining science policy decisions and to utilize the public comments to

develop a risk -- a refined risk assessment, and ultimately, to analyze possible risk mitigation, if necessary.

The development of a process to complete these tasks will be included in the discussion today. As you can see in your time line, it's a little scarce from this month on out to August. And the time line, for those of you who were not part of the work group, was kind of a working document that the work group used to plot all the tasks, and we would fill it in as we made decisions.

As a result of the immense amount of public process that has occurred to this point, we feel that we have a foundation to move forward and flush out the process to get us to August.

With regard to where we are on tolerance reassessment and also re-registration, as they go hand in hand, I'm going to talk about two parts, basically, and the progress of the tolerance risk assessment.

The first is a discussion of where we are with the OPs and the role they play in the tolerance risk assessment plan; and, second, is a discussion of the other non-OP work that is reflected in the plan to meet

our tolerance reassessment goals.

And there is another handout in your packet that will help you as I walk through this. One is a document now that we've used for many years on the organophosphates. It shows you the different phases of the public process that they're in.

And the second one is also one that we've been using after the last year, which is a candidate for tolerance reassessment, which shows all the work that will get us to meeting our 66 percent goal by August.

First of all, with regard to the organophosphates, which now have been working in the public process since the summer of 1998, the preliminary OQPM risk assessment is the major milestone contributing to the Agency's ability to meet the requirements of FQPA by providing the tools to consider the cumulative effects of the organophosphates.

The consideration of the cumulative risks of the OPs is necessary to meeting the FQPA requirement to reassess 66 percent of the food tolerances by August of 2002.

I've said this many times in many different

places, but we have dedicated so many resources in the last few years to organizing and re-evaluating and reassessing the organophosphates that to think that we could meet the 66 percent goal without them would be unrealistic because, obviously, if we're working on those, we're not working on other tolerance reassessments.

By finalizing the last individual risk management decisions together on the OPs, together with the consideration of the cumulative risks and their tolerance reassessments, it will bring to completion over five years of work to implement the new safety standard required by FQPA and apply it to this major class of insecticides.

The status of the individual OPs is summarized in the handouts, as I said, and I'm actually very pleased to report where we are with these.

Currently, we have 11 organophosphate chemicals for which individual chemical risk management has not been completed. Several of these are very close to completion. I'll just go through them very quickly.

Dicrotophos, Disulfoton, Temephos, Methidathion,

Oxydemeton, Methyl Parathion, Tetrachlorvinphos are very close to completion. We've been working with the registrants and stakeholders to bring these decisions to a closure.

Those will be followed by Diazinon, DDDP, Dimethoate and Methidathion and Methyl Parathion.

So, we have 11 and we expect several of them to be completed in the month of March and, then, the rest of them following through June.

Two of the 11, however, Diazinon and Methidathion, have had significant risk mitigation, in 1999 for Methidathion, and, then, in 2000 for Diazinon And these -- the mitigation methods that were taken on any of the OPs as they've gone through the individual risk assessments, those mitigation measures were incorporated into the cumulative risk assessment.

The other nine organophosphate work, which sometimes we all lose sight of, is reflected in the plan to meet our tolerance reassessment goals and it's in the handout. Our universal tolerances is 9721 and those were the number of permanent tolerances that we were able to identify and catalog and keep track of after the passage

of FQPA, and within that universe there are approximately 900 inert exemptions; that is, exemptions from tolerances for inert ingredients.

As of today, and this number changes, thank God, daily, we have reassessed 3916 or 40 percent of the total. FQPA requires that we reassess the 66, which gives us -- which would be about 6416. So, you can do the math and see how much we have to go.

We have in the plan numerous candidates, over 3000 candidates for the tolerance reassessment between now and August 3rd.

If we were able to do everything on the sheet, we would have made our goal by quite a few. We would have had over 7,000 tolerance decisions.

At the same time, in carrying out the re-registration program, which we are, I am pleased to report we're well over, 200 revs have been issued. We're on our second 200 -- our last 200 -- for the re-registration effort. We have nine re-registration eligibility decisions in the schedule.

We also have what we are calling -- and I know many of you now are familiar with the REDs, TREDs and

IREDs --

(Laughter.)

MS. ROSSI: TREDs are just documents that take a look at the tolerances because either the chemical is not subject to re-registration because it was registered after 1984 or we actually had completed the registration decision on it before FQPA and so we're just going back and looking at the tolerances to see if they meet the FQPA safety standard.

We are also, via registration actions when a new use is granted, because a risk cup determination has to be made and an FQPA safety finding has to be made, we believe that that effort is almost equivalent to doing a tolerance reassessment in the TRED, and some action, some tolerances are getting reassessed through registration actions.

We also have some revocations, most of these revocations -- and every time people see the word "revocation," it sometimes is not a pleasant thing to hear -- but if you look at the listing you'll see that there are few and many of these are dropped uses that have occurred along the way.

The tolerances associated with the organophosphates are 1064 and it's important, again, to keep in mind that there's difficult issues with every single chemical on this page, with the exception of maybe some of the grass chemicals like urea and sulphur, but just about everything else on this page has difficult issues associated with it, which many of you are very, very, very familiar with.

However, we are working on more tolerances than we need to meet the goals, so we're optimistic that we can meet it and still continue the public process.

I would like to say that beyond the OPs, as many of you know, we have been using the OP pilot process -- public participation process for many of our decisions, if not all of them. The postings on the web, the error correction for the registrants, the comment periods, the revised -- we're doing a technical briefing, again, on Atrazine in early April.

So, we are continuing to apply the process that was developed by the predecessor to this group, TRAC, in 1998, on all our decisions.

Having said all that, I'll turn it over to

Margaret, who'll fill you in on some more technical things.

MS. STASIKOWSKI: We'll take questions at the end?

MR. EHRMANN: Yeah, why don't we -- I'd go ahead with both and then take questions.

MS. STASIKOWSKI: Good morning. Linda, I just wanted you to know, I'll all -- my adopted state is Ohio and I'm also a graduate of Ohio State.

(Laughter.)

MS. STASIKOWSKI: So --

UNIDENTIFIED MALE: Oh, man!

MS. FISHER: You're promoted.

(Laughter.)

MS. STASIKOWSKI: We're on the home stretch as far as preparation of the OP cumulative risk assessment and somebody else already today stated that.

Today I'm going to give you a brief update on what OPP scientists will be doing in the next few months to get their advise cumulative risk assessment completed.

I will also briefly discuss our plans for the next cumulative assessments.

We published, for comment, the preliminary cumulative risk assessment in early December of 2001; in mid-January, many of you were present at the technical briefing where OPP scientists presented the assessment.

Early this month, we held a three-day review at the Science Advisory Panel. That was a 22nd SAP session on the subject of cumulative risk assessment in the last four years.

March 8th, the public comment period for the assessment will end. The SAP report, with comments and recommendations, is expected mid-March.

For those of you who have not -- who were not present at the SAP meeting, it was an exciting and very intense three-day review. The panel was complimentary and very supportive of our work. Their report is due in March.

In the meantime, the scientists in our science divisions are working to incorporate their recommendations which were made during the meeting. We don't want to lose any time waiting for the original report.

I will now briefly go over the work that is

underway to revise the OP cumulative risk assessment.

In the area of residential risk assessment, we are replacing the uniform distributions with log normal distributions in the Monte Carlo Analysis, based on the SAP recommendation.

We are incorporating new information to account for pet uses and DDVP-use revisions.

Three OPs, Chlorpyrifos, Propetamphos and Profenofos were included in the preliminary cumulative risk assessment to account for their potential exposure through drinking water.

In our preliminary assessment, we used default values for their relevant potency factors. We are now deriving the actual relative potency factors for these organophosphates.

We are incorporating new processing factors that were submitted to us recently by several registrants. We are conducting additional sensitivity analysis for food and water. We are also working to derive appropriate time frame or time frames for probabalistic risk assessment using Calendex runs.

There is also related work ongoing in this area.

For sample of OPs we are looking at the hazard analysis using data on individual animals to see what impact that type of analysis would have on the assessment.

We are writing a paper on how to consider FQPA factor in cumulative risk assessment for OPs. And directly following my remarks you will hear from individuals working with Calendex, Lifeline and CARES models and they will tell you about the status of the work in those models and plans for the next few months.

And while we are in the midst of work on the organophosphates, we're mindful that there are other groups of pesticides for which OP has already made determinations regarding common mechanisms.

As of now, based on our analysis and SAP recommendations, we have concluded that thiocarbamates are not the common mechanism group and neither are dithiocarbamates. N-methylcarbamates are a common mechanism for acetyl cholinesterase inhibition.

The determination for triazines will be made by our office next month, in March.

And off, in the little more distant future, are other groups that we are considering. For pyrethoids and

triazoles, we're working with the registrant community and with our Office of Research and Development. And, still, further in the future, we'll be looking at the anti-androgen and anti-thyroid compounds.

This concludes my short update on cumulative risk assessment, but before the presentation on the models, I would like to give you an update on FQPA science policy papers that have been issued since the last CARAT meeting.

Late November, we issued aggregate risk assessment guidance;

January, cumulative risk assessment guidance;

Tomorrow we will publish FQPA safety factor guidance for individual chemicals, that's following the revisions that we have made; and also, for public comment, FQPA factor and cumulative risk assessment;

Drinking water treatment and risk assessment paper was published for public comment in late November.

Thank you.

MR. EHRMANN: Let me suggest before we have the brief presentations on the three models that we have an opportunity here for questions, again, of clarification,

comment, further information you'd like, perspectives based on the work you've been doing.

Jennifer and Cindy -- whichever order you want to go in.

JENNIFER: Thank you. You mentioned that you're going to incorporate appropriate time frames. What are those?

MS. STASIKOWSKI: If you remember, maybe, from the technical briefing, we are looking at the one-day and the seven-day rolling average.

JENNIFER: Is this the complete list of changes that are going to be incorporated based on the SAP meeting immediately? Is this the basic list of what you're working on immediately?

MS. STASIKOWSKI: No, these are the key ideas, key changes that we're making. We're also, of course, waiting for the SAP report, but these are the changes that we are working on right now as we speak.

JENNIFER: Thank you.

MR. EHRMANN: Okay. Cindy?

CINDY: I had the same question, but I just want to clarify again. So, we talked, I think, at the last

work group meeting about 21-day and 28 days. Has that, then, been ruled out? You're just going to look at one-day and seven-day?

MS. STASIKOWSKI: Yes.

CINDY: Okay. And, then, the second clarification, did you say that tomorrow you're releasing the 10X as it relates to cumulative?

MS. STASIKOWSKI: Yes, that's for -- yes, for public comment.

CINDY: And, you know what, is it a 30-day, 60-day, 90-day -- what is it?

MR. EHRMANN: For the comments?

MS. STASIKOWSKI: Sixty.

MR. EHRMANN: Okay. Are there other -- yeah, Jay?

JAY: So, will we have time tomorrow to talk about that, since we won't be able to see it until tomorrow?

MR. EHRMANN: You have to talk about it today before you see it -- no.

(Laughter.)

MR. EHRMANN: Steve wants to comment on that.

STEVE: Yeah, maybe a point of clarification, so that when you see it you will either not be disappointed or not be happy, but to say what it is. It is the guidance document for 10X for cumulative. It is NOT the 10X for the organophosphates cumulative assessment. So, it's 10X and cumulative from the generic standpoint. So, it goes through and, obviously, in a fair amount of detail, the thought processes that the Agency will go through in making a chemical or class-of-chemical decision. So, that's what this document is.

So, it is a generic document and, then, the next step, certainly for the organophosphates, is to apply that specifically to a cumulative assessment on a class.

UNIDENTIFIED MALE: So, if -- is it the correct understanding that every chemical that would be considered to go through a cumulative risk assessment would have already been through a more or less complete aggregate risk assessment where the 10X safety factor decision had been made for that chemical in the aggregate process?

STEVE: I'm not sure I understand. I guess -- let me -- the assumption is, and the way that this is

built is, we go through each of the individual chemicals and make the FQPA safety factor determination.

UNIDENTIFIED MALE: Right.

STEVE: And, then, that happens; then we do an aggregate assessment and, then, for cumulative -- cumulative raises a different set of science issues with regard to the FQPA safety factor --

UNIDENTIFIED MALE: And it's only those for which an additional 10X safety factor consideration would be on the table?

STEVE: No, no, because it's the cumulative assessment that's being -- that needs to be looked at and which may or may not be, again, without getting into -- it's in the context of the cumulative assessment, which may or may not have anything to do with the actual individual chemicals --

UNIDENTIFIED MALE: Right.

STEVE: -- because it's the cumulative assessment and the uncertainties and the necessity of either having or not having or, you know, retaining, reducing or removing the 10X in the context of a cumulative assessment.

And what this paper attempts to do is to lay out the Agency policy and thought process that we'll go through when trying to make that kind of decision for a specific class, like OPs.

MR. EHRMANN: Okay. Dan?

DAN: This is not intended to be a nasty question. I might have missed it in the original discussion, but by release does that mean that it will be distributed tomorrow to this group or is it going up on the website at 5:30 tomorrow night after the meeting's over with?

Steve: We will have copies for everybody.

DAN: Thank you, sir.

Steve: At 5:30, on your way out.

(Laughter.)

Steve: Yeah, we'll make sure we have copies for everybody tomorrow, but it will be posted, as I understand, on the website by close of business tomorrow.

MS. FISHER: It will be published in the Federal Register, also.

Steve: And published in the Federal Register, yes.

MR. EHRMANN: David?

DAVID: Oh, Margaret, I was wondering if, based on everything we learned from OP cumulative and after looking toward the future groups because all the (inaudible) is there any plan or areas of information that could be listed out that would help those risk assessments which have left uncertainties now that you've already identified, because we all work on individual products, but is there anything as a class for the cumulative -- on the exposure side, especially, that has been talked about?

MS. STASIKOWSKI: We will be doing that. Right now our resources are really fully dedicated to organophosphates, but once we complete that risk assessment, we will be identifying areas where we need additional information.

DAVID: Thanks.

MR. EHRMANN: Jennifer?

JENNIFER: This is a point of clarification. It says that the triazines the Agency will make a determination of the cumulative -- the mechanism for cumulative risk assessment in March sometime. And that,

I assume, when that comes out, that will be posted on the website for comment probably.

How does that fit in with, I think it was Lois that mentioned that in April there's going to be a technical briefing on atrazine, what --

Lois Rossi: We're going through the individual triazines and atrazine is the one we're doing right now. So, the individual public process and the individual risk assessment for atrizine is now we're about to release the refined risk or revised risk assessment.

JENNIFER: And that will be released in April or released in --

LOIS ROSSI: April, because the technical briefing, I think, is April 3rd for a phase five comment.

JENNIFER: Okay. Thank you.

MR. EHRMANN: Other questions, comments for -- based on the information you just heard from Lois and Margaret?

(No response).

MR. EHRMANN: Okay. Obviously, we'll have time to -- as things come to mind, they'll be here and we'll have time to field those questions as well.

I think -- why don't we turn then to brief presentations on the three models and then, while there's discussion on that, and then we'll go to the work group presentation for any comments Al or Lois have in that context.

We have three -- my understanding is we have three presenters who have been kind enough to join us today to make these presentations, and I'll just take them in the order that they are listed on the agenda.

The first presenter is Chris Chasen and she did have a handout. Those materials are in the materials that you received at your seat, I believe. And, again, I would ask all our presenters to keep these presentations -- Chris -- Chris? Hello? We need the presentations to stick to about five minutes, if we could. I know that you have a lot of information, but it would be very helpful. Thanks.

MS. CHASEN: It may sound kind of like speed talking and a little impersonal, but I'll do the best I can with five minutes.

I'm Chris Chasen, Director of the Lifeline Group, along with Paul Felsen and Dr. John Young. The

Lifeline Group is a nonprofit institution, its mission is to develop quality risk assessment tools and make those tools available to all interested parties.

The initial version of the Lifeline Software Series was developed under a cooperative agreement with funding from private parties, the USDA and especially the USEPA. Under a cooperative agreement, the developers legally retain ownership of the software. However, to assure that the software would not become a commercial venture, all developers irrevocably assign their rights to the software to the Lifeline Group, Inc.

As the property of the Lifeline Group, the software remains available as a noncommercial, public service accessible to all stakeholders. New versions are under construction with funding from industry, government entities and private groups. All versions will become freely, publicly available to all interested parties. This assures that versions used by EPA are available to the public and all prospective stakeholders.

We had provided a handout explaining the software and the Lifeline Group, and on the last page is a registration form to obtain a copy if you would like

to.

The OPTPA has contacted with the Lifeline Group to conduct cumulative risk assessment for organophosphates, pesticides, phosphate pesticides using the data files compiled by the EPA, Office of Pesticide Programs, for those chemicals and to complete Version 1.2 of the Lifeline software.

That version, along with their cumulative risk assessment, will be made available to all interested parties upon completion, expected by the end of June 2002.

We are pleased to use these lifelines to you today as it is presently being used for risk assessments by EPA and as used by the Science Advisory Panel. The SAP had access to the program, its code and all technical documentation.

Because we have only a few minutes -- about three, I think, now --

(Laughter.)

MS. CHASEN: -- I cannot introduce the software features or operating functions, so I'd like to give you just a glimpse of two things: the fundamental principle

on which it operates and the kind of calculations that are possible, being the way it presents exposure and risk profiles.

In Lifeline a person's life consists of a series of ages, each stage is different -- different behaviors, different intakes of food, locations, but still the same person from day to day. The same gender, correlated body weights, occupations and homes.

The model should change the factors as the person ages, but certain factors like gender should not change --

(Laughter.)

MS. CHASEN: -- and factors like body weight should be internally --

(Laughter.)

MS. CHASEN: -- not in this model!

(Laughter.)

MS. CHASEN: -- and factors like body weight should be internally consistent from year to year. Activities, food residues and many factors affecting exposure are seasonally dependent. Therefore, each season of the year is considered and data can be entered

independently for each season rather than averaged over a year.

Because of these differences, the potential for exposure is different at different points in individual lives. Some products affect children; some adults. These exposures to the chemicals as the products A, B and C are more likely to come at some ages than at others.

By modeling the probability of using a product at each year of a person's life, the model creates a history of exposure to the chemical from multiple products.

Once you have created a model of a person's life and exposure to one chemical, you can now model the potential of that person's exposure to a second chemical. This chemical may be used in a different set of products, such as products X and Y may be part of the same product as the first chemical, as in the case of Product A.

In this way, the model can track when exposures are linked and when they occurred at independent fashion. Once you've defined the person and the history of exposures, the model can now calculate the total doses

that occur on each day of the person's life for each chemical.

See, this is simple!

(Laughter.)

MS. CHASEN: By repeating the process for individuals with different genders, incomes, careers, living in different regions, the model gives a representation of the U.S. population.

The cross section of these exposures gives the doses that happen at specific ages, seasons and weekdays or weekends.

Now, Lifeline Version 1.1 does not yet consider all exposure opportunities. As this slide shows, we have identified key additional exposure settings that are not part of the model at this time that may be important objectives for future expansions.

We have diet, drinking water, some home uses, one recreational sport, but other exposure opportunities remain under-represented in the model.

But this array of uses is consistent with the priorities of EPA for this cumulative risk assessment and the elements of the FQPA.

So, we have no time to tell you how the model functions, but I do want to just show a few points about the exposure risk profiles are presented.

Exposure can be considered in many different fashions with a report generator that permits many patients to be viewed by the assessor.

In this, this is just a field where you can select the kinds of permeations that you want. On this axis, this is birth -- this is the whole population of exposure by route, oral, inhalation or blue is thermal, and this is all the people at age zero, at birth, and this goes up to 85 years.

So, these are the people in the population, their exposures by oral, their exposures by dermal, their exposures by interlation.

Now, after you take a look at the whole lifetime and living lifeline, you can zero in on those areas which may be of interest. For example, here, two year olds in the winter seem to be of interest.

We can do the same thing by schlepping them, to say, by source and you can note that the food was donating most of the exposure. We had high residential

exposures in the young years and, then, you can also see the seasonal variations -- these are wintertime -- I'm sorry, these are springtime and these are the other seasons of the year at each age of life across the population.

Now, let's say this point happens to be two year olds in winter, we can look at just two year olds in winter and it's notable in this, for example, about 20 percent of the children who happen to be two years old aren't seeing any exposure to the chemical from any source.

However, of the other 80 percent, we can see that there's a range of exposures over six orders of magnitude. That's not unusual to see.

We can go to any point on here, click on it, it tells you exactly which individual was simulated so you can go back and look at all the contributors to those calculations.

For example, that high point happened to be person number 464 in this simulation. If you go back to another report generator, all the data for each person is in here.

Person number 464 is a female, white, non-Hispanic, born in the northeast in the middle upper class and an urban dweller.

Down here, you can see that, for this person, at two years old, these are all the records and in the house, they lived in a 1,000 square foot house where each room -- this is all coming from data sets about the housing surveys -- and these get into the calculations of the residential information.

In any case, the point here is just to illustrate that every calculation -- every factor that went into the calculation is traceable back.

You can do the same thing for the diets. In this case, this is where the dietary reports that were used are stored, so we don't audit out any CFFRI record, but if that baby, who ate 20 pounds of bananas, shows up, you'll see it right here -- it will be right there (indicating). And, then, you can do what you want with the calculation that comes out of that.

From the National Human Activity Pattern Surveys, we draw information about what these people could do over time and all of those records also are

here. So, we could be able to track back to all the computations that go into any of these calculations.

When one knows what assumptions outline our data distribution to the false value went into the calculation, you can then make decisions about how you want to rely on that number for any regulatory purpose.

These and other features of Lifeline permit a thorough understanding of the exposure and risk presented by an array of pesticide uses.

Full documentation of the model architecture is available with the program. Transition options can be considered by any sector by using Lifeline.

Lifeline projects for conducting the OP cumulative risk assessment is not a closed process and we wish to emphasize that we are available to answer your questions now or anytime in the future.

Electronic copies of these slides and my comments have been given to Ms. Fehrenbach so that you can have them and I appreciate your attention to this rapid speech.

(Laughter.)

MR. EHRMANN: Okay. Now, breathe, you can

breathe now. Thank you.

(Applause).

MR. EHRMANN: Thank you very much. Are there any questions of clarification -- Chris, don't go away -- any questions of just clarification at this point?

Thank you very much. And we'll have some more discussion after we go through all three presentations, so stay around.

The next presenter is Angelina Dugan who will discuss the CARES model. And a handout is coming around on this one. It wasn't in the materials in advance.

MS. DUGAN: Hi, my name is Angelina Dugan. I'm Science Policy Director for Croplife America and first of all I'd like to thank EPA for the opportunity to give you this brief presentation. I'm going to focus on just a brief overview of the software and talk about what role we plan to play in the OP case study mentioned already by Margaret.

CARES is an acronym that stands to Cumulative and Aggregate Risk Evaluation System. The product is being developed under the auspices of the Crop Life America commercial member companies. We are working as a

collaborative effort, some of our industry technical experts, with four consulting firms, infoscientific.com, Novagen Sciences, Silken & Associates Consulting and Summit Research Services.

CARES is composed of various modules -- that is not correct, the slide is not what it's supposed to be -- it didn't come up right. Okay. Well, I'll go on.

CARES is composed of various modules, a population generator (inaudible) exposure, scenario modules with dietary residential and water exposures.

The residential component is available as stand-alone software. The REX model that has already been reviewed by the SAP and is available on the info-scientific website.

There is also the opportunity to both aggregate and cumulative risk assessment and then, as Lois had indicated, can you determine what makes the difference and within CARES is the -- is a contribution and sensitivity module which allows you to do that.

All these modules are incorporated into a database and you'll notice the noticia -- the noticia is a product -- is a proprietary product with inpro-

scientific.

Could you go on to the next slide, please? Okay.

The next slide represents the population generator, which is a unique feature of the CARES software. The population generator is based on the PUMS survey. This is a representation -- a weighted representation from the U.S. Census developed by the U.S. Census Bureau, used for various uses, and they are using this in here to generate representative populations, either an individual or a group of individuals to correspond to certain age groups, gender, et cetera, or you can use the whole population, which is the 100,000 individuals.

And the idea is to match up the individuals in the PUMS Aurora selected population with the relevant exposure individual types from either CFFI for dietary, for residential, using either the INHAPS or HNV and also, you know, different order exposure scenarios. So, that is the population generator.

Next slide, please.

And, then, basically, the population generator

evaluating the exposure for an individual. Each day of the year you are able to answer at the end of the day that the dietary exposure, what did this person eat each day of the 365 days a year? Similar also for residential and drinking exposure and all this when combined with the relevant toxicology can be used to generate the aggregate in terms of risk assessments.

Next slide, please.

The contribution to the cumulative risk analysis, as I mentioned, helps you determine what makes the difference. For example, if you were looking at cumulative exposure scenarios, you would be able to determine, as you drill down the chemicals that are involved, the sources of exposure and, also, the different routes -- whether it's dermal or inhalation -- and, then, even to know what those factors are and if you want to make any changes based on those individual factors.

We are working to develop a CARAT OP cumulative risk assessment. An exposure assessment team has been developed and this is composed of people that are involved, not only under development of CARES, but also

have been added to the venture and we're working with Info-scientific to do this.

And our objective is, looking at the national dietary scenarios comparable to what EPA has developed thus far with the Calendex Model, we're going to do a simulation based on the same data inputs.

Following that, we're doing a second simulation. We're going to add refined information and much of this is the same information that EPA intends to use in their refinements as they proceed with their development of new cumulative risk assessment scenarios.

Under the residential, we'll be doing one simulation, and this is for the region of Florida. Only Florida. It's based on climate, it has a longer temple use of these products, residential products, and, also, because of the pest spectrum has the opportunity that many more different types of products could be used. And we're going to do the one simulation based on the refined input.

We also will look at various exposure scenarios -- these are the rolling averages that have been discussed at the SAP and also mentioned by Margaret

today.

These are our next steps. We will provide AK studies to the docket on March 8, 2002. CARES Version One Software will be provided to EPA, the game plan March 20th, and this is to get ready for the SAP review that will occur on April 30th to May 1st.

At that time, we will have more opportunity to refine some of the work we're doing with CARES and we will present more details and robust analyses.

And, finally, based on feedback from the EPA, we will contemplate and improve the model accordingly and hope to release it to the public sometime early summer of this year.

One of the things, as we were working through the slides, the slides will be available. I did want to direct your attention at least to the second slide in the packet. It refers to our websites, alphacares.org. We sought to make the process and development of CARES quite transparent; all the information and document about the software is being put on the website for review by EPA and all the stakeholders.

So, that's it.

Chris, did I talk as fast as I should have? I tried.

MR. EHRMANN: Very good. Thank you. Any immediate questions or clarification at this point?

(No response.)

MR. EHRMANN: Okay. Let's then go to another presentation on Calendex, Jason Johnston.

Jason, if I understand it right, you don't have the materials to distribute? Okay.

MR. JOHNSTON: I don't have anything, no.

MR. EHRMANN: Okay. Just wanted to be sure. Okay, go ahead, please.

MR. JOHNSTON: Right. Okay. Thank you very much to EPA for the opportunity to be here. My name is Jason Johnston. I am with Novagen and I'm here representing the Calendex development team, consisting of several employees of Novagen and also with Durango Software.

And I just really wanted to take a couple of minutes this morning -- the five that have been allotted -- to speak about some of the highlights of what Calendex is and what it can do.

Basically, Calendex is a probabalistic calendar-based model which relies on the very simple relationship of exposure it equal to contact times residue. It is a simple equation and the simple foundation of the whole model.

Calendex estimates exposures over a full-year period and the features that Calendex involves include such things as allowing for timing of applications over a year, you can have seasonal variability and application timing is exposure parameters, various -- whatever other factors you can think of -- and we also have degradation of the residues in the various environmental media over time.

I think the main thing that we would like to emphasize is above all the Calendex is flexible. It was originally developed for the specific purpose of calculating cumulative and aggregate exposures to pesticides but its actual application is not limited to do any single thing. We could do consumer products, indoor air quality issues, what have you, we can do it.

The only thing that is hardwired into Calendex is our demographic data and food consumption data from

the USDA, CSFII surveys.

All other information and data is supplied by users. So, it is incumbent upon the user to collect the information and create it and put it together through the file management capabilities of Calendex.

And, so, on the other hand, we don't have anything that's preset. We don't click a button and say, I want to do crack and crevice, you know, residential crack and crevice applications.

And, also, Calendex -- the food consumption data comes in by use of RDEAN (phonetic) software. I forgot to mention that earlier.

Basically, there are seven simple types of analyses that are run that have been set up within Calendex and they go from the very simple to single-day general, where we just randomly go through a day for each individual and estimate any exposure and come up with the parameters -- I'm sorry, the distribution.

And, on the other hand, we can do annual averages, we can do rolling averages for specified periods, weekly averages, marching through the year. All of these basic types of analyses are programmed into the

analysis and the user can actually modify the parameters to specify exactly what they want to run.

As I said before, Calendex -- or, as I meant to say -- that Calendex actually aggregates exposures from all routes from such things as residential applications in pesticides -- for example, you know, you have self and professional applications -- what the application and post-application exposures might be. We have a dietary module and we also have the drinking water module, which makes use of actual, you know, prism exams output data or actual empirical data, and we can -- it is time specific, so that data relating to January are used to calculate an exposure in January, so there is a time link there that is very important to producing seasonal variables -- you know, seasonable differences in the estimates.

And Calendex has been used to produce aggregate and cumulative risk assessments. Right now it's what EPA has used for the OP assessment that has been released to the public, and I understand EPA is undergoing a lot of -- as has been stated earlier -- a lot of modifications and changes based on the SAP report and other feedback they're getting and we applaud those efforts.

The aggregate and cumulative assessments rely on file management aspects of Calendex which allow for a link between uses of compounds at various times. You know, it can exclude applications from occurring at the same time, you can say things tend to occur at the same amount of time, you can set up links in any number of ways, depending on what information you have about use patterns, and the cumulative assessment, of course, relies on the potency factors -- the relative potency factors that we discussed.

And the -- for the output, the simple output files for Calendex specify exposures or total exposures, group by group, at various specified percentiles that are generally then like 99, 99.5, 99.1
-- 99.9, sorry.

But in addition the -- all of the exposure estimates are saved into files that we can then use to actually look at any particular percentile that you want and you can actually even find the absolute maximum. So, that information is available, if necessary, you just need to do a little bit of extra work to get to it.

And, finally, I would like to emphasize that

Calendex, we have a module called the CEC Module, the Critical Exposure Component, and it is the -- it identifies the significant contributor to the risk based on an exposure analysis at a given percentile.

So, it looks route by route at the percentile that you're interested in and tells you what your driver is. So, we have that.

That, very quickly, without benefit of audio-visual, is the highlights of Calendex.

MR. EHRMANN: Thank you very much. Again, any immediate questions or clarifications? Yes, Lori?

LORI: It's not really a question, but would you be able to provide us a handout maybe later in the day or towards the end of tomorrow on your model so that we have something hard copy like we have for the other two?

MR. JOHNSTON: I can discuss with Margie Fehrenbach how maybe I could do that, because I actually have to leave very shortly and won't -- and am leaving the country in a couple of hours, so --

(Laughter.)

MR. JOHNSTON: -- but we might be able to get something --

MR. EHRMANN: We have that effect on people here.

(Laughter.)

MR. JOHNSTON: -- so, that might be feasible. I'll discuss it when I leave.

LORI: Yeah, you could email it, maybe?

MR. JOHNSTON: I can get it --

MR. EHRMANN: Yeah, Margie will work with him and get you materials as soon as possible.

Robert?

ROBERT: Is your leaving related to this presentation?

(Laughter.)

ROBERT: I guess this is a dumb question, but what's the relationship of three models?

MR. EHRMANN: Yeah, that was going to be my next question, but hold that just for a second. Any other immediate questions?

UNIDENTIFIED MALE: That was mine as well.

MR. EHRMANN: Okay. I was going to ask someone -- some of the EPA folks or others to comment on that in terms of kind of where are we in this process, what are

the next steps. I know the folks in the work group are probably more familiar with this than the CARAT as a whole. So, any comments on how you're proceeding here in terms of the use of these, making choices, time lines, settings?

MS. STASIKOWSKI: Our staff has been working very closely with all of the models. Of course, the last model described is the one that we had used in the cumulative risk assessment.

We are working with Lifeline and we would like to -- we contracted for performance of a cumulative risk assessment using Lifeline and we would like to provide the results of that analysis to our Risk Management Divisions and look at -- look at comparatively -- compare the results using Lifeline and Calendex.

If CARES are also available during the summer, we would also like to use that for comparison of the risk assessment results to see how much of the results are driven by the model that we are using, by the assumptions, by the inputs.

MR. EHRMANN: Okay. That was pretty much a tie, but we'll let Dan go.

DAN: Having been at the SAP meeting where they went through an extensive description of the Calendex model and how it was applied in the preliminary assessment, I would refer most of the CARAT members here to the actual SAP has all those overheads in there that go to a real lengthy description of the Calendex model.

But, having said that, I'd like to move on. There's another model that was at least tested for this type of exposure assessment that ORD's been developing down in Research Triangle Park, the SHEDs model, which was compared earlier on and just having had the opportunity to participate in the real early preliminary cross assessment of those models, there were pieces of each one of these that seemed to be extremely valuable when it came to the final end game of doing risk mitigation processes just because of how each individual model had its own components there, and I wondered why SHEDs wasn't included in this brief discussion of models and is there an intention of having that or the version included in this process, because it's one that does a bunch of pharaco-kinetics and also has a replenishment rate based on hand-to-mouth activity and some other

things that, as I understand it, aren't included in some of these other models from the residential side of the equation.

MS STASIKOWSKI: I know that right now our Anti-microbial Division is actually working with the SHEDs model and development and use of the model. If we can, if the model will be ready for us to use, we also would like to see their results using the SHEDs model, but right now I don't know yet, but I will get back to you to see whether we can have this ready during the summer.

MR. EHRMANN: Cindy?

CINDY: I have a couple of questions, but I'll save my first one, which you started to address, Margaret, which I think is, you know, how does the use of these three models that you presented and the potential for something like SHEDs or something else fit into the process, because I think it will fit more appropriately when we just talk about what we do between now and August.

But do these models differ in terms of what you get outputwise? Like, do all of them allow you to identify significant contributors? Do all of them allow

you to drill down and figure out what's going on? I mean, is that true for all three of the models?

MS. STASIKOWSKI: I assume they do. I have not seen -- we have seen the results using Calendex. We know that both CARES and Lifeline are under development and I would imagine that that is very important to them that we be able to compare their results.

CINDY: And not to get real specific, but are all of the same type thing, like a chemical/crop combination as the contributor or just a crop is good? I mean, does it differ in terms of what you get outputwise that way, along the model -- you know what I mean?

Because we had some --

MS. STASIKOWSKI: All the questions can be answered from any of the models. And I --

CINDY: All of them would go to that level?

MS. STASIKOWSKI: Yes, right.

CINDY: Okay. Then, the second question, then is, are all of these models going to be publicly available for people to look at and use and try to run their own kinds of assessments? Are all three publicly available models?

MS. STASIKOWSKI: We -- part of the reason that we have been involved in the cooperative agreement with Lifeline is to make sure that at least there was one model that was publicly available and free to be used. So, I know that Lifeline will be available. I do not know about CARES or Calendex.

MR. EHRMANN: Comment on that?

MS. DUGAN: Well, we haven't worked on the exact details. We want to make the model available as early as possible not only to EPA but also to the other stakeholders. We do need to look at certain scenarios around preventing the inappropriate use or commercialization by other entities, and, so, we probably will have some type of agreement, but we want it to be used so we won't create any barriers for its use.

CINDY: And what about Calendex?

MS. STASIKOWSKI: On Calendex, I don't know but you probably know better than I what it takes to use Calendex as a registrant.

CINDY: I know how much money it takes, yeah.

MS. STASIKOWSKI: You're still here, okay.

MR. JOHNSTON: Yeah, I'm still here. I just

want to say that I'm not aware of any plans to make Calendex a publicly available product --

MR. EHRMANN: 100 percent self-funded effort, if you couldn't hear what he was saying.

CINDY: Right. And, then, my last question, I guess, is for Deborah, I know that USDA has looked at Calendex, are you looking at these other models and what role are you guys playing in this model.

UNIDENTIFIED MALE: Well, so far we've devoted all of our resources -- all of the one-person resource into --

CINDY: Like Deb, is Deb doing that?

UNIDENTIFIED MALE: No, we focused on Calendex because that's the assessment that's out in public issue now. We have been involved with Lifeline throughout its development, but we just haven't had a chance to do hands-on runs yet.

MR. EHRMANN: Robert, and then Mark.

ROBERT: I guess, once again, the end game here is that these other models will be used to validate the risk assessment that will be coming out this summer. So, you're not relying solely on one model, you're going to

be validating it using two or more models?

MARGARET STASIKOWSKI: Yes.

MARK: Mine is really a simple question in the sense that when you compare these models and you get similar results for different analysis out, what does it mean?

MR. EHRMANN: It's a simple question.

MARGARET STASIKOWSKI: Well, there can be differences that are viewed to the way the model is built -- software differences. There can be differences in the kind of input assumptions that have been made. And we will be examining that because what we want to make sure is that the assessment is as transparent as possible. And that's really the reason for using multiple models.

MARK: So, that leaves the question -- that's what I thought you would say -- and then the question I had for a follow up was will the CARAT members be able to see what assessment criteria you'll actually use?

MARGARET STASIKOWSKI: For the comparison -- what do you mean?

MARK: If you are assessing the models.

MARGARET STASIKOWSKI: Yes, definitely, yes.

MR. EHRMANN: Well, we're going to talk more about the time line and how that process is going to roll out. Okay. Mark?

