U.S. ENVIRONMENTAL PROTECTION AGENCY

PESTICIDE PROGRAM DIALOGUE COMMITTEE MEETING

Wednesday, May 20, 2020

10:00 a.m.

DAY ONE

PPDC MEMBERS

Walter Alarcon
Ruben Arroyo
Amy Asmus
Manojit Basu
Steven Bennett
Carol Ramsey Black
Jasmine Brown
Lori Ann Burd
Douglas Burkett
Iris Figueroa
Jim Fredericks
Joseph Grzywacz
Gary Halvorson
Gina Hilton
Komal Jain
Mark Johnson
Patrick Johnson
Richard Keigwin (Chair)
Sheryl Kunickis
Daniel Kunkel
Dominic LaJoie
Charlotte Liang
Amy Liebman
Aaron Lloyd

PARTICIPANTS (Continued)

Lauren Lurkins

Tim Lust

Daniel Markowski

Gary Prescher

Caleb Ragland

Damon Reabe

Karen Reardon

Charlotte Sanson

David Shaw

Christina Stucker-Gassi

Mily Trevino-Sauceda

Cathy Tortorici

Liza Fleeson Trossbach

Tim Tucker

Edward Wakem

Nina Wilson

I N D E X

P R O C E E D I N G S

DAY ONE - MAY 20, 2020

MS. DUNN: Okay. Y'all can hear me okay? Okay, great. Well, good morning, everyone, and thank you so much for joining us for what may be the first ever virtual meeting of the PPDC in the Committee's lengthy and distinguished history. So, so glad to have all of you here, and I wish it was a two-way camera so that I could see the faces of the folks that I'm talking to, but I know we have a very, very good attendance.

For those of you who don't know me, I'm Alex Dunn. I'm the Assistant Administrator for EPA's Office of Chemical Safety and Pollution Prevention, and I'm really, again, delighted to -- hello? -- really again delighted to open today's meeting and to first off thank all members of the PPDC, those who are returning and also those who are new. We have 21 new committee members, and let me tell you, there was just a lot of interest in expanding and adding new perspectives to this group. And I just can't tell you how thrilled we are to see all of you with us on this webinar. It is super exciting.

So in terms of the new members, I was wrestling with whether or not to call everyone out --

because there's 21 of you -- but I'm going to anyway welcome Ruben Arroyo from Riverside County Department of Agriculture and Measurement Standards; Carol Black from Washington State University; Jasmine Brown from the Confederated Salish and Kootenai Tribes, Division of Environmental Protection; Douglas Burkett from the Armed Forces Pest Management Board, Operations Division; Joseph Grzywacz -- I hope I said that right -- Florida State University, Department of Family and Child Sciences; Gary Halvorson from the Council of Producers and Distributors of Agrotechnology; Gina Hilton from the PETA Science Consortium; Mark Johnson from the Golf Course Superintendents Association of America; Patrick Johnson, the owner/operator of Cypress Brake Planting Company; Aaron Lloyd from the Lee County Mosquito Control District; Lauren Lurkins from the Illinois Farm Bureau; Tim Lust from the National Sorghum Producers; Basu Manojit [sic] from CropLife America; Danielle Markowski -- I'm sorry, Daniel Markowski from the Vector Disease Control International; Gary Prescher from the National Corn Growers Association; Caleb Ragland from the American Soybean Association; Karen Reardon from RISE, Responsible Industry for a Sound Environment; David Shaw -- Dr. David Shaw -- Mississippi State

University; Christina Stucker-Gassi from the Northwest Center for Alternative Pesticides; Cathy Tortorici from NOAA's (inaudible), Office of Protected Resources; and Mily Trevino-Sauceda from Alianza Nacional de Campesinas, Inc.

And for anyone whose name I really didn't say very well, please forgive me. I decided to try that spontaneously. The staff would have typically given me some phonetic pronunciations to make sure I didn't do that, so all the pronunciation errors are completely on me, so my apologies.

I wanted to say that this Committee is in its 25th year now, and it is a very, very important forum for the agency to collect perspectives and feedback and diverse insights on pesticide policies. Our agenda today is really packed with a whole bunch of great sessions. Of course, we want to talk about our response to COVID-19, but, also, we want to talk about our larger role in public health emergencies and how these recommendations have influenced our response to COVID-19 and additional work that can be done to improve our work on future emergencies, knowing that there will be more like this.

We also have some great sessions on emerging agricultural technologies and how to use risk

assessments in ways that are different from current agricultural methods. We have a session on the methods that the Office of Pesticide Programs uses to perform human health and ecological risk assessments, a variety of updates, which are always important to let you know where we are on different important matters, and finally a session to discuss workgroups.

And so I know you all are going to be extremely busy, and I just again am providing some opening remarks that I hope are helpful. First off, I want to say happy birthday to the agency. It's the agency's 50th anniversary this year, and we're spending all of the year acknowledging the progress that we've made in a clean and healthy environment. And thank you to all of you for your role as partners in the journey of EPA over the years.