MARK: I wanted to ask a general question, because at the beginning there's a generic issue that's kind of going on around the Agency about using proprietary models that have a trade secret component to them to make public policy.

And I'm trying to get a sense, as I'm listening to this, because obviously these models have different levels of that, how much of that is trade secret versus not. And I guess I'm trying to get a sense of how the Agency is going to try to manage that, both in terms of making things available as much as possible, and how that level of transparency affects the likelihood you're going to use one model more than another. I don't know -- I don't know who the right person is to ask the question, but I'm just kind of curious.

STEVE JOHNSON: Well, there's -- in one sense there's no easy answer, and as Margaret said, the reason why we invested in developing a publicly available model was so that there would be a publicly available model.

But we were also aware of the Calendex and the effort and all the rest. And, so, you know, certainly our intent is, you know, to look at any and all models that are, you know, that are available as we, you know, ultimately make our final regulatory decision. And, I mean, we ought to be informed by those, but clearly the leaning is to use the publicly available models. I mean, that is the direction where the Agency is going and needs to be, but recognizing where we were at this point and time.

So, you know, we have the Lifeline. I had not heard that CARES was going to be made publicly available, and that's -- I think that's very good. And, so, then, that becomes a second model that's publicly available.

And, you know, just as we did today, in another situation, and that's particularly as we're doing benefits assessments, we have -- we pay the fee to get access to, you know, certain, you know like Doanes (phonetic) and other kinds of proprietary data sets to be able to inform our decisions and to be able to make the best decision we can, and we certainly reference that we're using Doanes or we're using, you know, such a kind

of database. And, you know, there isn't another database for us to rely on.

So, having said what I said about using publicly available models, there is always a realization that there will be these data sets or perhaps models that are proprietary and that the Agency needs to be very transparent to say we're using that and here's all the factors, here's all the considerations, and hopefully making our decision.

So, I think that's probably the -- where we're at at this point and time.

MR. EHRMANN: Okay. Other comments or questions on the models? And, again, we'll come back to the kind of process-forward decisionmaking and some of the timelines associated with that.

Subsequently, any other questions or comments?

(No response).

MR. EHRMANN: Okay. Thanks, again to the three presenters very much and for keeping your comments within the timeline, that was very helpful to brief the committee on the developments there.

Let me turn then to our next segment of the

agenda, which, Lois and Al, do you have introductory comments and then we'll go to the work group? Okay, Lois.

LOIS: I do. Al Jennings and I had the pleasure of co-chairing this CARAT work group on the cumulative risk assessment process that has been referred to many times this morning already.

As I noted in previous remarks, there were six meetings of this work group in way less than a year. We started meeting last June. Each of the meetings was well attended and benefitted from a lively input, representing a broad spectrum of interests.

Each member brought to this group a lot of energy. It was a very frank discussion on all the agenda topics in an open atmosphere and I think no member of this group hesitated to tell us what was important and what was not important and they were very mindful of the Agency's resources and the workload in doing the public process, which is resource-intensive.

I think the success of where we've gotten to to this point has largely been attributed to the work group and their efforts and the advice, and I would like to

thank each of the work group members for their participation in the effort, and the spirit of the group. I think this is probably one of the first work groups since TRAC started that there's been an exchange of food between members of sometimes opposing views.

So, it was a really -- it was a very good experience for me to have the honor of co-chairing this group. And I would like to acknowledge Kathy Monk of my staff who did so much of the work that provided the information to the work group members.

They've elected to present a single joint -- a single joint -- if there's such a thing -- a single joint report to the full CARAT reflecting input from a grower representative, a public interest group and an industry representative. And the work group members who presented the report are Dan Botts, Jennifer Sass and Cindy Baker.

Al, do you want to add anything?

AL JENNINGS: Well, I guess the only thing I would add is, yes, there were -- I trust your count, Lois -- six work group meetings, but I think before almost everyone of those work group meetings there were day-long technical briefings that the work group members sat

through and absorbed a lot of technical material -- a lot of good technical material, which was presented largely by EPA.

As has been said here earlier today, a lot of the risk assessment methodology is really at the frontier of the art and science of risk assessment, and I think over the process of the work group it kind of evolved from a "what is it" into "how do we do it" and then, finally, "well, what does it all mean." So, I think we've gone through a lot and we've at the "What does it all mean" stage.

Certainly I share Lois' appreciation for the members of the work group who showed a remarkable level of commitment to coming to town for all those meetings, and certainly I think Cindy is the primary one who has volunteered to pull the opinions together from that group.

Are you doing the presentation as well? Okay, great.

So, unless you've got something to add, Lois, I'll just --

LOIS: No.

AL JENNINGS: -- turn it over to Cindy.

CINDY: I cut a deal with Dan and Jennifer. They went to the SAP meeting and I did the presentation. So, I think I got --

(Laughter.)

CINDY -- a good bargain. Let's see. I'm going to go really quickly through this because Lois and Margaret covered a number of things that were already in here.

Just for the way of information, the first group of people you see up here are the members of the work group, but as Lois mentioned, these meetings were very well attended and a number of you -- of other CARAT members, also, were regular attenders at our work group meetings.

I'm going to -- I think I'm going to skip this one completely and that one, too, that this is a graphic of how we do it.

The components that we focused on in the work group meeting were the components of the cumulative risk assessment. First, we dealt with the hazard information -- the toxicity data, how the index chemical was picked,

relative potency factors, and then we walked through the exposure pieces -- dietary, drinking water and residential. And in all of these cases the work group meetings and the technical briefings, I think, were extremely beneficial in helping us as work group members, but also all the stakeholders who attended that have an understanding of how EPA came to the conclusions they did, what kind of data they used, what kind of information, and we did actual walk-throughs on each one of these pieces that were really quite beneficial in helping us understand and provide input, but also helping us as we go back to the people that we represent and we work with to explain what was going on in these assessments. So, it was very valuable.

We did have six meetings. We had a meeting of June in 2001 to kind of get us started on what we were going to do; we had a conference call in July; we had a meeting in August where we handled the hazard side; we had another -- we had the SAP meeting in September -- it wasn't actually a meeting of the work group; then in October we met to do drinking water and residential, I think; we did dietary in November; then it was released

in December, and we had a technical briefing in January. So, you know why we're all sick of coming to Washington -- those who have come every month.

I think that we focused our suggestions on process. We were reminded that that was our charter as a work group of this large committee and, so, we really tried to get at how can we get this information out to people so that they understand what's going on.

Go ahead to the next one.

And, really, the process that we set up was similar to what we saw with the individual product assessments. The process of a technical briefing seemed to work very well in those individual compounds, assessments in helping people understand, and, so, we followed that through in this process.

So, what would happen was EPA would have a technical briefing on one day and, then, the day following that was an opportunity for a half-day meeting of the work group. It gave us an opportunity to kind of digest what we heard at the technical briefing, to ask questions, to get further clarification. And, I think, that process worked very well, at least for those of us

on the work group.

There was also a lot of information that was released to the website or through email. Margaret and Lois both referred to all the documents that have been written up in plain English to help us understand better what's going on.

All the stuff we already talked about, Margaret and Lois, we can skip that one.

This is probably the heart of what this presentation was about. As a work group, we really need to bring back to the full CARAT the kinds of things that we did and what we would like to see adopted in the way of recommendations.

The first bullet point you see there is a release of a second draft of the cumulative risk assessment that includes a percentile of the regulation and the uncertainty factor positions.

Sometime in the spring of 2002, this jumps into the agenda item that we have for process, but the point that we're recommending here is that there are revisions being made that Margaret talked about, there are other models being looked at that will be presented.

There are the two big huge questions of what is the percentile of regulation and whether or not there will be any safety factors applied to the specific OP cumulative risk assessment, and the work group thinks it's very important that a risk assessment come out sometime before the deadline of August 3rd of 2002, so people know what the bottom line is.

Right now we understand, generally, what the process was and how this risk assessment was conducted. but we don't know what the bottom line is.

We'd like -- we'd recommend that there be a comment period associated with the second draft risk assessment, because if there are critical pieces of information that come out in the draft risk assessment, it could probably benefit from a public comment period.

We recognize that time lines are short, we put 45 days up there for now, but I know a lot of that will be driven by when the first bullet point can occur.

We think that we need to schedule a meeting of the cumulative work group to provide input on a process for the risk mitigation phase. I think the members of the work group have put in a lot of time and effort into

understanding the process. I think we're working very well together with both EPA and USDA. I think that risk mitigation has components that involve both EPA and USDA and, so, it seems like it fits very nicely into the purview of that cumulative work group.

We would also recommend that you convene the transition work group to begin meeting no later than March. I know we at one time signed up for where we wanted to be on transition and cumulative and so there's -- I'm sure Margie has a list of who the transition work group is, but we haven't talked about it for so long that I think it's probably an important thing to actually schedule a meeting and get that group going.

And, then, we would recommend, to be consistent with the process that we follow, that there be some sort of work group meeting around the release of that second draft risk assessment so that we have the same kind of opportunities as we've had with the other components to kind of talk about and get clarification of what's occurred in terms of revisions and where you are with the percentile regulation on certainty factors.

And that is the brief presentation that we've

made. I don't know if Jennifer and Dan want to make additional comments.

JENNIFER: I'll just be very brief. Thanks, Cindy. The only thing -- I don't think I want to add but I want to stress -- is that I think that the process is very successful in terms of communication and dialogue and taking away some kind of understanding of an extremely complex process, and EPA has been commended multiple times at our meetings and also SAP, but it cannot be said enough that it was an incredible burden on them to try to get us to understand this, and we do thank them. I think that it was a very successful process and part of the proof of that success is that at least a portion of the people around this table have some portion of understanding of this process today, and also that we understand each other's positions and that we understand where we have common goals.

MR. EHRMANN: Okay. Dan?

DAN: Just to build on that a little bit, to go one step further, I think that we enforce one of the recommendations in the full CARAT adoption. At each step in this process, there have been significant changes to

the work product that resulted after these meetings and briefings and discussions by the CARAT work group members that chose to be there, and I know that some of us, when the call for participation came out on whether you wanted to serve on the process for risk assessment or whether you wanted to work on the transition work groups, some of us said to put us on whichever one you wanted to but we're going to be at both because you can't separate the two when you get to the end of the game because I don't understand how you can start discussing transition until you fully understand how the cumulative assessment process works.

And it's a situation where what you heard in Margaret's limited presentation today, relative to the steps that they're already undergoing as a result of the SAP, in my opinion, would tend to minimize the amount of effort and work associated with the refinements that have taken place at every step in the process.

We're not there yet; we're not finished. And until we get these further refinements in place, that's one of the reasons why it's critically important that there is another assessment to come out before the

decision process gets too short to have meaningful input in that timeline, and I know we follow absolute dates and targets on when that refined risk assessment or this next risk assessment comes out, and I was probably one of the ones that said as long as we had 30/45 days before all this that's probably enough. The more I look at the changes that have taken place just in the last month and a half from what was released the first of December to where I think we're probably going to get as a result of the SAP report and some other things, we're going to need as long as you can possibly give us.

So, we're going to start pushing really hard to move that date up for the release of this next round to the point that it gives us a chance of meaningful participation, both as a work group and also as we go back and try to convince our individual -- or explain to our individual commodity groups -- what they're going to be asked to do as the end game takes place in dealing with what comes out of the cumulative assessment.

And with that I'd like to say thanks for all the hard work that went into these technical briefings and the process and I know that the day after the technical

briefing is usually not a day when everybody wants to come back in and rehash everything that went on, but I think that some of the most effective discussions took place in those work group meetings after the technical briefing, where everybody had a chance to really digest what went on and come back and make some input when the meeting was fresh on their minds.

MR. EHRMANN: Let me just ask if there are other folks who have participated in these work groups that have any substantive -- I mean, I think, maybe substantive comments or other points you want to emphasize in addition to what the three presenters have mentioned relative to the work of this group or the recommendations that are coming forward here?

(No response.)

MR. EHRMANN: Okay. The way we structured the agenda is to provide for some time after lunch to come back and specifically go through the time line. I don't know if the folks in EPA at this juncture have any other questions or otherwise what I would suggest is we go ahead and take the lunch break and allow them some time to huddle and think about some of the issues that have

been raised in this discussion and put forward by the group and come back with some suggestions about the next step and we'll talk about that --

UNIDENTIFIED FEMALE: John --

MR. EHRMANN: Yes, ma'am.

UNIDENTIFIED FEMALE: -- just one question we had that we forgot to ask --

MR. EHRMANN: Yeah.

UNIDENTIFIED FEMALE: Do we have to formally adopt those recommendations, then? I mean, what's the process now that we've laid them up as the recommendations?

MR. EHRMANN: Well, it's your work group, but here's what I would suggest and that is let's give the Agency folks and the Department time to noodle on that and come back with their thoughts and then we'll kind of test, you know, we'll talk about that and if we can arrive at a consensus of the CARAT on those, great, and if not it will be a point of input that they can, you know, as advisement, like some of the other issues that we've put in front of them.

But I'd like to see whether we could kind of

reach an agreement on this group about those kind of process recommendations.

UNIDENTIFIED FEMALE: I'll give my TastyKake's if everyone will agree on that.

MR. EHRMANN: I've got about seven or eight after 12:00, why don't we try to get back here by 1:15, if we could. It gives you a little more than an hour for lunch. So, instead of 1:30, 1:15. Thanks.

(Whereupon, at 12:08 p.m., a lunch recess was taken.)

A F T E R N O O N S E S S I O N

(1:15 p.m.)

MR. EHRMANN: We're going to talk about this afternoon's agenda, and sorry for the slight delay, we're just waiting for people to get back to lunch so that the department and the agency can talk about ideas building off of the recommendations coming from the subgroup. So, Marcia Mulkey is going to in just a second give you some specific response to those recommendations and we'll see if we can arrive at a consensus of the full committee on those recommendations.

Just a technical point so everyone is aware, according to FACA doctrine, and we don't have Mark Greenwood here for the --

MS. BAKER: No, and at the moment we need him.

MR. EHRMANN: But according to the FACA doctrine, some committees, FACA committees cannot make recommendations to their mother agency. Only the full committee can make a recommendation. And in a literal sense, in this case, this is actually a subcommittee of NACEPT, so technically only NACEPT can make a recommendation. However, Mark has told us that that's okay and he has NACEPT's full support for anything you

recommend. So --

MS. BAKER: Is this a legal response?

MR. EHRMANN: That's right. Rest assured that NACEPT will be fully informed as to the nature of your discussions, as they always have been, but the most critical piece for this discussion is that we have a full committee discussion and see if the full committee can arrive at recommendations that they wish to make to the agency and to the department as it relates to the recommendations that were tabled right before lunch.

After we do that, then we'll have the discussion on the early non-contributors process, which Lois will introduce, and we'll have time for discussion of that concept, and then we'll have the transition panel discussion which you see on your agenda.

Again, if people wish to make public comment, please sign up outside at the registration table so that we know how many people plan to make a public comment so I can gauge the time accordingly and we can stick with our 5:00 overall adjournment time. Okay?

So, with that, let me ask Marcia Mulkey to share with you the thoughts of the agency and the department

relative to the ideas that were put forward before lunch.

MS. MULKEY: Hello, everybody.

What I have been asked to do is to help explain what we in the Office of Pesticide Programs think we can do from a standpoint of capacity and workload management and the practical limitations of the tasks that align with the recommendations that we've just heard from this work group.

We believe that we can produce in the late May time frame with a goal that the absolute latest by about June 1st, a revision, a significant revision to the preliminary risk assessment which would address the changes that we're working on, including the time frame issue related developments that could address the agency's thinking about 10X, as it relates to cumulative OP risk assessment, the level of regulation question, and any other key issues. Whether it would be literally a complete 100 percent revision or a revision that addressed all these issues perhaps for some but not all regions or something, we would work -- we would like some flexibility around our commitment, but essentially a

revised risk assessment. And certainly one that reaches all these critical issues in that time frame.

We would then be able to confer with our SAP in late June in connection with any key science aspects that remain. We have, of course, been able to confer with them about a lot of the science that relates to this risk assessment already, so we're not anticipating the same scope of any further conference, but that certain key science aspects that we've either not engaged with them about or that for some reason we think it's necessary and appropriate to continue our consultation with them. And we therefore could accommodate a comment period of at least 30 days during that same window of time with an effort, of course, to maximize the total amount of comment period to the extent practicable, given other dates of which -- with which we're all familiar.

We think we could be able to confer with the cumulative process work group as part of that window of roll-out and public involvement and consultation. So that timing it either at the work group's recommendation, either at the beginning of that window of time or in conjunction with the SAP meeting or some variations on

that would be practicable. And we think we can develop the resources and use them to accommodate the work group's other suggestions regarding work group meetings.

And therefore, we think we can essentially say a version of yes to, by my count, pretty much the whole panoply of recommendations from this work group.

MR. EHRMANN: Any comment, Marcia, on the models?

MS. MULKEY: Oh, yes.

(Laughter.)

MS. FISHER: You've got notes or something?

MS. MULKEY: Thank you, John. My notes obviously stop too soon. As we said earlier, as Margaret said earlier, we anticipate trying to learn everything we can from other models as they become available and we're able to work through them. Since we don't yet have in hand any other model to use our data, and we can't very well anticipate with any precision when we would have that capacity, and therefore what kind of connection there might be between that work and this time line I just described.

And so our vision would be that at a minimum, we

will be as transparent as possible as early as possible with regard to any work we do with other models.

MR. EHRMANN: Okay. So, we're trying to get this -- going up on the screen there, but I think I won't recap everything Marcia said, I think it was pretty clear you can follow along the steps that Cindy presented in her initial presentation, so let me open the floor to any comments, thoughts, suggested modifications, et cetera, in relationship to what Marcia's suggesting as a possible basis for a recommendation from the full committee.

Janis?

DR. McFARLAND: Thanks. Marcia, are you for the SAP in late June, would that SAP focus on the regulation end point and uncertainty factor?

MS. MULKEY: It would -- it would focus on any science issues and questions that underlie those issues or any other issues where we feel that we -- it's appropriate to obtain some science input. I mean obviously as we work through these, we'll have a little better handle on exactly what kind of questions we would put. But obviously there's a lot of science behind those

two questions, and we have not -- we did have some engagement with this last SAP on issues relating to the trail of distribution, we obviously did not have an engagement with them on the uncertainty factor science questions.

MR. EHRMANN: Cindy?

MS. BAKER: I just want to clarify, Marcia, I think -- I think what I heard you say, you would then shoot to do a revised risk assessment some time late May, June, have an SAP towards the end of June, and some time in that time frame we would have a meeting of the cumulative work group to address that revised risk assessment?

MR. EHRMANN: Yes.

MS. BAKER: Right?

MS. MULKEY: That's essentially correct, yes.

MS. BAKER: And then the other piece we had talked about in there was to work on the process for risk mitigation, if that's necessary. Is that incorporated in that same recommendation?

MS. MULKEY: What I said was I think we can accommodate the other work group --

MS. BAKER: Right.

MS. MULKEY: -- meetings that were requested. So, without -- in other words, if there were another work group meeting on that subject that you just described, we think we can work that into our commitment of resources. That's the way I was trying to answer that. We weren't -- I wasn't trying to say only one work group meeting.

MS. BAKER: Okay. And also, the recommendation about the transition work group, you're including that to be included and your resources can handle a meeting of the transition work group separately?

MS. MULKEY: Right.

MS. BAKER: Okay.

MR. EHRMANN: Yeah, and we'll -- I mean, I think when the -- in the discussion over lunch that led to this report, I think it was presumed that we're going to be talking more, also, about the transition work group following the panel discussion, et cetera. But I think that was clearly on the list of next steps as it would relate to the overall progress, to convene then, that group, but we'll hear a lot more about that when we get

into the transition discussion as well. In terms of what would the agenda be and what topics they're going to address, some of the things we heard this morning.

Steve and then --

DR. BALLING: Actually, this was a comment that Dan Botts had made earlier on this morning, and it was sort of one of the things that we were beginning to discuss, and that is there is a -- there is a convergence now of the cumulative sort of thing and the transition thing, whatever both of those things are, and that -- and so we were I guess in my own mind, purposefully being a little bit vague about this group versus that group because as we -- I mean clearly the cumulative, I mean that's clear, we really want input on the revised cumulative, and so that part is real clear.

Well, then, as we start thinking about what are the regulatory -- what do we think we need to do as process-wise to address any issues that come out of that from a risk mitigation standpoint. Well, it would really be beneficial to have the people who have been struggling with cumulative and know it inside and out to really help in that, but that's also getting into transition. And

so, you know, whether there is a separate group for beginning to work on that or cumulative takes the lead and can invite anybody it wants to. I mean, that's -- I was trying to get to the point, I'm maybe not making myself clear, but we were, you know, these two groups seem to be merging.

MS. BAKER: Right.

DR. BALLING: And, you know, sort of what are your thoughts on that?

MS. BAKER: Well, and we had that exact discussion in our work group, and in preparation for this presentation, and I think the consensus of the work group was that we very much wanted to see it through the risk management/risk mitigation phase, and I think when we first started talking about how these work group meetings have gone, they've always been open to anybody on the CARAT.

DR. BALLING: Yeah, right.

MS. BAKER: And we got lots of people who attended anyway. And I think that everybody's recognizing that merger, and I won't be at all surprised if we don't see more people showing up at that cumulative

work group meeting. So, I think it will happen naturally, but we did have that exact discussion, and we felt it was appropriate to stay within the cumulative work group. We think the transition work group, while it needs to talk specifically about some of these issues, also has the big picture of transition to look at that relates to the OPs, but even when you start talking transition from the OPs, it necessitates talking about pyrethroids and other things because you're talking about a whole pest management plan. And so I think there's room in both.

DR. BALLING: Okay.

MR. EHRMANN: That's helpful. Steven and then Dan.

MR. RUTZ: Sorry, I just turned Robert upside down there.

Just a clarifying question real quickly. When you talk about the level of regulation, does that relate back to the MOE and the percentile selection, or is that something different?

MS. MULKEY: Exactly. That's the issue.

MR. RUTZ: Okay.

MR. EHRMANN: Dan?

MR. BOTTS: I'm almost scared to start, because what I was going to say exactly parallels what Steve said, I just -- it's real scary that I was going to say the same thing that Steve said.

But I mean, when this whole process started, the reason there were two work groups is because we thought they were going to work parallel on split issues, and I think we're to the point that to really get an effective transition discussion started, you've got to build off of the cumulative exposure work group because of their participation and ability to participate. And like I said in my opening remarks, some of us said we wanted to be on both of them, no matter which one you assigned them to, and I'm assuming that those of us that have lived up here through this cumulative exposure assessment process, you're going to have to lock us out or tie us down or send us jail or something to keep us out of these meetings if you don't want us there.

So, I just wonder if there's a -- is there a real need, other than rolling the people who said they wanted to work on transitions into the larger committee

and just going forward with a single committee to expedite the meeting process rather than having it split into two pieces from here on out.

MR. EHRMANN: Well, that's why I was suggesting that, you know, this group, and I think the department and the agency would like to hear the discussion this afternoon, get a sense of the array of issues that come up under transition and then take a fresh look at that question. I think that's another way of saying what Steve said.

DR. BALLING: Right.

MR. EHRMANN: So, if that's okay, we will definitely revisit that question tomorrow.

MR. RUTZ: One other follow-up, and it has to do with the other issue on the additional 10X factor. Get the framework on the cumulative -- the cumulative framework across the board, when will the agency -- what's the projected time line on knowing what the impact of utilization of that framework is going to be on the OPs as a group? How soon can we anticipate something other than just the framework document specifically dealing with the 10X factor and OP

cumulative assessment?

MS. MULKEY: At the time we release this revision, we would release our thinking about the analysis of the FQPA uncertainty factor in the context of the OP cumulative risk assessment. That would not -- no longer be generic, it would be a specific application of that analysis to the OPs. That would be part of this document I'm talking about in the approximately June 1, give or take, time frame.

MR. RUTZ: That's such a tremendously large issue, why do we need to wait until the whole report comes out to deal with the thinking?

MS. MULKEY: Let me try a little bit. The -- as you will see in the generic discussion, the issue of how to think about the uncertainty factor is intertwined with both what you know about the hazard database and what you know and think about your exposure analysis, understanding, uncertainty, conservatism and so forth. So, it's an integrated evaluation. The 10X is not separable from both your risk -- your hazard assessment and your exposure assessment.

And so, it is difficult, if not impossible, to

have a comprehensive discussion of the way to think about the FQPA safety factor without having the risk assessment with which it's associated part of that discussion.

Quite frankly, the hazard issues are more susceptible from severance from the risk assessment at this point, but the exposure part is just simply not. So, it's very hard to do it in isolation, and it would be potentially misleading, potentially incomplete, potentially subject to revision, all the kind of things that wouldn't benefit any of us from spending a lot of energy focusing on it. That's why.

MR. EHRMANN: Dave?

UNIDENTIFIED SPEAKER: He's thinking.

MR. EHRMANN: Rob?

ROB: Just really quickly to follow up on what Dan said about merging the two transition work group and the cumulative work group, I just have a little bit of hesitation, because then that would make the transition work group strictly driven by the OP issues and I think there's some other broader issues that we have to keep the transition group working on. So, I wouldn't want to miss that opportunity, because then we start missing the

time, which is so critical.

MR. EHRMANN: Good, and again, we'll pick that idea up and others, relay that issue when we come back to that relative to future organization.

Jay?

MR. VROOM: Marcia, there's a 30-day comment period, then, in what -- basically the month of June -- July -- basically that leaves a month before you're going to meet the August 3rd deadline after that. So, assuming that there's a 10 percent course correction overall, that can be accommodated, but if it's 20 to 30 percent, it gets impossible, or do you have any risk factors to apply to any of these time frames?

(Laughter.)

MS. MULKEY: You never ask the easy questions, Jay.

We have two things that ripen on August 3rd, if you will. One is their obligation to complete the re-assessment two-thirds of the tolerances, and you heard from Lois this morning about sort of what -- from which that comes. You'll hear this discussion soon about the early non-contributors analyses, and all of that feed

into the question of meeting that.

We also have an obligation under a consent decree to publish a revised risk assessment on August 3rd. Obviously we are now talking about publishing a meaningfully revised risk assessment, actually earlier than that. And so, I think the question is, whether we can meet that obligation, which is to have revised risk assessment within the meaning of that consent decree on August 3rd, and obviously we believe we can, or we would be immediately availing ourselves of the provisions of the consent decree that allow us to address any difficulties we anticipate in meeting the deadline.

So, I think we believe that this is a -- that we can in good faith and with everybody meet the expectation of complying with both obligations going forward.

MR. EHRMANN: Any other questions or comments on the proposal that is up on the wall?

(No response.)

MR. EHRMANN: Are people comfortable in a consensus decision-making format, I would ask if anyone -- is there anyone who cannot live with as a committee decision forwarding that suggested set of recommendations

to the agency and the department in terms of how they proceed with this next phase of the process? Again, tabling for the time being the issue about how many work groups there are going to be and exactly how that part of it is going to go forward, but just looking at the core issues that Marcia put on the table. Is everybody comfortable with that?

(No response.)

MR. EHRMANN: Okay. And we'll, you know, get this -- that language cleaned up and, you know, make that available to everybody so you've got it clear in terms of the time lines, et cetera. And again, thanks very much to the -- to that working group for all of the effort and the -- and specifically for the presentation today and the tabling those kind of specific ideas I think are very helpful for the overall process.

Let's turn, then, to the discussion of the early non-contributor concept, process, approach. And Lois is going to launch that discussion.

Lois?

MS. ROSSI: Okay, thanks.

We are currently exploring and have been

exploring for some time now whether any OP tolerances could be re-assessed prior to August, because they make it at most no more than a negligible contribution to the cumulative risk.

There is a hand-out in your packet entitled Identifying Potential Non-Contributors to Risk. In general, what we're talking about is non-contributors are those chemical crop combinations that can be identified as making a negligible contribution to the OP cumulative risk cup. The potential non-contributors that are identified would be examined to assess whether they are likely to continue to have a negligible contribution as we go through the cumulative risk assessment to risk, regardless of the effects of implementing OP risk management decisions.

By that I mean if we are looking at making different management decisions that could result in a shift, you would have to look to see if something still remained early in a non-contributor.

Thus, what we would be considering with this general idea, which we spent a few minutes at the last work group meeting on, would be re-assessing

non-contributor tolerances before August, because, again, they're assumed that they will not be regulated in the future as a result of regulating and risk -- and managing the cumulative risk cup.

As we proceed in revising the many components of the OP cumulative risk assessment that we've been talking about this morning, the non-contributors would be identified and presented for re-assessment. And this can be thought of as kind of rolling out various chemical crop commodities at different points in time. There could be the initial group and then as you go through the assessment.

The analogy, again, to the individual risk cups that we've had the experience with so far is there's a lot of chemical -- or there would be a lot of crops, their contribution to the risk cup was not significant, and would not make a difference in managing the cup. So, it's kind of modeled a little bit off of that.

It's very important to understand that because this exercise involves an examination of only a limited number of factors, which we'll talk about in a little bit, to determine whether it's a non-contributor, no

conclusions can be drawn about those tolerances that are identified as not an early contributor. In other words, just because it's not identified early on as a non-contributor doesn't mean that it's going to have to be -- have risk management or mitigations attached to it after August.

We're going to try to do as many as we can, but again, so it's -- if -- to put it sort of in very common sense terms, if a list of non-contributors were to come out tomorrow and the chemical crop combination that you're interested in is not on this list, it doesn't mean that it's going to have to require mitigation. And that's an important thing to remember if we agree on a process of rolling them out. To keep anxieties managed.

It's also very important to understand that even if a chemical crop combination has been identified as a potential non-contributor at risk, it will not be removed from the risk cup. So, it doesn't mean that we're just going to start taking things out of the cup just because it's a non-contributor, it will still be in the calculations, it will still be in the model.

The first group that we've identified are

pesticides, that is the entire active ingredient that would be excluded -- that were excluded from the OP cumulative risk assessment due to the nature of their use patterns. We've talked about this at just about every technical briefing we had on the cumulative assessment. They are listed and explained in the hand-out, and they're considered to be non-contributors to the cumulative risk because they have negligible, if any, exposure -- exposures, including potential drinking water exposures. And they include the chemicals cadusaphos, fenitrothion, propetamphos and coumaphos. They have a total of 20 tolerances which are listed in your sheet.

And just to give you an idea, and again, we're starting from the fairly simple, and then as you roll it out, you add other criteria. But for example, cadusaphos is exclusively used on imported bananas and there have been no residues associated with that. Fenitrothion has one tolerance from imported wheat gluten from Australia. In the United States it's used in containerized bait stations, monitoring data shows negligible residues for the wheat gluten, and insignificant exposure from the

bait stations and child-resistant packaging.

Propetamphos -- by the way, decisions have been issued on all of these individual chemicals. Propetamphos was used only as a crop and crevice treatment. It's not allowed in structures that children or elderly apply, including homes, schools, day cares, hospitals, nursing homes, and as a result the exposure is considered to be negligible. It's got a very limited use in areas of food service within those structures where food is covered or removed from the treatment area.

Coumaphos is a direct application to the livestock and to swine bedding, but there is not likely to be a transfer to the meat and milk as a result of either of these uses. That's an example of group one.

Three other chemicals which we're looking at, chlorethoxyfos, phostebupirim, one of those is called Fortress and the other one is called Aztec for those people who go by trade names, and profenofos have no detectable food residues in PDP. They were included in drinking water assessment to ensure that they would make a negligible contribution to water risk.

And as many of you know, the risk assessment

shows that drinking water is not a major contributor to the OPQ and RISCA (phonetic). They have 26 tolerances associated with them.

Another category of potential non-contributors are food items not reported to be eaten by respondents in the survey that we used to determine consumption. The consumption survey. Because they're not in the consumption survey, the items are not factored into the risk assessment, and the agency in the process of determining what those tolerances are, we would also look at information on if they were likely to have residues associated with them based on field trials or whatever data we had available to us.

Other example categories could include animal meat, eggs and milk, animal feed and sugars. We're carefully examining these tolerances, and how we're doing it is we now have in a database of every single tolerance that's associated with an organophosphate. The commodity -- the chemical, the commodity, and then there is a column that tells if it was measured in PDP; if it was measured in PDP, were there detects; if there were detects, how many, what's the numerator and denominator

of the detects as a percentage to the number of samples; the average level of the residue found; the level of detection.

And what we intend to do is keep this database up so that it will ultimately become the decision database -- the last column will be how we -- the re-assessment decision on this tolerance. So, as we're going through, we're looking at the nature of the use pattern, whether similar tolerances on the same commodity are also considered non-contributors, a likelihood of shift in usage and the consumption of the crop by age groups of concern.

Obviously we are all familiar over the last few years with the 20 top children's foods, we're looking at those, also.

If you look at some of the example categories that I mentioned, first of all like the animal, meat, eggs and milk, there are close to 300 tolerances currently still in the tolerance universe associated with the organophosphates, tolerances on cattle, eggs, goats, hogs, horses, milk, poultry and sheep. And we're looking at each of these tolerances, we're examining them to

determine if residues were detected in monitoring data, either in PDP or FDA, and whether the residue transfer is likely for the animal feed.

The tolerances for the application of the pesticide directly to the animal will require particularly careful scrutiny before a decision could be made as to its non-contributor status.

The second group, animal feed, there are close to 170 tolerances, including ones for feed, forage, fodder, hay, hull, straw and vines. We're looking at the likelihood of the OP residues on these animal foods transferring to the animal meat.

And the third category, and these are not all of the categories we're looking at, these are examples of some. The third one is sugars, for example. The OP cumulative risk assessment we presented in the technical briefing indicates that negligible residues are expected to occur for the sugars, from sugar beets and sugar cane, based on available monitoring data on refined sugar and maple sugar, the likelihood of residue was -- is not expected, and there are just 15 tolerances in that category.

We believe that there are other categories which represent non-contributors to risk, and including even characterizing those which have residues in PDP, then how much, how -- what percentage of the samples had residues versus what percentage doesn't. And we are interested in having a discussion on what some of the other possible categories could be, and concerns with some of the examples that we either cited today or cited in the past or could be thinking about. We would invite the CARAT to discuss an appropriate process for identifying and notifying stakeholders in the public concerning the identification of the non-contributors to risk as we rolled them out.

We certainly are committed to this process, just as the -- as with all that we're doing with the cumulative to having how we identify non-contributors, how we announce them, how the decisions are made, and to be as transparent as possible.

And I think -- I think those are my remarks. Again, if you can think of this as a -- as a continuing process over the next several months, as we identify them and whatever process we can talk about to publicize it

and announce the decision-making and then keeping track of the decision that was made on it as we go through assessing the universe of the tolerances on the OPs. That's it.

MR. EHRMANN: Thank you. Welcome back, Mr. Cochair.

MR. MOSELEY: Thank you.

MR. EHRMANN: Still breathing. Let's take discussions on this, comments, questions, and as well as any ideas you might have to Lois' specific request for guidance as to how to manage this process as it goes forward, if it's going to go forward.

Carolyn Brickey: What are the advantages to using this kick-out process?

MS. ROSSI: The advantages to using the kick-out process. Well, as you know, we have a universe of, 1064 tolerances associated with the OPs, many of which we do need to have re-assessment decisions on. That's a practical aspect. The --

CAROLYN BRICKEY: So you could count them as re-assessed, is that what you're saying?

MS. ROSSI: That's the practical aspect. The

risk management aspect is, I think as we were thinking about re-assessing these tolerances, we really do believe that we need to have a re-assessment decision for every tolerance, and have that well documented. And it's not -- it's an awesome task, obviously, because you've got over a thousand of these. And I think, as we're starting to manage the risk cup and as we're starting to do these sensitivity analyses that we've all been talking about, and having some kind of a protocol, if you will, rather than just running the model and pulling some out and seeing what happens and running the model and pulling some out and seeing what happens. This could dictate a logic to doing a sensitivity analysis and a logic to identifying contributors and a logic to identifying the chemical crop combinations that ultimately, if any, risk management is needed at the end of the day, how you would do that.

CAROLYN BRICKEY: And would you anticipate that the chemicals you've listed here on this paper, which I think are totally non-objectionable, by the way, that they be kicked out right away and you would count them as assessed, or how do you see this proceeding between now

and August 3rd?

MS. ROSSI: Well, these are -- this is just the very beginning, what's on the paper. There would be -- there are other factors, for example, you could take the database and look at the contribution from a consumption point of view, you could look at the contribution from a residue point of view. You can look at other factors, and what it would be is some discussion on those factors, and as we apply those factors, announcing the non-contributors that are associated with those factors.

CAROLYN BRICKEY: So, would you anticipate that this process would help you get to risk management in a more meaningful way post August? Is that one of your objectives?

MS. ROSSI: Personally -- yes, I think it would be. I think it would. In a logic, calm fashion.

(Laughter.)

MS. FISHER: With an accent on the word "calm."

CAROLYN BRICKEY: Calm is good, right, Lois?

MS. ROSSI: Calm is good.

MR. EHRMANN: Jennifer?

MS. SASS: Yeah, I'm -- I don't understand how -- so if you could explain to me quickly how by taking them out of the cumulative risk assessment they are still in the risk cup.

MS. ROSSI: They're still in the risk cup because they're still in the calculations. What you are -- what you are determining -- you're just making a decision on them. You're essentially making the re-assessment decision, but you're not physically removing them from the database. So, they're still in the risk cup, but you're making a determination that they're really not contributing to that risk cup.

MS. SASS: Okay.

MR. EHRMANN: Other questions, just on the thrust of the brief overview that Lois presented?

Jay? Microphone, Jay. Sorry.

MR. VROOM: Do you have any idea what some of these foods are in the CSF-2 profile that nobody reported eating?

MS. ROSSI: Well, it's amazing when you look at the tolerances on -- that are associated with the OPs, what all the tolerances there are. There are some very,

very minor uses. Like --

UNIDENTIFIED SPEAKER: There's some kind of onion that was one of them.

MS. ROSSI: An onion? Yeah.

UNIDENTIFIED SPEAKER: There was like a small onion.

MS. ROSSI: There is a small -- there is an onion.

UNIDENTIFIED SPEAKER: Decorative onions or something?

MS. ROSSI: Kathy or Karen, would you have any ideas?

UNIDENTIFIED SPEAKER: There aren't many in this category.

MS. ROSSI: No? No ideas? We haven't -- I think the reason why -- Jay? I think the reason why I can't do that is because we haven't finished that yet. We're just starting to look at that particular factor of the low consumption. So, otherwise, I probably would have an example on the tip of my tongue.

UNIDENTIFIED SPEAKER: I think we went through this before, these are foods, right, I mean people do eat

them, they are food crops?

MS. ROSSI: Right.

UNIDENTIFIED SPEAKER: It was by virtue I think flax seed was one that had come up a long time ago.

MS. ROSSI: That was a long time ago, right.

UNIDENTIFIED SPEAKER: So, it was not there because nobody eats it, and I brought this, you know, I had flax seed in bread at home, I mean people do eat it, it's in food.

MS. ROSSI: Right, we wouldn't be saying that nobody eats it, because obviously if people are growing it, somebody is eating it. But what we would be saying is the same way we do in the individual cups, where we look at a variety of commodities, and the experience with the individual cup is we look at a variety of commodities, and it all boiled down to like three or four or five commodities that unless you managed those -- you could take all the rest out of the risk cup, and unless you managed those, you weren't touching your percentile of the A pad or what the risk cup -- and that's what we would be saying. We wouldn't be saying nobody eats them, but we would be saying they would be non-contributors to

the risk cup and to managing the risk cup.

UNIDENTIFIED SPEAKER: I guess I would bring up the same question that I had when we talked about flax seed, though, would be -- there are certain subgroups of people that eat, you know, unusual diets, and how do you -- in other words, those would be the high outliers on -- this one of flax seed may be a health food nuts or, you know, among kids that eat lemon grass or, you know, or who knows what, but --

UNIDENTIFIED SPEAKER: Snickers for breakfast.

UNIDENTIFIED SPEAKER: Snickers for breakfast, and whatever those cakes are.

(Laughter.)

MS. ROSSI: Right, but if you could combine one of those low consumption foods, and for example they showed no residues in PDP or in field trials when the tolerance got established, then that would almost give you a low consumption times zero residue. So, that's the kind of thing you could do. You maybe wouldn't make that same decision if it were a low consumption food but had very high residues. That wouldn't necessarily make it a non-contributor. That would not.

UNIDENTIFIED SPEAKER: Yeah, that would satisfy me.

MS. ROSSI: Right, okay. So, that's the kind of criteria that I think we would like to hear and get feedback on.

MR. EHRMANN: Lois, let me ask, because you're obviously very familiar with the other public participation and participatory processes that have been put in place for, you know, other aspects of this whole endeavor. Do you have any thoughts -- to your question about what would be a useful way to inform people about this and have that more transparent decision-making as it relates to this approach. Did you have any thoughts based on your other experiences that you might suggest to the group for them to consider in that context? Because I think they would obviously want to have something that fits their needs, but it also needs to make sense given the process that you guys are going through.

MS. ROSSI: Well, I think an understanding of the factors, for example, some of the ones that I just explained to Mark and Carolyn, I think a thorough understanding of the criteria and the factors, if that

were -- if that were established, I think, then, you could pretty much go -- just go through an announcing process, and as long as you did it in a Federal Register or on the web, whatever, notification somehow to commodity groups or registrants, I think you could just do the notification. Something like that.

MR. EHRMANN: And Cindy, did you have a comment on this?

MS. BAKER: Yeah, I mean we talked about it a little bit here, and it's along the lines of what Lois just said. I think if you put something in the Federal Register and on your website and you could even send it to this group, because I think this group represents the people that would get it out to the other people or whatever group, maybe PPC, even, whatever groups that you have that you communicate this kind of information with and say these are the combinations or the crops or the products, whatever it is, and this is why we've taken them out.

As a notification, I think that would suffice for people who if they didn't agree would let you know right away, or if they agreed, you know, we would let you know

that, too. But you've got to go through a process like this in order for you guys to efficiently use your resources to do it. I think that's -- I mean I think people are paying attention to what you're doing on this. They're going to look for what. And the information in the Federal Register and the other ways that you communicate what's going on there, and I think that would suffice to get the word out.

Dan?

MR. BOTTS: This goes a little beyond what Cindy just said, but it gets to the issue of how would you get file notification that these had been assessed? I mean, you put a list or notice in the Federal Registry, we intend to do this comment period in associated with that and go for a period of time, or would you go ahead and include those assessed at the point you listed them and then you would focus on the other list that was there, and if you do that, then you have to go through a notice and comment period on the criteria, you need to establish a logistical list when you did it, and I think it gets into some of those technical issues.

I mean, I'm comfortable personally, as an

opinion, if we come up with this criteria pretty well defined for what you want done here, I don't know how much more detail you would put in there for the things that you've identified as -- I mean, you've got to do some additional justifications on some of the animal feeds and some of those things as descriptions to tie into those, how much more work do you think it would take to get to the point of having that description of the process put together, is that going to be something that's going to take six months to work through the notice and comment period before you can publish a list?

MS. ROSSI: A notice and comment period on just the criteria?

MR.EHRMANN: Yeah, but you said earlier, let me just pick up, I wasn't suggesting anything, you said that you thought that -- and I think others are kind of supporting this, kind of a notice process might make sense if the criteria were well understood, and I think the question is how long -- I mean, what would be the -- to get those.

MS. ROSSI: I think we could put together a lot of criteria fairly quickly, because we have a fairly good

amount of work done on it. But criteria kind of also rolling as we become more familiar with the -- with the database, and then as you even become more familiar with the risk cup as it gets closer to the final thing. So, you could put out some initial criteria and have some non -- some non-contributors early on and then there might be a second phase and a third phase -- or wave, a second wave, a third wave a fourth wave.

MR. BOTTS: But one of the reasons for my question is my fear, unless you've got some official way to take these off the table so you know you don't have to come back and address them, all of the sudden you get out there, you've had this list out there published, you show that you intend not to deal with them because they are declaring assessed because they're not a contributor, and all of a sudden two weeks before all this occurred you get a nice little letter from somebody saying, well, we don't appreciate that, but it wasn't an official notice, and all of the sudden how do you go back in? Would you have time to address them at the end?

I think you need a more formal process to take them off the table sooner rather than later if you're

really going to do the focusing that you seem to be the main intent of this to get to the point where you're really being with those that need to be focused on at the end of the game. Just -- and I don't know whether that's -- that's just a comment. I'm not making a recommendation, I'm just kind of asking the questions.

MS. ROSSI: Um-hmm.

MR. EHRMANN: Jennifer, a thought on this?

MS. SASS: What?

MR. EHRMANN: On this topic? Go ahead. I assumed you did.

MS. ROSSI: My mind does not wander.

(Laughter.)

MS. SASS: I think that maybe the criteria isn't quite the right word, rather than a general guidance document that what I would need to see and maybe what the group needs to see is some list of what you said, those tolerances or combinations or uses, and the justification or the reasoning and the rationale for each one. And I think that this kind of description would probably suffice at least to get the argument going, if there is one, these couple of sentences or small practice, but

really per --

MS. ROSSI: Per tolerance.

MS. SASS: Per tolerance. There's probably not that many of them.

MS. ROSSI: Right.

MS. SASS: That that would be possible. And then to put that out as a list that people could take a look at.

MR. EHRMANN: Jay?

MR. VROOM: Lois, how many of these chemicals or are any of them chemicals that have tolerances that are set at the limit of detection where there have never been any detects in PDP or FDA surveys?

MS. ROSSI: Some of them are. I can't give you a number.

MR. VROOM: Some are, some aren't? Is there any dynamic in that sort of cross-cut comparison, also?

MS. ROSSI: That could one of the cuts, yeah.

MR. VROOM: Okay. So, would that be another piece to add to this definition or explanations?

MS. ROSSI: Yeah.

MR. VROOM: Okay. Jack, can we as a consensus

sort of endorse this or see if --

MR. EHRMANN: Yeah, I just wanted to see if there were any other ideas about how to do it, but I think there's still the question from Dan's perspective about the level of formality. I mean, I think one tier here is that -- what I heard Jennifer suggesting and I think others seem to be comfortable with, just based on their nodding, is a list would come out, it would possibly articulate in a general way the kind of list they would look at, but for then each specific compound that's being looked at this way that there would be a statement about why you -- why the agency believes that it falls into this early non-contributor category, and that would be done in waves, you know, they wouldn't do all those at once, there may be several issuances of those obviously as they go through the various assessment processes --

(END OF TAPE)

MR. EHRMANN: -- that the public could look at that and say, yes, I'm comfortable with this one, but this one I'm not sure about or whatever. Is that -- is that notification, and I think this goes to your point, Dan, form -- I mean, whatever the form of that

notification be, is it a Federal Register notice, is it a -- you know, an intent to make a decision? I mean, what kind of level of formality is necessary I think was Dan's question. I think the way of doing it people seem pretty comfortable with, but just I think his question had more to do with the reversibility or what's the comment period or how does it work from that point on?

Cindy?

MS. BAKER: Well, I think a simple way, I think, to get at it is to put some thought in up front, like you've done. I mean, you've already started working on it. I think it sounds like from what you've said that you could put this list together in a fairly short period of time, issue it through the Federal Register and whatever for a 30-day comment period, and then have a final issuance. These are now re-assessed, some time after that comment period, based on what you have there. And so then you have the formality of having them officially off the table and you've had the opportunity for public comment and you've listed what they are and why.

MR. EHRMANN: Like any other.

MS. ROSSI: Right, the only thing that I would ask you to consider in what what you said is putting the criteria out once and then taking it -- taking comment on each wave could easily -- I mean, maybe putting the criteria out once and then putting the reason out, and then announcing them re-assessed and then if anybody has a comment, they could submit it.

MARCIA MULKEY: One thing that might help, as I understand the legal advice we're getting, there's no specific requirement for a public comment process associated with the re-assessment judgment, and in fact, if you look at the -- the work plan, there are number -- for example, the issuance of a new use, and the associated re-assessment of the other uses done through a registration process, there's no real -- I mean, there's an internal memo that says these are the (inaudible) so, if Dan's question went to sort of what's legally required or what makes it official, the answer to that is there's no real minimum.

Now, if your comments have to do with what's sufficient process from the standpoint of stakeholders, that's a different question. But just to be sure that

there wasn't a confusion between what's legally required and what makes sense.

MS. BAKER: I mean, I was just addressing what makes sense for you guys so you can get it done.

MR. EHRMANN: Right.

MS. BAKER: I mean, the whole idea of this point is to save you resources and time. And so I wouldn't create something that causes you to expend more resources and time. So, if you can put it together and put it out once and say at the end of 30 days these will be re-assessed unless, you know, we get a major catastrophe or something like that, you know, whatever, I think that's sufficient, as long as you're telling people what you're doing and why you're doing it.

MR. EHRMANN: Okay, I want to just take one or two more comments and then I'll make a suggestion for wrapping this up.

Dan?

MR. BOTTS: I just want to let the record show Jennifer and I are saying the same thing in different ways. I just -- whatever you all are comfortable with once you get the definition and the process out there

that you think will deal with this, we're comfortable with that process, we just want to know -- get a notification. The best way to do that is a Federal Registry notice and then there's no questions about it at the end of the day.

MS. ROSSI: Quite frankly I think the one thing that we're more worried about is -- and that's why I emphasized, just because you don't see your chemical crop commodity on the first wave or the second wave doesn't mean it's a significant contributor. I think we're more worried about, I saw chemical X on commodity Y, why isn't mine in there, too? I think that's what we're more worried about getting lots of comments on.

UNIDENTIFIED SPEAKER: Probably will.

MS. ROSSI: To be quite honest.

MR. EHRMANN: Lois, would it make sense for you to just work up a couple of -- a paragraph kind of describing the process, propose some time lines and kind of the details of what people are suggesting and we can take a quick look at that tomorrow.

MS. ROSSI: Okay.

MR. EHRMANN: And then I think we can get a

consensus of the group in terms of recommending that you move forward in that kind of direction.

MS. ROSSI: Okay.

MR. EHRMANN: Great. Anything else on this before we turn to the transition discussion?

(No response.)

MR. EHRMANN: Okay, thank you, Lois.

The next item is a panel that Jean-Mari is going to lead you all on the transition issues, and you can see on the agenda the folks that will be participating in this, and I will turn it over to Jean-Mari to facilitate this and give you their objectives for this discussion.

MS. PELTIER: First of all, we've reached that deadly time of the afternoon when your food has reached your stomach and the room starts getting warm and it's a little easy to fall asleep, and I don't want anyone to fall asleep during this next presentation, because we're talking about something that I guess maybe 80 percent of the members of the CARAT, when we went around the room, said they wanted to talk about. And that's the issue of transition.

But I think I would like to first offer a special

welcome to some new faces around the table, to Deb Atwood, my new friend, to Steve Dierks, who is going to be up in a minute or two, and Mike Willett. And I would like to offer to those of you who are the new members of the committee and newly working with this group, some words of advice.

First of all, let me talk about this musical chair issue. Linda and Adam Sharp and I were once sitting on your side of the table, we're now at the adult table, as Jane mentioned. But I'm sitting in Jim Moseley's old chair, but in order to get here, I once sat in Paul Helliker's chair, but when I -- after an election -- was no longer sitting in that chair, I got to sit in the citrus chair. I had that transition to citrus. But so for me to come to Jim's chair, Wally Ewart had to leave the pear chair and take on the citrus chair, which meant Mike Willett could now take the pear chair.

DR. WILLETT: No wonder I have a bad back.

MS. PELTIER: It gets complicated, but that gives you an idea of why they had me lead the discussion on transition. I've had a lot of experience in here,

rolling stone gathers no moss.

DR. WILLETT: Jean-Mari, this is like moving the deck chairs on the Titanic?

(Laughter.)

MS. PELTIER: Steve is just feeling bad because we were talking about canned spinach before when we were talking about those crops nobody eats.

UNIDENTIFIED SPEAKER: I was waiting for Steve to say something to me. It was on my mind, Steve.

UNIDENTIFIED SPEAKER: Fifty-two million cans of spinach.

MS. PELTIER: But we're still growing them in Canada, because someone is going to want them somewhere.

Another point I would like to just advise to those members of the committee, one of the really important things, Steve mentioned that he was surprised because it doesn't seem like there's that much animosity on the committee and that much controversy, and I think one of the things that's caused this committee to really have a bonding experience is the kind of thing that Dr. Whalon pointed out earlier today, and that is that it's really important to reveal something very personal at

these meetings, and it was nice of him to talk with us about Viagra and Prozac this morning.

(Laughter.)

MS. PELTIER: Thank you, Mark, for setting the tone. And then finally, one of the other nasty things we --

(Laughter.)

MS. PELTIER: One of the other really important things that we do, though, to members of this committee, is put them in the crucible, and we're going to be doing that in just a minute with both Steve and Mike Willett, because we're going to be asking them to talk about their experiences in pest management, in moving through IPM programs and real implementation programs and some of the problems that they've faced as a result of that.

Let me set the tone of what we're trying to do here today. We've talked for a long time about the issue of transition. We talked at first about concerns about whether or not we wanted to use the T word, this transition word. Or whether or not that suggested that there was a predetermined outcome from EPA that there was going to be a mass loss of organophosphate pesticides,

and I was one of those who raised concern about transition.

But I think we've all come to the conclusion as we've talked about before that the issue of transition is broader than this single question about mitigation strategies for dealing with a re-balancing of the risk cup on organophosphate pesticides, but really it's time to try to buckle down and dissect what those individual issues are in the question of transition.

So, as you're listening to each of the people who are speakers today, each group is going to have 15 minutes to talk, we're going to be talking about pears, we're going to be talking about a program that was put together with the potato industry, we're going to talk about specific issues on cranberries, and then we're going to be talking about the role that one of the public sector partners, IR-4, has played, somewhat, in this issue of transition.

But as you're listening to each of these speakers, be thinking in your mind what the take-away messages of that is, and what we're going to need to do to tee up an agenda and a work plan for ongoing work on

the issue of transition.

Let see suggest to you when you listen you listen for a couple of things. Think private sector and public sector and who has what role. Not just if it's USDA and EPA, but other factors in this, what the role of the private sector, what the role of foundations might be in helping with transition. And then maybe kind of walk through -- I have in my mind categorized some of these issues into about four topics.

Where did I put them? Research --

UNIDENTIFIED SPEAKER: Resources.

MS. PELTIER: -- extension, resources, and economics or incentives. I had it kind of as RERE, but maybe it's EREI if you switch the way you put it. Anyway, be thinking of those issues. Think of what those are and let's -- after we're finished with today's discussion, let's be ready tomorrow to tee up what we think might be a work plan for our continued work on the issue of transition.

Without further delay, let me ask Steve Balling, Larry Elworth, Pat Weddle and Mike Willett to come up and talk about their experiences in working on transition

issues in the pear industry.

UNIDENTIFIED SPEAKER: Jean-Mari, we'll just stay right here.

MS. PELTIER: You want to stay right there? All right. You don't have overheads. We've got Larry over here.

MR. BALLING: Since we were working on the talks this morning at breakfast, we really didn't put together a PowerPoint program.

UNIDENTIFIED SPEAKER: I heard that conversation and it sounded a lot more like sports talk to me.

MR. BALLING: Hey, hey. That's why we took two hours to get through ten minutes of talk.

I'm Steve Balling, I'm director of agricultural services for Del Monte Foods, which entails about 110,000 acres of fruits and vegetables around the U.S., and about 17 crops, including spinach, 52 million cans of spinach, which Steve saved us on many years ago, and Jim Aidalla behind me getting through some registrations.

Sixteen long months ago we had a discussion in CARAT, the last meeting of CARAT, about peaches, and about peaches around the U.S., and the difficulties of

growing without organophosphates, and it really sort of introduced the struggle of transition. And it suggested that there were going to be some potential failures out there. Well, we want to talk today in the next -- and the next four speakers are going to talk about some successes in pears, this time, and some tremendous success that we've had, and why we've had success. But what needs to be put in place for everything else for that reason.

And I'm going to cover three specific things. One is sort of transition is continuous, sort of what our job is. Then I would like to quickly cover transition from 30,000 feet and then transition on the ground. So, hang with me here.

Transition is continuous. Entomologists, which I think there are at least eight or ten of them around here, weed scientists, plant pathologists, their job is to put themselves out of business. If we were all good at what we did, we would be able to put ourselves out of business, because we create programs that work so well that we wouldn't have to do our job any longer.

Unfortunately, there are -- there's entropy in

the system, and it's constantly breaking down, it's the tendency towards randomness. And there are three basic reasons why that happens. One is evolution, resistance, insects, plants, diseases, evolve. The other is dispersal. Historically, by tornados and hurricanes, now by planes, trains and automobiles. And then the third thing is regulation. That's having the rug pulled out from under you on a product that you've been relying on.

So, we're all aware that those are the kinds of things that we're constantly trying to work against to protect our long-term interests. To make a living in growing and processing crops, you have to invest energy in managing those three factors. Constantly trying to make sure that you're protecting. If you -- so, that's why transition is continuous. It's been going on since the history of agriculture.

If you look at transition from 30,000 feet, it's about the food industry and in particular in my position at Del Monte, it's about trying to maintain a stable cropping system. It's trying to put in place a pest management program that allows you to know that for the next ten or 20 years, you're going to get widgets out of

the system. You're going to get clean, regular fruits and vegetables that you know you can count on.

We believe that integrated pest management, particularly biologically-based, the ability to move along the IPM continuum to more and more biologically-based programs provides that kind of stability. That's where we need to be. We need to be constantly moving from 30,000 feet, constantly moving that ball along to try to get us to more stable systems.

In some crops, it's pretty easy. We'll talk about pears here, I won't say it's easy, but pears have worked further along that continuum than lima beans, or spinach. It depends on the crop.

And I think the best way to implement IPM is infrastructure, build the infrastructure. An infrastructure involves research, it involves USDA and tremendous effort the USDA has put into research through ARS and through funding of outside agencies and in particular universities. It involves extension, not only county agents and IPM specialists, but in particular consultants, private consultants who are out there doing

the job Robin does. Through resources, and focusing resources and the resources come from all kinds of locations. Obviously USDA is a big source for resources. EPA has been an invaluable source of resources, particularly through the PDSP program, and many people at this table are aware of that. Even food companies can be providers of resources.

And then through grower groups, because they're the ones that drive the whole issue. So, you put these together and you really move IPM along that continuum.

The problem, the problem is that when you get down on the ground, it looks a little different. And that's the problem we need to discuss here. And that's a concern, and that's what FQPA presents to us as a potential hurdle.

When you're down on the ground, you're looking for trip wires. You're always trying to look ahead and say, what's coming up next, what's going to explode on me next. And in that context, transition is continuous, but it's much more specific, it's much more how am I going to survive this next issue.

We've got some positive stories. In pears, we

saw the organophosphate thing coming from both a biological perspective, evolutionary resistance, and from a regulatory perspective, and we had opportunities, because of the history of work done in pears, to actually make advancement.

And before I pass the baton to Pat, I just want to make sure everyone understands that to be able to do some of the things that Pat and Mike and Larry are going to talk about, we need tools, and the tools are a wide spectrum of experimental use permit or wide ability to use experimental use permits, section 18s, rapid registration of new materials, time limited tolerances for those products to help us hold through. There are some very specific things to be done at the ground level to get us through that portion of the transition. So, two kinds of transition.

I would like to pass the baton to Pat. Pat Weddle is a consultant in California, private consultant, who has been my guiding light for 15 years that I have been involved with this. He has been very progressive and very involved in this, and now unfortunately for him is now working with Larry Elworth, which --

MR. ELWORTH: Kind of dimmed his light a little bit, yeah.

DR. BALLING: Exactly. You all know what that must be like.

Pat?

MR. WEDDLE: Yeah, thanks, Steve. The reason I'm working with Larry is because I'm one of those entomologists who put myself out of work.

Actually, it's really nice to be here doing something other than defending a pesticide use. This is the kind of thing I like to do. You know, my -- I was thinking about my financial advisor today, he told me never butt the trend, and years ago, I realized professionally that the trend away from high-risk pesticide use towards more biologically intensive IPM was unfolding, and that is really what I think we're talking about when we talk about transition.

Once a trend is established, it continues until it's over, and we have an opportunity in this transition process to expedite the rate at which we move through this trend, or to delay it. And a lot's going to depend on what happens in the way government operates.

As Steve mentioned, I've been -- I've worked with hundreds of consultants or hundreds of growers over thousands of acres for the last 30 years doing programs to implement biologically intensive IPM. And the reason I think that that's important is because we can mitigate most of the regulatory concerns as well as the economic concerns that growers have doing exactly that kind of a thing.

So, how can the federal and state policy effectively impact FQPA transition? The answer from my perspective is to look to the growers and the support communities to assess what they need to do, what they, the growers and their support communities, need to do to maintain commercial viability in the context of FQPA.

Why did the Randall Island succeed? Randall Island succeeded because we had very motivated growers. We had a core group of highly motivated growers that said we want to do something. We want to make a transition away from the way we're doing things to the way we think things should be done.

There was new technology available that the growers could use. There was university research

involvement that was extremely critical to the effort, and fundamentally, there was an embedded commercial decision-making infrastructure. There were people working day to day with the growers in order to incorporate what was being learned into the decision-making process.

The realities of adoption of any new transition types of programs or IPM programs in California must use commercial crop advisors. We have a whole cadre of licensed pest control advisors in California whose job it is to work day to day with growers to help them in their pest management decision-making process. And the reason that they are effective is because they bring ongoing, realtime, site-specific analysis, which is what's required for growers to make intelligent decisions on moving towards more biologically intensive approaches to managing crop pests. Generic information does not work in a biologically intensive system, or at least it doesn't work very well.

So, as a result the Randall Island project over the course of its life was extremely successful in reducing the use of high-risk pesticides, and indeed, has

become a model of area-wide projects nation-wide. And as a result of the Randall Island project, that model, we're actually taking that model, we're expanding on it into other crops in California and elsewhere, and hoping to achieve the same kinds of results.

So, you know, any good consultant has to leave -- leave by making some recommendations. And here's mine: Spend money where there is the best chance for success. Government funding must support the capacity of growers to innovate and adopt. At the point where the pesticide decision-making occurs, this capacity is ultimately a commercial private sector function. Randall Island succeeded because it was driven by motivated growers, there was new technology available, growers were actively supporting research, and there was an availability of a diverse commercial infrastructure with the capacity to innovate and adopt.

Incidentally, the Randall Island project was funded by the growers.

STEVE BALLING: And the processors.

MR. WEDDLE: And the processors. Sorry, Steve.

Anyway, where these four factors exist, efficient

transition can be expedited. Where one or more of these factors do not exist, all the money in the world won't make transition happen. At least it won't happen efficiently.

So, government should systematically evaluate where the best opportunities for successful transition exist, and target resources towards building transition capacity in those communities.

Now, I don't have time to get into specifics, but I'm going to be around here afterwards, and for the price of a beer, I'll be glad to give you some specifics on how these things can be done.

MS. PELTIER: If we buy you a beer, is that contributing resources, can we do that?

MR. WEDDLE: Yep, absolutely.

UNIDENTIFIED SPEAKER: The chemical companies can do it.

MR. WEDDLE: Anyway, I hope that gives a little bit of perspective, and who are we going with next?

MS. PELTIER: Mike.

DR. WILLETT: I guess that I'm next. And you know all those of you here this morning and you know what

I'm doing now, the reason actually why I'm here talking about this is based on my previous life. I spent almost 20 years as a chief of IPM specialists with cooperative extension in both Oregon and in Washington, and actually Pat was pretty much my hero then, too, and I've known Pat for an awfully long time.

My perspective when I first took that job, and all the way through the 17 years I spent in cooperative extension was that my background was IPM, and the people that hired me in the university knew it was an IPM background, and the growers who were on the interview panels that hired me also knew that I was IPM, and the whole focus was biologically-based IPM, and they hired people like me in the -- in the late seventies and early eighties because that's the direction that the industry wanted to go. And so the educational programs that we moved forward on those things were exactly in the same direction that Pat talked about in cooperative extension.

And the research people in the Pacific Northwest where I worked were focused in those areas as well. When we talk about pears and transition, pear growers in the

Pacific Northwest really started on transition when they didn't really want to have to transition at all. They started transitioning when an exotic pest, pearsilla, was introduced in about 1947, and their transition was resistance. Every single chemical that they used against pearsilla, that insect became resistant to it. And they were looking for transition to avoid transition. I mean, that was their goal. They knew they needed a biologically-based system, because the chemical-based system really wasn't functioning very well.

But the first thing they had to do was be able to step back for a short period of time and come up with sort of pesticide management solutions that allowed them to get -- avoid the resistance development problem, and that's exactly what the research extension people and the growers decided upon was the appropriate first step. All the while, continuing to conduct research on the biologically-based components of the system that would allow you to understand what are the beneficial insect inputs into the system and how do you manage those if you could ever find a way to maintain those beneficial insects.

The -- in recent years, and again, with research conducted by the USDA and the land grant universities, interest in the alternative management approaches has really grown. For example, mating disruption, which allows you to eliminate the use of a lot of broad spectrum materials in the orchard, and allow you to maintain a base of predators and parasites to control not only pearsilla, but also to allow some level of biological spider mites, which along with coddling moth are sort of what my friend Pete Westgard calls the Bermuda Triangle of pear pest management.

The other issue is that those alternatives then became more effective through a combination of in the northwest a lot of grower money. The companies that were funding these alternative technologies like mating disruption had no resources, and they put almost no resources into R&D, so the growers put the money into R&D, and that's the same thing that happened in Randall Island.

And so the growers committed incredible sums of money through self assessments to actually make these systems work, come up with the dispenser technologies in

cooperation with the companies to make those systems work. They were also clearly aware, there's no question, that the cost of traditional control programs were going up, any way you can save money in a system is a good thing to do, and growers are -- I think, are fairly astute people. They see the handwriting on the wall.

They knew that regulatory action was -- had been a continuous presence, and the opportunity to lose those control tools that you were relying on, the broad spectrum ones, was real. And they needed to have alternatives that worked, and so they were looking at those. I think they were also looking at the economics in another sense is that what did their customers want, and would their customers be willing to pay more for fruit produced in a different way, and then finally just the whole social thing, what's the right thing to do in terms of managing these systems.

I think that growers when you look at any system, though, it's not static. I sat here earlier this morning and counted up, I can think in apple and pear production, since I've been working since the early 1980s, there's been eight new pests introduced into the system. None of

them were exotic, they all were things that rose after things happened in the system that allowed biological control to be suppressed and new pest released or things changed in the system somehow outside the orchard/inside the orchard.

That requires some nimbleness to try and understand what to do next. When you think about IPM, and I think Pat is a really good example, he is -- Pat's a risk manager, and growers that are involved in IPM are willing to accept risk. They're accepting risk by not treating routinely by waiting, monitoring, looking, but when you do accept that risk, you want to be able to find some way to manage when the risk gets to the point where it's causing you economic damage.

A really good example in the northwest of what's happened is that mating disruption is not a direct toxicant, it doesn't kill the insect. It prevents mating for a period of time that allows the insect not to be able to cause economic damage in the orchard. Coddling moth, which is the target, lays its eggs on the fruit and the larva bore into the fruit.

As long as populations of coddling moth are low,

the system works really well, but lately because of the economic situation of apple growers, there's been a lot of abandoned and poorly managed orchards, which has allowed coddling moth populations to bloom to levels that people haven't seen probably since the forties.

Mating disruption, which doesn't kill anything, all of the sudden is much more challenged when you're not putting something on that actually kills the insect. And the growers are really facing those kinds of challenges right now. They need to have some alternatives that can allow them to wait as long as possible to treat, but then when they do want to treat, they want to be able to knock the populations down.

That really, I think, Steve expressed that it's not a straight line. Transition is never going to be a straight line, because you're always going to have these issues that come up, like new pests or old pests that become problems for different reasons, and you're going to have to be able to respond to them, and growers are willing to accept those risks, but they want to be able to respond when they need to.

I think I pretty much outlined what I think is

the important role of land grant university and ARS in this whole process, because they really have driven and provided the base information for all these systems that are moving forward in the Pacific Northwest.

The large-scale demonstration plots that have been happening in California, also in the state of Washington through the cooperation of Larry Elworth's organization, have done a lot to make growers feel comfortable that these systems are going to work, and I think the most important part of those systems is that they've been designed by the users. Because without that, we've seen top-down systems not work very well, and we have some pretty clear examples where they've set IPM back actually.

I think on the regulatory side, the growers are looking for those alternatives that will allow them to move away from -- to sort of what we call softer pesticides, and for example, in pear pest management, one of the issues is that the key pest, coddling moth, is not a problem -- the same level of problem in every district. In cooler districts, growers there often only have to treat one or two times, whereas in warmer

districts they might have to treat three or four times for the same pest.

Current mating disruption technology is pretty expensive, if you only have to treat once with a broad spectrum insecticide. We're really looking forward to having some sprayable pheromones that have greater longevity in the field, and those are moving through the regulatory process right now, and we think that's one place where the EPA could make a great contribution by being able to finally register those in conjunction with their companies.

And the other issue is really important, is that when we try to introduce new tools, particularly ones that leave residues into the system to see how they work, the experimental use permit process that was available prior to the passage of the Food Quality Protection Act was extremely important in helping us know how a pesticide was going to perform in the field before it was registered. How it was going to fit into the system. What was its impact on beneficial insects in that system.

The way that EUPs are issued now, it's almost impossible to be able to do that kind of work, and we're

really hoping that the re-evaluation that's going on right now in the EUP process will deliver us an EUP process which is going to be much more useful. I can give you an example of a situation where we asked for section 18s for two different chemicals, and we didn't know enough about them, how they would work once growers started using them, and the problem was that neither of them really provided the control that we thought they were, based on the results we got from small plot research.

So, there are some challenges, I think, and I think you -- hopefully I haven't taken too much time, but I wanted to give you an idea of the perspective I have in terms of how the system, particularly the institutions that we're using, play a role in this whole process.

DR. BALLING: And I need to do a quick backfill. Do you want to know why transition isn't linear, as Mike was just saying, it's because we're the kinds of people who run transitions, and we sort of skipped the concept of exactly what Randall Island is. So, I will give you the 30-second version of Randall Island.

Randall Island is in the delta of California, it's about 760 acres, Pat, you can correct me on the numbers, 760 acres of pears that was owned by six different growers, and managed by, was it four consultants?

MR. WEDDLE: Yeah.

DR. BALLING: They got together supported by the Pear Pest Management Research Fund, which the pear growers paid half into and the processors paid half into. Jean-Mari and I ran that thing for too long. Ran it into the ground. It was a mating disruption program for coddling moth. It was the first area-wide cooperative program probably done in the United States, and it was successful. It went for three years on the initial funding and has continued since, it's been very progressive. We continue to look for more options. UC Berkley, Steve Welter (phonetic), Dr. Welter, it was his idea and he is the one who really was the brains behind the program. The trip wires were resistance to guthion (phonetic), which is what we replaced, and in pending regulation, which here we are still 12 years later, talk about slow transitions, but the expectation that guthion

would give us a problem down the road and the realization that it would take a long time to develop these new programs.

We're still looking at delivery methods and monitoring methods because it's been successful, but not fully successful. And we desperately need to move these things forward. So, we're still in the process.

MR. WEDDLE: Steve, just as a sidebar, Randall Island was an outcropping of some earlier transition efforts that go back to 1973, and I did an analysis in 1999 and between 1973 and 1999 there was a 75 percent reduction per acre in active ingredient pesticides, 90 percent or more reduction per acre in the number of high-risk insecticide active ingredients, 95 percent reduction per acre in units of higher risk insecticides, 75 percent reduction in coddling moth populations, reduction in the risk of damage, improved secondary pest management. We weren't firefighting anymore, input costs were stabilized, we were conserving natural enemies, and we were conserving susceptible gene pools.

We went from 14 active ingredient pesticides, most of which were high risk, to five active ingredient

pesticides, one of which was high risk. The others were organically approved.

MS. PELTIER: All right, Larry, why don't you tell us what this all means, then.

MR. ELWORTH: Okay. I'll try to.

First of all, my name is Larry Elworth, I'm executive director for the Center for Ag Partnerships, and we actually work on projects that look a lot like this. We have -- we're working right now or just finished up projects on nine crops in six states with about 100,000 acres in new growing practices.

We look at our job as trying to develop new programs that make it possible for farmers to be more profitable by adopting environmentally sound production practices.

So, I've been fortunate enough through my organization to work with Steve and Mike and Pat on the pear project in Yakima that we just finished up last year. I'm going to try to summarize how you could -- what I've heard, and actually I have to summarize what I thought you guys were going to say, not what you actually ended up saying at the breakfast.

So, I do this kind of like a little Ross Perot kind of thing, I made these charts up myself.

MS. PELTIER: It looks good, Larry.

MR. ELWORTH: It does look good. I can't -- I write really messy.

Pat and I used to work together a lot, we're really kind of this well-oiled machine.

UNIDENTIFIED SPEAKER: The big picture.

MR. ELWORTH: Can you make it even smaller, maybe, a little bit?

Okay, well I'll just -- don't worry about it. Okay, yeah, just let them go on there. Here's the deal. I'll move it.

All right, the deal is it feels to me that there were four things that I've heard from people over and over again about transition, and basically four elements: The context in which transition takes place, the conditions that are necessary for transition, and I'm -- Jean-Mari and I talked about this, I'm just barely able to say the word transition based on a year of people hollering at us for using it. So, if anybody is offended by that, speak up later.

What is the process by which transition takes place, what are the programs that are necessary, and if you have those four elements in there, you'll get the results, and you'll actually have an effect on the context.

So, let me just talk -- go ahead and just kind of slide them through there. I did this because I thought it was going to make it faster. Sorry.

UNIDENTIFIED SPEAKER: Is that number 2?

MR. ELWORTH: What I have heard over and over again from people about context is that what you're looking at is multiple issues when you try to get involved in changing a pest management system. You've got economics, enough said. You've got trade issues, Mike has raised issues on a number of occasions, Wally has, Jean-Mari has mentioned the effects of adding new materials when you don't have MRLs and your export market is your prime market, your prime profitable market.

The issues of marketing products that are produced domestically, labor issues matter a lot to growers, and regulation is a big issue. I would like to at least submit for consideration that if you balance

change in a complex agricultural system on the primary point of regulation, then people's first response will be to fight the regulation, or at least get it modified. Secondly, they'll change their system.

So, if regulation is the only thing you have to bring to the table with growers, it will be hard to see systems change. And where you seem to be successful in what Pat and Mike and Steve have pointed out, growers have internal reasons for moving in addition to regulatory reasons. So, regulation by itself won't necessarily -- pending regulation won't necessarily push transition by itself.

Here are the conditions, and again, this is -- this is from our experience in running projects. You have to have an important problem that the industry needs to solve. Me deciding that an industry needs to solve a problem is different from the industry deciding it. Secondly, you have to have a viable solution if you want implementation, and that means having registrations. If you don't have the things registered, if you don't have new materials available, you're not going to get anywhere.

Third, you need to have leadership. I mean, separate from setting up a good process, if you don't have people that are going to be willing to pick up the ball, either organizations, processors or people who are willing to do the work on the ground, it's not going to happen.