I also would like to take a moment now and to say that at our 50th anniversary, there has never been a moment that I think we've been able to be so proud of the progress and accomplishments and dedication of our staff as we see with the response to COVID-19. We are really seeing our folks at their best. We have been open for business the entire time. In fact, many of us have said that we've worked harder during the COVID remote work than we've worked before, and I

think it's because we no longer have commuting time. We just get a few more hours to work, but that's good. We've had a lot to do. And with our staff largely teleworking, we are still full agenda. And we are really, really pleased to be delivering on List N, which you'll hear about, I hope, today.

Since we began, we have been adding products to a list called List N, which is now one of the most searched features in the EPA website. List N is our list of products that we know will be effective against the SARS-CoV-2 virus, which is the virus that causes COVID-19. We are using a hierarchy of disinfection, so the products that have been added to List N are products that we know can be effective against viruses that are harder to kill than SARS-CoV-2.

And so, for that reason, we now have over 400 products that are available on List N, and we recently announced a web tool that allows anyone to, on their phone, just search while you're in the store, EPA List N, and you can sort by product time, contact time, type of surface you're trying to disinfect, whether it's a hard surface or soft surface.

You can even search by active ingredient if there are certain ingredients that people feel they

don't want to use in their home or place of business for various reasons. I did a search for disinfectants with the active ingredient of citric acid and a contact time of five minutes and was able to get five qualifying products. So we're really, really proud of the work that we've done in a nimble fashion around the COVID response.

We've also been working -- the Administrator has made it a priority -- to ensure that fraudulent products around disinfection are kept out of the U.S. marketplace through our Office of Enforcement, in partnership with the Office of Pesticide Programs, as well as state and local and federal law enforcement. We have been able to remove many products from third-party marketplaces, online forums, where people can shop. We've also stopped products at the border from coming in. And these products, we really want to make sure that the American public is -- has access to EPA-registered and effective products and that fraudulent products are not put out for the public.

So any product that's offered for sale that is not registered with the EPA and that falsely touts its antiviral, antibacterial disinfection or sterilizing or sanitizing effectiveness against the novel coronavirus is an illegal product. And we are

doing what we can to prevent this from happening.

Let me just give you a few more updates, and then I will also be happy to answer questions. Hopefully you'll have some time. We are continuing to do our regular, non-COVID work. As you know, we're continuing with our pesticide re-registration. We are well on pace to complete the registrations of 725 active ingredients by October of 2022. This fiscal year, which ends in September, 30th, we expect to issue 80 draft risk assessments, 80 proposed interim decisions, and 110 interim registration review decisions. That's quite a level of productivity. We are focusing a lot this year on our rodenticide, our pyrethroids, and the neonicotinoids.

I also wanted to talk to you all a little bit about dicamba. We know that dicamba is one of the hot topics in agricultural pest control. And, of course, you know that we are up for our registration review decision, expires -- our two-year decision expires at the end of 2020, so we are working now to go over data and to work with registrants and the academic community, as well as with our states, to gather all the information that we can gather from the 2018 and 2019 growing season so that we can make some decisions and provide the marketplace with certainty around the

availability of dicamba and under what conditions it can be used in the 2021 growing season. So that certainty is important, and we're moving quickly with the goal of issuing a decision around October.

Another big accomplishment that you'll hear about that we are really proud of is the fact that five federal agencies came together and in February -- was it only February? It was actually March. In March, we issued new ESA, Endangered Species Act, methodologies to assess the impact of pesticide applications on endangered species -- flora, fauna, and so forth.

We are now -- we did not just issue these methods, but we also showed you how they would work by putting out for public comment simultaneously the application of those methods to methomyl and carbaryl, and then -- those are two insecticides -- and then later this summer, we'll be applying those methods to four herbicides. So it's one thing to describe what we're going to do; it's another thing to actually show you how it works in practice.

And so we're very, very pleased that our team came together to demonstrate how these methods would work so that it's not a hypothetical but a real situation, and we're accepting comments now. We've

extended the comment period because these are complicated issues and we were asked for some additional time. We were happy to be able to grant that. So it's going to be a very, very busy summer. The comments are now due July 2nd.

And then let me just take a few more moments to -- if you'll indulge me -- I just wanted to touch base on pollinators. Pollinators remains a very important topic for us at the agency. The Administrator is quite passionate about our pollinator work. We are doing pollinator webinars that have been moving through. We've issued the first, and we'll be doing a few more. We'll also be doing a pollinator conference with USDA in the fall that we've now transitioned to a virtual conference.

And also wanted to let you know that we're working with states and tribes on pollinator-protection plans that are very, very important. I think my webcam stopped, so I'm going to hit it again here.

Okay, I'm back. Also, new approach methods for reducing animal testing. This is very important for EPA. We -- again, an Administrator priority to reduce the number of animals that are impacted by our testing on -- for pesticides. And we want to be able

to replace these animal testing methods with equally reliable and effective alternative or new approach methods. So pretty soon you'll be seeing from us a work plan that will implement the Administrator's memo from September of last year around animal testing and reduction of animal testing.