And secondly, you've got to have public/private partnerships. The public sector is not enough to make this happen, and the private sector can't always incorporate the costs of running new projects into their bottom lines.

Basically the process I would -- basically to me the process is two things that we're talking about in transition. One is going from public knowledge, which is developed by the research agencies, and going to private implementation. And secondly, it means taking private initiative and turning it into public benefit. That's basically the process we're talking about. What I want to emphasize here is each part of this. If you don't have a public structure that produces objective knowledge and information, you're not going to have the basis upon which agriculture can make decisions. If you don't have

private implementation, you don't get transition, which means you have to have the private sector, both the consultants and the growers and the people that work with them.

In many cases, we're talking about taking private initiative, whether it's a new registration from the companies, or whether it's grower money on the table at the beginning, and producing the public benefit. You leave any of these pieces out, you don't get the results.

MS. FISHER: Larry, what do you mean by public knowledge, though? Are you talking at that point about the risk issues or about, like, ag research?

MR. ELWORTH: I'm talking about ag research and scientific information, not just fundamental research, but also a lot of applied research as well. But that's a public function.

MS. FISHER: And the one that they just described, that was all private research, though, right, Steve?

DR. BALLING: No.

MS. PELTIER: It was done with land grant

university. It was funded privately, but it was done with land grant university work.

MS. FISHER: But it was funded privately?

DR. BALLING: And we wouldn't have done anything if ARS hadn't have done pheromones 40 years ago.

MR. ELWORTH: The public knowledge is the research underpinning of it, Linda, but that's what made possible the private investment and implementation. Do you understand? Do you see the distinction?

MS. FISHER: Yeah, I do. I'm not -- you've got these words up here and I'm trying to tie them back to the parts. So --

MR. ELWORTH: Right, right.

MS. FISHER: So, public knowledge is USDA, private implementation is what Steve and others did, okay, and what's private initiative? Give me an example.

MR. ELWORTH: Well, private initiative is both the work of the registrants. I mean, somebody developed these pheromones, but it's also the private initiative of the companies that invested their resources and the private initiative of the individual farmers. I mean,

each one of these people had to decide they wanted to make this change.

MS. FISHER: So, these two are kind of the same?

MR. ELWORTH: Yeah. But -- they kind of go in a circle, in a squiggly line.

UNIDENTIFIED SPEAKER: You can't do one without the other.

MR. ELWORTH: Yeah, that's kind of the point, except depending on my drawing skills.

Here's what -- here's what I understand about the process from what I've heard. One is it has to be ground up. Transition is implemented on individual farms, and as Steve said a little while ago, maybe individual fields. You don't do it from the ground -- did I spell it right? Yeah.

MS. PELTIER: As opposed to grinded up.

MR. ELWORTH: Grounded up. In North Carolina it's grounded up.

UNIDENTIFIED SPEAKER: As opposed to hamburger.

MR. ELWORTH: The other thing that's absolutely important is that what you need to do this kind of work are organizational skills in addition to technical

skills. What we're asking people to use is more sophisticated systems that require more information and push them into riskier situations as far as pest management compared to the previous systems.

Those require organizational skills. All of the technical skills in the world are not going to necessarily get you to the point where growers are comfortable using these materials.

And third, again, I don't think you can emphasize this enough. These activities at the field level are private sector activities. They're not public sector activities.

If you accept the fact that there are certain -- there's a real context for transition, it requires certain conditions and a certain process, then the question is do we have programs that when added to those situations actually produce results? And in this situation, I would suggest that the order to look at federal programs is look at the way we manage them and organize them first, and then look at where we apply resources.

We have a lot of programs that we now spend money

on that ostensibly are set up to deal with transition. But if, in fact, the goal is to have implementation on individual farmers' land that actually amounts to something over a wide landscape or across a crop, it means that you've got to organize the resources so that you support public and private partnerships so that you make sure that the organizational resources and organizational skills are at the table at the same time that the technical and scientific skills are on the table, and that you're flexible enough in the way you put your resources out there that you can respond to changing pest conditions. Because every project we've had has ended up dealing with one pest at the beginning and having to change to deal with another pest before we were done. And those are three to four-year projects.

So, Mike -- I would put these results from transition in this order: If you can set up a program that delivers effective pest management, you'll have farm viability --

(END OF TAPE)

MR. ELWORTH: So, I would put these results in transition in this order:

If you can set up a program that delivers effective pest management, you'll have farm viability -- as a friend of mine is fond of saying, all ethics start after breakfast, and if you ensure farm viability through the use of new practices, you'll have decent human health and environment -- you'll get the environmental and human health resource results that we're looking for.

Let me say two other quick things. One is that we're asking a lot of farmers -- we're asking them to innovate in an aggressive way at the farm level. And that's legitimate and farmers need to do that for their own reasons in addition to whatever other reasons we have here.

But innovation on this kind of scale we're talking about for transition has to actually go across regions. That means that we need to be willing to innovate at the program level for Federal and State programs as aggressively as we expect farmers to innovate on their own farms.

And I think of all the issues that I would lay before CARAT is to ask whether we have programs -- our Federal programs organized and funded in such a way that

they actually meet the conditions and the requirements for transition projects.

And I will quote, as Jim stated earlier today, I'll quote the wisdom of my former boss, who was fond of saying in public that farmers are way ahead of the Federal Government in using these practices.

JEANMARI PELTIER: Thank you. I think we're a little bit tight on time. What I'd like to do is go through each of our presenters here and then give an opportunity for people to ask questions of anybody who's made a presentation, unless the folks have a problem with that.

Okay, then, thank you very much. Thanks for walking through that. Let's move on to the potato project, to Sarah and Steve. And this project, in particular, we were interested in walking through because it represents sort of a different partnership than we often see as the norm where we had an environmental organization, a foundation working hand in hand with the grower community with an idea of creating an end product that was going to have a special kind of value-added.

So, we'll be, in this presentation, walking

through both the process they went through and then also trying to take a look at what we might be seeing in terms of viability of this concept of value-added market pull-through.

DR. LYNCH: Hi, I'm Sarah Lynch with World Wild Life Fund and my colleague down there is Steve Dierks representing the Wisconsin Potato and Vegetable Growers Association, and I'm delighted to have this opportunity to bring you an update on this project. Some of you have followed it for way too long, I think, given how long we all know transition takes. So, thank you so much for giving us this opportunity.

It's really great that we're coming second because I think that what the previous speakers talked about was sort of the conceptual basis and I'm going to kind of walk you through a story of transition, and it's really a work-in-progress, because there's so much that you find that you need to do that you hadn't done or that you keep -- or that you have to face as you move on.

Let me start this story by telling you that in the mid-1990s the leadership of the Wisconsin Potato and Vegetable Growers Association that represented

practically most all potato farmers in Wisconsin, from 85,000 acres of potato farms in rotation with other crops -- sweet corn, beans -- fill me in, Steve, on the rest -- but at any rate, they were facing a problem. They had just come through a gruelling, intense, frightening, but, nonetheless, successful need to transition away from albacarb, which was a pesticide that they were heavily reliant on, but facing a lot of public concern about its use showing up in water, et cetera, and they found that through a very, very intensive effort to eliminate the use and reliance of that particular chemical through the adopting of biological -- well, through the adoption of IPM practices, that they could actually meet some of these intense challenges.

But, looking at the horizon, the leadership saw that they were facing FQPA, among -- for one thing. Also, the fact that it's a minor-use crop. That alone was, you know, frightening enough, but there are other forces at play in the agricultural sector: Clean Water Act was also a concern -- a growing concern by neighbors and other regulators in the state because of the shallow aquifer.

Urban sprawl -- lots of people moving in and closer to a lot of agricultural producers -- being concerned about some of the practices.

A recognition on the part or the desire for some recognition on the part of the industry. They had done a lot of stuff, a lot of really good stuff on their own dime to change pest management practices, including achieving significant reductions in pesticide use, but, you know, what's the -- Rodney Dangerfield, ain't got no respect or whatever -- who was to believe their claims at making those significant changes and reductions in pesticide use.

And, finally, again, looking on the horizon, the leadership saw that for the survival of the Wisconsin potato industry, in light of other competitors to the northwest, that they had to really think of how they could differentiate themselves and looked at niche market's opportunities in order to remain economically viable.

So, when they came knocking at our door and they said, look, we think that we can achieve significant reductions in high-risk pesticides through the option of

IPM, they found a receptive audience, because we had recognized, too, that there were -- that while regulation is the cornerstone for a lot of environmental protection, there is the need -- especially for the concerns that we have of bio-diversity preservation, wildlife, et cetera -- to go way beyond what regulation can achieve and the need to really bring in the genius of the growers themselves.

Hence, the development in 1996 of an MOU where we developed a common vision of where we were trying to get to, and it specified targets and time tables for reducing pesticide use, risk and reliance; adoption of bio-IPM to enhance on-farm conservation of the eco-system; and to develop methods to measure and to be able to monitor, over time, the achievement of these reductions and, most importantly, perhaps from what many of the common misperception of environmental organizations, we did recognize that it had to be market-based; that there had to be -- it had to be economically viable, that that was so critical in order to achieve the kinds of transition that we were looking for.

You've heard everybody talk about accelerating

industry-wide adoption, that is the continuum -- here's our little graphic of it -- very cute, because what we're all trying to do is to move the industry -- not to some final destination or resting place -- but recognizing that you want to keep the high end moving at the same time as moving the back end up.

From an environmental point of view, perhaps, it's moving everybody from the low end just a notch above gets us the greatest environmental bang for our buck, but there's no stopping. It's a continuous, ever-changing challenge.

Finally -- not finally, but -- so, what did we -- in order to put this into place, in order to achieve this, we recognized that there were certain activities that had to be put into place in order to have a successful transition. You have to have goals and time tables; you have to have a vision of what you're trying to accomplish; you have to have some specified clarity about what you're working towards that helps coordinate, galvanize and pull everybody on board as to where you're trying to go.

You have to have some kind of coordination and

oversight; some mechanism; some management structure in order to pull the diverse pieces together and keep the whole implementation process going; outreach, extension and field implementation, with the accent on field implementation. It has to be relevant to growers in the field.

Research -- obviously, in order to keep that continuum moving, in order to make it science-based, as we like to say here at CARAT -- science-based -- you have to have the research engaged, targeted, focused and, again, on farm.

Documentation and evaluation of progress -- how do you know where you're going if you don't have some method for knowing where you started from, what your baseline is and where you're going towards.

And, then, growing and industry buy-in -- and this is sort of our transition between Steve and I because we felt that given -- we were talking about transition -- that a key thing for us to focus on is how do you get grower and industry buy-in. So, we're going to turn it over to Steve and he'll talk a little bit more about that.

One thing we did set up these goals and time tables, and if you remember in some of the earlier versions our list was a targeted list of chemicals that we wanted to -- the highest risk chemicals that we wanted to focus on in order to eliminate.

And, over the course of time, this list has been modified and changed because we understand much more about resistance and the need to think strategically about how to move towards and away from reduced risk pesticides.

So, in our project, the way we're implementing it, we have sort of a two-tiered system, and Steve is going to get into that in a moment, but growers volunteer to work with us in order to reduce their reliance on high-risk pesticides and for those of you who are really CARAT wonks (phonetic), you will remember toxicity units -- it's a measure that we developed in order to pull all the different pesticides that growers use together to be able to sort of give them a ranking that allows growers to see differences in terms of their toxicity.

We also developed a way to measure the adoption of IMP, called Preventive Practice Points, PPP. Now,

remember this because Steve will bring it up and, you know, you've got to have it in your mind.

But, at any rate, we now have this prohibitive list, which means that growers that Steve's going to be talking about cannot use these chemicals if they want to voluntarily participate in our program.

And, then, the restricted use are those which are allowed with restrictions on them, and the rest are allowed but you have to be below a certain level of toxicity.

So, with that being said, I'm going to turn it over to Steve, who's now going to talk about the different ways that we as a collaboration works to gain a grower and industry buy-in.

MR. DIERKS: Thank you, Sarah. This would be easier because I'm not an extension, so it will be quite a bit shorter.

(Laughter.)

STEVE DIERKS: This whole collaboration has been very interesting. The growing industry buy-in is a public recognition for stewardship. We were lucky enough to get the World Wildlife award -- stewardship award,

weren't we, Sarah?

DR. LYNCH: We sure were.

MR. DIERKS: We sure were, which we are very proud of. We were also, within the State of Wisconsin, have received numerous commendations. We've gotten some on the national level and we are making progress that way.

Right here is a public recognition: 1995 Baseline. We reduced high-risk pesticides from 25 percent in '97; 39 percent in '99; and the last data was taken this year and we should look in May for that data to see how we're doing this year.

Increased public and private funding. We've used in the Wisconsin Potato and Vegetable Growers, like the pear growers, has salt check-off. We put approximately $350 to $400,000 each year, mainly at the University of Wisconsin, for research, which is grower-driven.

We pick the projects, we ask them to be submitted and we review them on a yearly basis to see if we're getting what we want.

We've also got funding sources from the other

organizations which before this time we would never be able to touch. So, we have in this program a lot of funding which we could not get in the past.

On-farm technical assistance. This is what the farmer really needs. The 1998 data, the toxicity scores, this is the more toxic -- it's a hard way to put this -- how much bad stuff or toxic unit you put on per farm.

As you can see, there's a big random -- but a pretty good bell curve -- and the mean, first of all, 2,100. And, so, if we go over to the next one, the PPP scores were -- bio-IPM scores on how well growers were doing things with bio-IPMs with different types of pest controls.

In our one, there are moving fields, advanced scouting, set specific areas and things like that. So -- go ahead, Sarah.

DR. LYNCH: If I could just add one thing: What you're looking at on these last two slides is in 1998 we collected data on about half the farms -- potato farmers in Wisconsin -- and were able to actually get their pesticide use to be able to create that distribution of pesticide use on a per-farm basis and calculated their

toxicity units and we had about an average of about 20 -- the average at that time for the industry was about 2,400 toxicity units for potato production, and that gave us our start -- sort of our baseline in order to begin to compare change.

And, then, what you see in this particular graph is, again, based on 1998 data, is the array of preventive practice points; that is, the adoption of biologically based IPM, you know, practices and it was developed through a very iterative process with the growers, with us, with the research community, with the independent crop control agents in order to develop, you know, a way of measuring this on the ground.

And, so, what you see here is that 1998 snapshot of where the potato -- Wisconsin potato industry was, and what the networking with the other growers and the technical assistance allowed growers to do was to figure out where they were on that continuum and, then, get that site-specific information -- timely, site-specific and relevant to their particular farm operation to move from wherever they were on the continuum but to move.

MR. DIERKS: Okay.

UNIDENTIFIED FEMALE: Steve --

MR. DIERKS: Sure.

UNIDENTIFIED FEMALE: -- that this becomes the motivator to the growers' community to adopt those practices, seeing where they fit or what -- how did this moves the process?

MR. DIERKS: Well, first of all, the growers never knew where they fit before. We all had our common practices and used them and this type of data had never been collected before. And then the growers saw them and some were surprised where they were, some weren't surprised where they were. The more the growers are in the know, you'll see later are the ones that have decided they want to move beyond to where they were originally.

But, it was just a data collection and an information product at that time to see where we were, per baseline, and where we could move to.

DR. LYNCH: And what we were able to do with some of the funding that we received was to actually hire a full-time, outreach coordinator. So, this person goes to those growers that volunteer, that are interested in moving along the continuum, and worked with them to see

where they are in their use of toxic chemicals, where they are with respect to the adoption of these practices and helps them develop a farm plan for moving along the continuum and, perhaps most importantly -- or not most -- but gives them a community of growers to share and to learn from. And that's, you know, there's a whole effort to create neighborhood meetings and outreach meetings so that growers can learn why Steve adopted on his farm that particular set of practices and, you know, what were the impacts.

MR. DIERKS: This is what we did for the potato market, which was down in the dumps for about five years. We were looking for a value-added to some extent. There's nothing like financial incentive to change, especially when it's a free market as the potato industry is to supply and demand.

Protected Harvest. Can we talk about protected harvest now for a minute?

DR. LYNCH: Yes.

MR. DIERKS: Protective Harvest is a non-independent, non-profit corporation which oversees the standards and policies and third-party certification and

change of custodies.

As you can see from here, it was developed, it has its own board of directors and it licenses the use of the logos, the UPCs, but it is also looking to expand to other commodities in the United States that are willing to meet the standards set up for each commodity.

Last year, the Protective Harvest program really got going. Twenty-three growers signed up for the effort; 17 going to the Eco-label; 14 went to the whole certification, and there were 4,300 acres passed last year.

Wisconsin grows approximately 80,000 acres of potatoes, but of that half are for processing, which go to cans and fries, and about 20 percent are chips. So, this represented about, oh, 20 percent of the fresh-market potatoes in the State of Wisconsin.

DR. LYNCH: And just to sort of clarify, so that those 14 growers that actually made it through the certification process, they were able to meet that certification process by not using those chemicals that were on the restricted -- that do not use those, so to speak -- and being below the toxicity unit level that we

said that they had to be in order to do that. So, that was 43 -- 4,300 acres. And I hate to tell you how many potatoes that was.

(Laughter.)

DR. LYNCH: A lot -- a lot of potatoes.

MR. DIERKS: These are the toxicity U.S. per acre for the certified fields in 2001. As you remember from that other slide, we were at like 2400 for an average. This year the certified growers averaged 1100.

So, we cut the tox units in half by using -- by them staying within the certification standards that were set for the Protective Harvest.

IPM adoption went from 30 to over 50. So, the growers with these standards they made that commitment to make those changes.

DR. LYNCH: So, I think one of the other points that we wanted to make about this is that, you know -- and it's been made by others -- but you are -- it is incredible, you know, for a novice like me, you know, the difference between crops. Well, you know, I can get that pretty easily. The difference between the same crops between states, okay, that's increasingly easy, but the

difference within a county, within a field, that's what's really incredible, and I think that one of the challenges that you see here in this slide is that these are growers that have been participating -- they all didn't start at the same place on the continuum at all. That was one of the very interesting things is that when we asked, you know, who wanted to volunteer to be part of this and share their data and be willing to, you know, make a commitment to reduce toxic chemical use, it was all across that continuum.

And, so, you see that there is -- even within the committed group -- there's a lot of variation that needs to be addressed on a site-specific and individual farm basis.

MR. DIERKS: And this is the conclusion. This is our healthy, grow 'um big that we're using in Wisconsin. We're very proud of it. We haven't had a whole lot of sales yet, but we're marketing behind the production.

But, since we finally have a high-price potato year, guys don't worry very much. But next year we hope you see it in more stores, especially out in this part of

the country.

Thank you very much.

JEAN-MARI: Thank you, Steve and Sarah. Did you want to say something, Pat, real quick?

PAT: Well, it's prudent (inaudible) the only real economic benefit to the participants for all the work that went into this, they were able to maintain economic liability as growers for their efforts. There wasn't any marginal increase in the amount of money that they made on their crops.

What's the situation with the Wisconsin Potato Growers in this project? What kind of economic benefits have they seen?

MR. DIERKS: The way the marketing is set up, to sell that product, we have to get $1.00 a hundred more than average price in the state, which is to cover the management costs and the cost of handling the potatoes in the line of custody. That's a signed agreement that all the growers made.

So, if the average price is $5, for me to sell those I would have to sell them at $6 to a store. So, we're looking at that as a value-added and there was a

lot of discussion if we could get the product out, get it on the shelves, or get the value-added, and the value-added people won.

DR. LYNCH: It's been a really interesting first year, you know, all the issues that you need to deal with in something like this. It's a work in progress, as is every aspect of the measurement systems and, just, we are also moving on to soil health and water quality, because we don't see pesticides as being the end of the game here. We see these other -- not only being important from a public policy point of view -- but also because they're synergistic. You can't very well get as far along the bio-IPM curve if you're not addressing some of these other aspects which feed into allowing you to have a healthy eco-system.

But, the interesting and great thing that happened this year is that the potato prices were very high. And, so, it helped -- it helped because getting these products out into market is a challenge in themselves and that's perhaps where I'm looking for a great deal of help and thought from the Federal agencies, because I think that there is a responsibility and an

opportunity to encourage innovation and entrepreneurial spirit and a diversified marketplace by allowing products and encouraging product differentiation and creating the opportunity for wholesales, resalers, processors to be able to take advantage of the different products that have value-added attributes that perhaps haven't been seen in the marketplaces as much as consumers would like them to be.

Thank you.

JEAN-MARI: Jay?

MR. VROOM: Just before we -- I know we can come back to this, but I remember that the toxicity unit issue and was a joint venture between WWF and Consumer's Union or was the Consumer's Union toxicity index something that emerged separately -- both of these have been around for awhile, and I just don't remember.

DR. LYNCH: They are related because some of the intellectual capital is the same, but they are different because this -- the toxicity units we use were developed in association with the Wisconsin Potato and Vegetable Growers Association, grower input, University of Wisconsin. So, it's much more tailored to the specific

pesticide products used in Wisconsin, how they're applied, et cetera. So, it's related but now the same.

MR. VROOM: And, so, how was this system scientifically peer reviewed and/or was it?

DR. LYNCH: Actually, it did appear in a peer review journal and I don't read it very often so I can't tell you what it is, but I can get you the citation for it.

MR. VROOM: And were any of the registrants of this product part of that peer review?

DR. LYNCH: I think -- I know they were informally part of it. We sent this, you know, out to a variety of different registrants for various kinds of comment, but I won't say it was a formal process, and -- but I don't remember all the details of how that took place.

JAY VROOM: Have you incorporated any kind of attempt at measuring resistance or are you assuming there is none because this is 1/16th of the Wisconsin potato crop and you're rotating fields and, so, there is no resistance?

SARAH LYNCH: Oh, no, we take resistance

management very, very seriously. And, in fact --

JAY VROOM: So, what's the measure of it?

SARAH LYNCH: What do you mean, what's the measure of it?

JAY VROOM: How much resistance is there delta compared to the other conventional systems?

SARAH LYNCH: Oh, I think we'd have to call in the University of Wisconsin researchers to talk to you about that. So, maybe we can put you in touch with them --

JAY VROOM: Okay.

SARAH LYNCH: -- for those specific questions.

JEAN-MARIE: Thank you. Word has come through that some folks would like to take a break before we take the next two presentations. Is anybody feeling the need to get up and shift around a little bit.

GROUP: Yes.

JEAN-MARIE: What I found out is there's only one person so far signed up for the public comment period, and, so, we won't lose time for our presentations by taking this break at this point, if there is an interest in doing that. Otherwise, we can forge forward.

Looks like people are shifting.

(Laughter.)

JEAN-MARIE: Why don't we take a seven-minute break.

(Whereupon, there was a brief pause in the proceedings.)

JEAN-MARI: Let's talk cranberries. Let's wait until a couple more people sit down, first, though.

-- that are similar in some ways, those who are dealing with the problem, as defined as having both problems gaining control over pests and their pest management system, and at the same time looking at the possibility of regulatory issues that were going to drive decisions in their availability of pest management tools.

Who knows where Cindy Baker is?

UNIDENTIFIED FEMALE: Out there eating a TastyKake.

JEAN-MARI: And Adam Goldberg I haven't seen. Okay. Why don't we go ahead and get started.

Jere, why don't you walk through the issues that you faced in the cranberry industry.

MR. DOWNING: Thank you, Jean-Mari. I'm Jere

Downing, I'm the Executive Director of the Cranberry Institute. The Cranberry Institute represents cranberry growers throughout North America, U.S. and Canada, and I'm going to bring up some more specific kinds of items, I think, than the previous two speakers, and much of what I'm going to talk about -- all that I am going to talk about and more -- frankly, has been submitted to EPA, specifically on the Azinphos-methyl comment period, and we have also -- or we're very close to completing, if we haven't yet completed, a pest management strategic plan, working with Al Jennings' office and Wilford Burke and others, and I'm not sure that's up on the website quite yet, but much of what I'm going to talk about with you today will be included, and more, in that pest management strategic plan.

Transition on several levels. What we're here today, what were your charges in CARAT, was to look at transition around FQPA and related regulatory issues, but I'm going to put that into a context -- I'm using some of Larry's words here -- with other transitions that are going on within the cranberry industry, the most critical one is an economic transition that we're going through.

A quick background on the cranberry commodity. It's a very minor crop, less than 40,000 acres in total, all of which are in North America. Most of the cranberry crop is in the U.S., about 15 percent of the total crop occurs in Canada. There are five major cranberry states in the U.S., and I'll go through them, starting with the top state and then work down.

Wisconsin is now the leading cranberry-growing state; Massachusetts, New Jersey, Oregon and Washington. cranberries are grown in a few other states, but most of the acreage is in those five states.

And, as you see, those are northern-tier states. Cranberries are native to North America, they grow wild in swamps and bogs and marshes, and those are the states that now commercially grow cranberries in prepared beds, we call them.

It's a unique plant, it is related to the blueberry and the rhododendron group of plants, but we have very unique pests, very few of which overlap with other crops.

We have things that we call fireworms; we have fruit worms, which is our version of the worm in the

apple; we have one we call the girdlier; and spag, which is short for sparganolsis. And if you live in New England you know you don't pronounce the "r," so it became spag.

(Laughter.)

UNIDENTIFIED MALE: You just put it at the end.

MR. DOWNING: You had your time, now it's my turn.

(Laughter.)

MR. DOWNING: Entemologists can talk like that to each other.

Most of our insect pests are lepadocterans it is a moth/larva. We have a few beetles, a couple of weevils and a fly pest.

So, we do have a divest range of insect pests and I'm focusing this thought around insect pests and I'll get specific comments as we progress.

IPM -- our commodity and our growers have been working with IPM for many years. We believe that the implementation, adoption rate is somewhere between 75 and 100 percent IPM, depending on the region. And this is a

system that goes through change, as problems arise, as chemicals disappear, et cetera, et cetera. IPM is a changing process and it really is -- I like to think of it as a decision-making process. So, different factors enter into the decision process.

A little bit on regulatory, moving into the issue of pesticides. Since the late '80s, the cranberry commodity has lost over half the registrations that we had in place prior to '88. And this is due to a combination of regulatory actions and economic decisions on the part of registrants, of course. The cranberry commodity is a very small market for registrants and many of these registrations are limited to use within that very small market.

The remaining insecticides that we have in widescale use are OPs, one carbamate, a few natural compounds, some biological compounds and very few new registrations. By that I mean, reduced-risk products.

The list is so short, I'll read it to you: In addition to Azinphos-methyl, we have Diazinon, Ethion or Acephate, Ethion or Fosmet (phonetic) -- those are our OPs -- and we have seven carbamates, and from there we

move to products -- and this is a new one -- confirm or Tebufenocide, which was registered about three years ago in cranberries; spinosid was just registered within the last month or so, so that's brand new for us; and then we turn to a number of BT products that are registered on cranberries: Chrysolite, which is a mineral formulation used very specifically for soil-inhabiting weevils; Pirimiphos, a pimaside used only in Massachusetts; Pyrethrum, the natural Pyrethrum -- we have no synthetic Pyrethroids; Parasitic Nematodes -- we were the first commodity to use a commercially available form of the insect-feeding Parasitic soil Nematodes, and we have two mating-disrupting Pheremones, which, again, were registered within the last couple of years.

Just a quick comment or two on some risk factors. In terms of food residues, dietary risk is extremely low on cranberries, less than 5 percent of the crop goes to fresh market fruit, the fruit you see in the stores in the fall; over 95 percent of the crop goes to processing, which is juices, sauces, those kinds of products.

And, by the way, of that 5 percent that goes to

fresh markets -- I'm kind of taking off on Steve's comment about spinach -- you know, an enormous amount of cranberries every year are used -- not consumed -- but put on strings and hung on Christmas trees, so --

(Laughter.)

MR. DOWNING: I think that should be taken into consideration.

UNIDENTIFIED MALE: Something those cans of spinach could have been used for.

(Laughter.)

UNIDENTIFIED MALE: Red and green labels.

MR. DOWNING: In terms of worker risks, cranberry is a crop that has very few in-field activities. I know a few of you have seen cranberries because I probably took you out and showed them to you myself. They go with a cover crop in a prepared bed. It's a continuous mass of vines, there are no rows, so working in the field from July on until harvest, which is in the fall, you would actually be walking on top of the crop. The berries grow throughout the mat of vines and for that reason, among others, there are not workers in the fields very much at all. The crop is entirely

machine harvested, both for fresh and processed use.

Now, let me turn a little bit -- or turn now to a few comments, and specifically about the phase out that's being proposed for Azinphos-methyl, or I'll refer to it as AZM, and this is another level of transition for our industry and some of the collision courses that are shaping up here.

In the cranberry commodity, the crop price -- the price paid to the grower -- has, unfortunately, plummeted over the last three or four years. Growers were making $65 to $70 per hundred weight; we measure cranberries by the barrel -- there is no cranberry barrel, it doesn't exist anymore -- but it's a hundred weight and we call it a barrel.

That price has dropped to about $10 to $11 per hundred weight. So, that's a significant drop --

UNIDENTIFIED FEMALE: From $65 to $11?

MR. DOWNING: Yes. The cost of production ranges $25 to $35 per hundred weight. So, for the last three, now going on four years, cranberry growers have been way below the cost of production.

That's complicated even further by the fact that

this past year a volume regulation, which the industry asked for, a USDA volume regulation allowing growers to only harvest and deliver 65 percent of their historical crop.

So, in effect, that $10 per barrel return is more like $6 or $7 when you factor in the volume regulation. So, that's the economic backdrop that I want to bring to your attention.

In 1997, I think it was -- and we are one of the early members -- not a charter member -- but an early member of the Pesticide Environmental Stewardship Program, PESP, and I think it was around 1997 a grant was approved and a survey was conducted of how cranberry growers make pest management decisions.

And at that time -- and this is before the price drop -- cost was not a key factor. In fact, cost of a pest control product was really the last factor considered. Today, unfortunately, it is the first factor.

AZM use had been declining in the cranberry industry, but it's now actually rebounding in some growing areas because it is an efficacious and

inexpensive product and I'll give you a couple of examples.

In Massachusetts, though, however, I'll point out we have seen resistance occur with AZM and use has dropped off dramatically in that area, but it was where the cranberry fruit worm is an emerging problem, it's an increasing problem. Guthion is really one of the best products available and that's part of our comments that have been submitted on this.

Also, in Wisconsin, this one worm fly pest that I mentioned, the cranberry tip worm, is an increasing problem and guthion is effective against that pest as well.

An interesting point that we wanted to bring to your attention, and this is mentioned in the comments, and it has to do with the export market for cranberries, part of the reason for the drop of price in cranberries is there is an oversupply situation.

And the industry feels strongly that one way to improve the demand for cranberries and sell more is, frankly, in European markets -- overseas markets -- not just Europe -- Japan.

And AZM has a codex MRL for cranberry which makes it an acceptable -- makes the residue acceptable in foreign markets. And some of our alternatives, for example chlorpyrifos, for AZM has no international MRL, so there's no codex MRLs and no country-specific MRLs.

So, while EPA has identified AZM as an alternative, the cranberry actually identifies beds that are grown specifically for the export market and certain products are not used on those beds, and that becomes the export pool of fruit.

This is done not only by Ocean Spray but Northland, one of the other branded major bottlers of cranberry products and sellers of cranberries as an ingredient.

So, this is an issue that it's the cranberry industry trying to or doing their best to follow the rules for foreign trade, a point that somebody else mentioned in terms of trade.

So, that's a point that I'm not sure was even on the radar screen in terms of alternatives for that particular product.

I mentioned we have two products for mating

disruption that were registered in the last couple of years, and like many of your commodities, we have, working with the land grant colleges, universities, experiment stations, extension services and industry professionals, we have grower training sessions each year. And for the last several years we've been talking about two growers, how to use mating-disrupting pheromone products in anticipation of their registration.

But I will tell you that since they've been registered and the dramatic drop in price, these products are not being used in cranberries. They're just not being used. Growers do not see -- Mike mentioned it earlier -- they don't kill insects, it's a slow process where their mating cycle is disrupted and the populations eventually drop, but growers in this economic climate aren't willing to use those products at this time.

In terms of transition and new products coming along, with dependance almost entirely on the IR-4 program and my good friend, Bob Holm, will follow me to talk about that, but the IR-4 program is there to help minor crops obtain registrations and we have a number of products coming through, insecticides coming through the

pipeline, that are either in IR-4 test status at this point or maybe have recently arrived at EPA for a decision.

But, again, back to the AZM four-year phase-out time table, we're concerned that there's not time enough, yet, to see new registrations accomplished and conduct demonstration plots for growers to get them to buy in and accept these new products, that they develop confidence in them, and that these products work against a pest such as the fruit worm problem that's emerging in Wisconsin.

We have a -- some of OP replacements for products as in AZM, but we believe that the time frame at this point is too short to allow this transition to play out in a non-disruptive way.

So, those are my comments for you this afternoon. Thanks for the opportunity.

JEAN-MARI: Jere, let me just ask you one question. You said the other two new kinds of chemistry that were registered were spinosid and what was the other one -- Tebuphenozide?

MR. DOWNING: Tebuphenozide has been -- oh, and I meant to point out that Tebuphenozide, registered about

three years ago, has been accepted and has replaced some OP use, which is what we had hoped would happen. So, that product has found a niche in our IPM programs, but it will not control, for example, the fruit worm problem in Wisconsin. So, while we see it being adopted and its use increasing on some levels, there are still certain problems that that product won't control and we're waiting for some new registrations and hope that they will.

JEAN-MARI: Let me just underscore one other point that you made earlier though. Neither of those two products have MRLs internationally, either.

MR. DOWNING: That's correct.

JEAN-MARI: And if you take an experience on what we went through on Ambrinectrun (phonetic), which was one of the ones I got registered working with Pat Little -- I don't know, 1985? -- we finally got an international MRL on that last year.

So, don't hold your breath on the kodak side. Thanks very much.

And we will come back and highlight the issues that were raised here and allow for questions, but why

don't we bring Bob Holm up, unless there are other pressing points people want to ask Jere about?

(No response).

JEAN-MARI: Okay, Bob?

MR. HOLM: Thank you, Jean-Mari. I am Bob Holm, the Executive Director of the IR-4 Program, and I appreciate the opportunity to be with you. I put on your tables after lunch a brochure about our program. It covers a lot of the things I'll be talking about this afternoon and my good friend, Walter Burr, back there is handing some out to the audience.

When I tell people I work with the IR-4 program, most of the time they give me a blank look and then I say well, I work for a secret government agency, and then that kind of gets their attention.

(Laughter.)

MR. HOLM: I think we're probably one of the best kept secrets in the Federal Government in that as the EPA will tell you about 50 percent of all the food crop -- food tolerances and clearances that have been received and granted the last two years have been on behalf of the IR-4 program. So, maybe that'll get your

attention and hopefully by the end of the brief presentation we'll tell you a little bit more about the program.

This is our symbol, we have a website, I'd encourage you to look at our website, which has the welcome information on it, including all our programs and projects and the status and where submissions are.

It's interesting that I didn't design this symbol, but the face of it is the agri-chemical industry and without the crop protection industry, the chemical and biological materials, we wouldn't have products to work with, and we only work with products that the industry is willing to work with us on.

And you've got to say, well, why should IR-4 do the work that industry should be doing itself? The fact is that, I think, Jere said it very well: Most minor crops are low-acreage crops and there's a lack of economic incentive for industry to develop pest control tools.

Right now, I think, it costs upwards of a quarter of a million dollars to get all the work done to get food use clearance on a minor crop, and with small

acreages that just doesn't cut the mustard.

So, that's where the Federal Government steps in and helps out. We work with the state agriculture experiment stations, the systems are two funding partners up there and partners as far as leadership and program implementation, agricultural research service and CSR EES, and, of course, the EPA regulatory partner and I'll talk about all of those.

So, Pat, if you can do the next slide. Our mission statement is to provide pest management solutions. I don't particularly like the word pesticides because I think it's a misused and misunderstood term for the general public. We talk about pest management or crop protection solutions because we work with both chemicals and biological materials, and I think to me it's a better term, and obviously we work with minor crops and basically minor crops are fruits and vegetables in very general terms, and we feel we not only growers and consumers, food processors, like Steve, everybody benefits.

The next slide just gives you -- we'll keep Pat going here because I talk fast and we've got a short

time. I'd like to just give you a little background. We've been in existence since 1963, so we've been around a long time, but part of our focus recently we revised a strategic plan every five years and in '95 we said -- you'll probably remember before FQPA there was something called Fifra 88 (phonetic), and that was really a product defense situation and we were in product defense in the late 80s and early 90s because a lot of minor crops were being dropped off the labels because of re-registration requirements.

But we felt in the mid-90s it was time to focus our efforts and we saw a lot of new products in the pipeline, a lot of the reduced-risk chemistries involved pesticides, so that when the Food Quality Protection Act came along in 1996, we were really ready to switch gears.

And, as you'll see in one of my ending slides, the last three years, 80 percent of the projects we've been working on are classified as reduced-risk chemistries and we've been working a lot with bio-pesticides.

So, it's not like we're not -- we're saying discouraging words about the older products, we just

don't feel that public funds are best spent in defending those older products. Companies are doing that and we're looking ahead, basically, what you're all here for this afternoon is transition.

So, our strategic plan that was revised, again, a couple years ago and again focusing on accelerating reduced-risk chemistries and speeding the registration process and forming regulatory partnerships, and I'll discuss that in a little better detail.

We kind of look at the United States in terms of what states are minor crop states and it may surprise you to know that 23 states out of the total of 50 have over 50 percent of their total crop value in minor crops. And traditionally your industry folks talk about the horseshoe and that's the coast and across the bottom, but certainly the west coast, as a percentage of the total, is tremendous. The $40 plus billion or 40 percent of the total crop value in the United States are minor crops, about $21 billion is on the west coast; the southern region has about $11 billion; the north central about $4 billion; and the northeast region $3 billion.