We also continue to do work with partners such as PETA and the Physicians Committee for Responsible Medicine. And so look for more from us around the reduction of animal testing as we proceed towards the Administrator's goal of elimination of this type of testing by 2035, which is a very bold goal; however, we want to do it thoughtfully and incrementally. And the work plan that you'll see in a few weeks will give you a sense of some of our interim milestones toward that goal.

So the final topic that I'd like to talk about are biotechnology. As you know, just last week, the U.S. Department of Agriculture issued its SECURE rule, which is a rule for bio-engineered products that USDA has jurisdiction over. USDA is comfortable with these products and them entering into commerce.

To that end, EPA, under the President's executive order on biotech, is also working on a proposed regulation around biotech-engineered PIPs,

plant-incorporated protectants. And we hope to issue our rule this summer as a proposal, and we look forward to a lot of input on that rule. It's a very lively topic, but I encourage you to take a look at the unified USDA/EPA/FDA website on biotech that was launched January of this year. And it's a one-stop shop for actions taken by the Federal Government on biotech. It's quite a key accomplishment for these agencies to work together.

And I think, you know, as I wrap up here, and, again, thank you for letting me welcome you to our virtual meeting, and thank you to the new members, thank you to the returning members, what I hope you're hearing from all of these remarks is a theme, a theme of partnership, as you see this partnership, and with the animal testing and with the ESA and also with biotech, partnership across the federal family, partnership across the regulated community, partnership with stakeholders, partnership with our state agencies. Really everything that EPA is doing in the pesticide program right now is characterized by partnership. Even our COVID work is in partnership with our Office of Research and Development and the Centers for Disease Control and obviously the White House Coronavirus Task Force.

So right now, EPA, I think, is so well and highly connected with the communities of stakeholders -- federal and others -- and we are just well positioned to leverage these relationships. And the partnership includes all of you on the PPDC. You are a critical set of partners. You represent organizations and entities that we work with in many ways. But collectively as the PPDC, you are also an entity that's very important to us.

And so I thank you, welcome you, and turn it back to Shannon. And if there is time, I'm happy to answer a few questions. If there's not, I'll let you all get to your agenda.

MS. JEWELL: Thanks so much, Alex. I will actually turn it over to Rick at this point, but I do think we should be timely, so I think we should probably go ahead and move on. Thank you so much for your introduction.

MS. DUNN: Great. Bye, everyone. Thank you.

MS. JEWELL: Thanks, Alex.

MR. KEIGWIN: Good morning, everybody. This is Rick Keigwin. I am the Director of the Office of Pesticide Programs, and as Alex said, we are very appreciative of your time and your willingness to commit to providing us with your input and feedback as

we work to continue to advance our mission of protecting public health and the environment.

Before we dive into the agenda, I want to give Carrie Meadows an opportunity to introduce herself. Carrie joined us actually in the midst of the public health emergency and has joined the agency recently as the new agricultural advisor to the Administrator. I think Carrie's webcam is up and running, so, Carrie, let me let you take it away.

You may be muted, Carrie.

MS. JEWELL: You're still muted, Carrie, so just give us a second while we try to unmute.

(Brief pause.)

MS. MEADOWS: Well, I will be very brief since my technical difficulties put us over time, but I want to thank Rick for inviting me to be on the call today. As he noted, I have started in the midst of the work-from-home and stay-at-home, so I have not actually gotten to meet a lot of my coworkers in person, but I appreciate an opportunity like this to speak to you all.

As Rick noted, I am the new ag advisor to Administrator Wheeler, and the role of the agricultural advisor's office is to act as a primary advocate and liaison for U.S. agriculture at EPA. We

have an ag advisor's office at Headquarters, along with one at each of EPA's 10 regional offices, and we also advise the agency on agricultural perspectives (inaudible) relative rulemaking, policies and activities. We also work regularly with various offices within the White House, our relevant sister agencies, state agencies, producers, and agricultural stakeholders.

The discussion of the Pesticide Program Dialogue Committee will be of great interest to the agricultural community, and I look forward to following the discussions and the work of the Committee. The Ag Advisor's Office works closely with Alex and Rick and the Office of Pesticides as (inaudible) protection tools and other issues that are of great importance to agriculture and Rural America.

Agriculture is a top priority at EPA, and I view meeting with agricultural producers in rural communities and stakeholders such as yourself as critical for keeping the lines of communication open and (inaudible) Americans on issues that impact everyday life.

Once we get back to normal, I hope to meet my coworkers and all of you soon in person and meet with you all at EPA or around the country. And I hope that

I can be a resource. If you guys ever need anything with me, feel free to reach out to me. And, again, I really look forward -- and Alex said, you guys are a valuable group of stakeholders, and I very much look forward to working with you more. But thank you for inviting me to be here today, Rick.

MR. KEIGWIN: Carrie, thanks for taking some time of your very busy day to join us. We do appreciate it.

So I just want to give everyone a couple of updates on some changes in OPC since we last met. I should probably start my webcam. So good morning, everybody. We've had a couple of changes. Ed Messina, who is on the line with us and will be participating and presenting one of our sessions later today, continues as our Deputy Office Director for Programs. And Arnold Layne has returned to the Office of Pesticide Programs as the Management Deputy Office Director after a year-long stint in another part of EPA, and we're so happy to have him back with us in the Office of Pesticide Programs.

Within the nine divisions, we've had a number of movements around as we continue to build some redundancy into the program, as well as provide people with some developmental opportunities and some

succession planning building for the Office. Steve Weiss is now the Deputy Division Director of our Antimicrobial Division. Kimberly Nesci is now the Acting Director of our Biological and Economic Analysis Division. Anne Overstreet is now the Deputy Director of the Biopesticide and Pollution Prevention Division. Don Wilber is now the Deputy Division Director of the Health Effects Division. And Greg Ackerman is now the Acting Associate Director of the Health Effects Division.

Jan Matuszko is now the Deputy Director of the Environmental Fate and Effects Division. Elissa Reaves is now the Acting Director of the Pesticide Reevaluation Division. And Catherine Aubee is now the Acting Associate Director in the Registration Division. So if there's one thing that's constant within the Office of Pesticide Programs it's that we move around our people as we continue to build our (inaudible) team.

A number of the opportunities became available due to retirements or movement to other offices over the course of the past year, most notably Wynne Miller, who had been serving as Director of the Biological and Economic Analysis Division, and also spent about a year as Deputy Officer for Management,

has moved to the Office of Water as a Deputy Director of the Office of Wastewater Management. And Donna Davis, who had been the Associate Director of the Registration Division, retired near the end of last year.

So I want to welcome the new members. Nearly half of our Committee is new. I also want to welcome back our veterans and really appreciate your willingness to continue to devote time to collaborate with us on our activities. We strive to have very diverse viewpoints represented on the Committee, and we truly appreciate the robust conversations that we've had in the past and I know that we'll continue to have in the future.

OPP's goal for this meeting is to share information and background with the group, have productive conversations, and receive your input on future directions for activities and policies of the Office of Pesticide Programs.

So I want to take an opportunity right now to first review the agenda for the next two days. Alex did a high-level overview, and I just want to spend a little bit of additional time. So we'll first start with an overview of the COVID-related work that OPP has been doing over the last couple of months, and

then we'll have some time to discuss and get some feedback and reactions to that work and other areas that you all think that we should continue to explore in that area.

Then our next session will be -- for many of you, it will be a refresher, but for many of you, it will be new. At the last PPDC meeting, the Public Health Workgroup had brought forward a plan or a construct of how we should -- could respond in public health emergencies, and now that we happen to be in one -- there, now, I think you can hear me -- it's good to kind of look at that plan in the midst of an emergency and see what changes might need to be made.

And then we'll end the session with -- for today -- with a overview of some emerging technologies. And then we will have a public comment session at the end of the day. And then we'll be sure to take breaks during the day as well because I know being on a webinar for many hours we need to take some breaks.

Tomorrow, we will do -- provide you all with an overview of our risk assessment approaches from both human health and ecological risk assessments. And then you should have all received some updates on a variety of topics, and what we will do is we're not

going to go through each one of those, but we will see if there -- if members have reactions to any of those. And then we have representatives from the respective divisions who will be available to answer questions on those updates.

And then the last substantive discussion we will have tomorrow afternoon will be how do we want to organize ourselves for the next year and a half, what workgroups do we want to form, you know, based upon the presentations that we will have heard over those prior two days or based upon your all's previous interactions with the Office of Pesticide Programs or directions that you think OPP should be taking in the future. And then, again, we will end with a public comment session.

A couple of housekeeping matters. As I mentioned, there will be a 15-minute public comment session at the end of each day. If you are a member of the public and would like to make a comment, please email Shannon Jewell. Her email is jewell, J E W E L L.Shannon@epa.gov. Her address is also in the lobby area of this meeting in Adobe Connect, which will be shown during the breaks. And then once we call on you, we'll ask you to state your name and affiliation and limit your comments to two to three minutes. And

we'll go over that again at the beginning of each public comment session.

Just a reminder that public participants, to listen in, should do so through their computer audio, which will remain muted. If you are a member of the public and you're using the conference line, we would ask that you please hang up and turn your computer speakers on and use your computer audio to listen in on this meeting. We'd like to reserve the conference line for members of the Committee.

For our Committee members, remember to mute your line when you're not speaking. We will sometimes mute the phones. Please don't unmute except when we ask you to. At any point if you'd like to make -- signal that you'd like to make a comment, we'd ask that you type your name into the presenter chat box that members of the Committee should be able to see -- it's the second box down on the right-hand side of the screen -- and to please make sure that your computer microphone and speakers are muted so that we don't get feedback.

And so with that, why don't we do introductions. Normally, we would kind of go around the horn, but so that we're not kind of jumping in on each other, I thought what I would do is work through

the roster based upon organizational perspective type and call on people and then they can just make a couple of remarks. So with that, I'm going to start with the user/grower groups/farmer representative perspective. Amy Asmus.

MS. ASMUS: Can you hear me?

MR. KEIGWIN: Yes.