I'm from the State of New Jersey, as John is,

and 12 of the 13 states in the northeast are minor crop states. We're a minor crop region; 90 percent of the farm crop value in the State of New Jersey is minor crops.

So, I mean, and you can say, well, it's only $600 million in value and compared to other states that isn't very much, but believe me I report to the Dean of Cook College, Rutgers University, and it's very important in our state that minor crops has the ripple value through the economy.

Now, the overlay where we're located as far as programs and people are a little surprised to know how extensive we are if you overlay this map with the other one you'll see, we, obviously, coincide very strongly with where minor crops are grown.

Oh, there you go -- map size is about the same. Maybe just take that one off, Pat, because just to show headquarters are in New Jersey, associated with Rutgers University. We have four regional locations. Our north central region is Michigan State University in East Lansing; northeast region is Cornell University in Geneva; southern region is University of Florida,

Gainesville; and out on the west coast the University of California, Davis.

Each of those regions has a director, a staff, a regional lab, field, and quality assurance coordinators, about eight to 10 analysts, we have 25 field research centers around the country that conduct all our work is done under good laboratory practices. We have standard operating procedures we follow. We have some satellite labs, the AOS component is noted here at Beltsville, Tifton and Wattsville, Washington, for labs.

So, it's really quite a concerned, cooperative effort between the Federal Government, the land-grant university system. We have about 150 people that are employed full time in this program alone and a lot of part time folks at the state level, because each state has a IR-4 representative as a liaison.

The next slide will show you some of our partnerships, certainly the USDA, I mentioned ARS and CSRAS and Al's group, Office of Pest Management Policy. This is where a major part of our funding comes from. I mentioned the ARS component, they provide field research centers and residue labs. And just to mention that we've

integrated with Al's group the pest management strategic plans and Wilford Burr back here's been a leader in doing that. We integrated in with that program last year and basically said if a commodity group went through the process of developing the pest management strategic plan that we would give them 1-A priority or one of our projects for the following year to work on as far as getting a high priority, reduced-risk chemistry registered for that particular crop.

So, we appreciate the opportunity to work with Wilford and Al's group and that's a good way of partnering within the USDA to get that done.

Another partnership that is very important is the land grant university system. Without all the support that we get at the state level, this would not happen. I mentioned the regional lab, the 20 field research centers. Basically, for every Federal dollar that goes into this program we estimate that there's probably one to two state dollars that are matching funds or in-kind contributions but not direct dollar support.

So, we pay for personnel at the locations, lab, field equipment, buy supplies and so on, but the states

are very gracious to provide us the laboratory space, the infrastructure support. So, again, it's a true partnership between the Federal Government and the land grant system.

We have state liaison's, management research and so on. I don't have time to go into them all. Just a quick overview of how we operate. The last two days we've had what we call our project management committee meets, we had that two days here. We have a very interesting board of directors. We have each of the four regional directors, our funding partners from the USDA, our commodity liaison group, which we have several members here that won representatives, so we have a stakeholder group that meets with us and reviews our programs. Each of the regions has an administrative advisor and we have a representative. Eldon used to be our administrative advisor for the north central region, and we really appreciate that support.

So, this group, basically, provides policy, direction, helps divide up the budget, but the every-day operations are up to myself at headquarters and coordinating with the regions.

The next slide will give you a little indication of some of our regulatory partnerships, and this is the one that I think we're most proud of the last three years. Three years ago Jim Jones and I sat down at our annual meeting and said, how can we work together more closely, and the bottom line -- I could talk to you about this for half an hour -- but we formed what we call the Technical Working Group, we meet quarterly, we've had 13 meetings so far, we've got our 14th scheduled next month, and without the support of Jim, Marsha, Margaret and the EPA management, this would never click.

We meet for a whole day, we discuss how more effectively can our four petitions be reviewed within the Agency. We have a morning session that's a technical session, in the afternoon, now, we teleconference in Paul's group from California, the Department of Pesticide Regulation, and we even have the PMRA group Canada teleconference us in. So, it's truly an (inaudible)group.

So, we do things like develop three-year work plans so the Agency knows what we're dealing with, coming down the pike; we have annual work plans that we're now

looking at putting petitions on the 2003 work plan, how we can schedule those in to best fit the EPA's resources.

The super crop grouping are reduced data sets alone. We work with the Agency on reducing the data requirements that were necessary to register two reduced risk compounds; we documented $1 million in savings of what it would have cost to have the full requirements of the laboratory and field cost; and the end result is in 19 -- or in 2000, the EPA registered 162 spinosid uses and last year 165 Oxystroben uses. These are two exciting new reduced-risk chemistries.

This last year, we had over 500 clearances; the year before over 500; in the last three years alone we've had more clearances granted on behalf of the EPA than we did in the previous 12 years pre-FQPA.

So, I think when -- did anybody -- I give these talks to a lot of groups and people criticize the Agency in front of me and I say I'm one of the strongest partners because I truly believe that the Agency is really working and dedicated to FQPA transition and they are a strong partner with us, and I just wanted to publicly say that because there are some people here that

really need to hear that.

Last year and this year alone, we're about 50 percent of petitions. If you look on the EPA work plan, you'll see who the sponsor was and IR-4 is listed very prominently on about half of those.

The next one, just to give you a brief update in some other areas, this is still external partnership. I wanted to recognize Paul in the Department of Pesticide Regulation for California.

Last year or two years ago we had a pile of projects with one petition for joint review. I think you all realize that you can get the Federal approval but the State of California then has their own approval process, and Jim and I and Paul said, why can't one scientific group review the petitions and then have both of them agree on it, and it makes a lot of sense, and last year alone Paul's group and this year 30 petitions, and if you realize that's 10 percent of the EPA workload and 20 percent of the IR-4 petitions, that's a tremendous accomplishment, a tremendous sharing of resources, and I wanted to thank Paul and his group for that.

We're doing the same thing with Wendy's PMRA

group in Canada. We're starting with one joint review petition, which should be out soon, on Phenhiximan (phonetic).

And we've done some -- Canada has been participating in our program since 1996 and has jointly conducted over 70 field trials in our program. And we've done some liaison work, I don't have time to talk about, but the Agency has been very open in allowing our staff members to come in and be a part of the sabbatical.

The crop protection industry, Jay will tell you is a changing picture. In the last six years alone, nine companies have disappeared from the face of the earth, and it's a tremendous challenge for us to keep up with who's on first base, who's in the management structure, who we deal with in the companies, and keep them focused on IR-4.

The thing that really made us both credible in working with the crop protection industry is we have adapted a 30-month completion schedule and you may say, why does it take so long, but basically that's a short period of time from the time we start a program until we submit a petition to EPA, we say we're going to do it in

30 months or less. And that is, I think Jay would agree, is an industry standard. One year for field trials, one year for the analytical work and then the summary written and submitted.

And we feel that by doing this we're more credible with our industry partners, with our commodity groups that need the compounds as quickly as possible, and certainly with the EPA on trying to get FQPA transition moving.

We go into companies and say, as soon as you make a determination on commercializing that new crop protection tool for corn, soybeans or cotton, please consider minor crops and talk to us about the opportunities. Janis is sitting there shaking her head because Syngenta has been one of those companies that has partnered with us on that and that's a great thing for us to do.

We've worked on submitting some of the company-generated data if it's appropriate. I won't have time -- we only have a couple of our technology projects. I will want to talk about -- a little bit later -- about the bio-pesticide funding. We've had a bio-pesticide program

for a number of years, and you may or may not be aware there's a trade association, the Bio-Pesticide Industry Alliance, that's much like CropLife America, that's promoting that industry.

Next slide will give you a little indication of what we feel are the future challenges. And I don't know whether Jay will agree with me or not, I've had some discussion with my industry partners, but I have a concern that the pipeline isn't going to dry up but it may be slowing a bit.

What I did was -- this is taking EPA data over five-year periods and looking at the number of products registered and I am not a statistician but I know that you tell me that one data point does not make a trend, but if you look at the number of products per five-year period, 25, 29, 44 -- last year, in 2000, 19. We're seeing, because of the consolidations, the hurdle points for new product discovery and commercialization are getting much higher.

When two companies get together, they look at the product range and decide which ones to drop off the table, and I'm very concerned that we're going to see

fewer and fewer products that are entering into the marketplace, which means that those that we do have we need to conserve, we need to manage as far as resistance management and we need to learn how to use very smartly. So, we'll see if my prognosis is true here or not, but I'm very concerned that the trend may be starting.

In the area of bio-pesticides, I just want to mention that we've had a program now for 20 years for a lot of time, and you may or may not know this industry, it's very small, it's very fragmented. We track about 52 companies. Two companies make up half of the global bio-pesticide business. So, there are a lot of very small companies with very few people and they may raise a little venture capital money, go out and license the technology, do the pure one tox testing, do some field work and now, boy, they're ready to market a product.

They don't have any regulatory expertise, and we provide that in working with the Bio-pesticide & Pollution Prevention Division, Janet Anderson's group, in helping these companies get bio-pesticide registration.

But, in the last five years or six years, we've

funded over $2 million in competitive grants at about $300,000 a year to help companies with products, but we're funding it through the land grant system and researchers to evaluate these products and production systems so that growers would be more adept to using them.

In the next one we'll just indicate to you that the last year or so where we've done a couple of things in partnering with BPPD, we had a bio-pesticide workshop in 2000, and last year, here in November in D.C., we had a bio-pesticide registration workshop. We had almost 200 people in attendance and found out it was jointly sponsored with PRMC -- California DPR -- and ourselves and BPPD.

There's a lot of interest in registration of bio-pesticides, but I think there are a lot of challenges in getting those products not only registered but used in production agriculture, and we're very committed to try to make that happen.

Next one -- I think this is the one on the ornamental industry. I want to just make you aware that we all get involved in thinking about food-use clearances

and the majority of our work, because it's done under good laboratory practices, focuses on the food use area, but the ornamental industry is huge. I was kind of thinking around the table this morning that there doesn't seem to be anybody here that's really completely representing the ornamental industry. That industry -- of the total crop industry -- is 12 percent of the industry and about over 25 percent of the total minor crop industry.

So -- but they have their own challenges, too. Their products need to be registered and we basically do the work on that program and, Pat, if you'll give the next slide, we have workshops annually, we've got one coming up in April in Houston, just as we do in the food-use area, where we get panels together of about 100 or 150 people in different disciplines to prioritize what the needs are for ornamental industries and focus on their needs. So, I just want to mention, don't forget the ornamental folks. They're an important part of the equation.

Kind of to wrap up here, because I think I've probably used more than my time, one of our measures of

success since FQPA I want you to focus on this column here of the percentage of the products that we've been working on that are a reduced risk and you see we start out in '96 with 13 percent. In the last three years, we've been up about 80 percent.

And, then, look at the next column, particularly the food-use registrations and we've, like everybody else, had a downturn after the implementation of FQPA in '97 and '98 but, as I mentioned, the last three years we have registered more materials working with the EPA than in the previous 12 years. So, I think that's quite an accomplishment and we're quite proud of it.

And, then, the final column is the ornamental registrations that we've received.

And, I think, we have one more -- do we have or two more, Pat?

One way we've been trying to measure our success or put a value on it is looking at the Section 18s that have been granted using IR-4 data. And, as you may know, that states have to -- if they -- most of the time if they submit a Section 18 they have to put an economic loss justification in there.

If those Section 18s are supported by residue data that IR-4 provides, then we try to capture the value of that, and we just Monday found out what the value was for 2001, so I don't have that on there, but over the four-year period we've captured about $3.4 billion in economic loss that would have been obtained if these products wouldn't have been registered and available for minor crop growers. So, I think that's basically another metric of how we measure the impact of our program.

So, just to kind of finally wrap up, since we've been in existence, we've been able to obtain over 6,000 food-use clearances, 9,100 ornamental ones, and 225 bio-pesticide. And, then, we basically wrapped up FIFRA 88 in 1995, but we got about 700 clearances in defending those products.

So, I think that's it. I appreciate the opportunity to tell you about the program and hopefully we won't be a secret anymore, but it's nice to know that -- I hope you know that the IR-4 program is here, we're working in partnership with the crop protection industry, land grant university system, USDA and the EPA, and

California Department of Pesticide Regulations to bring crop protection tools available.

Now, if -- I think what I hear around the table and I certainly agree it's -- Steve Balling, who used to be on our liaison committee, always issued a challenge to us all the time which was “fill the tool box” and we're working very hard to do it.

But I think that's just one part of the challenge as I see it, because then you have to have the opportunity for growers to use the products. And, as it has been mentioned, without EUPs, recently, there hasn't been a lot of use.

As Jere mentioned, the new label comes in and then growers have to learn how to use it. And that takes time, particularly on perennial crops, and if I would have one plea, I would have for the CARAT committee to seriously consider adequate transition time so that, particularly on perennial crops, because these new products are very site-specific, the older products, as we realize, killed about everything out there, including beneficials, the new ones are very target-specific on certain insects, they allow beneficial populations to

develop, but to develop new management systems and you've got an expert over there from Michigan that spent his life developing it, so I don't need to preach to you, he can tell you, but Mark has done a remarkable amount of work in that area, but it takes time to develop new systems, and four to five years is not out of the question to develop a whole new biological system, and that's what we're looking at.

Thank you.

JEAN-MARI: I guess the question is how do you clone what Bob has done with that program on the outreach and extension side as well. I mean, that is -- I think it's really a testament to the kind of turnaround we've seen in IR-4 and the responsiveness from both the registrants from the growers to some consumer communities to try to move through more products through the pipeline.

They've been tremendously successful at doing it and it's interesting to note that they've also been working through the NAFTA (phonetic) process and bringing in PRMA to get not just EPA approval and DPR approval but also the approval of our neighbors up north. The

question is, how could we also look at using that process to help us accelerate the time it takes to get a process -- a product through the Kodak MRI System. That is such an interesting question.

Comments, questions from people. We're going to have an opportunity tomorrow -- we have an hour on the agenda tomorrow to talk a little bit about what we've heard and what we think this means in terms of agenda.

Shelly?

SHELLY: I just have a quick clarifying question on the CARES. I was wondering if you could say what kind of reduction you've had in OP use in your Randall Island Project?

JEAN-MARI: Pat, I think, had those numbers. Do you have them?

PAT: I don't have those numbers. I do know for the Yakima Pear Project we identified phosphates at about 65 percent.

JEAN-MARI: Pat, do you want to go through your numbers again?

PAT: (Inaudible).

JEAN-MARI: You probably need a mike.

UNIDENTIFIED MALE: Pat, do you want to go to that standing mike?

PAT: Thank you. The numbers I threw out earlier were -- and this was actually 1973 to 1998 evaluations -- 75 percent reduction per acre in the number of active ingredient pesticides used; 90 percent reduction per acre in the number of higher-risk insecticide active ingredients; 95 percent reduction per acre in units of higher-risk insecticides; 75 percent reduction in coddling moth populations -- well, that's getting into other things, so those were the percentages in terms of pesticides.

SHELLY: And could I just follow?

JEAN-MARI: Sure, go ahead.

SHELLY: What did you see as the biggest barriers towards eliminating OPs altogether?

PAT: Well, I --

SHELLY: What were you working on? What's the next step, in other words, that you see?

PAT: Well, those barriers have changed over time. Typically, the inability to access new technologies in a systematic and low-risk way was one of

the big things. We were oftentimes -- well, for years we were forced to use AZM because we had no alternatives to control the pests that, even though Mother Nature controls it 90 percent, the 10 percent still does 40 percent damage.

So, biological controls were working well, but natural controls were working well for that pest, so we always need to make inputs to control in addition to what natural controls occur.

And the only thing that really worked for many years were the OPs, even though there were in many other countries registrations of newer reduced-risk pesticides, we were very slow to capture those registrations in this country, and, so, we continued to rely on the OPs.

And, finally, resistance pushed a big move into mating disruption products and when we -- when mating -- in order to supplement mating disruption, because it doesn't do a complete job, it's not a stand-alone technology, we still had to, and continue to have to use, OPs to supplement, because we've got so few registrations of other materials to control coddling moths that could replace our or further reduce our reliance on OPs.

And if I might add, Shelly, it's also economics. When we're -- after the first three years of that project, we calculated that the guthion program would cost around $60 an acre and the mating disruption program costs about $260 an acre. And, so, when we ended that program, and we were providing subsidized applications to growers, they shifted back to a one-application program as opposed to a two-application program. And we were able to cut those costs in half and use a single guthion operation.

Most of the transitions from a chemically based approach to more biologically based approach are more expensive, at least during the transition period. And what we've seen is you go through that expense period, hopefully intact, and you emerge on the other side with a program that's somewhat comparable economically to the program that you replaced.

But, it's kind of a -- it makes for a tough pill for the growers to swallow because typically they do end up with more out-of-pocket costs.

JEAN-MARI: If Jere could reach over here, he'd be kicking me under the table right now. I think --

right, Jere? He gave me that time kind of a look.

MR. EHRMANN: We still one comment or so -- you've got a few more minutes if you want to take a couple comments.

JEAN-MARI: What I'd like to do is recognize Robin and then Margaret and Cliff. So, if we can try to get through the three of you. And, once again, recognizing that we will have time again tomorrow to also talk.

ROBIN: I have several comments to make and I think tomorrow we can get into a really good discussion about this, but I was glad to hear the comments that Steve just made about the economics, because we're still skirting about this -- about this issue.

I'm from Massachusetts, and we are very green, a very environmentally oriented state, we've a very affluent state. And we have had multiple programs such as the ones that have been described here. I've been a part of them. Through the University of Massachusetts, we've had five separate Partners with Nature Programs, I've worked with Mothers and Others, consumers groups, trying to get value-added prices to these transitional

programs, and until we can do that, until we can get more money for these crops that we're growing under these softer programs -- I mean, I fully support them, but it just hasn't worked in 20 years of trying to do this.

I mean, a classic example in our state is we've reduced OPs 66 percent in 20 years and we have -- many of our creditors are OP-resistant, we have essentially no detectable residues in our IPM program, so far, and I would have to say we are probably OP-dependent, though, for our major pests, but our costs per acre for season-long control are about $36, and we just can't get around that. And, I mean, until we can get more money for these crops that are grown in other methods, these programs fail.

I mean, I've seen it six times in the last 10 years. And, you know, the survey consumers they all say they'll pay more, they'll definitely pay more for a good green product and they don't even mind a little bit of damage, you know, as long as it's ecologically sound. This just doesn't hold up in the marketplace. I mean, there's a few people that have enough disposable income that they will spend more for these products, but, in

general, it doesn't happen. And what happens is we start these programs, they look really good, the growers want to participate, they look at the cost after a couple of years, they're not getting anymore for their produce, and the programs die.

So, I mean, I'm sort of playing devil's advocate, but I'm just presenting you, you know, in my experience as an IPM Practice Center, you know, I don't sell products, maybe work at the University, and we have just run up against a brick wall time and time again. And the projects sound great, but nobody really wants to talk about the economics. I mean, $200 an acre for insect control in a soft program? It's just not going to happen.

So, I mean, I have a lot of comments and I'll cut it off there to give my colleagues a chance, but, I mean, until we address these issues, transition is going to be pretty tough.

JEAN-MARI: Robin maybe raised a good segue to call on Margaret, speaking of marketing those products.

MARGARET: Well, I was going to say -- I actually was going to say something else, but I do need

to respond to that quickly, because I know we have a time element here, but I think in those programs marketing was a problem and when I say marketing is they had some nice brochures and that type of thing, but in those particular programs and I know a couple of them pretty darn well, there wasn't a real connection with the retailers and how to get products in the market, in knowing how a grocery chain works and that kind of a thing.

You can have an environmental group and you can have growers, but you need the other partnership to actually know how you can actually get it into the market and have it sell.

So, I think, you know, marketing is a really, really big concern and having people really know how to market rather than just good intentions.

ROBIN: I totally agree, that was totally a major weak point in those processes.

MARGARET: Yeah.

ROBIN: But, also, the economics of coming down to the bottom line and how we moved past that is very difficult. But, we're working with Mothers and Others again and now we're actually working with them as a

marketing partner. So, hopefully, we'll be able to be more aggressive and have a more comprehensive view and see how we do. But, you know, the cost of the pest control just seems to be getting us again and again and again, and with growers are not making profits now, how can I, as a consultant, ask them to spend even more for a good feeling about their products. You know, they want money to stay in business. You know, it's really a difficult situation.

MARGARET: Well, I wanted to ask PAIRS again, kind of related to that and maybe you said this already, but is that program still going on or was that just a three-year --

PAT: The Randall Island Program?

MARGARET: Yes.

PAT: Yes, in fact, it has expanded. Many of the other growers in the north coast area liked what they saw and have expanded it. So, we have far more acreage than we did at the end of the Randall Island Program.

MARGARET: And, then, connected to that, is there any marketing of that to the consumers or -- and, so, why are they continuing to do this, then, because

they feel it --

PAT: There are a multitude of reasons. There, again, the resistance issue, many of the growers work in areas in which there are a lot of tourists and people biking through the area, and they're concerned about spraying organophosphates over the bikers, so they've been looking for safer programs.

There are a lot of different pressures for different growers.

JEAN-MARI: I'd just like to point out that spraying organophosphates over bikers was never part of the CARAT program.

(Laughter.)

JEAN-MARI: Let me just hold this down. Cliff? Cliff, your turn.

CLIFF: I know it's like -- and I actually have a lot of things to say. Maybe I'll be able to say most tomorrow, but the economic thing is really difficult and it's interesting working with the industry I work with. We've done economic studies where the cost of production is anywhere from $400 an acre to $1,200 an acre, and it's like, my, God, and that's what we try to do is share each

other's economic information because I know there are places people can trim.

I don't really want to talk about economics, but there are definitely cases where I see growers using economics as a crutch, and partly because it's like -- we deal with things like soil compaction -- how much is soil compaction worth? It's hard to put a dollar figure on it, so the economics gets very complicated.

But what I want to really comment on now, especially working with the industry right now that isn't about to some major pesticides, other things become clear and I've said this before and I'll say it again, in terms of transition if all we talk about is product replacement, we're going to be talking about this 30 years from now, because one of my comments was we could have been having this conversation 25 years ago.

We want to have different people using less pesticides, so in terms of transition I think we've got to get past this product replacement.

And it becomes clear when you're dealing with growers that aren't about to lose something major and it can be a very frustrating experience.

And, then, the other thing for us it becomes clear on (inaudible) pesticides is just a tiny part of the battles you have to fight.

We've got the Clean Air Act, we've got the Clean Water Act, we've got habitat issues, we've got labor issues. So, again, with transition, one of the things that I maybe fear for is an example of what a grower group can do we developed a self-assessment which deals with everything on the farm.

And, so, if you talk with a grower, they look at the whole farm, and I think in terms of transition we need to address everything. We have to have some kind of a tool, like a self-assessment, that growers can just approach their farming as a system, because these other issues are huge.

So, for wine grapes, it's things like habitat, it's like, okay, you've got salamanders, so, therefore, you can't do anything within a three-mile radius of this little pool, for example. That's a big issue.

Labor issues, prices, fair wages -- I think we have to deal with all of that.

So, again, I'm just sort of lobbying. When

people talk about transition, try to look at the whole package and I think the growers are going to be willing, if you craft it in such a way, like our workbook, they really are pretty excited about what we have, and I think I'll leave it for that -- hopefully, I'll have time to talk about it a little bit more tomorrow, because what's exciting about our workbook, just so people know, it's going statewide now. The California Association of Wine Grape Growers is developing a self-assessment workbook for the entire state, and it's going to deal with all of these issues. So, it's very exciting right now.

JEAN-MARI: Please know I hate to cut off the discussion on that, because I know there's a lot of interest in walking through this. We will have an opportunity to do it tomorrow.

I just want to touch on a couple of interesting points I think that people made.

I thought one of the interesting points was one of the last ones made, which was we often have the wrong people playing the wrong role. Just as a grower doesn't necessarily want somebody to tell him how to farm, I think there's a really interesting point that we need to

marry together marketing interests if we want to use marketing incentives as a part of this program with the producers, and I think that's a real interesting element that we haven't necessarily worked our way through.

I thought another really important point that Larry made early on was that we need to systematically evaluate where we have the best opportunity to innovate.

And following -- that kind of followed into a point that, I think, Pat made about talking about having a diverse commercial infrastructure with the capacity to innovate.

You know, we have a model of this public sector outreach that maybe we need to also be taking a look at how else to motivate the private sector where that commercial decision is made with material you're going to use.

Let me just leave that with you as thought for tonight and, once again, charge you all with going home tonight, having a couple of drinks with each other around the room -- or not -- or perhaps asking Cliff to press us to use some of his commodities -- but to think about what the mission needs to be here. What's our agenda and

what's the mission that we need to walk through and what are the respective roles of USDA and EPA?

And with that, I'll shut up and turn it back over the John.

MR. EHRMANN: Jay, can your comment wait until tomorrow? I don't know what you want to say.

JAY: Is Bob still going to be here tomorrow?

BOB: Yes.

JAY: Okay.

MR. EHRMANN: Let me just quickly go over the agenda for tomorrow and then ask our one public commenter to make his comment.

We'll start at 9:00, we're in the same room, same place, same room, 9:00. We'll start, as Jean-Mari just said, with an hour-long discussion on the transition issues. Then we're going to make -- and come, by the end of that discussion, to a sense of the group as to how to proceed and go back to some of the issues we talked about earlier in terms of the work group structure, and if we can't conclude that in the 9:00 to 10:00 spot, we'll come back to it when we talk about the future role of CARAT in planning the next step, but we'll be clearly talking

about the action plan, as she said, and the role of CARAT in that process.

Then we've had a request to make one modification to the agenda and that is that we're going to move -- and we've cleared this with our presenters -- we're going to move Dr. Wang's presentation on National Report Card up to the 10:00 time frame, so that will take place between 10:00 and 10:30, and then we'll go to the worker exposure issues from either 10:30 or we may take a break then and start at 10:45, but in that 10:45 to 11:45 time spot -- we'll still have an hour for that, we're just going to flip-flop those two parts of the agenda.

So, the presentation from Dr. Wang will be at 10:00. And, then, as it indicates, we'll take public comment at the end of the session and wrap up no later than 1:00.

We'll also get from Lois some language as it relates to the proposal about how to deal with the early noncontributor process and we'll revisit that at some point during the day and get a decision from the committee about how you would like to see the Agency proceed on that issue.

And, with that, let me turn to our public commenter, a man who needs no introduction --

(Laughter.)

MR. EHRMANN: -- certainly to this group --

(Laughter.)

JIM AIDALA: I'm Jim Adella here, representing all OBTS former administrators who are not deputy administrators --

(Laughter.)

JIM AIDALA: -- and I say it that way because I want to say something I can say out of government that I could never say as part of government, and that is about the budget.

There is a rather clear mandate that the President's budget is sacrosanct and one cannot say that it's inadequate. And the reason -- and it doesn't matter what I think about that in particular now, and make a general plea about it, but one thing for the committee's consideration is to inquire about the resources available for new registrations.

And it came up a little bit in IR-4, Cliff has said it's not the magic bullet, but product substitution

is something that does make a lot of the medicine go down easier; the point specifically being, for example, that the resources available for new products, new AIs, new products is always a problem, obviously when you say you have to meet the statutory deadlines, which is getting new registrations, is tough, it is a problem.

In the current request for new priorities, I know certain major registrations -- registrants that are not going to be submitting any new priorities is because why bother, the pipeline is already full, you won't get anywhere with it.

And that's a problem I again suggest the committee may want to be able to say something to the chairs about maybe make some recommendations there along with the inquiries about what to recommend. The industry in the past has inquired of themselves about what the sort of innovation pipeline looks like for the next three or four years -- that may be something else to consider now as part of these deliberations.

That's point number one. Point number two and the I'll stop, the other thing is this is often the transition discussion of this group and whatever

incarnation is a ballet on how to beat up on USDA to get more money, you know, reallocate money because there's never new money, to talk about all the things you talk about.

Another pool of resources may be -- because there's hundreds of millions of dollars there and what or we or does this effort get out of it. Similarly, EPA's got an Office of Nutrition and Development with hundreds of millions of dollars and for the life of me, even to this day, and whatever incarnation I've been in the past, I can't figure out what OPP gets out of ORD.

And, so, in part there, the question is whether there's any of those dollars that are relevant for any of the activities that you talk about here.

That's it, go home and have a drink.

(Laughter.)

MR. EHRMANN: Thank you, sir. Any other public comments?

(No response).

MR. EHRMANN: Okay. We'll see you tomorrow morning, 9:00 -- sharp. Have a good evening.

(Whereupon, the meeting was adjourned.)

Day Two

February 28, 2002

PROCEEDINGS

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MR. EHRMANN: Just a couple quick comments and then I'm going to turn it over to Jim. The -- Jim, unfortunately, as he'll tell you in a minute, has to go to a meeting that's been called on the security issues, so I want to give him the first opportunity just to say a few words to all of you in terms of some of his thoughts about the meeting in the future, and then we will review the agenda for the day and get started.

Deputy Secretary?

MR. MOSELEY: Thank you. I do apologize. This is unintended, but I'm going to have to leave again this morning. As we all know, national security is a top priority in this administration for obvious reasons that happened on 9/11, and I've been called to a deputies meeting at the White House on homeland security, which is -- I am the Chair of the Department activity in that regard, so my number's up. I need to go.

We are at that point of several decisions

beginning to be made at the Cabinet level in this regard, and I guess they called a Cabinet meeting for tomorrow and we have to make sure that all our principals are prepared, in fact, that we've made the decision in the affirmative before they make the decision in the affirmative that we're going to do this.

Before I leave -- and I'm going to -- Deb will stay and she will report back. I just want to share with you a few thoughts. This is an important process and I guess if I can just help you to understand how deeply I feel about these kinds of activities and the validity and the value of these things occurring, it seems to me, as I look at the public policy process, one of the real problems that we always have is that things get done and they're not understood out there by the public that we're trying to serve.

And particularly, sometimes in the regulated community, they feel like that it's a black box, that decisions are made and they feel helpless, and I understand that because I've been there in that position. I've had the unique opportunity, of course, to be involved in agricultural business, farming operation for

32 years, and I've had that feeling of anxiety when the word comes down that there's some product we're using or some process that is no longer going to be viewed as acceptable and that we're going to have to make some changes in the operation. And we're trying to figure out how to do that and where's the money going to come from.

And then sometimes that leads you on to, well, don't they understand. And if they just understood, they wouldn't make that decision that way. What happens out of that process is if it goes unchallenged, if there's no opportunity, no process for those thoughts and ideas to come forward, then we create a complex political situation that we -- none of us typically like the outcome of.

I've always believed that we are going to get political decisions in a lot of things, but political decisions are far more difficult to make in the presence of fact. In fact, in the absence of facts, we will get the political decision. And so, to have a process like this, which I think came into being somewhat because of what I've expressed, the anxiety at the ground level from people who didn't understand, who felt impacted by

decisions that were being made, and had a sense of anxiety, as a result of that, this activity was started.

I think that then outlines the value of you all coming together and sharing. This is a very diverse group around the table. We have people from policy and decision makers, we have industry, we have interest groups, environmental organizations. When you get the opportunity to sit around a table like this and to share your thoughts and ideas, you can't help but come to a better level of understanding, and we always end up with better decisions when we understand.

I guess -- and I need to go, Deb's going to stay. But I want you to just understand one thing from my perspective. This is very important to me in what you do, and I am absolutely committed to the process here. This should continue. It should be an open dialogue. I think it started -- restarted in a remarkable fashion.

I mentioned yesterday the opportunity for us to benefit from respectful discussion and dialogue. I've observed that, the sharing of thoughts and ideas, and of opinions, as well, is important.

So, with that, I'm going to have to exit, but I

do appreciate the opportunity to be here. I do wish I could stay. I would far prefer that -- I can assure you, I would have far preferred to have been here yesterday morning than up on the Hill.

(Laughter.)

MR. MOSELEY: But we got through it. And as I indicated, all the bloodletting that occurred there, I was able to take care of it and get it stopped before I got back over here. So, you didn't observe it. But, again, thank you, thank you, thank you for coming, taking time, participating in this process. We at USDA are absolutely committed to working with EPA. I do think that you have an opportunity here in that I have a very high regard for the people at EPA.

Linda Fisher, I've known for 12 years and have the highest respect for her. She's a person who takes the time to listen and to learn, and I understood that early on, that she was willing to learn. And any person that's willing to learn is going to be a person that's going to understand and make better decisions. Likewise for Steve Johnson.

So, we know these individuals. It's an open

communication between us. I intend for that to stay that way. I could leave it in the hands of Linda to speak for me. She's done that from time to time, but I'm going to -- of course, I always am able to speak for her.

(Laughter.)

MR. MOSELEY: But nonetheless, it is a good relationship. It's one that we are committed to. And those of you who have interests and needs, I'm going to tell you the same thing that I tell every group. Our door is open. And the expectation is when you have those challenges and difficulties that you need help with, we may not be able to deliver the perfect answer that you want, but we will try our darndest to make sure that you get heard. Thank you.

MR. EHRMANN: Thank you, Jim. Let me just note, too, that Linda is in the building. She's been called to a conversation with the administrator, so she will be here shortly and with us for the rest of the morning.

Let me just make a couple comments about the agenda and some papers that have been distributed. On the second item first, you'll see in front of you, hopefully, a one-pager which is the -- dated up there

February 27th, 2002, which does have the title on it, but this is the description of the suggested process for the early non-contributors that we talked about yesterday. And I'll come back to this a little bit later and we'll kind of see if there's any discussion or if everyone's comfortable with this approach. So, we'll do that a little bit later in the morning.

You've also received, as promised yesterday, the first of the two papers that are being issued today in the Federal Register, the determination of appropriated FQPA safety factors and tolerance reassessment, and the second paper on -- what is the second one on?

UNIDENTIFIED MALE: 10X and cumulative.

MR. EHRMANN: 10X and cumulative will be distributed during the money. They're still copying -- making copies of that. So, you'll have that before -- certainly before noon and we'll distribute that as soon as the copies get over here.

As you remember from yesterday, I indicated we were going to modify the agenda a bit. We're still going to, first, have our discussion on transition issues and I'm going to, in a second, ask Jean-Mari to introduce

that with some of the thoughts that she's had since the presentations yesterday afternoon. And then we'll go to the presentation by Richard Wang on the report card on environmental toxicants. And then we'll probably take a break and then come back for the discussion on worker exposure issues. That will probably take us up to about noon. And then we'll discuss future activities for the CARAT and associated issues, have public comment, and adjourn still at 1:00.

So, that's the plan for the day, and I would just note for the members of the public here, if you're interested in making public comment, please register outside so we can provide adequate time for your comments of two minutes each at the end of the agenda.

Any other comments or issues we ought to talk about before we get into it here?

(No response.)

MR. EHRMANN: Okay, Jean-Mari?

MS. PELTIER: Transition. What I've tried to do is capture the themes that I think we heard our four-panels talk about yesterday and put them together in an idea of some sort of common themes. And what I'd like to

go through with you today is what I heard, get your reactions to what you think you heard, and walk through what we think might be a work plan for further operations of the Transition Subcommittee to explore during this next year of operations.

One of the things I'd like is to ask staff to recirculate another sign-up list for people to sign up once again. You probably may or may not remember whether you signed up for the Transition Committee. I know we have that list, but given what's transpired over the last several months, you may want to not participate or you may be more interested, have a renewed vigor in your signing up on the list.

One thing I'd like you to do is when you do sign up, to also indicate which aspect of transition you're interested in. I was struck yesterday by how many members of the committee suggested that transition is really where we all need to be working, and I'm concerned we could have a committee -- if we end up with a committee this big, it's going to be a little bit difficult to make progress.

So, if you could talk about which particular

elements or element -- single element you're interested in in Transition, that would be helpful.

Let me just outline quickly then what I think you said, or they said, we need to prioritize or we need to work through. First of all, I think kind of an over-arching theme was well-put by Larry Elworth when he suggested what we need to do is systematically evaluate where we have the best opportunity to innovate and direct our resources accordingly. That's another way of saying, we need to figure out how we're going to prioritize what we can and can't grapple with as part of this transition process.

We also need to try and figure out what the universe of agriculture in transition is. One of the things a couple of years ago that we tried to use as a means of prioritizing work was to look for commodity groups to put together PMS plans, and that still may be a focus for us in figuring out who the universe of who wants to work collaboratively with USDA, EPA and others on transition issues. But let me just suggest that one of the things we need to do is prioritize.

An interrelated component of that, and it was

raised by several of the speakers yesterday, was there has to be a problem that motivates people to move to transition. Whether that problem is loss of materials through the Food Quality Protection Act or other regulatory efforts, or whether it's a result of resistance, whether it's pest resistance, disease resistance or consumer resistance to existing practices, I think we can agree that there are an awful lot of commodities that are already facing a problem that's going to necessitate transition. We've got to figure out how to narrow that universe somewhat.

The next issue that was raised, and it sounds so simple as to almost be trite, but if you've got a problem, you've also got to have a solution. So, let me talk a little bit about what I think we heard some of the elements of that -- that we need to work on in the area of solutions might be.

One of the points I heard all of the speakers raise was that they were looking for biologically based solutions as the most stable way to have progression. It doesn't mean that chemical substitutions aren't components of that, but most were saying they were

looking for biologically based solutions.

In order to move through the solution phase, there has to be adequate research in advance, and one of the things that I think we heard yesterday was that we need research programs that are flexible and sensitive to the needs that are brought forward.

So, I think we need to evaluate existing research structures at both USDA and EPA and evaluate the extent to which they are and aren't flexible and sensitive and responsive to changing needs. I think we can capitalize on some work that was already done by this committee. I don't know, this is plowing new ground. But we can take a look at evaluations before and figure out what the marching orders are as we move through.