MS. ASMUS: This is Amy Asmus. I'm with Asmus Farm Supply. I was nominated to represent the Weed Science Society on PPDC. I am a returning member. This will be my second go-round, and I'm proud to be back. Thanks.

MR. KEIGWIN: Thanks, Amy.

Jim Fredericks.

MR. FREDERICKS: Thanks, Rick. Jim here. By way of background, I'm the Vice President of Regulatory Affairs with the National Pest Management Association. I'm proud to be returning to the Committee. For those of you that don't know, NPMA is a trade association that represents pest control companies and the approximately 150,000 technicians that work every day to protect homes, businesses across the country from harmful pests.

We also work to educate consumers about pests and the threats that they pose to people, public

health, property, and food. I'm happy to be back on the Committee and look forward to working with you all.

MR. KEIGWIN: Thanks, Jim.

Mark Johnson.

MR. M. JOHNSON: Good morning. This is Mark Johnson. I'm with the Golf Course Superintendents Association of America. Our headquarters is in Lawrence, Kansas. I'm the Associate Director of Environmental Programs and happy to be here today. Thank you.

MR. KEIGWIN: Thanks, Mark. Welcome.

Patrick Johnson.

MR. P. JOHNSON: I'm -- can you all hear me now?

MR. KEIGWIN: Yes.

MR. P. JOHNSON: Okay. I'm Patrick Johnson. I'm a farmer in Tunica, Mississippi. I'm representing the National Cotton Council. We grow cotton, corn, rice, and soybeans here, and I'm new to the Committee, so I look forward to learning more about how it functions and participating. Thank you.

MR. KEIGWIN: Thank you.

The next person I have is Dominic LaJoie, but I don't know if he was able to join us yet. Dominic,

have you been able to connect with us?

(No response.)

MR. KEIGWIN: Those of you haven't met Dominic, he is with the National Potato Council, and he is a potato grower in Northern Maine.

Lauren Lurkins.

MS. LURKINS: Hi. Can you hear me?

MR. KEIGWIN: Yes.

MS. LURKINS: All right. My name is Lauren Lurkins. I am the representative on the council for the American Farm Bureau but I'm actually the Director of Environmental Policy for Illinois Farm Bureau. I'm located in Bloomington, Illinois, in the center part of the state and also the country, and I spend my time at Illinois Farm Bureau working with both our federal and state agencies on various environmental issues, including pesticide use. And I also spend a great deal of time with our farmer members.

In Illinois, we have almost 80,000 individual farmer members, and we help explain a lot of the regulatory world in which they can use pesticides. So I am new to the Committee and I appreciate the opportunity.

MR. KEIGWIN: Welcome, Lauren.

Tim Lust.

MR. LUST: Yes, Tim Lust, represent the National Sorghum Producers and new to the Committee and happy to be on it.

MR. KEIGWIN: Thanks, Tim.

Gary Prescher.

MR. PRESCHER: Yes, good morning. Hello, everyone. I am representing the National Corn Growers Association. I'm a new member located in South Central Minnesota, living on the family homestead here, looking forward to the sharing of information and ideas and appreciate the opportunity.

MR. KEIGWIN: Welcome, Gary.

Caleb Ragland.

MR. RAGLAND: Yes, this is Caleb Ragland. I'm from Magnolia, Kentucky. I represent the American Soybean Association and I'm a National Director. I also serve on the Kentucky Soybean Association Board. We farm in Central Kentucky, raise soybeans, corn, winter wheat, and pigs. I'm excited to serve with you all. Thank you.

MR. KEIGWIN: Thanks, Caleb. Welcome back.

NINA: Hi, I'm sorry, did you say Nina?

MR. KEIGWIN: I said Damon. Is Damon able to join us?

(No response.)

MR. KEIGWIN: Damon is with the National Agricultural Aviation Association.

And Tim Tucker. Was Tim able to join?

MR. REABE: Rick, it's Damon. Can you hear me now?

MR. KEIGWIN: I can, Damon, hi. Good morning.

DAMON REABE: Damon Reabe, aerial applicator from Wisconsin. We protect field vegetable/fruit crops, fertilize crops here in Wisconsin, as well as plant cover crops. I'm representing the National Agricultural Aviation Association. And I'm in my second term. I'm looking forward to this.

MR. KEIGWIN: Thanks.

And let me just check again to see if Tim Tucker has been able to join us.

(No response.)

MR. KEIGWIN: Tim is with the American Beekeeping Federation and the American Honey Producers Association.

Let's move on to the environmental/public interest and animal welfare group perspectives. We'll start with Lori Ann Burd.

MS. BURD: Hi, everyone. My name is Lori Ann Burd. I am with the Center for Biological Diversity

where I am the Director of the Environmental Health Program and a senior attorney. At the Center, we recognize that the fate of humans and all species are intertwined and that all species have an intrinsic value and the right not to be driven to extinction. My work focuses on protecting all species from toxic poisons, including pesticides. And I am here to advocate for vulnerable humans, plants, and animals harmed by pesticides.

MR. KEIGWIN: Thanks, Lori Ann. Welcome back.

Gina Hilton.

MS. HILTON: Hi, good morning. My name is Dr. Gina Hilton and I am a toxicologist working for PETA, so the People for the Ethical Treatment of Animals, and I collaborate with international regulatory agencies on projects that are focused on the development and validation of non-animal test methods, so methods such as in silico and in vitro assays specifically to support agrochemical risk assessment.

And I'm new to this Committee. Thank you for the opportunity to serve, and I look forward to hearing more about various projects.

MR. KEIGWIN: Thanks, Gina. Welcome aboard.

David Shaw.

MR. SHAW: Good morning. This is David Shaw, and I'm at Mississippi State University. I'm the past chair of the Herbicide Resistance Education Committee for the Weed Science Society of America. That committee, for a number of years, has been working with a number of stakeholder groups to be able to develop educational resources and a collaborative environment to be able to have stakeholder groups working together to address this very difficult problem.

We particularly had been working across the spectrum with EPA and OPP specifically, as well as USDA agencies, nongovernmental organizations, industry, growers, academia, and other groups to be able to address these very difficult problems.

MR. KEIGWIN: Thanks, David.

Christina.

MS. STUCKER-GASSI: Good morning, everyone. My name is Christina. I'm an organic farmer here in Boise, Idaho, and work with the Northwestern Center for Alternatives to Pesticides, where we strive to protect community environmental health and inspire the use of ecologically sound solutions to reduce the use of pesticides. And I am -- this is my first time and

was referred by my colleague, Sharon Selvaggio, who served two terms. Glad to be here.

MR. KEIGWIN: Great to have you.

And Edward.

DR. WAKEM: Hey, good morning, Rick. Good morning, everybody. I'm a veterinarian living in Virginia. I am an industry technical consultant, and I'm representing the American Veterinary Medical Association, which is headquartered in Schaumburg, Illinois. The AVMA represents about 95,000 members.

Veterinarians in practice use and recommend many EPA-registered, host-applied pesticides to protect the animals under their care, and veterinarians are also involved in a wide range of One Health initiatives, including environmental and toxicological assessments. I'm in my second term and pleased to be here. Thank you.

MR. KEIGWIN: Great. Great to have you back.

Representing the farmworker perspective, Iris Figueroa.

MS. FIGUEROA: Good morning, everyone. My name is Iris Figuera and I'm Senior Staff Attorney at Farm Worker Justice, which is a national organization where we advocate for the approximately two and a half million farmworkers who grow our food and in doing so

face an increased risk of pesticide exposure.

MR. KEIGWIN: Welcome back, Iris.

Amy Liebman.

MS. LIEBMAN: Hi, good morning. This is Amy Liebman. I am the Director of Environmental and Occupational Health at Migrant Clinicians Network, and our organization is a national organization focused on health justice for migrants and immigrants, improving access to care and quality of care for migrants and immigrants.

MR. KEIGWIN: Thanks, Amy.

And then Mily Trevino-Sauceda.

MS. TREVINO-SAUCEDA: Hi, buenos dias. Good morning. Mily Trevino-Sauceda, and I am the Executive Director and Cofounder of the National Alliance of Farmworker Women, which is called Alianza Nacional de Campesinas. We have 15 member groups in 11 states, starting in California, which was one of the largest agricultural areas. And I am in California and we focus a lot on the environmental, the pesticide issues. There has been a lot of not only injuries but deaths in our communities because of that, and this is why I’m here. Thank you.

MR. KEIGWIN: Thanks, Mily. Great to have you on our Committee.

I'll move now to the public health representative perspective. Joseph.

(No response.)

MR. KEIGWIN: I thought I saw Joseph online.

Joseph is with Florida State University Department of Family and Child Sciences.

Move to Aaron Lloyd.

MR. LLOYD: Hello. I'm Aaron Lloyd. I'm the Assistant Director at Lee County Mosquito Control District in Ft. Myers, Florida. Happy to be a part of the group.

MR. KEIGWIN: Welcome, Aaron.

And then Daniel Markowski.

MR. MARKOWSKI: Hello. This is Dan Markowski. I'm here representing the American Mosquito Control Association. We've been conducting mosquito surveillance control operations throughout the U.S. This is my inaugural PPDC meeting.

MR. KEIGWIN: Thanks.

We'll move now to the registrant perspective. Mano.

MR. BASU: Good morning, everyone. This is Manojit Basu. I'm representing CropLife America. We're based in Washington, DC. I'm the manager, Director of Science Policy at CropLife. We are a

national trade association representing manufacturers, formulators, and distributors of pesticide products. This is my first term on PPDC, and I appreciate the opportunity to engage with all the stakeholders here. Thank you, Rick.

MR. KEIGWIN: Thanks, Mano.

Steve Bennett.

MR. BENNETT: Good morning. This is Steve Bennett with the Household and Commercial Products Association. We represent a number of products in the consumer space, primarily antimicrobial and conventional pesticides. This is my second time on the panel, and I look forward to it.

MR. KEIGWIN: Great, thanks, Steve.