Another really important, and I thought, kind of troubling comment, was one made by Bob Holm and his question about whether or not we see a trend to a slowing in a discovery of new materials. You know, we have a real flurry of new chemistry that has moved through the pipeline in the last, about, five years, and the question is, is that slowing?

One of the other interrelated issues that I

think several speakers talked about was that we've had a number of single purpose pest management tools introduced over the last year -- years, and it's a shift away from some of the more broad spectrum materials. Not only is that more complicated, it's also more costly and more difficult to put in place, more information intensive.

So, just a side point and a question that we might want to consider within the research component is how we might address what may be a trend in the area of slowing discovery and the kinds of products that are being discovered.

I think we need to explore the role of the IPM centers and what their original purpose was and if there's some way that we can reinvigorate the IPM centers towards addressing the problems that we have.

Another question that we have within that is, I think, the group should probably meet with NASALGIC (phonetic). Don't ask me exactly what that term stands for, but it's an organization, a national organization that represents the land grant universities. They have a new proposal for the way they're planning to direct their resources on agricultural research, and I think we need

to take a look with that, sit down with them, talk about what their agenda is, and how well it's going to meet the needs we have in transition.

We need an EUP process, we heard yesterday, that allows for broad scale implementation projects so we can figure out what the bugs are in systems before growers go out and put them on commercially. And I know that there are already efforts underway at EPA to address questions about the way the EUP process is working. But I think we need to have that on our agenda as well.

And then finally, an interesting point that was raised by Jim Aidala in the public comments was the question about, is there a role for the Office of Research and Development of U.S. EPA in working through this whole question of finding solutions, which is an interesting segue into the next issue, which is resources.

And resources mean, in this case, not only financial resources but also manpower resources. One of the things that was raised was that one of the important components of transition is an aggressive registration program, and a question was raised about the adequacy of

the funding of the existing registration program at U.S. EPA. That's maybe a question that we can look at within the committee work.

Also, trying to look at what kind of innovations are possible, such as the super crop groupings that were agreed to by IR-4 and U.S. EPA. So, some of those questions about how flexible and aggressive the registration program is is an important component.

But we've also got to take a look at the grower's ability to pay and the economic side. And, you know, as Jere Downing pointed out yesterday, there's one set of circumstances in place if growers are getting $65 100-weight, there's another set of economic circumstances when it's $11. And we can see an erosion of the progress we're making in moving to safer pesticides when the growers lose the ability to pay.

So, I think we need to take a look at other kinds of ways of getting resources to the table, of looking at other programs that are available, potentially programs within USDA. I know we always look at that pile of money. People have suggested there's things that we should look at in the Farm Bill and components of the

Farm Bill that might be sources of funding for on-the-ground implementation programs.

So, the resource question, and also then taking a look, not only at the traditional sources that we've put together before, between growers, processors and government institutions, but also taking a look at the innovative work that was done by people like Sarah Lynch and Steve with the potato growers, and how do we successfully bring foundations to the table to work with the grower community to move on to progressive practices.

So, those are the things that I've included that I think I heard you say in the area of resources. Another important component that was raised by every person was the issue of the extension of information and how you get the word out to the farm community. And there was a discussion -- we've talked around this table forever about the limited resources of the land grant universities and cooperative extension, but we also heard yesterday about the importance of the role of pest control advisors in the whole equation.

And by and large, I would argue that EPA and USDA haven't really looked at PCAs as part of their

audience. And the question is, how do we harness that commercial decision? How do we harness the information power of these individuals who are out there in the field, on the coffee shops with growers day to day?

In the Randall Island Project, the PCAs were very much a part of the solution, whether it was -- you know, it wasn't a product a lot of them were selling, but they all agreed to be part of the solution, and I think that that's one of the broken links in how we work through transition. And Robin Spitko has been trying to bring this perspective to the table for quite a while. I think that Pat Weddle brought it quite eloquently yesterday, and I think we need to figure out how we get them to the table to work with us on the information side.

As -- to do what Pat Weddle said yesterday, that I thought was another good quote, we need to encourage a diverse commercial infrastructure with the capacity to innovate. So, that's maybe our goal.

An important other part that Jere raised yesterday was we need time to move through transition, and we need time to figure out how to make these systems

work. So, that's an important component. The final thing that I wanted to raise was, I think Larry Elworth talked about the need to have real implementation programs. What an implementation program looks like is different than just another research project or just another demonstration plot.

And I think we need to look at the way our RFPs are structured to see whether they are significantly flexible to encourage implementation projects, and does that include having replicated trials? Probably not. You know, it's to build on that work that's already been done. So, we need to make sure that as we are evaluating where we're going to put money and where we're going to direct scant resources, that we really focus on the need for more widescale implementation projects.

Leadership, everybody said that this was a common attribute of successful IPM implementation projects, successful transition projects. We need the leadership, and I think we heard from Jim Moseley today, we have the leadership and the commitment from USDA. I know we have the leadership and commitment from Governor Whitman, from Linda Fisher, from Steve Johnson, from Adam

Sharp, all through the line with Susie and me, too, here in the middle. So, I know we've got the commitment of our leadership.

The question is, how do we help identify and promote that leadership out in the grower community? We've got a lot of progressive marketing orders that are doing progressive research. I think there's others out in the field who are doing things progressive. It's not all land grants. Sometimes it's land grants. But one of the common attributes that we saw in those programs, whether it was the potato program or the pear program or -- I know talking with Cliff Ohmart, they've had a person who was a project leader. They've had on-the-ground, full-time outreach coordinators. Do we pay for those? Does anybody pay for those? How do those get funded? Sometimes they do. And so, who's got the common interest to make that part -- a part of that program.

How do we create or find a community of growers that are progressive and interested in moving ahead?

Final issue, and one that I've raised a number of times, and that Jere brought to our attention yet again, was the need to fix CODEX. It doesn't do us any

good to have progressive programs here with transition to softer materials. It doesn't do us any good to speed up our research process here if we have products that are finding their primary markets overseas and their products can't be marketed because they'd be adulterated because of the lack of an international MRL.

I know we have steps underway. We have it within our U.S. delegation to CODEX, we have a position paper that's been developed in conjunction with Consumers International, and a broad cross section of grower and registrant interests. So, we'll be going into the upcoming meetings in the Hague in May with a unified position. But, unfortunately, it's not a position that's widely accepted by the rest of the world.

We have some elements that are there, but others that are not. And so, trying to figure out how we accelerate the international research process, whether it's part of CODEX or whether it's part of other kinds of innovative things that EPA can explore with OECD or other kinds of joint projects like we have through NAFTA, I think we need to figure that innovation. And even the country of California we can bring in as part of this

evaluation team.

(Laughter.)

MS. PELTIER: That, in a nutshell, is what I heard you say, and now I'd like to throw the floor open to tell me that I got it wrong or that there's something else you want to focus on as part of our work.

I think you were first, Carolyn.

MS. BRICKEY: Thanks, Jean-Mari. I want to say first that I really appreciate the remarks you made this morning and your commitment to really try to put some energy into this process. A lot of us have been working on this for a long time and we need to refocus and rethink what we're doing and see how we can make it work better.

I have just a very few points to make that really, I think, fit in with most of the comments you've already made. One is to really take advantage of the critique that we received a few months ago from the GAO when they looked at the IPM Program. You know, all of us don't like every recommendation in that report, I'm sure, but I think there were some good points that were made in that report that we can take advantage of.

And the main message I got out of it was let's move the ball forward. Let's not move the ball backwards, let's not go sideways and let's not hide the ball, but let's move forward, and that's what we need to do.

I think it would be really important to take a look, Deb, at getting Extension and NRCS to work together more on these efforts, because I -- I know you've done this. I've met wonderful people on both sides of the fence on those agencies that have important and diverse talents to bring to the table, and they often don't work together and don't know each other. So, I think that would be really critical and something really valuable that you folks could do.

I think it's important, also, for USDA and EPA to coordinate even more on these grant making programs. I think both sides can bring an awful lot of talent and capability to the table. And if we're going to improve what we're doing on the grant making side, I think that would be a really important thing to do.

I heard a lot of people say, look for successful projects, well, how do you get to be a successful

project? You know, how do you get to be the candidate that everybody thinks is the best? One way is to fund some small planning grants so that the right partners can position themselves and bring themselves together.

And I think the missing component that we often see, and people disagree about how -- you know, what the prospects are for this -- is the whole issue of getting the retail market involved. I know a lot of people say, this is too hard, forget it, you can't do it, but I think we have to do it and I think we have to look for some new and innovative ways to do that. And maybe that's one way that planning grants could really help, because since somebody with some expertise could look at these projects and say, what are the pieces that are here, that are viable, and what are the pieces that are missing, and how do we get those pieces there, and I think that's really important.

And, you know, I think you cannot overstate the value of getting the coordination and technical assistance there on the ground. The projects that I know about -- I know many of you know more projects than I do -- have these people in place. How do they get funding?

It's a roundabout question. In some cases, through foundation grants, there's other ways that it happens. But I think it's really, really important to have those people in place, because that's what helps to make these projects successful and also helps to disseminate the results of the project so that other people know about it.

MS. PELTIER: Thank you. And thanks for mentioning the issue about the retailers. That's one of the elements I did leave out. And I think there's a mixed message from people about the viability of green labeling, and I think it's one of the things we really need to explore. I think it's definitely worth having a meeting with some of the powers within the Produce Marketing Association. Get the retailers there and talk through it, and let's put it in trust one way or the other.

Robin, how about you next?

DR. SPITKO: Thanks, Jean-Mari. I appreciate you including the private crop consultants in your comments, but I just want to clarify a couple points. It's my obligation for representing NAICC.

But I just wanted to make sure that people understand that crop consultants and PCAs are not necessarily the same thing, that -- as a matter of fact, in NAICC, we actually have very few PCAs. That pest management is part of what we do, but also, our field of expertise is just far beyond making pest management recommendations. We're involved in marketing, and most of our memberships have advanced degrees and many, many years of experience in integrated crop management.

So, I want to make sure that when people are setting up these projects that they look beyond just pest control when looking at private sector consultants in the project, because I think we can offer a lot more integrated information that goes beyond just, you know, insects, disease and weed management.

MS. PELTIER: Having just spoken to NAICC, I can't believe I made that gaff. Sorry, Robin.

DR. SPITKO: That's okay.

MS. PELTIER: Maybe Cliff and then Mark and then Rob.

DR. OHMART: Thanks, Jean-Mari. I sort of said this yesterday and I'm going to sort of say it today.

Just for everybody to keep this in mind to transition. This whole process is focusing on the squeaky wheel, which sounds a little minor. It's not minor. But, you know, we've got these serious issues on OPs, but if we totally focus on crops at risk, I think we're going to leave out a huge part of the growers, not -- the average grower out there is not about to lose their farm because of some specific pest or because they're going to lose materials, but they all use pesticides and we have a system that's not working.

I think we all realize that. And so, we need to transition not only the growers with crops at risk, we need to transition all growers along the continuum of sustainable farming. And so, I just want to have that, because there are some very difficult issues, and I think they're all related and it has to do with how growers make decisions on what they do on their farms.

And then, just to pick up on the leadership comment of Jean-Mari, I think there is a crisis out there. There may be leaderships at high levels, and you've mentioned it, but we need leaders out in the grower community and it's like, who pays for that,

everybody's busy, and I am seeing, as time goes on, we are losing the few leaders we have and we need to think about how are we going to get these leaders that are going to be able to do these programs out there and who's going to pay for it and how are they going to be educated, where are they going to get the experience. And just -- I think it's a very good point.

MS. PELTIER: Certainly the project that you had in Lodi was really fostered by a few growers who had a vision of where to take that grape growing area. You're right.

Mark?

DR. WHALON: Thanks.

UNIDENTIFIED MALE: She means both of you.

(Laughter.)

MS. PELTIER: We heard about that earlier, Steve.

DR. WHALON: (Inaudible) that I speak out of both sides of my mouth.

(Laughter.)

UNIDENTIFIED MALE: I wasn't, but that's what (inaudible).

(Laughter.)

UNIDENTIFIED MALE: I remember what you said to me one day and I'm not going to repeat it, but. . .

(Laughter.)

DR. WHALON: I wanted to pick up on a couple points. First of all, you asked us yesterday about what is mission in this process, and I would like to take a step up from where we've been talking and just talk about what the mission is in agriculture long-term, sustainably. This is not a subject that -- a group that's focused on, as Cliff said, the guys that are going broke, but all of agriculture.

When we look at environmental impact and we look at water and we look at land use, agriculture, is massive in that whole arena, and I don't need to remind everybody about that. But from the standpoint of management and stewardship of resources for this country and the future generations, agriculture is it in a big way.

And I think that I would introduce, at this point, the concept of equity. We do not have equity in our current philosophical look at agriculture and land use (inaudible) policy in this country. We do not have

equity in terms of how our populace understands the biological processes and the importance of land use to our future.

And we have not made the investments that we need to sustain that into the future, and that applies to water, land use, even the amenities of what our landscape looks like. Because in a state like Michigan, where we have a huge pressure to sell your farm to retiring plumbers out of Chicago with lots of bucks, or keep that farm in production. It's -- it's no wonder agriculture is shrinking like crazy. And do we really want to see a world like that in the future?

What is the equity issue in agriculture today and in this country? I think it's huge. I also think we're focused a lot on, as we probably should be in transition, on tools, and several people have mentioned that we need to be more broadly focused. Boy, I wholeheartedly agree. We need to be more broadly focused because you can't do it if you're just focused on tools.

And the ecological principles that underlie pest management are often lost in the process of -- of the immediacy of a new tool, and you can't build

sustainability if you're focused on the immediacy of a new tool. But on the other hand, if you don't get the new tool, you don't survive. So, it's a catch-22 in a lot of ways.

When I talk to the growers that I deal with and -- a lot of consultants meet with growers every day. I don't see growers every day, but boy, I never go through a week when I don't see growers three or four times. And I think that people like me in a land grant university who work with commodities directly. I probably see growers a whole lot more than I see colleagues in the university. So, I think that -- that this whole issue of economics -- when I talk to growers in minor crops in Michigan, it's economics and they tell me over and over and over again, it's economics. And it's inputs versus outputs for them.

And for them, the inputs side of it is exponential, and the outputs side for them is decaying. So, I mean, from a business modeling standpoint, they have no choice. And we can -- the handwriting's on the wall. They are going to sell out, especially when you look at the age of agriculture today, across the board.

I mean, in Michigan, the average age is 55. And when we look at young people coming in -- I was talking to a grower the other day. He was at a workshop. We were focusing on this whole issue of transition and I was asking him about his kid because his kid is at Michigan State University.

And he said, I wish you'd quit talking to my kid. I said, what. I mean, I've known this family for 27 years. I knew them when he was a scout in our pest management field assistance program back in the late seventies, the grower himself. And his kid is really interested in pest management, but he doesn't want his -- his dad doesn't want him focusing on that. His dad wants him to get an accounting degree or an economics degree or a business degree and not -- he says he can default to the farm.

MS. PELTIER: Mamas don't let your babies grow up to be farmers is your bottom line message here.

DR. WHALON: Yeah. So, that issue, in terms of leadership is really, I think, really important, and increasing outputs for minor crops which are mostly the target of FQPA is an incredible part of this. So, I

think that bringing in the retail sector, eco-labeling, everything we can do. We have this thing called new era cooperatives, which is a whole effort to develop -- to get farmers directly involved in the retail process. It takes a lot of effort.

The other thing you mentioned yesterday, Jean-Mari, and I want to take you to task in a nice way. But you mentioned yesterday, we got to get extension involved, we got to get extension involved. And I thought to myself, you know, Michigan State University is taking recissions of between 10 and 15 percent in the extension program this year. They are 98 percent people. So, we're talking about people.

MS. PELTIER: I didn't -- I wasn't saying getting extension involved, I was saying, we need to figure out how to achieve extension, which I meant to say, Mark, extension of information. We have this model that laments kind of the erosion of the resources of cooperative extension through the land grant universities. But I'm thinking I'm suggesting that there's another model for extension that we have to figure out how to tap into more effectively, and that's

working with crop consultants, as well.

DR. WHALON: And I didn't miss the point, and that's where I'm going exactly.

MS. PELTIER: Okay.

DR. WHALON: And that is is that one size shoe doesn't fit all. Western agriculture is not midwest is not east. And there is a big role for crop consultants. We have crop consultants in Michigan and a lot of them are going out of business. They're going out of business because the growers are going out of business and the growers can't afford them.

And you know, Robin, when things are really going down and a grower looks at his bottom line and it's negative and you're drawing on that bottom line, he's going to make a decision. And that may mean that you go out of business because you lose several of your big accounts. We're working a lot with consultants in a lot of these industries. And, actually, when you look at what consultants do today, a lot of what they do is what I call the applied research because they are putting on in areas where we have EUPs and things like that, they're putting on chemistries and they're putting on systems in

cooperation with extension and the land grants and trying to build systems up as we go forward.

None of the projects that I'm currently involved in do not involve private sector consultants, not a one.

MS. PELTIER: I hate to cut you off, I'm sorry, but we've got six more cards up on the table. Okay, if you can make them quickly, though, Mark.

DR. WHALON: One model doesn't fit all and I think that's really true. The other thing is that a lot of the points that I heard yesterday are the same points that I've heard several times when we talk about adoption of new things. Innovation adoption is a sociological process, and when I look around the table, there are not many sociologists here who understand innovation adoption. It's the same missing feature, I think, that we've seen a lot in this area.

And the last thing that I'd like to talk about just briefly is that there is a difference between an implementation program and implementation research. When we talk about EUPs, we are talking about implementation research, not implementation adoption. And it's a transition, but it's important to make a distinction

there because you don't necessarily know that that's going to work for the broad spectrum. And if you lose sight of that processor, that step, it might fail.

MS. PELTIER: Thank you. I think Rob was next. Let me shift and get one or two people over here and then back to Lori. So, Rob, why don't you go next?

ROB: I was going to start by associating myself with the comments of the man from Michigan, but he made so many that I need some clarification.

(Laughter.)

ROB: Also, the point that Cliff made, I think as we look at the transition working group that we all know is going to be formed, we've got some immediate needs and then we've got some intermediate and long term strategic needs. Personally, I'd like to make sure that we don't lose track of those intermediate and long term needs because that's where I think we can make the greatest progress. If we continually respond to the crisis of the day, then we're not going to be where we want to be 10 or 15 years from now.

And just one other point of clarification. In your comments, Jean-Mari, you mentioned working with

NASALGIC and I know that NASALGIC is an important player, but I don't necessarily think they're best representative of the research capacity within USDA, and I would instead recommend working with RE&E. And I'd ask Al probably to try and make some of those resources available to people, like Dr. Rodney Brown, maybe Joe Genn (phonetic) to talk about what could be done in CSRES (inaudible) Research Service and ARS.

MS. PELTIER: Good point. I guess NASALGIC was on my mind because they had presented to us the direction they're planning to go with research and I'd like to get some feedback from you folks about that direction.

Let me go to Jay and then Lori and then we'll work our way around this way if that's okay.

MR. VROOM: Thanks. Jean-Mari, maybe I missed it. Did you mention Jim Aidalla's remark yesterday about ORD?

MS. PELTIER: I captured it under the section of resources where I said, are there other sources and does it make sense to evaluate the role of ORD in helping us do that.

MR. VROOM: And can we get Linda to give us an

answer before we adjourn today?

(Laughter.)

LINDA FISHER: Probably not.

(Laughter.)

MS. PELTIER: That was a no.

(Laughter.)

MR. VROOM: So, we have to continue asking, okay. I think that is a great idea and one that I don't ever recall a lot of public exploration having occurred on. So, I believe there's some opportunity there.

Bob Holm's comment yesterday, and you reiterated it this morning, about concern about reduction and discovery investment is absolutely correct. There are certainly a number of factors that are driving it, fewer global companies doing discovery research. Certainly, some of that discovery research is being redirected toward biotechnology, crop innovation.

One of the six largest companies in our industry now is doing, I believe, zero discovery research on the chemistry side. It's just a fact of having to make critical decisions.

Also, since 1998 and FIFRA reregistration, we

have seen, over the last seven or eight years, a shift away from the majority of research investment of the major companies going toward discovery and the majority of it going toward product defense. Some of that results in better uses of existing products, and some of it is just the natural cost of doing business and defending the franchise of keeping those products in the marketplace. But it's hard to kind of put your finger on what the net effect is over time.

Another real factor is we have fewer farm customers in the world making a profit from selling output from crops to the marketplace, and that is a huge additive to all of the factors that are driving down investment in new product discovery.

And, finally -- and this is also a very important phenomenon which has been referred to, the likelihood and expectation of being able to get new products approved in the marketplace in a timely fashion, which is one that we have been struggling with for at least the last 15 years.

Larry Elworth, yesterday, alluded to a concept that I think deserves some elaboration, and that is --

and he didn't speak directly to this, but my interpretation, part of it, is that the marketplace does help with regard to innovating for better solutions to crop production, using the available chemistries that are out there, manufacturers and formulator and distributor companies respond to market signals and compete with each other and that is a fact that I don't think has been articulated much in discussions yesterday.

Examples might be a company like Janis' Syngenta will sell a product to a company like Gowan, Cindy's company, with the idea that they can no longer justify maintaining the product in their portfolios. A large company, a stronger company, more nimble and focused on market niches, can take that product and really reinvent it in the marketplace, work with the regulatory authorities to find new market applications and do good things. At the same time, Janis' company is trying to introduce a product that competes with that. Ultimately, the beneficiaries are farmers and the consuming public.

I think that that's one of the factors that need to be considered as we think about how we invent and implement policy that helps this entire process. Thanks.

MS. PELTIER: Thank you for your comments, Jay. Let me take Lori, and then I think what we'll do is we'll just go straight around this way unless people have an objection. So, Lori.

DR. BERGER: Okay. First of all, I wanted to recognize a little bit of transition I've been able to observe over the last day. Yesterday, you guys realized that Keith Menchey had been eating a Snickers bar for breakfast. At lunch, he ate a Fig Newton yesterday, and today, he ate a banana.

MS. PELTIER: That's a true transition.

DR. BERGER: I hope he'll work on sustainability in his new dietary habits.

(Laughter.)

DR. BERGER: A few things I wanted to mention very quickly. Last week, I did participate in the USDA road map to IPM, which was a result of the GAO report that came out that basically said that we really hadn't made enough changes, we didn't really know what we should be measuring, where do we go from now. And Pat Cimino (phonetic) was at that meeting. And some of the things that came out really parallel what we're talking about,

and I think we need to really work with USDA to make some of these things happen.

One of the big things that I see in the field and that I think that we've been discussing today, we need to recognize that there is definitely a shift from public assistance in this area, whether it's extension, land grant colleges, to the private sector, and how are we going to equip these new leaders. If we're going to be saying, hey, we need leadership, how are we equipping these leaders?

And longer term, the --

(END OF TAPE)

DR. BERGER: -- are crying for students. We need to look in our system -- you know, the extension system -- in California, we had an excellent extension system, but it -- we're losing people -- there are not enough people to address the kiwi fruit projects, the sweet cherry projects. There are so many minor crop projects, there aren't enough people. There are several excellent commodity groups and programs that if resources were made available to them through funding, there is motivation at that level to answer their growers'

problems.

I'm very privileged to work with several of the very progressive ones, Bob McClain (phonetic), with the pear group, that was very involved with the Randall Island Project, and others. And so, we need to look at the available funding and how available it is to these other groups.

Right now, it's only able to be -- most of it is only available through the land grant system. So, as some of the other people were saying, we need to look at how funding can trickle down. I did have a meeting with Joe Genn to talk about this very issue and to kind of make that as positive as I can. We have a long way to go, even with someone who had been in California for many years. So, we have a lot of work to do there.

Also, the availability of products, that is a concern. Again, the commodity groups, if they are given the tools, they have the motivation because they are the growers.

Another thing, just as Mark Whalon indicated, we need to have sociologists at the table, we need to have economists at the table. Most of these things we're

saying can't be done because the buck stops at the grower's level. We need an economist here to put dollar signs on the different segments of this value added chain we're calling integrated pest management.

And then finally, whoever it was that mentioned the retail component working with a number of fresh fruit and vegetable growers, the retailers are driving a lot of the decisions that are impacting the profitability that the grower is seeing that impacts the IPM decisions he can make -- he or she can make. And we do need to bring them to the table as well. Those are my comments.

MS. PELTIER: Thank you, Lori. Janis?

DR. McFARLAND: Thanks. I wanted to mention a lot of the same things Lori just did. We had a chance with Syngenta, with the focus of -- to have several partnerships that have lasted more than five years, mainly on watershed, water quality improvement, and we had a chance, because we worked in many states, to see some real successes and then some failures, also. And the themes that ran across them will come out.

One thing is we were naive in the beginning. We had great research showing what growers could do to

minimize run-off of pesticides into water, and we had good cooperation with extension, but we truly couldn't -- the growers told us, we don't care what you got on that half acre farm -- half acre plot. We had gone from small plots to big plots, and we had to go out to the watershed level.

We started big watershed projects in '95 and '96 and the ones that really worked were when the local hired -- each time you had a different watershed committee, it was different. As Mark mentioned, not one size fits all. It was different in every state, even if it was just the same crop, it was different in every area. And the people -- the people hired a coordinator. Syngenta gave the seed money. We actually weren't involved in the interview, because in order to make this work, you really needed to be locally driven.

The ones that worked the best, of course, ended up hiring a very energetic coordinator. And they started, and the incentive to get people to do different practices or try at the beginning was only because if they wanted -- in this case it would be atrazine. They wanted to work on how to better manage atrazine. So, the

growers would participate because of atrazine.

But clearly, after the community teams got together, they often saw that actually they had such bigger problems in water. One area, they silted -- it cost $4 million to dredge and they silted in in one rainfall 25 percent. So, they had to -- everybody has to step away and look at it holistically. When the successful ones happened, it was because USDA helped and did multi-component pesticides, fertilizer, nutrient sediment analyses. The grower groups would be the leader in one state, the farm bureau in another, sometimes it was the conservation service.

But I think the ones that were not concerned about the long -- we have seen improvements in water quality and pesticides, fertilizer, nutrients. It's gone way -- far away from looking at a single point pesticide. But the ones that are going to work are the ones we were smart enough to put an economic component in early. And that's where we actually -- when you can actually say the cost of your changes and that you are either getting similar yield or more yield. They're the ones that actually they're sustaining on their own. Eventually,

they won't even need the seed money for the coordinator.

The other thing that happened when they have multiple partners is there was multiple inputs of resources, either in -- like the potato project that Sarah went over yesterday, a multiple inputs of resources. I think that transition teams will have chances to look at some failures and successes as we go through.

I wanted to make one other comment on the workload, also from a chemical company standpoint, on the new tools. We really have -- those of us who have tried to create lower risk pesticides. When you're looking for those, your percentage of actually -- putting them into the last $20 million of testing has gone down. We implemented some in '93 -- in '94, a whole new way to look at pesticides and which ones we'd actually want to have available to growers.

And things that we would have gone through the whole development in '92 and '93, we will not go through because they have -- they have environmental properties or mammalian tox properties that are no -- we know enough now that are no longer really acceptable to the standards

that either EPA has or we have. And so, by that nature, we are actually promoting way fewer compounds, even as a very large company that has 2,000 of the tolerances that are going to be reassessed. So, I think that's one.

And the last point I'm going to make is when -- sometimes when we've done biological-based, and the -- we have one of our best products we thought ever for fungicide was a natural product, and it looked like it was going to go through without actually having to do a lot of the testing. And in the end, it was the only product I ever had to -- when I was working in the labs, we started the initial testing of this natural product and it was a wonderful fungicide.

We started doing the standard tox testing that we do for a straight synthetic chemical, and it was the only product I ever had to go into the laboratory and yank out of people's hands because it actually ended up being more toxic at lower doses than what hit our screens.

So, I think as we've done a lot of biological work, we also have not necessarily seen an overriding standard different in safety. Some of those are as bad

actors as our others. So, I think sometimes I'm concerned about even faster testing for biologicals than synthetic just because of that, which is a scary thing. Thanks.

MS. PELTIER: Janis, I hope you sign up on the section to talk about the solutions section because that's an important perspective you have.

John, can you go next?

MR. RIGOLIZZO: Thank you, ma'am. I have to say I've listened to everybody speak and I overwhelmed at the amount of background and knowledge that everybody has here. I sometimes feel out of place, but only for a second.

(Laughter.)

MR. RIGOLIZZO: Maybe it's because I'm Italian or something, I don't know.

Anyway, I'm -- I look at this as -- from my point as I'm an end user. I'm the last guy in the chain and I have to go back -- my responsibilities as a farm bureau president and as a grower is to try to educate my contemporaries to keep up with what's coming down the line and how to keep themselves in a proper perspective

as far as regulation goes and everything -- you know, what the consumers are thinking, what their retailers are telling them, the whole process.

So, I look at the tools that are out there, that we have now, and in this group, we're talking -- you know, for us it's IPM. There's chemicals, there's biologicals, and there's a few other things. It's -- we're talking -- for farmers, it's the new age of management really. You know, you read your pesticide recommendations and every seven to ten days you did something.

Now, we have an IPM scout or two, maybe more for each crop, we have all these different tools that we're using. And farmers are spending more time managing the mix instead of sitting on a tractor seat and it's costing them some money. They're paying for IPM, or they're paying more for their pesticides, or they're paying more to use biologicals, or they're paying more to have guys go tie little twisty things.

(Laughter.)

MR. RIGOLIZZO: It's a management thing and it's a stressful management thing at times. We hear a lot

about -- from research, from extension especially, we hear now more things going on by special interest groups. We're talking money. I hear a lot of money being spent in an effort to bring about this total transition in this new process with hopefully an end result that's good.

But I hear a lot of money, and money is not going in the direction of extension. And when special interest groups provide money, I don't know how much money went into that potato project, it sounded like a neat thing, but how much money would it take for us to do a bunch of potato projects nationwide or a bunch of peach products nationwide?

And what happens to -- unfortunately, when you have special interest groups, whether it's the Vegetable Growers Association of California or the World Wildlife Fund, there's a credibility issue. There's also a focus from their standpoint that may not be exactly what everybody else needs.

There's an education aspect. Well, let me back up one. Is there enough money? I don't know if there's enough money out there to do it the way we're talking about doing it, with all these little pilot projects. If

we turn them into something bigger, is there enough money? I don't know.

Training users. That's part of my job. It's part of the jobs of folks like Mark Whalon and extension. We're trying, but it's not easy when, like somebody else down the end of the table said, you know, the farmers are doing all of this and they're not seeing any results.

MS. PELTIER: Right.

MR. RIGOLIZZO: We're willing, we're able, we're capable, we have the technology, we can use it, but what are we getting out of it? And it comes to that bottom line. Ultimately, we all think that it's benefitting the consumers, and hopefully so. But if we're not benefitting from the extra inputs and the ultimate user isn't willing to pay for it, something's going to give somewhere and then you have guys making decisions, okay, I'll sell to that retiring plumber from Chicago.

So, if they earn enough, you'll get the positive reaction. I also have to wonder in the larger picture is if what we are doing here seems to be going in the direction, that we're going to be asking people to pay more, and is the government really ready to say that to

the average American consumer? Okay, guys, you know, we've reached a point in our lifestyle here where we're going to have to do something different. Mommy and daddy, we expect you now, instead of paying 10 percent of your dollar for food, it's going to be 18 or 20 percent, like it was back in the fifties, you know.

MS. PELTIER: Right.

MR. RIGOLIZZO: Are they really ready to do that? And I also -- I have a little bit of a marketing background, so I pay very much attention when everybody mentions retailers. And I've met with marketing chains, like you all have, and they're all, yeah, whatever you want to do, guys, you know, we'll take it. As long as it earns them the bottom line that's in the black and not the red, and really they're only interested in what consumers are willing to pay for. Many times consumer surveys say, why sure, if I think it's going to be better for me, I'll pay it. But they only vote with their pocketbook.

And if $5 potatoes are $5 potatoes and there's a bag that has a green label on it that's $6 or $7, nine times out of ten, most people will pick up the $5 bag of

potatoes. And that's -- whether it's right or wrong, that's what we're dealing with now. So, we're talking about changing a whole mindset, you know. Talk about paradigms. We're talking about changing a whole mindset to make this whole thing work.

So, I'm not trying to be negative, because I try to be as positive as possible and I try to offer solutions as often as possible. I would really like to see this come about and work the right way. But what we have to use so far isn't giving it to us.

So, somewhere along the line, the challenge is, can we make it really work realistically. And without recognizing our position in the world as growers and providers of food, the government tells me that the nation's -- the world's population is going to double in what, 30 years? We, the minor use users, we're the guys that really feed everybody. Nobody eats corn or soybeans in the morning. They eat it in some other form, you know. You eat a banana, not even an American product.

(Laughter.)

MS. PELTIER: Keith, if you'd like to step outside. You're moving in the right direction, but just

not fast enough.

MR. RIGOLIZZO: At least Snickers comes from the Mars Company that's in New Jersey, so that's okay.

(Laughter.)

MR. RIGOLIZZO: Now, but really, it's -- I try to envision how we're going to do this whole package deal, and we have a challenge. I don't have the answer myself. I wish I did, but doing what we're doing here is certainly part of the answer or finding the answer. So, yes, I'm willing to help, I'm willing to contribute as much as possible. I think there's a tremendous amount of knowledge and ability around this table, but I think we have to maintain -- if we're really looking to the future of safe and healthy and viable, if we want to keep those farmers in the system that are going to be providing us this food, we've got to remember those guys back home got to be able to make it work.

MS. PELTIER: Yeah, and I think you've raised a good point, John, which is just as these systems have to be sustainable or stable, we need to have an idea of making them pencil in a way that's stable.

MR. RIGOLIZZO: Exactly.

MS. PELTIER: So that when the money goes away from the program, it's able to be self-sustaining, and that's a really interesting point.

One of the other questions we've kind of delved into a little bit is what are the incentives that can be provided, what are the motivators? What's the motivator for a small operation to move in transition versus what a big operator is looking for? Are there marketing things, are there regulatory issues, are there other kinds of things that we can look at to provide an incentive that is not always economic. But the economics have still got to pencil.

Is Paul next and then Sarah?

MR. HELLIKER: Thanks, Jean-Mari. I'll try to be quick here because I know we're running a little over. One of the things that we're doing right now is looking at our Alliance Grant Program and Larry Elworth has been doing a good job with Pat Weddle on analyzing that for us and trying to focus in on what we ought to be doing with our dollars and looking at whether we do research or demonstration or implementation.

And I think the place where there's the most

need now is on the implementation front. So, I would suggest in the eco comments we heard this morning that we really focus on how to best use our resources and USDA's resources and EPA's resources to help people into the implementation phase, and that means, how do you make sure these practices are distributed as widely as possible throughout agriculture.

And that leads to a second point, and this is another idea, again, that Cliff brought up when I met with him a few weeks ago, which is that we ought to look at the ag company model. They've been very successful for the past half century in selling crop protection chemicals, and they do that through their distribution network and they're PCA network. So, we ought to emulate that if we're interested in promoting a different type of pest management approach, and consider how we could promote the crop consultants and the PCAs that are out there who are recommending different types of sustainable approaches.

Of course, as Jay talks about, a lot of the crop protection chemical companies are moving towards natural products as well as biotechnology products. So, they'll

be partners in that, too.

And then we've been talking about the extension programs, and I think if you look at what UC's doing, their main focus these days is on genomics. They're taking all of their research dollars and putting it into that. And that's important, but it's years down the road. So, there's a dearth right now of support, and we heard it from Mark Whalon, too, in Michigan, for extension programs that are focused on what's needed today for agriculture really to be successful.

So, I think that we ought to look at other organizations and other individuals who are out there actually doing the work that's necessary to help agriculture through this transition phase and maybe use some of the USDA dollars that are dedicated to the land grant institutions, who are not necessarily focused on that particular type of approach now, and free those up to go to the organizations that are actually doing transition.

And I take your comments yesterday as a charge that in California, when we're looking at also the Natural Resources Conservation Service, I know there are

some elements that are broken there that work better in other states. So, I will take it as my charge to work to see if we can get California to integrate better the local level for that. Because I think we're seeing a lot of the drivers here are not just pest management, water quality, even in California it's air quality these days, too.

And so, we -- if we're talking about a sustainable agricultural program, it's not just looking at pesticides, it's looking at all of those range of activities. So, all the other agencies that are involved in that, we ought to get involved.

MS. PELTIER: That was one of my wake-up calls in coming out here, and we can talk about it more, but that's -- one of the disconnects between California and all the rest of the country is the NRCS link and it is something that we need to shore up a little bit. Thank you for your comments, Paul, and I think you underscored also what Robin said about we need to take a look at where we're going with research and address the immediate and the intermediate and the long term needs of where the industry is going.

Sarah?

MS. LYNCH: Yeah, and that's a great segue into, you know, a point that I want to make and remake, is that we have to be looking at this more holistically, both because it is the set of -- that is a whole array of problems facing growers, but also because, I think, it offers more opportunities to take resources from diverse funding sources and bring them to the problem in the field.

So, transition is really transitioning to a more economically viable and ecologically sustainable system, and it has to be looked at in that more holistic way.

It was funny, Jean-Mari, when you mentioned leadership and you referred to yourselves as the leadership. I think that is a really critical component, to have the leadership here inside the Beltway. But when I had leadership -- and, in fact, many of the things on your list were the lessons learned we've taken from the Wisconsin project and are attempting to replicate in other areas because we felt -- WWF felt that that was a very viable way to work collaboratively with agriculture, who are very important partners in conservation and

biodiversity.

But when I think of leadership, I wasn't really thinking of you.

MS. PELTIER: Well, thank you.