We're actually going to double back to Joe, who I think his phone was double-muted. So, Joseph.

MR. GRZYWACZ: Yeah, sorry about that. Can you hear me now?

MR. KEIGWIN: Yes.

MR. GRZYWACZ: Awesome, awesome. Sorry about that. Yeah, so I'm new to PPDC. I am on the faculty here at Florida State University, and I've done research on pesticide exposure and its potential health implications now for about 20 years. Just glad to be with everybody.

MR. KEIGWIN: Great. Thanks for joining us.

Gary.

MR. HALVORSON: Hi, this is Gary Halvorson. I am President of the Council of Producers and Distributors of Agrotechnology. We represent companies that manufacture adjuvants and distribute adjuvants to go along with pesticide application, also, the inerts groups that are -- use inerts into the pesticide formulations. I'm a new member and very glad to be on my first term. Thanks, Rick.

MR. KEIGWIN: Great, Gary.

Komal.

MS. JAIN: Good morning, everyone. I'm pleased to be a returning member to the PPDC. I'm the Executive Director of the Center for Biocide Chemistries, which fits under the umbrella of the American Chemistry Council. CBC is a global trade association of over 50 companies that manufacture or formulate antimicrobial pesticide, also known as biocides. Happy to be here today. Good to see you, Rick.

MR. KEIGWIN: Good to see you. Glad you could join us.

Karen Reardon.

MS. REARDON: Good morning. Thanks, Rick.

I'm Karen Reardon. I'm Vice President of Public Affairs for RISE, Responsible Industry for a Sound Environment, and we represent the companies that supply the pesticides that are used by consumers and professionals in non-agricultural settings. So I'm a new member and very excited to join the group's deliberations here. Thanks.

MR. KEIGWIN: Welcome, Karen.

Charlotte Sanson.

MS. SANSON: Thanks, Rick. Hi, good morning. I'm Charlotte Sanson. I am with ADAMA. We are a global crop protection company. I am based in Raleigh, North Carolina, and I serve as Head of Regulatory Affairs for North America with the company. So this is my second term on PPDC, and I'm happy to be here. I represent the registrants of the crop protection industry on the conventional chemical (inaudible). So thanks, Rick.

MR. KEIGWIN: Thanks, Charlotte.

And Nina Wilson.

MS. WILSON: Thank you, Rick. Good morning. This is Nina Wilson with Gowan Company. I'm representing BPIA, which is the Biological Products Industry, whose members produce naturally derived or their synthetic equivalent with a lower risk profile.

Thanks, Shannon and OPP, for arranging this meeting under all these difficult circumstances, and I appreciate the opportunity to be here.

MR. KEIGWIN: Thanks, Nina. Welcome back.

We'll move to our state/local/tribal government perspectives. I'm not sure if Ruben Arroyo has been able to join us yet. It might be later today.

So Ruben is a county ag commissioner with the Riverside County Department of Agriculture in Riverside, California.

Carol Black.

MS. BLACK: Good morning from the Palouse Region of Eastern Washington. It's a little rainy today. We've been needing some moisture, so that's always good. I work for Washington State University. I'm a pesticide safety education specialist, and we provide both initial certification training, as well as continuing education with an emphasis on personal safety, environmental protection and integrated pest management. And I also represent the American Association of Pesticide Safety Educators, and that's going to include regulatory officials who (inaudible) applicator certification, as well as university and private industry that does safety education. So thank

you. The last time I was on PPDC was 2006 to 2009, so it's good to be back in the fold.

MR. KEIGWIN: Glad to have you back, Carol.

Jasmine Brown.

(No response.)

MR. KEIGWIN: Was Jasmine able to join us today?

(No response.)

MR. KEIGWIN: So I think she hasn't been able to join us yet, so Jasmine represents EPA's Tribal Pesticide Program Council.

And Liza Fleeson Trossbach.

MS. TROSSBACH: Good morning, Rick. Thank you. This is Liza Fleeson Trossbach. I am with the Virginia Department of Agriculture and Consumer Services, and I am representing the Association of American Pesticide Control Officials, or AAPCO. For the newest members, AAPCO is a professional association that is made up of the pesticide regulatory officials for our states, territories, provincial and federal government, both the United States, the territories, of course, and Canada.

We work very closely with EPA to resolve different challenges related to the implementation of pesticide programs and also for related associations

who specialize in both agricultural and non-agricultural aspects of pesticide programs. This is my second term on PPDC, and I'm glad to be back. Thank you.

MR. KEIGWIN: Glad to have you, Liza.

And then finally we'll wrap up with members of our federal family. Walter Alarcon

(No response.)

MR. KEIGWIN: I see him on the list. Walter, you might need to unmute your phone. He's going to call back in. We'll circle back.

Doug Burkett.

MR. BURKETT: Hey, good morning, everybody. I hope you can hear me okay. I'm Doug Burkett, and I'm with the Armed Forces Pest Management Board and part of the Office of the Secretary of Defense, and I believe at least somebody from our office has been a member of PPDC for many years. I'm a new member this year, but we're proud to represent our organization.