(Laughter.)

MS. LYNCH: And I was thinking -- I didn't mean -- I wasn't thinking of us here in the room either. The commodity associations, presidents, the heads of farm bureaus, as important as they are in the landscape, I was really thinking of the grower community, and I think that USDA and EPA should be going out together, joined at the hip as I believe you were saying, Linda, and talking together as one voice about what the array -- the horizon of issues are that agriculture is going to have to face and how you are working together to address them.

Because I think once -- what we found in going out there, a lot of growers who don't really feel that it's their problem.

And so, until you can help them see the reality, if not the responsibility, that that is something that agriculture is going to have to face, we're not getting at that leadership, and it's got to be those people, not

just the Cliff Ohmarts and the Jennifer Curtises and the Larrys and the Pats, as important, again, as they are. It's got to be the people that are hanging out in those coffee shops. It's got to be the growers themselves that see this and are motivated by it, and I think, you know, my experience has been that once they get it, they get it, and they're very anxious to get on with it.

I know partnerships and stakeholders groups can be a pain in the tush, but I do think that there's a very important role for civil society, for nonprofit organizations, for environmental consumer worker groups to be involved in the solution set of these pest management strategies both because we're going to be there anyways whether you like it or not and also because I think that we can bring valuable things to the table, if not our expertise, which you may or may not like, sometimes some of that foundation money which you're talking about.

And, finally, talking about incentives, you know, I think that one of the key things that we would really love USDA, in particular, to be focusing on is the identification of what these other ecosystem services are

that agriculture does provide and must provide if we are going to preserve biodiversity on this planet.

Because right now, it's kind of more pollination, soil filtration, these are -- you know, make it clear and straightforward to taxpayers and consumers, what are the other kinds of ecosystem services that agriculture can provide, and help figure out how to value it either through the marketplace or through public dollars. I think there are a lot of taxpayers that would be willing to support this kind of conservation activity and help create a better picture for agriculture as a whole.

And then finally, as an agricultural economist myself, I think that we have an economic research service. We've got lots of people in the land grant universities and they should be charged to find out -- to do the kind of work that we've talked about of looking at the value chain and making sure that that value added that is created by the grower goes back to the grower, so that there is -- it's not absorbed into the food chain, it's not absorbed by the retailers and the wholesalers and the food processors, but it does go back.

And one last thing is that the kind of changes that we're talking about, they add just cents to the final consumer. Because if you look at the amount of money that actually goes back to the consumer -- excuse me, to the producer for their product in terms of the final product cost to the consumer, it's minuscule. So, let's keep that in mind and make sure that it grows by rewarding growers for producing those value-added attributes.

And one last thing I just remembered, in addition to the food processors and wholesale retail, there's also the financial institutions, the credit -- the bankers who have an important role to play in determining the types of practices that can and can't be financed, and there are ways that you could use investment screens and purchase screens, not exactly eco-labeling because that's a very complex, you know, row to hoe, but screens in terms of the types of practices that need to be in place in order to get a purchase or invested in. Thank you.

MS. PELTIER: And it often works the opposite way, that a banker is unwilling to finance somebody who's

going to try something that might be a little more risky. You're right. Good points.

Dr. Ortman?

DR. ORTMAN: Thank you. Very quickly and briefly, I would compliment you on the excellent summary and synthesis you've made of our discussions of yesterday. I would highlight just a few quick things.

First of all, to me, the continuum is a very important issue. There are no silver bullets. Part of the continuum is that we need to have strong partnerships. I think we saw that yesterday in the successful programs that we heard about.

Another very key ingredient and a highlight to me was that there was individual leadership and specific dedication and focus. It was supported by a very diverse group of resources and funding. That made those implementation programs very successful.

Let me explain just a bit quickly. I've had several question about the alphabet soup at the back of my name. I am a Purdue University faculty member on assignment or detailed to the USDA CSRES for a year.

May I reflect on the land grant system for one

moment? We've heard about the plight of farmers and producers, and I'm acutely aware of that. The land grant system is also in a struggle. One of the major land grant situations in the Midwest -- it does not happen to be Indiana where I'm from -- but they are looking at a 22 percent cut in ag program funds in the next two years. That can be replicated. I know of virtually no state that is in good shape with regard to agricultural funding at the state level. So, there is that situation and that problem as we look down the future.

I am very interested and dedicated to working with you on transitions.

MS. PELTIER: And I can tell you're going to be a terrific resource. I was just looking at Deb when I heard the numbers in reduction. That's concerning kind of levels. Wow. Thank you.

Let's see here, is that -- no, it's not George. Sarah's is down. Margaret, I'm sorry.

MS. WITTENBERG: I don't know if there's any other West Wing junkies in this room, but last night's program had this chess motif and President Bartlett on the show kept saying to all his staff, look at the whole

board, and I think that's what we need to do here when we're talking about this.

And one of the things -- and I agree with John that a lot of consumers talk a good game, but when it actually comes to buying, you know, they're going to look at the economics. And I think we all have the same goal here. We can get the customers, all the consumers, not only the type of stores that I represent, but also the conventional supermarkets as well, to have -- customers need to have a reason to come and to ask for it, and then retailers will readily want to sell it if they have the consumers asking for it and really wanting it.

And as you know, there are many types of marketing. I mean, there is just even marketing to the retailer itself, but, you know, the Oprahs of the world and all that are incredible, incredible salespeople, we've seen in our stores and any supermarket you can talk to would say the very same thing. So, there's a lot of different venues of marketing out there. The media.

But what is really needed is to have all of us having the same goal because then it's easy. And if our goal even is to promote U.S. produce, because we can talk

all we want about the FQPA and so forth and wanting to have that on our own produce, but having a lot of input in produce that is certainly not up to the -- what we want the FQPA standards in the U.S., well, we've got a problem there.

So, we need to have the consumers in the U.S. note that U.S. produce is really where it's at and what they need to -- what do they need to be doing. But all of us in the U.S., all the stakeholders need to really promote that this is our goal that we really want to support with FQPA is representing for us in all this transition, and then agree that that's what we're going to do and with everyone -- with all this agreeing, I think we can get this -- the consumers really wanting this, which will actually then drive the farmers and have them have the economics knowing that it's really worth it all.

MS. PELTIER: John, let me ask you, are we out of time or can I take Terry who hasn't spoken yet?

MR. ERHMANN: Yeah, one more -- one or two more and then we really need to wrap up. If they're concise.

MS. PELTIER: Go ahead, Terry.

DR. TROXELL: I just wanted to point out in the mix of things, I've been hearing about all the pressures on all the farmers, and what I haven't heard yet is what we, the FDA, has been asking of the farmers, the produce -- the fresh produce farmers, and that is to be mindful of their practices and to look at what they're doing with an eye to minimizing microbial contamination of products.

So -- and they have been working extremely hard. You know, the strawberry groups and the Florida fresh fruit and vegetable groups have been devoting a lot of energy and time and it's just -- it's another pressure, I think, everybody needs to think about in the mix of pressures on U.S. agriculture to give us a bountiful harvest so we can have those five a day and seven or eight as we move up on the scale beyond one-a-day bananas.

(Laughter.)

DR. TROXELL: Anyway, we need to look at the whole board and recognize that there is this additional factor. Thank you.

MS. PELTIER: And additional cost factors with meeting some of those standards as well.

John, do we have time for Robin and Rob or should we -- do we have to --

DR. SPITKO: Thirty seconds.

MS. PELTIER: Thirty seconds.

DR. SPITKO: Literally.

MR. ERHMANN: Go ahead.

DR. SPITKO: I just wanted to bring this up and this is credited to Al Jennings at OP&P. We've talked quite a bit about the leaderships, lack of leadership, but I wanted to let the group know about the Doctor Plant Medicine Program at the University of Florida. I don't know if people are familiar with that, but it's a four-year program, Ph.D. level, that's the equivalent of a Doctor of Veterinary Medicine. And it is -- it requires integrated holistic research and coursework by the students, economics. They have to do outreach, they have to do an internship with consultants or extension people or commodity groups. It's really a wonderful, holistic way of turning out leaders.

There's 22 students in it, it's filled to capacity, and there's no support for those students. And in the land grants, most grad students have

assistanceships in some way. These students are paying their own way. And it really has a lot of promise, but it needs support. It's not getting support from academia in general, there's not a lot of support for that. But there are some pilot programs out there training leaders and I think that we really need to be aware of them and maybe use them for models for other things, because I think the idea is right that goes with that.

MS. PELTIER: And get some of the players around the table to look at helping support it.

DR. SPITKO: Yes.

MS. PELTIER: Okay, Rob, and then we're finished, John, I promise.

ROB: I always wanted to have the last word on transition.

(Laughter.)

ROB: I just -- I felt compelled to respond to what Paul mentioned about taking resources away from the land grant universities. Many, many of my members are at the land grant universities. We heard about the dire conditions from Eldon.

I would say many of my members are very

concerned about genomics and the preoccupation with a sexy science, but if we cut resources from the land grants, it will be my members who are out on the street, not the geneticists. And so, just a word of caution.

I would suggest instead that we bring the land grant universities to this table and we task them with the work that we see needs to be done, so that they get that message very clearly from us.

MS. PELTIER: Thank you very much. I think it's obvious that we're going to have very rigorous discussions within this group and I look forward to working with you and setting up the next workgroups. Thank you.

MR. ERHMANN: Thanks, Jean-Mari and everyone, very good discussion. And we will come back in the period on the agenda this morning where we're going to talk about next steps and clarify the organizing and the relationship between the transition workgroup and the cumulative workgroup, the issues that we talked a bit about yesterday that we need to come back to. So, we will do that when we get to that part of the discussion.

Let me ask, if we could then, that we move, as

we suggested earlier, to Dr. Wang's presentation on the National Report Card of Environmental Toxicants, and I think we have a Power Point presentation to go along with that. We'll do that, have any discussion that goes along with it, then we'll take our break and then we'll come back and address the worker exposure issues as I indicated earlier.

DR. WANG: Thank you very much. Just to change gears, good morning, I'd like to thank the committee for giving time for this presentation.

The purpose of the talk this morning is to, number one, to update the committee on this year's release of the National Human Exposure Report, and number two, to highlight the use of such data.

The National Report on Human Exposure is a new product. It's barely a year old. This is a new production that has significant consequence and relations to environmental health. One area that's going to contribute is our ability to determine the extent to which environmental chemicals are found in the bodies of Americans.

Number two, it will provide us, also, a measure

of our efforts to limit such exposures.

The process by which we will accomplish this is through biomonitoring. Biomonitoring is the assessment of human exposure to chemicals through measuring these chemicals in human blood or urine. We are integrated with the National Center of Health Statistics Study, which is the National Health and Nutrition Examination Survey, and for the year 2001 report, we've utilized their 1999 database.

The data is abstracted from these mobile examination centers that visit about 12 locations in the United States per year. At each location, they sample about 450 people.

In the year 2001 report, we looked at 27 chemicals. They included heavy metals, thalates, cotarnine, which is a metabolite of environmental tobacco smoke, and the organophosphate pesticides.

For the OP, we looked at their metabolites. We specifically measured the alkyl-phosphate metabolites and they represented about 28 pesticides, some of which are listed here.

Now, the role in terms of how we can use such

information, the overall message is that it is unique exposure information to be used by public officials to help prevent diseases related to environmental chemical exposures. Specifically, it will assist us to determine what chemicals actually get into Americans by looking at their blood and urine. Also, it will help us to measure the prevalence of people with elevated levels.

For certain chemicals, we have a very good idea of the association between health effects and levels, for example, lead, and with this, we can get an idea of how many Americans are at this level. Also, to assess the effectiveness of public health efforts to reduce such exposures.

Additionally, to establish what's called reference ranges to define unusually high levels. Reference ranges is something that we can gauge measurements from people that are higher than what's considered background. Also, to track trends and exposure over time.

We are also able, through demographics collected, to look at subpopulations that may be at risk for increased exposures. These would include children,

women of child-bearing age, and the elderly.

And, finally, to set research priorities for human health effects.

Now, a word on the limitations for this information. The most important thing is that we had a very small sample population size. This is the first year report and that alone limits what we can say. Additionally, some of the analyses are looking at even smaller populations, and finally, what we need to consider is that more data will be needed to support the information in this first year's report, and also to allow us more detailed analysis of some of the subpopulation findings.

Now, just to look back in the first report and to highlight some of the major findings, number one is that this is the first report for 27 chemicals -- 24 chemicals, actually, three of which have been reported in the past. We have a first attempt at establishing reference ranges for these chemicals for the U.S. population. We've noticed a significant decline in blood lead levels among children. Also, about a 75 percent reduction in U.S. population exposure to environmental

tobacco smoke.

What I'm going to do is use the lead example to demonstrate how we can use this data. Now, the CDC has been measuring blood lead in children since 1976. Lead is recognized and its adverse health effects in terms of cognitive development, as well as behavior in young children.

A level of greater than 10 milligrams per decaliter is considered elevated in children between the years of one and five. In 1991, we measured a level of about 2.4 -- or about 2.8, and in 1999, the most recent report, we measured a level of 2.0. What this demonstrates is about greater than 80 percent decrease since 1976 in blood lead level in children.

Now, this is a significant effort by all when you look at where this is coming from, and the blue line demonstrated here is the trend line for the phase-out in lead from gasoline, and the mirror image is -- the overlapping image is quite striking. This just underscores the total effort in terms of everyone in public health to bring these levels down.

Now, despite this decline, we are still seeing

high levels of lead exposure in children residing in the urban areas as well as those from low income families, and we still have more work to do in that area.

This is the report data on the alkyl-phosphate metabolites for the OPs in the '01 report. The -- we have various metabolites listed on the side column and along the X axis we're looking at the concentration in terms of micrograms per decaliter. The population here ranges in age from six to 59 years, and we're looking at a sample population of 703 people.

The limitations here is that we are unable to discern either the route or pathway of exposure because these are common metabolites to many OPs. For example, if you look at the last one, dimethylthiophosphate, it's the highest one in this comparison group, not because it's the heaviest in weight, but because there are many OPs that will end to this metabolite.

Now, the second point is what's coming for this year. The year '02 plan, the next release will be this fall. The chemical classes will include the following: The carbamate pesticides, the polychlorinated biphenyls, dioxins and furans, polycyclic aromatic hydrocarbons, and

we will continue to measure the 27 original chemicals as well.

Information is available online at this web address, and I thank you for your time.

MR. ERHMANN: Leave that up a second.

(Brief pause.)

MR. ERHMANN: Comments? Paul?

MR. HELLIKER: One comment that we're starting to see some concerns about what is commonly used (inaudible)called polybrominated diphenol ethers, and I was wondering if CDC has any interest or plans to start monitoring that, because its use may grow precipitously in the near future?

DR. WANG: PBDE is familiar to us. We currently do not have the analytical method to conduct this analysis, but we are looking at it.

MR. ERHMANN: Mark?

UNIDENTIFIED MALE: Paul, we are looking at it under the TOSCA Program, PBDE as well, looking at that as well as some of the other flame retardant issues, PFOS, PFOA are among those.

UNIDENTIFIED MALE: (Inaudible).

UNIDENTIFIED MALE: You've exceeded my knowledge base, Mark.

MR. ERHMANN: Use the mike, Steve.

UNIDENTIFIED MALE: But a number of these companies are, one, subject to our either high production volume voluntary program where we're actually getting tox data, some of the data are starting to come in, and then under our VCEP or our Voluntary Children's Evaluation Program, where we're getting some of the exposure information. So, these are some that we don't have any -- I'm not aware of any major alert other than PFOS, which I think most people know that was one of the components in ScotchGuard that 3M has voluntarily taken out of their products. But the other two we're looking at.

MR. ERHMANN: Okay. Mark and then Janis.

MARK: Obviously, we see some connection between this report and what the committee is trying to do and what EPA is working on here. But it's not clear to me exactly how you will integrate this information into your exposure assessments or -- how are you -- how do you think that EPA can utilize these national report cards?

DR. WANG: Right now, the clear direction in which this information can be used is, one, to look at trend, how things will change, and the classic example is the lead example that I've shown. To say more than that, at this point, would be presumptuous. We anticipate that such information, as we collect it over the years, will assist bodies such as this in terms of in your decision-making to be more informed as opposed to not have data and look at other areas.

MARK: Actually, I was thinking of that question as being directed to Marcia and the EPA staff so that -- I mean, one thing is, I think, that it would be important for there to be a collaboration here so that, in fact, how you see you might be able to use the information is getting back to CDC so that they're giving you information that will be something that you can use.

MS. MULKEY: Actually, these data were discussed with the SAP as relevant to one of the issues that we were working through on the cumulative risk assessment, having to do with how you think about a single day of exposure or multiple days of exposure, not in the sense of using them to quantify anything, but in the sense of

using them to inform that dialogue. So, we have been, you know, working a literative way with CDC about this product and our expectation is that wherever it's relevant to our work, we'll use it as we like to all data that are available and reliable and useful.

MARK: It would seem like it's some real-life feedback on your modeling for sure.

MS. MULKEY: Margaret can add a little bit to that.

MARGARET: We actually have staff dedicated in the Health Effects Division to work closely with CDC, and some of the funding, we've actually provided to CDC in those studies.

MR. ERHMANN: Steve, did you have a comment?

STEVE: Yeah. I think it's going to be interesting for all of us because, as has already been said, there's no way to make the direct correlation between those level of metabolites and what exposure may or may not have occurred. But I think everyone certainly around this table recognizes for indoor OP use --

(END OF TAPE)

STEVE: -- in the United States. And, of

course, that's the '99-2000 time frame, which is basically after they took the sample. So, it's going to be, I think, collectively, very interesting for all of us to see, certainly, one potential major exposure pathway eliminated and what does that mean in terms of measurement. So, I think we'll all wait and see.

MR. EHRMANN: Janis?

DR. McFARLAND: Dr. Wang, were the OP samples from one sample per individual or do you have any sense of variability over time?

DR. WANG: It is from one sample.

DR. McFARLAND: Okay, thanks.

MR. EHRMANN: Dan?

MR. BOTTS: Yeah, I apologize for not being here right at the start of your talk, but this is -- having gone to the very first ILSI modeling meeting on cumulative OP exposure where everybody said that gold standard was going to be biological monitoring on how you do these calculations, and 734, right, is the population size in that first study for the OPs? Because I didn't hear --

UNIDENTIFIED FEMALE: 703 is the --

UNIDENTIFIED MALE: Yeah, 700 people approximately.

MR. BOTTS: This is a similar question asked on the dietary side of it. To get to the level of specificity, to go in and check some of the exposure scenarios where you've got temporal distribution, seasonal distribution, pets, no pets, all kinds of those kind of issues from population size, what size of sample would you project that it would take to get to a level that you could say that the modeling process that we heard discussed yesterday represents real world numbers, or is that even possible to do?

And the second side of that, I wish you hadn't taken it down, you had a whole list of chemical names that are about that long. What universe of OPs does that represent and are there other products that those metabolites could have come from other than the insecticidal products that are out there in the environment? I mean, the lead example, there were different universes of sources of lead that contributed to that.

DR. WANG: The list of metabolites are known

alkyl-phosphates. They are specific for certain types of organophosphates, for example, chlorpyrifos, chlorpyrifos methyl, malathion, parathion, the complete list can be found at the web site. Any organophosphate, or any pesticide, for that matter, that does not metabolize down to an alkylphosphate derivative will not be found by that approach.

MR. EHRMANN: What about on the sample size question?

DR. WANG: The sample size, again, I am unclear exactly what you're referring to. The sample size, indeed, was 703 for this one -- for the first year go-round. We looked at the age range from six years and up to 59. We will continue to add to that database, but right now, it's too limited and too small to say anything more than what we've already shown.

MR. BOTTS: I won't belabor this, but one of the biggest issues on the cumulative exposure on the residential side for OPs was seasonal variation in the residential exposure based on lawn types and other things that drive that process, and I guess it's more of a temporal type distribution in the population you sample,

and then regional attributes to be representative of a total population.

And I just -- I think it's a huge number, that's the only reason I'm asking, and I want to know how much -- how many dollars it would take to get to a pool to take it to the point as being able to use as a gold standard which the ILSI group said a long time ago needed to be done. That's the reason for my question.

DR. WANG: I think you have some excellent ideas and excellent thoughts, but we're not there yet.

MS. SASS: Can I ask a question?

MR. EHRMANN: Go ahead, Jennifer, and then we'll get the other folks.

MS. SASS: Jennifer Sass, NRDC. I would suggest that the EPA -- and I know you're taking these suggestions in constantly through time -- that not only do you incorporate the CDC data, not incorporate into, but use it as a truth testing to test the -- the cumulative risk assessment that you have for OPs, but also to consider the open literature and published literature that's out there, which also has some biomonitoring OP studies that are of extreme value. Some

of them are more localized, not so countrywide, and some of them focus on certain populations, but those populations are of interest to the cumulative risk assessment.

And this also came up at the SAP, both to consider the open literature and to consider these kinds of biomonitoring studies, as well I'm aware that industry is also doing some biomonitoring studies. Some of them are fairly wide in their scope. Some of them are narrow in terms of region or localized, but all of them should be looked at in some kind of public domain.

MR. EHRMANN: Okay. Steve?

STEVE: Yeah, I was a little bit curious, and this may be off the beaten path a little bit. But curious about the other heavy metals that are being captured in the work and whether or not those data would allow the agency to take a look at the impact of its recent decision on CCA?

DR. WANG: When you say other heavy metals, what are you referring to?

STEVE: Copper, chromium, arsenic, along those lines.

DR. WANG: We are considering adding other heavy metals to the National Exposure Report. When that information is made available, I guess we'll all find out.

MR. EHRMANN: Jay and then Shelley and then we'll move along. Jay?

MR. VROOM: I was curious to know if you can distinguish whether these metabolites were actually ingested or otherwise exposed, or were they metabolized in the human subjects that you examined, and if there is any difference perhaps the Health Effects Division already knows or understands from data submitted by registrants or others about whether -- is there a differential between a metabolite that's ingested directly or one that is actually metabolized in the human body?

DR. WANG: With the way the data was collected, we were unable, number one, to discern how it got into the body in terms of the pathway or the route of exposure, an environmental pathway or the route. Secondly, we're not able to discern whether these were metabolites ingested or exposed to versus metabolites

secondary by the body being broken down into them.

MR. VROOM: And does Health Effects have an idea, Margaret, about the -- is there a difference between the same metabolite whether it's ingested or metabolized within the body?

MARGARET: As far as we know -- now, as far as I know, not.

MR. EHRMANN: Okay, Shelley?

MS. DAVIS: I wanted to follow up on some of the comments Dan made. I was wondering -- this is sort of a series of questions -- why only about 700 of your about 5,000 subjects were tested for OP metabolites? And another question I had, because you said that you didn't have information about routes of exposure or source of exposure, if there was any kind of accompanying questionnaire which might elicit some of this information?

And then in the down-the-road column, I know that you said you were going to take up carbamates, which is very good, but I was kind of wondering if you were thinking about tracking some of the other groups that EPA might look at as cumulative risk groups, like triazines,

and if there's some coordination along those lines?

DR. WANG: The response to the first question, that is to the sample size of 703, I'm not familiar as to how that number was derived because I entered the system after that. I do know it was looked at a wide age range, where as others analyzed, they were specifically for the adults.

In terms of the questionnaires, it's a long, drawn-out process in cooperation with National Center for Health Statistics. Right now we have not forwarded any questions regarding residential sources or food pathways to determine -- to assist us in looking at where there may be sources of exposure.

We are, in our research area, looking at other pesticide classes to develop analytical methods to add to the report.

MS. DAVIS: Could I ask one more follow-up I forgot? And that is, why not children under six?

DR. WANG: Again, I don't know the answer specifically, but I suspect it is the method of collection.

MR. EHRMANN: Okay, thank you very much for the

presentation. What I'd like to do now is let's take a 15-minute break and then we'll come back and pick up on the worker exposure issues.

(Brief recess was taken.)

MR. EHRMANN: Let me just give you a little background about the thought that went into putting this item on this particular agenda and what our objectives are for this discussion. On the original agenda, this was broken up with a break, et cetera, but we'll have at least an hour to discuss this issue, and what we'd like to do is end up with a sense of the group as to how these issues ought to be addressed going down the road in relationship to CARAT or other venues where people may have perspectives on that, and there are other committees, such as the PPDC, who address some of these issues.

So, we want to think about those process steps as we go through this discussion and end up with the sense of the group hopefully as to your suggestions to the agency and the department relative to moving forward.

I think there were a number of inputs as we went around talking to all of you about planning for this

agenda. A number of people mentioned the worker exposure issues. From a range of perspectives, I think there's a sense among some that the processes that the agency is utilizing relative to worker exposure issues is still not as clearly understood as now other parts of the process are, and I think, you know, in some ways may be similar to the black box kind of analogies by folks in this room a couple years ago as it relates to the overall risk assessment process and a desire to understand it better, and can CARAT help with that and we ought to talk about these issues.

I think there's also a set of folks who believe that these issues are not being addressed sufficiently. That assumptions and information that are going into this part of the risk assessment are not accurately reflecting what's going on out there, and they have some desire, therefore, to have these issues on the agenda.

So, I think we had a range of views that led to this issue coming onto the agenda. So, I would invite people to make your comments in terms of both where you think information coming out of the CARAT process would be helpful on worker exposure issues, any process

suggestions you have for moving forward. This is not intended to be a discussion where we're going to resolve or make recommendations about these issues, but to really tee up and increase the convener's, the department's and the agency's understanding of where your concerns are so they can best figure out how to suggest moving forward on those issues in the future, be it in CARAT or somewhere else.

So, with that, let me open the floor to any comments anyone wants to make. Carolyn, first to the card, first to the mike.

MS. BRICKEY: I watch Jeopardy every night.

(Laughter.)

UNIDENTIFIED MALE: In the form of a question, please.

(Laughter.)

MS. BRICKEY: Why is it that. . .

(Laughter.)

MS. BRICKEY: Why is it that when I read the information about AZM, which is one of the chemicals that sparked a lot of the concern about worker risk, the numbers for the -- the margin of safety numbers are so

low -- I mean, I think they're shocking. And if we talk about developing holistic systems and sustainable agricultural institutions to work with those systems, I think we need to look seriously at how we're dealing with worker risk. I think it's a huge problem.

We can argue about -- you know, we can argue around the margins about whether the model is conservative enough or too conservative, but I think the models that we have certainly tell us that we have a real problem with worker risk in terms of some of these chemicals, and this OP is, I think, a good example.

I guess I've never quite seen the risk benefits standard in all its glory used quite so detrimentally, because, you know, we've always talked about the risk benefits statute in the past, and there was a lot of discussion when we were developing the Food Quality Protection Act about whether we actually use benefits. I think everybody probably recalls some of that discussion.

We're using benefits here, and we're saying, in certain circumstances, that the benefits outweigh the risks in ways that I think are, at best, highly discretionary, and at worst, really problematic. So, I

think this is a huge problem and I find these numbers pretty shocking.

MR. EHRMANN: Any comment or not? Susie's reaching for the microphone.

SUSIE: No, no, I wasn't reaching.

(Laughter.)

MR. EHRMANN: Okay. Shelley?

MS. DAVIS: Well, I'm going to limit myself to my first 100,000 words or something, but I think there are a couple of points that we need to make on worker exposure.

I think that the EPA should be complimented on the new risk assessments that they've done post-FQPA because I do think that this is the first time that the public really has a good way of gauging, you know, what is your process, what is your analysis, how do you figure out the risks, you know, and then we are finally in a position to have some meaningful input. So, I think that part of the process has been excellent and I commend the EPA on that.

What it raises for me, though, are a couple of key questions. One thing that you see is that there are

very few studies that look at actual farmworkers being exposed in particular crop situations. Instead, we have a few studies on the post-application side that have to cover a wide range of crops, and then we have 40-some studies in the pesticide handler exposure database that cover everyone's handling activities. And I think that what gets lost, what happens when we have to extrapolate from a relatively small number of studies is that you make kind of broad-based assumptions, and then lots of things flow from that.

But the questions then -- you still have to come back to the actual real worker in the real field and his children who may live in housing adjacent to the field and does this really reflect the reality. Let me give you a few examples.

The exposure to workers is based on a 150-pound male, so we know that a lot of workers in the field are women; that a substantial number, somewhere in the 100 to 300,000 range are children; that the children are in the field even if they're not working and they can be children under six, so they're quite a bit smaller. So, the questions then become, is it safe for those kids.

The eight-hour day, you know, we know -- every grower in this room can say that workers don't just work an eight-hour day. This is not like punching a clock. So, there are a lot of assumptions that don't really reflect the reality.

I think that we have to look at a theme that came up in the last discussion which is the goal here is protecting workers, and the only way you can do that is to look holistically at the whole system.

This was very much raised in the GAO report of March 2000 on improving pesticide safety for farmworkers and their children, and I really hope that everyone will dust that one off their shelf and take another look at it, because the essential point that the GAO made is -- first of all, they said it looks like you're not analyzing the dangers adequately to protect children, which is not something we should lose as a point, but beyond that, it's how are you really testing whether the protections you're putting in place are adequate. And they just put forward the simple things that it would take, that aren't in place now, to do that.

For example, like a national pesticide incident

reporting system. That's like the basic. How do we know how many people are actually getting hurt when the fact is we're not counting? And the basic idea here would be -- I mean, there are a couple of states who have come forward and are doing some good work. And since Paul is here, I'll have to give a compliment to California, and Washington State are the leaders here. But why isn't this linked to a national database? Why isn't there one number that any doctor in the country can call and say, I'm seeing somebody that I suspect has been overexposed to pesticides, so that we have -- we collect some more real data about the problems?

That, of course, only gets to the acute side. We need use data, so that epidemiologists can really correlate -- like I was mentioning yesterday about this United Farmworkers study that shows elevated risks of cancer. Well, cancer from exposure to what? I mean, we don't know. We don't know because there's no national use data. There's no incident data, there's no use data.

Okay. What about the protections? Well, the worker protection standard, which was put forward in '92, has a lot of holes. There's now a reevaluation going on

about that. We should look at that. What would it really take, in terms of protection and protective practices, because -- to ensure workers don't get hurt? And I think that this has to be juxtaposed to the registration side, because they are really two sides of the same coin.

The registration side, you're saying, well, we're not going to put out anything that's overly dangerous. We'll get to that in a minute. But it's overly dangerous in the context of work practices that are presumed to be safe. Well, then the next question is, is your work practice side holding up its end? And that has to be looked at. And in order to know, even if your regs were good, which let's face it, they're not, but even if they were, it would adequately enforced, and how does that -- is that system adequately working?

And I think that the answer to that is no, also, and there are a couple little reports on that. But that has to be looked at because if there's no enforcement, you're not going to get compliance. So, it all has to fit together.

Now, let me just make one final point. I think

that some of the things in the last couple of -- well, in the OP reevaluation, which has been very helpful, we've seen some really interesting things. And I think azinphos-methyl is probably a prime example of this. Almost all application methods put handlers at risk. We work on a margin of exposure ratio of 100. The numbers go down way below 10 for many, many of the practices, and virtually all are under 100.

With the EPA's proposed re-registration eligibility document, a number of uses will go away, but a number will continue, and perhaps indefinitely. And the question is, how can this be done safely. And from the way that these re-registration analyses -- which I think are not adequately protected, show us that these workers will continue to be at risk.

Let's look at the post-application worker side for a moment. Up until now, on the national level, most crops, the re-treatment has been two or three days. About a year ago it went up to 14 days. Well, when you look at what it would take to be safe, for apples and pears, it's 102 days. That's, you know, six or seven times more than what we now have in place, and what we

now have in place is actually seven times more than what we had in place two years ago.

So, we can see that the protections have, in no way, kept pace with the real dangers here. And that really has to be, you know -- as I said yesterday, I think that's the driver to this transmission argument. Yes, there are a lot of obstacles, but there are real dangers here that we have to take into account.

And I know I said final, but I'm a lawyer, so here's my next to final sentence.

(Laughter.)

MS. DAVIS: And that is that we need more research to really -- because that always -- you know, my friends in the grower community say, well, what do we really have. Okay. Well, what do we really have depends on the research. And there is an agricultural health survey going on which really looks at 90,000 growers. We need a comparable system looking at 90,000 farm workers, but we don't have that and I challenge the agency to do that.

But also, we've got to look at what there is in terms of data. There's some really good work going on

that isn't included in your analyses. For example, the exposure studies being conducted by Dr. Richard Fenski at the University of Washington, where he has looked at both farm workers and their kids and real exposures. Where is that data in either your individual chemical analyses or the cumulative risk? It's not there. So, we're not taking advantage of what could be.

All right. Well, what would I like to see? I would like to see at least a whole day on farm workers taking apart the entire system from soup to nuts, are we protecting farm workers and what would it really take? And when I say farm workers, I mean farm workers and their children. The children have also sort of fallen out of this equation.

MR. EHRMANN: Thanks. Cindy?

MS. GOWAN: Let me start with my disclaimer, and I think it's a shame that we've jumped into analyzing one chemical because I think that's not what we're here to do or what we're here to talk about. It's not one of my chemicals. It's certainly one that I'd purchase if they wanted to sell it to me because I think that there are ways that it can be used safely. I think worker exposure

is an absolutely essential issue that we have to look at. But I think there are a number of policy calls that have not yet been decided, use of data that has not yet been decided that impact the worker exposure assessment.

So, I don't think that we can say conclusively that an MOE is -- an MOE of 100 is the only way that people are safe in the field. I don't think that's been proven out yet, and I don't think we can, on the converse side of that, say that workers are at risk based on the decisions that EPA has made.

I think the reason that you have a benefits argument is because we're talking about worker exposure, which is regulated under FIFRA, which requires a benefits argument.

And so, I think my bottom line message is I don't think that this is a topic that's right for CARAT. I think it came up in CARAT because we talked about, at our last CARAT meeting, the need for a workshop so that we could understand what was going on with worker exposure because they're linked. From tolerance reassessment to the RED, we're talking about worker exposure, we're talking about ecological risks, and so

there was a natural link there.

I think that it might be more appropriate in PPDC. My concern about putting it in PPDC is that that's not a committee that's co-chaired with EPA and USDA and I do think there's a role for USDA to play in worker assessments. When you're talking about benefits, which are required under FIFRA, I think USDA plays a role in helping get that information through the crop profiles that they've done, through other links that they have, to commodity groups.

And so it might be appropriate to handle it as a workshop, as we first talked about, a workshop that's co-chaired by EPA and USDA where these issues are vetted, and we understand what are the kind of choices that EPA has to make when looking at these worker risk assessments, where are the areas that we could utilize more data and more information and those kinds of things. So, that might be the more appropriate way to come at it.

MR. EHRMANN: Okay. Michael and then Erik. Eldon, he needs a mike. Thanks.

DR. WILLETT: On behalf of the fruit growers in

the Pacific Northwest, we've spent an awful lot of time thinking about worker exposure, and when I got the phone call, asking about what topics I'd like to see on this agenda, I mean, it crossed my mind, since I spent a lot of time, that this might be a topic. But then I thought about it. Well, it really isn't a topic that I thought that CARAT was supposed to address, although -- so I didn't suggest it.

I had heard for a long time that there was some discussion about having a workshop to try to explain how all these numbers are calculated, and I think that would be an excellent thing to do. I think the agency needs to do that because, although I really commend the agency staff for trying to help me understand this so that I can explain it to the people I work for, I still don't have all the information I need.

I represent an industry where the average orchard size is somewhere between 27 and 50 acres. There's thousands of people, 4,000 people. I've probably talked to about a third of those folks over the past six months in grower meetings all over the Pacific Northwest trying to explain to them the numbers the agency has used

in calculating these exposure levels and the risks. And the folks I work for can't understand how these risks could be so high, because every one of these people that I represent live in these orchards. Their children live in these orchards.

I don't know anybody who's my age who didn't spend an incredible -- way more, a huge, a bigger part of their childhood than they ever would want to, out there working in these orchards thinning and picking.

The numbers that we're seeing out of these assessments -- and again, I understand how they're calculated to some degree, and I understand why the numbers are -- they don't reflect the reality that these people are seeing, not only with their own families, but these people also live in exactly the same communities that the farmworkers live in. I mean, they interact with these people in schools, on the PTAs. We're not an isolated situation where the farmworkers are here and the rest of the community is somewhere else.

And so, they -- and they're intelligent people, mostly college graduates. They understand -- in their education, they've been exposed to the concept of

exposure and what the effects might be from organophosphate exposure in this way, and I think they feel that they would recognize these things if, over a 40-year period, when this chemical's been used, they had seen these kinds of things in their own families and in the people that work for them. Because bottom line, there isn't anybody that I work with that wants to make anybody that works for them sick.

Our industry, way before the agency took action on ethyl parathion, had basically stopped using it because they recognized the risks to human exposure, just as you did. But they did it before, voluntarily. Just -- not even a group action. Individual farmers said, hey, there's better things for us to do. We can make a shift.

So, I need some help, and maybe this workshop is the place to maybe give me that help, because I need to be able to explain these decisions to folks, because nobody wants to put anybody at risk, your own family, the people that work for you, and if there is real risk, we need to know that and I need to be able to explain how that risk is assessed.

MR. EHRMANN: Okay, Erik?

MR. OLSON: I wanted to lead off just by responding to the point that perhaps this isn't the committee to discuss this. I'm not sure it necessarily matters where this is discussed. I think if you are going to discuss transition, for example, away from OPs, you cannot have that discussion without discussing occupational exposure.

But be that as it may, I think -- I'd like to start by saying that maybe as an admission that I think the environmental community has, for a long time, been very poor at raising farmworker issues and I think it's a mistake and it's something that -- because of that, I think, it's largely been ignored by many in the public interest community, and I don't think that's going to remain the case.

On the flip side, I think EPA, which I have known and loved for many years and used to work at, this is one area that -- I think it's the only area that I know of that EPA regulates in the occupational area directly. There may be other examples, but I'm not aware of them. This is an area that, in my view, EPA has

completely fallen flat, and I don't think it's because the agency has not paid attention to it. I think there are, simply, enormous risks that have not been addressed.

We often hear that the agency and society should address the biggest risks first and that we should go for the 90 percent or 95 percent of the risk and then deal with the 5 percent later, this is -- you know, if you believe anywhere near the numbers that the agency is coming up with for some of these occupational risks, they are enormous. And I don't want to debate whether the MOE is ten or one for some of these uses, but they are in that ballpark for, say, azinphos-methyl and for some of the others.

But I think they're -- I'd just like to make a couple of points on this front. One is that I think the agency needs a very clear policy of saying what's an acceptable risk for an occupational worker. And this is quintessentially an environmental justice issue of the first order. I can't identify one that is clearer.

We have a population that is very poorly represented in Washington, D.C. We have a population that is extremely highly exposed. We have a population

where it's not theoretical data. In California, where the data are collected on poisonings, I've seen some data suggesting that 10 to 20 percent of the workers are pulled off because of pesticide poisoning incidents. Maybe those numbers are wrong. I'd like to hear if there are better numbers than those.

But we've got a real issue here. It's not a pretend issue or a theoretical or modeling issue.

The second overall point I want to make about worker risk is that the agency has had before it now for, I believe, three years, a petition that it has not responded to, and it is a petition that goes to a tolerance issue. When EPA assesses tolerances under the Food Quality Protection Act, as you know, it has to look at aggregate risks, and the petition asks the agency to look at the aggregate risk to children that were just referred to running through the fields, that live next to farms, that live on farms, farmworker children.

This is a population, to my knowledge, that has never been considered in any of EPA's tolerance reassessments. It is also a population that, to my knowledge -- and I, again, would like to be corrected --

is never considered in EPA's occupational exposures. So, they're in a never-never land. They're not considered when EPA looks at the MOEs for occupational risks and they're not considered when EPA sets the tolerances.

We think that the law is pretty clear that the agency should be considering this population, and there are literally millions of these children, in setting their tolerances, and unfortunately, we haven't seen much progress on that front. I also just finally wanted to comment on the issue of data collection for farmworkers and farmworker kids.

I'd like to hear a little bit more about the Agricultural Handlers Exposure Task Force and who participates in that and who the public interest representatives are in that. And I'd also like to hear about what EPA and CDC, for example, are doing in terms of following up on some of Fenski's and other work on farm kids exposure and on farmworker exposure and biomonitoring for farm kids and farmworkers.

So, that's a lot of questions, but they're all issues, I think, we may need a whole other meeting on, but I just wanted to identify some of the ones that, I

think, are most critical.

MR. EHRMANN: Okay, Jay?

MR. VROOM: Erik opened the door, so I'd like to ask for an opportunity for Dan Faye (phonetic), who represents the Ag Handlers Exposure Task Force, to say a few words about where they're at.

MR. EHRMANN: Yeah, I was going to ask for that since this got handed out at the. . .

DAN: Thank you. I'm Dan Faye with Vallant USA Corporation. I also serve as the Chair of the Administrative Committee of the Agricultural Handlers Exposure Task Force.

You all have -- I think all of you at the table have a copy of a one-pager that describes, very briefly, what the Agricultural Handlers Exposure Task Force is and what it's doing. I'm not going to go through all of that because I think you can probably read that quite well. But I'd like to just point out or underline a couple of points.

My understanding about the CARAT and PPDC interest in this issue had, at least in part, to do with a lack of clarity or a lack of understanding about how

worker risk assessments were being done in the context of registration and reregistration decisions, and I think from that standpoint, there still is a need for some teaching, perhaps a workshop and some greater understanding for the stakeholders.

Over the past several years, both regulatory agencies and industry have recognized in the context of handler exposure assessment that there are some deficiencies there. Most of the decisions in the past 10 years have been based on a database called Pesticide Handlers Exposure Database, which is a collection of industry-contributed studies, some of which are quite dated. There's variable quality to those studies, and it's been recognized in -- both within the agencies and in industry that something needed to be done to upgrade those studies, and hence, to upgrade the quality of the risk assessments.

Both agencies and industry are in parallel working to fill those gaps, and I won't comment too much on what the agencies are doing. Perhaps somebody here can comment on that.

What industry is doing is putting this

task force together. It is a brand new task force. We're really still in the formative stages, but we're working -- I would say we're working very quickly to get going and start filling those gaps both with new studies that have been conducted within the past 10 years, provided they meet certain minimum scientific and quality criteria. We want to make sure that all the data are of high quality.

And then once we find out what that list of studies is and we identify the data gaps for covering the major handler exposure scenarios, then we're going to go out and generate new data. That's going to take several years. It's not a quick process. But the ultimate goal is to have a new database of proprietary industry studies that will cover the majority of the handler exposure scenarios in a quality manner.

The only other thing I would say is that we are actively communicating, even prior to the formation of the task force, we've been communicating with EPA, PMRA, CDPR and USDA, and those communications are continuing on the technical details of this work. And I would say also that we are interested in gathering stakeholder input. I

have to say we are -- this is -- the objective is to generate a database of proprietary studies. We are concerned about maintaining the confidentiality of the studies and retaining data compensation rights, but we do want this database to be useful for all the stakeholders.

I don't know if there are any questions, but I'd be happy to try and address those.

MR. EHRMANN: Any questions directly on that? Erik, yeah?

MR. OLSON: Could you explain sort of what the time frame is and how you expect this data to be used by the agency, say in the upcoming decisions on some of the OPs and some of the other -- the carbs, for example?

DAN: I don't expect that there will be data available to address those decisions. This is a longer term process. It's not just about the OPs. One could say that it's been triggered, in part, by the OPs, but the goal is more long term.

MR. EHRMANN: Okay, let me ask -- oh, Shelley, you had a question, go ahead. Sorry.

MS. DAVIS: When you say that these studies are proprietary, how are public interest groups and

farmworker organizations going to be able to analyze these studies and the quality of your data? Is there some way we can look at this other than take your word for it?

DAN: Well, I think I'll make a comment and then perhaps some of the agency officials can comment as well. I think all of the same mechanisms that have existed in the past for other task forces and for individual company data and the ability to access those through Freedom of Information are still available.

MS. MULKEY: Right, subject to 10G.

MR. EHRMANN: Say it in the mike, Marcia.

MS. MULKEY: That's correct. These are not -- generally do not qualify as confidential business information, so they generally are available under FOIA so long as you're not a multi-national corporation and you sign that you won't share them with a multi-national corporation.

MS. DAVIS: Before we leave this topic, though, I want to make one more comment, though (inaudible).

MR. EHRMANN: Yeah, go ahead.

MS. DAVIS: Just a couple quick comments. I

forget who exactly raised this, I think it was Mike. I think it is one of the weaknesses that has been brought to light numerous times in this committee is exactly that the growers really don't have a good handle on what are the health risks, and I really would welcome a partnership on thinking out ways to convey the real risks to the growers, because I think that if they did more accurately understand them, there would be more of a partnership on worker safety, which is exactly what we don't have right now.

There are a number of different elements here that I think are worth noting. One, for example, is that the pesticide label, which everyone is supposed to look to for accurate information about the product, doesn't contain any information about the chronic health effects associated with that product. So, I think that there is -- this is an important thing to take into account.

The other thing I would just like to say is that we have to get past the idea that a grower could just say, well, I don't see anyone in my fields, you know, lying down dying so things must be hunky-dory. I don't know how many times that I have heard farmworkers, when

they've been exposed to pesticides, that they've been throwing up or had rashes or blurry vision, whatever, and gone to their supervisor and said, I think I need to go to the doctor, and the supervisor said, oh, it's poison ivy or you drank too much or you ate the wrong thing or it's contaminated fish or whatever. Okay?

That does not touch the fact that we're not going to see workers get cancer in a day. We're not going to see birth defects in a day. So, really, this idea that we can judge the safety or lack of it by what we are seeing is very, very unrealistic, and I think goes to the basic point that we need to figure out a way to convey the real risks to the grower community so that they could also be part of the transition team, so that they can understand the real risks to their family.

Okay, just one more point. Well, a couple more points. I frame this final and post-final. I really think that we need to hear from some researchers.

I think that in order to have a full airing of the issues, we should have some experts on exposure, for example, and that might include Richard Fenski, and I think we should have some experts on the health effects

side, like maybe some -- Erin Blair shop of the National Cancer Institute. There have been some studies done and we should hear from some of these researchers that can provide real data, so that it fits into the mix of what are the protections we need, how can we really motivate people to move towards transition.

And I guess one final point is that I think the economic side of it -- when we talk about the cost benefit analysis under FIFRA, I think there's a lot more that can be done to make an accurate cost benefit analysis even under the terms of what they -- what is done now. But one area that is completely excluded from this analysis is the economic harm to farm workers and their families. We don't see anything about the lost work days, the disability, the kids with disabilities, the cancer, et cetera. And any real cost benefit analysis has got to take those costs into account.

MR. EHRMANN: Okay, Mark, then John.

MARK: I didn't think that I was going to have anything to say on this topic, but I think I will leave the worker safety part aside, but in responding to Cindy's comments earlier, I think there's no way that we

can ignore the children's issue in the worker safety paradigm here. I mean, we need to include that. That is the providence of the CARAT group and that is the high end exposure group. And you can't just take the high end --

(END OF TAPE)

MARK: -- and throw them out, and I would -- as an aside, I think that includes the violet of exposures that occur either to farm worker kids or when we're measuring on food products. I think that we can't smooth out those outliers. This is the real world and what people are exposed to and these are important children that have been clearly shown to be at increased risk for exposure. This is definitely the providence of the CARAT group in my mind.

MR. EHRMANN: John?

JOHN: This is one of those issues I'm almost fearful of even responding to, but I feel like I have to because it's such an important part of what I consider daily life on the farm, and I would expect that somewhere in this process of FQPA implementation that certainly worker protection is a large part. But I think there has

to be a -- at least some recognition that farmers aren't -- at least the ones I know, are the last guys that are going to be looking to cause a situation that would be dangerous to their farmworkers.

And I really think that when you're talking about handlers of pesticides, I guess you have to recognize that there's different things happening at different places across the country. Where I come from, most of the time, the handlers are the farmers, really. And I can tell you that from personal experience. I have never ever had a farmworker mix a tank of anything. Never. We do it all. My father or I do it all. We do all the mixing, we do all the handling, we do all the spraying.

In fact, in most cases, from what I see around, at least on the eastern side of the country, is the farmworkers never get into the field until the day of harvest. I mean, there are exceptions, irrigation, things like that. But for the most part, the chances of exposure are much less to any outsider farmworker than the family farm, the farmer and his family.

In fact, around the East Coast now, we have so

much more trouble with trespassers coming on the farm, people that get their four-wheelers and their motorcycles and all weekend, they're out there. They have no idea if you sprayed yesterday or tomorrow -- today. They'll stop on the side of the road and pick, you know, what may not be ready to harvest and they'll throw it up in a bag and run away as fast as they can because they got something for free. That creates more havoc for me than anything, but concern as well.

I took part in a study -- Adam, you might remember the group, I can't. Brian Little started -- got this thing organized, and it was about a focus on farmworker children and what happens to them, their health, their safety, the whole bit. And really, we had a hard time identifying situations where children were being made to harvest products. I'm sure you can point out all kinds of examples where it does happen.

But if you think in the morning when you walk out the door that some person from U.S. DOL or your State Department of Labor or OSHA or any other regulator isn't going to be popping in the door, and if they see a kid out in the field, man, your life is going to be totally

different. Trust me. It's expensive.

At home, we have -- our State DOL, the main man in charge of enforcement, even though children are allowed to do certain things under the current Federal laws, his law is children don't work on the farms in New Jersey, period. And he's not opposed to videotaping it, and I'm talking a simple little task like making cardboard boxes. That does not happen, or at least under his purview it doesn't happen.

So, things are a little -- not exactly the way I keep hearing all the time. Again, it's a huge issue for the producers. We definitely care about what happens to the farmworkers. I mean, we can't live without them. But many times, most of the farms are still small farms, family farms. When I look around the farm community in South Jersey and I see 90-year old farmers still working on the farm, and these are the guys that were out there at the turn of the century spraying with handguns, you know, you've all seen the pictures, DDT, the whole bit, they're still around and their kids are farming and their grandchildren are farming.

And I happen to live right next door to a poison

control center, and my farm is here, and literally, across the street, there it is, the hospital and the poison control center. The guys are not afraid to use the emergency room for all kinds of health problems, but we've never had a reported poisoning ever, other than homeowners. That's different. But not off the farm.

So, I have to say that if we're dealing with this issue, let's really look at it complete and see who is and who isn't getting -- you know, I look at a farmworker. He goes out into the field today and he's picking that peach or that apple, and literally, according to the law, somebody could take a bite out of it at the road market an hour later and eat it. So, now what are we talking about in ways of exposure?

We do all kind of efforts, mechanically, gloves, protection equipment, all these things to help make sure that nobody is constantly -- you know, that constant exposure doesn't get -- has less chances of exposure, being sickened in any way.

I think this is a serious issue. I'm not sure it's exactly the CARAT's entity completely. It certainly has to, like I said, has to be recognized that it's out

there. But the people that are enforcing the issue for us is growers. Make it plenty real that this is not something that's going to be tolerated by the government or anybody else. And so, while things do happen and things slip away, there's a lot of good people doing a good job to make sure that nothing's happening in a harmful way to our workers. You know, it's going to take a while for me to believe everything that I hear and see.

I've been to Vietnam. I watched people there that were spraying their rice, you know, this is in a water situation, spraying with a backpack and their little straw hat and a pair of shorts and nothing else and spraying DDT on the rice. Now, you know, that would be the worst example that you could probably think of, but that's a part of -- and those guys were progressive in Vietnam.

MR. EHRMANN: Okay.

MR. RIGOLIZZO: You know, so that's -- I've said enough, thank you.

MR. EHRMANN: Let me make a couple of observations before I go to the remaining cards, which there are now more than there were a few minutes ago.

(Laughter).

MR. EHRMANN: I know that the -- the remaining deputy is out of here at 1:00, no ifs, ands or buts.

UNIDENTIFIED FEMALE: No matter how many cards.

MR. EHRMANN: Right. And I want to end in the right way, so -- but we still have a few minutes to talk about this. But, I mean, I've been listening, as a lot of people in the room, to discussions about worker issues in CARAT and other places for a long time, and it's obvious -- unless everyone here who is basically truthful, honest and good people who said yesterday how much they trusted each other have all of a sudden become -- you know, turned 180 degrees and become some other kind of human being, that there's a lot of diversity out there in terms of what's going on on these issues.

And I don't think we can or would want to, in this setting, try to convince one person or the other that their particular experience is right or wrong. I don't think that's what we're here to do, and I'm not saying -- and it's not particularly helpful to trying to figure out what the next steps are. Everybody who's spoken today is basing their comments on their

experience, which is honest and truthful and the way they see it, and I think everybody respects that.

So, I would ask that the -- and it's obviously a complex issue, whether it ends up being dealt with in CARAT or a workshop or some other committee, and I don't think anybody would debate that as John just affirmed in his comments.

So, I think -- I would ask that the remaining cards, to the extent that you can direct your comments towards steps forward, react to some of the ideas about how these issues and their complexities ought to be addressed in the context of this committee or other processes, I think that would be the most useful. I know that Linda will say a few words in terms of the agency, and I know she's talked to Jim about this, the Department's thoughts about next steps, after hearing the full conversation.

But if we can direct our remaining comments that way, I think that will be the most helpful in terms of determining how to move forward.

Keith, is that your --

MS. DAVIS: Can I jump in at some point?

MR. EHRMANN: Yeah, I've got you. I think because Erik's spoken several times, I need to let the other folks go first, but I'll get to you.

Keith, did you have a comment?

MR. MENCHEY: Yeah, just a couple brief comments. First of all, I'd like to agree with Cindy that CARAT is probably not the best forum to talk about this issue, although I wouldn't dispute that it's an extremely important issue. The National Cotton Council, on more occasions than we'd like to remember, have had to deal with worker issues. Whatever forum we do discuss this in, though, I would hope that we could come to agreement on some terminology.

The agency, I think, itself, would agree that refinements can certainly be made to these estimates on worker risks. In my opinion, they're dubious, at best. I've never had an explanation of how they actually go about them. All that I know is that this thing called PHEAD (phonetic) is used. But I think there's not a high level of confidence in what those numbers actually mean. And the agency normally uses terminology like level of concern or we have concerns. They don't use language as

safe or dangerous or things like that. So, I'd like to -- I'd just like to put that on the record that we need to get our terminology clear.

Second of all, I guess my second point would be that I would highly encourage any efforts to update the data that we do have. We've had numerous occasions where data was either missing or extremely outdated. For example, we had a -- we took a group of EPA staff to Arizona to prove to them that we don't pick cotton by hand anymore. We haven't picked cotton by hand since World War II, but yet it was still on the records and they were still calculating worker risk based on that.

We're currently going through a discussion right now about in furrow applications. The agency doesn't have any data on in furrow -- and what I mean is -- when you plant, you dig a furrow, you put the pesticide in the furrow and then you cover it up with soil. The exposure, just by common sense, would tell you it would be very low. But the agency doesn't have direct data on that. The closest they can get is broadcast pesticide application, which is going to be a lot higher level of risk. You're going to deal with dust. The pesticide's

right on the surface of the ground.

So, we would -- the Council would encourage any efforts to update the data that the agency has and be very willing to work with them in proving these estimates.

MR. EHRMANN: Great, thanks. Paul?

MR HELLIKER: Thanks. Real quickly, I just wanted to say that I definitely support doing what we can to try to improve the database and our estimates of what worker exposure are. And I think one of the reasons why people are proposing that CARAT consider this is because one of the hallmarks of CARAT has been the fact that we've worked with EPA to help elucidate very clearly what the risks are when it comes to dietary risk and drinking water risk and so on. And I think that kind of a scrutiny needs to be applied by the agency to occupational exposure.

Now, whether that's something that the CARAT needs to consider or the PPDC or whoever, I don't know, but I think that there's recognition that that level of assessment needs to happen for worker exposure, particularly given recent reports by the GAO and others.

So, we would commit our efforts in California to improve the data that we have to be, however we can be, helpful in that in making it a national effort.

And just one last point with Erik. The illness data are coming out next week. I think you'll find that the hundreds are more in the hundreds range, so it's not 10 to 20 percent, and actually half of the definite and probable links to pesticide related illnesses come from the non-agricultural sector. So, take a look at that when it comes out.

MR. EHRMANN: Okay, Dan?

MR. BOTTS: Most of you have seen my card go up and down about three times during this discussion.

(Laughter).

MR. BOTTS: I'd like to build on something that Paul said and just to put both my grower hat on and my industry hat, and from previous employment, where I was responsible for writing a worker protection standard before there was a worker protection standard at the national level, one of the last things we, in industry, want to do is put our workers at risk.

Somebody was talking about the criteria by which

they judge pesticides to use for products. I can tell you across the board, in our membership, the first thing they look at is efficacy. The second thing they used to look at is the potential for harm to workers, because they're that important to us as an industry.

Our frustration in this process has been the fact that across individual decision processes for individual compounds, application of the current process within the agency doesn't appear to be consistent, number one. And, number two, it seems to be based on a process that ignores our concept of what a risk assessment or risk should be defined as, which is hazard times exposure. When you can take a handler and put them into a zero exposure environment and still come up with an MOE of less than 10, we have reason to suspect the process by which those numbers were generated.

What we've asked for is an industry, going back to very early on in this process, is to sit down, open up the process, create the transparencies that we did around the dietary exposure process, which if we go back to the very first meeting we had on OP dietary exposure, we were talking about MOE exceedences in the 40,000 range based

on the tiered analysis process that was currently in place in the agency.

We'll stand right beside every one of the farm worker advocacy groups that are represented at this table here when you can demonstrate that there's risk that needs to be mitigated to come up with a mitigation process that's effective in dealing with it. That doesn't mean cancellation of every use out there. But when you've got a MOE that says you can't even take a closed can of product and move it from one place to another without creating a risk in the less than 10 level, I've got a problem with those risk assessments. That's where we're coming from.

And we'd like to see a workshop and a discussion to, at least, start the conversation to allow us to sit down and start working together to get to the point that we are on the cumulative OP exposure assessment for dietary and other issues.

MR. EHRMANN: Thanks, Dan. Rob? Is that your card, Rob?

MR. HEDBERG: I'll try and keep it brief, because like everybody, I was wondering whether or not to

say anything here. I'll start by saying, Erik pointed out that the farmworkers were poorly represented in D.C. and I apologize, Shelley, I think they're very well represented in Washington.

That said, I did, in a former incarnation, I did a lot of work on farmworker -- farm safety issues. That was in the Northeast, and the issues we were concerned about were more equipment risks.

And one of the things we always stressed was to keep children away from an inherently risky environment. And I can't help but thinking here that there's an element of personal responsibility, there's an element of education here that's more appropriate than an element of regulation. As a parent, the very last thing I would ever do is put my own children in a risky environment knowingly.

So, I would say -- I would suggest that if we are concerned about children going to the workplace, the agricultural workplace where they might be exposed, maybe what we have to do is work with Kevin Keeney's group on the education to inform the parents that maybe that is not the place to have the children. And I've worked in

all sorts of environments, factories, construction, you name it, and I have never taken one of my kids to a place that I would feel is dangerous.

So, I'm sorry, I'm speaking for myself and I'm speaking a little emotionally. I'm not speaking for the Weed Science Society. But I think there's an issue here, again, that we have to look at, is it a regulatory issue or an education issue, and deal with it approximately. Thank you.

MR. EHRMANN: Carolyn?

MS. BRICKEY: Yeah, I just want to echo agreement that if we want to bring this thing into the light of day and study it and figure it out and know what we've got, let's do that. We can spend the time, we can do that. It's worth doing.

But I also want to echo what Erik said earlier about how we need a policy for knowing what acceptable risk is to the EPA. Because, I think -- some of these numbers just scare the hell out of me. I don't know what this means when we're talking about -- you know, one set of people benefitting, another set of people assuming the risks, and the risks are this stark in terms of what the

MOE levels are. That bothers me a lot. And I think we ought to have some kind of understanding of what the -- you know, what are the bottom line risks that are acceptable, because this is a sliding scale that's going too far down in my opinion.

MR. EHRMANN: Shelley?

MS. DAVIS: I'd really like to echo what Dan said. I really do think that it's time that we had a full examination of these issues, and I really do think it's got to be a marriage of two things, not just the EPA's analysis of its data. As important as that piece of it is, so that we know what these numbers actually mean, it's only a piece. I think a really critical piece is what do we know about real world experiences, because frankly, just hearing this conversation around the table, that's what everyone brings to it. Well, in my experience, we see X.

So, unless we can reach folks with what is the experience out there -- now, we know we live in a very diverse country, there are a lot of different crops, a lot of different business relationships. So, you know, for example, I'm going to throw in my little data point.

It was a point made that handlers are always farmers. Well, in California, that's really not the case, and a study of handlers who are monitored for their exposure to the toxicity category one and two organophosphates finds that about 25 percent of these handlers get overexposed. That is important because -- I mean, for one thing, that's a lot of folks. For another, we don't have comparable ways of measuring overexposure to other classes of chemicals. So, we have a problem.

Oh, but really what this boils down to to me is that we should have a full workshop, and it probably will take two days to deal with both the analytical side of it and the actual study side of actual exposure, and you've got to bring in experts from around the country who have really done this. And then, I think we've got to take up what Carolyn and Erik said and look at what are the policy decisions that EPA is making and where might it go to really address these problems.

MR. EHRMANN: Okay. Jennifer did you still have a comment or no? Okay.

What I would suggest -- we're just at our hour mark. I appreciate everybody fitting your comments into

that time frame. Linda's going to give us some of her observations both about next steps as it relates to this discussion, as well as next steps, related to a number of the other procedural pieces. So, I think rather than having a separate discussion about next steps and then asking her to summarize at the very end, I've asked her to do this first and then we can discuss and you can react or make modifications, suggestions to the pieces that she's going to suggest as the path forward, again, both on this issue and some of the other issues.

Linda?

MS. FISHER: Thank you very much. I'm going to work off several handwritten notes, so this may not come out as eloquent as you've gotten used to me speaking.

(Laughter).

MS. FISHER: And I will ask Steve, also, to complement what I say because there may be some gaps here, we've covered so many different issues.

First of all, I want to thank everybody for their participation, and perhaps, start by noting what started out and ended with a wonderful spirit of cooperation.

For those of us who have been in these meetings before, we all noted at the break the first morning that as people went around the room, they talked about what their issues were succinctly and there wasn't as much venting as we've had in other gatherings, and I think that speaks to the success of the group in accomplishing some goals that we really ought to recognize. And that is the fact that people are coming to the table recognizing and appreciating the diversity of points of view and trying to resolve the issues rather than kind of attack people for the fact that they come from a different point of view. So, I want to compliment everybody for that.

I also wanted to take a moment and recognize, too, what I think, are huge contributions. First of all, the work that the cumulative workgroup has done, and really recognize the work that has both gone on with this group participating, but also within my own agency.

Jay talked about metrics yesterday, and I think that when CARAT started, if we had set a metric for where we would be on cumulative risk discussion, we've probably hit it, and that is there's a recognition that people

understand the process, that it has been open, transparent and very science based. And I think we are farther along today on the discussion of cumulative risk than maybe any of us anticipated when the Congress first passed the law.

As we look forward to metrics on transition, I would hope that at the end of the next 12 months, where the agency will have had to make a lot of very difficult issues, there's the same appreciation for openness of process, understanding where the decisions have come from, and an appreciation for both what went into it and what we need to do next.

Hard to measure, but I sense a satisfaction of where we have gone on cumulative risk that was probably almost unanticipated when this discussion started, and I hope we have that same outcome on transition as we go forward.

I also want to recognize the IR-4 Program. One of the things I found coming back to EPA after being gone for eight years is you really have an opportunity to see stark change, and when I was in the pesticides program before, the work, the progress and the relationship

between EPA and IR-4 was in a very, very different spot than it is today. And I was really impressed with the presentation that Bob gave yesterday.

I remarked to some folks that many times we think government can't change and can't transform itself into something that's not as effective into something that's profoundly so. And I think the IR-4 Program is really something you can hold up as a model of change, and its contribution, I think, is significant.

I thought from that presentation and the others around some of the projects on transition, there really are some prototypes, that we ought to see what we can learn from those as we go forward in some of the research and working with USDA to get real research on real problems so that as transition starts to take place, the growers actually have real answers to some of the questions they're going to face. And, Deb, I look forward to working with USDA on that.

I'm running through these quickly, but we'll come back and discuss each of them. You should have all received, I think, a piece of paper that looks like this that lays out our next steps on the non-contributor piece

stemming from the discussion we had yesterday. It lays out our next steps and I think answers many of the questions that people raised in terms of process and opportunity for public comment. So, this outlines where we see the process going and we'll appreciate your feedback on that.

A couple other next steps, obviously, the work of the cumulative risk workgroup will need to continue and Jean-Mari has been working to put together and clarify, I think, the role for the transition workgroup. What I did talk to her quickly about is that that workgroup have some pretty concrete things that they would like to accomplish. It is a -- in coming out of the discussion this morning, it can be so broadly defined, I'm not sure the pesticides program can resolve the issues, or so narrowly defined that we may miss some opportunities.

So, I think as that group goes forward, I would definitely charge it with what do we want the outcomes to be over the next 12 months or the next 24 months.

I do believe we need to -- particularly coming out of the discussion today, go ahead and establish maybe

both a workshop and a workgroup on farmworker exposure. I don't -- from the agency's perspective, the discussion of should it be CARAT, should it not be CARAT, to me, begs the point of do we have some issues here we need to address. And I think the answer to that is yes.

I will work with my staff to figure out whether it should be a CARAT workgroup or a PPDC workgroup, but it seems to me between those two groups, we have gathered the right people that need to address an issue that, I think, is very real. So, we will come back with a proposal, and I would encourage people not to get bogged down in terms of what the forum is, but be sure that we have something that's going to address some of these issues.

It's not clear to me whether we may first want a workshop and a workgroup to come out of that, a workshop maybe being an information gathering where we can hear where some of the research is, where some of the data is, where some of the issues are, find out more about what's going on, and then a workgroup flowing from that to think about, you know, what we need to do to resolve it.

But I would actually like maybe Steve to put

together both internally and then get some vetting with different members of the stakeholder community about what's the right next step. But I think we've been kicking around worker exposure issues. The agency is struggling with them. Carolyn and Erik, your point on what's the acceptable standard of risk, I think, is a good one. I'm not sure we have that answer. So, we need to do some stirring around on how to structure that discussion, and I'll welcome some input on that in terms of how we go forward.

I think that covers most of the things I wanted to say. Steve, have I left some stuff out?

STEVE: I think that's it. You might want to mention your discussion about when CARAT (inaudible) the next meeting and --

MS. FISHER: Oh, yes. Some folks have asked, and we've even talked among ourselves, when should this group get back together again, and at least for my part, and I think Steve and USDA's, we don't have a clear sense of when that next meeting should be, and I would welcome your input. The thing we talked a little bit about this morning is should it be before August 3rd or after August

3rd. Obviously, the same people working on August 3rd issues are the same people that organize these meetings. So, we have a slight resource bias towards putting it after August 3rd. But that's something, I think, we really would welcome your guidance and input on.

So, with that, let me open it up a little bit to the rest of you for some discussion.

MR. EHRMANN: Paul and then Robert.

MR. HELLIKER: As the sign-up list went around, I noticed by the time it got to me, I noticed only one person prior to myself didn't sign up for the transition workgroup.

(Laughter).

MR. HELLIKER: So, I don't know if that continued down the row here. But what I think that points to is the fact that this committee has in its name, transition, and the fact that everybody is quite interested in that issue, and it's probably germane for full meetings of the committee. I think there's probably some sub-issues that we might want to focus on. For example, there was some discussion about what sort of implementation or research needs are there. There's also

the discussion about where can we dedicate the funding correctly and things like that. So, those might be appropriate for subworkgroups or workgroups.

But the whole issue of transition, I think, is a generic one that is of interest to everybody that I saw on the list and probably ought to be the topic of the next meeting. So, that's one recommendation.

As for the cumulative risk assessment activities, I think those are going to be drawing to a close fairly soon this year, and -- at least in terms of the work that the workgroup needs to do, so that might give some people some comfort that they're not going to be spending a lot of extra time if that matches what the agency's perspective is on it. But just looking at how far we've come on those, maybe that's something that we could phase out later this year and then have dedication to the transition be the focus of this whole committee.

MR. EHRMANN: Two thoughts, just building on that, Paul. One is that -- and I think this is what Jean-Mari had in mind when she was asking people to express whether they might have an interest in a particular sub-issue underneath transition, and I don't

know if folks did that or not. But it may be possible to organize some smaller groups around some of those sub-issues to prepare ideas and potential recommendations that then could come back to the full group.

So, just as a way of kind of developing a work process that's a little more efficient without saying we're going to create a transition big workgroup, but have some places where both the department and the agency can reach out to some of this group for some help in developing some ideas that then could come back. But that's just one other option, I think, they'd like to think about as they consider how to go forward on that issue.

On the other issue, which was -- which Linda mentioned, on the ongoing agenda for the cumulative group, I would just reemphasize, obviously, that the proposal that Marsha put forward and that everybody agreed to yesterday would be the proposed plan for the cumulative workgroup.

On the piece around input on risk mitigation strategy or process for risk mitigation, which was on the list that came out of the subcommittee, I guess I'll just

put this out as a suggestion. It seems that that is still -- regardless of what happens on these transition issues, if there's interest on the part of that group to provide some thoughts on that issue, I don't think anybody's saying don't do that. So, I think -- you know, because there is an overlap here in terms of kind of a hand-off.

So, I don't think it's worth getting into a big procedural discussion about is it the cumulative group's purview to talk about that or should a new transition group talk about that. I think it's a --

UNIDENTIFIED MALE: (Inaudible) take the lead and then (inaudible) join us.

MR. EHRMANN: Yeah. On that piece of it, since they've got ideas, go ahead and express them, and then whatever set of smaller groups or the committee as a whole takes on transition, those ideas will flow into that. So, hopefully that's an acceptable way to folks in terms of moving together on those issues.

If you have thoughts on that as we go around, please share them. Robert?

ROBERT: Thank you. Linda, to your question

about next meeting and timing and process forward, a related issue to that is, if my recollection serves me right, the charter for this committee is a two-year charter ending this summer. So, we need to think about what the agency's plans are for continuation of CARAT, whether to continue the charter or come up with a new one, and I know there's some different ideas floating around about how to continue this venue.

And also, it's been 15 months since we did last meet as a full CARAT. So, hopefully, it won't be as long for the next meeting as well.

MR. EHRMANN: Just a comment on your first point, Robert, and that is that Margie tells me that there is a process underway -- no offense, Mark -- to see whether this committee could be -- in the recharter would be chartered as a separate, independent FACA (phonetic) committee, rather than as a subcommittee of NACEPT, which does -- I mean, the subcommittee of NACEPT approach is a useful way to get things launched, but for committees that have been around a while and have a fairly distinct charge, as this one does, relative to the overall charge of NACEPT, I think everybody's at least exploring that

possibility.

So, one way or the other, I think -- and folks from the agency, correct me if I'm wrong, but I think the point is to definitely recharter and hopefully they're exploring the possibility of doing that as an independent committee. Is that right, Margie? Did I get that right?

MS. FEHRENBACH: Right.

MR. EHRMANN: Okay. Cindy?

MS. BAKER: To your points, Linda, I think the non-contributor piece that you guys wrote up reflects very well what we talked about as a group, and so I would say that I think that's a fine way to go forward in terms of process.

For the cumulative risk workgroup, John, exactly what I wrote down is I think that group needs to convene relatively soon because what we listed as a recommendation is the process between now and August 3rd for what we're going to do with those things. So, I would encourage a meeting of that group along the lines of what we talked about as soon as possible.

For the transition workgroup, I think the comments that you made about trying to identify where are

the priorities, where are the common links, because I noticed, as Paul did when it went around, that just about everybody signed up. And so, it might be something that we're all interested in.

For the worker thing, one other possible twist on a way to go forward is what we have done with the cumulatives where that worker -- I mean, risk assessment is to have a technical briefing first and kind of the agency lays out, here's what we're doing with worker risk assessments, here's all the pieces that go into it, here are the pieces that there is uncertainty. Whether they're assumptions that, you know, one group thinks is wrong or assumptions that the other group thinks is wrong, let's just lay them out and call them what they are and say it, and then have a workgroup follow after that.

That process seems to have worked very well as we've tried to understand the complications of the cumulative risk assessment. And as far as the next meeting of the full CARAT, I don't know that, if these other things are going on, it's essential to have it before August 3rd, if your resources are such that you

can't have it. But I think it would be important to have it fairly close to that time frame, within a month of that, because I think there are some things that will happen on August 3rd that it would probably be good for us to get back together again and talk about.

MR. EHRMANN: Good. Deb, you want to make some comments?

DEB: Sure.

MR. EHRMANN: Oh, I'm sorry, Steve. Why don't we go to Steve and then we'll go to Deb. I'm sorry, I didn't see your card up.

STEVE: Yeah, just sort of a real simple request. Unlike Paul, I'm not sure how long it's going to be necessary to continue the cumulative working group meetings and I think it's going to be dependent upon where the agency goes with the common mechanism issues and those sorts of things.

But to the extent possible, where there is an opportunity to schedule the transition, cumulative and perhaps even the full CARAT meetings in the same time frame where folks can save on multiple trips and what have you, I think it would be helpful.

MR. EHRMANN: Deb.

DEB: Well, thank you all. I have to tell you all that this is the first meeting I've ever attended with respect to CARAT and the issues related to FQPA implementation, so bear with me here as I ask probably very simple and basic questions.

The Deputy, obviously, knows a lot about FQPA. I'm struggling. But what I heard here is a very strong need for coordination. We're committed. We've had extensive conversations with Linda and her team, and we're committed to making things work, okay?

Also, internally at USDA, it's abundantly clear that we need to take a strategic look at our programs, our resources, our people to figure out how to take what we've been successful in doing with the IR-4 Program and do more and do better, and we will.

Also, with respect to worker safety, worker exposure issues, we will participate, we'll work out the details of that. Please feel free to call. I know it might be a little frustrating to get a hold of me sometimes, but I do get back. And Al and his staff have been very helpful in this transition process. But,

again, I thank all of you for your time and your effort.

MR. EHRMANN: Any other comments from the committee as to steps -- next steps? We will communicate -- as Linda indicated and Deb, there will be some deliberation by the department and agency on some of these next steps. We'll make sure you get a clear communication on those decisions as it relates to potential time frame for next meeting, process for moving forward with the transition discussions in whichever format is decided upon, a quick decision about future meeting schedule for the cumulative group to reflect the input there.

We're going to assume that everyone is comfortable with this description of the early non-conforming -- what are we calling it?

(Laughter).

MR. EHRMANN: Non-contributors. You're the non-conformers.

(Laughter).

MR. EHRMANN: So, we're -- anybody have any concerns about that, the way it was written up, just to be explicit about that. Do we feel comfortable moving

forward in that fashion?

(No response.)

MR. EHRMANN: Okay. And with that, let me ask if -- we don't have any public commenters signed up. Is there anyone who wishes to make a public comment?

(No response.)

MR. EHRMANN: How about a non-public comment?

(No response.)

MR. EHRMANN: All right, well, thank you very much, travel safely and we'll see you next time, whenever that is.

(The meeting was concluded.)

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