The Armed Forces Pest Management Board at the Office of the Secretary of Defense, we're kind of the pesticide and pest management policy and guidance organization for Defense. Over.

MR. KEIGWIN: Great. Happy to have you on board.

Sheryl Kunickis.

MS. KUNICKIS: I represent the Secretary of Agriculture on PPDC. Our office, a staff of 10, represent the need for agriculture's use of pesticides in all growing systems, whether it be organic, conventional, biotech.

At this point, I also would like to thank all of the work in the production and distribution of food that work in our industry, particularly at this time as we work through this pandemic. Really appreciate all the people across the country. A lot of representatives of those group that are working in the field of agriculture.

So thank you for including me on PPDC. I look forward to serving this year.

MR. KEIGWIN: Great, Sheryl. Welcome back.

Dan Kunkel.

MR. KUNKEL: Yeah, hi, good morning, Rick. You can hear me all right?

MR. KEIGWIN: Yes.

MR. KUNKEL: Great. Thanks. And I'm starting my third term, so really appreciate the opportunity to serve on the Committee. I represent the IR-4 project. We're a USDA-sponsored program. Our headquarters is located at Rutgers University.

We're actually transitioning to NC State, and we register plant protection products for conventional and organic growers. So we're representing the specialty crop growers today. Thank you.

MR. KEIGWIN: Thanks, Dan.

Charlotte Liang.

MS. LIANG: Thank you, Rick. Good morning, everyone. My name is Charlotte Liang. I am with U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, also called Food Safety. I work on issues related to pesticide residues in food. I'm a returning member, and I'm glad to be here. Thank you.

MR. KEIGWIN: Great to have you, Charlotte. Thank you.

Cathy Tortorici.

MS. TORTORICI: Hello. Good morning, everyone. Cathy Tortorici. I work for NOAA Fisheries, and I'm also representing U.S. Fish and Wildlife Service. Both of our agencies work on ESA Section 7 consultations, and we're working very closely with EPA, USDA, and collaborating with the public on pesticide consultations. And I'm very glad to be here. I'm a new member and looking forward to the conversation.

MR. KEIGWIN: Thanks for being willing to join us, Cathy. We really appreciate it.

Let me just circle back and see if Walter Alarcon has been able to rejoin us.

MR. ALARCON: Hello. Can you hear me?

MR. KEIGWIN: Yes.

MR. ALARCON: Thank you. This is Walter Alarcon. I am a returning member. I work for the Center for Disease Control and Prevention. I am the Project Officer for the SENSOR Pesticides Programs. Our program tracks acute pesticide irregularities and injuries that happens at work, and (inaudible) with several states. I'm glad to be back to support this work. Thank you.

MR. KEIGWIN: Great. Thank you all. So I think we'll transition now into Session 1. And I think Charlotte -- I mean Carla or Shannon will put up the slides.

(Brief pause.)

MR. KEIGWIN: All right, thanks. So we're going to kick things off -- I'll kick things off by giving you all an overview of the work that the Office of Pesticide Programs has been doing over the last four months at this point in helping to contribute to the Federal Government's response to the COVID-19 public health emergency. Next slide.

And what I'm going to cover are activities in three areas. The first is to provide you all with an overview of our emerging viral pathogen policy, which has really been the starting point for the work that we've been doing in terms of making information available to the public about which registered disinfectants are effective against the SARS-CoV-2 virus.

Then we'll talk about the work that we've been doing, as Alex talked about, with the creation of List N. The third area that I'll cover are some temporary changes to our registration requirements that we have made to respond to changes in the supply chain that has been occurring. And then I'll wrap up with providing you all with an overview of some work that we're beginning to do at our microbiology laboratory in Fort Meade, Maryland, to stand up a human coronavirus efficacy testing program. Next slide.

So our emerging viral pathogens policy was triggered in January of this year when the CDC declared the public health emergency. We actually created the emerging viral pathogens policy about four or five years ago in the aftermath of the Government's response to Ebola. And what we wanted to be better

positioned to do was to provide information to the public and prequalify disinfectants to make claims for efficacy against emerging viral pathogens.

But what this policy and guidance says, it essentially sets up a two-step process to enable registrants to add emerging viral pathogen claims to the label, which would be for pathogenic pests that are not currently identified on the label but allows subsequent to the implementation of this guidance for any specific public health emergency to begin to make off-label claims for a new emerging micro-organism such as SARS-CoV-2. And the basis for this policy is that they can make these claims subsequent to an EPA review if they have suitable data to demonstrate that their product is effective against a harder-to-kill virus. Next slide.

So how the guidance works is it's a two-stage policy. Prior to an emergency being declared, registrants with an eligible disinfectant product can submit a request to EPA to add a claim for an emerging viral pathogen designation to their label. We evaluate efficacy data, evaluate the rationale that they have provided, essentially a bridging argument, and then if we are in agreement with those data, we approve the amendment to the registration. And it

also includes terms and conditions of registration for when they can begin to make the emerging viral pathogen claim in their product marketing.

The second stage is at the time that the guidance is triggered, and so once the guidance is triggered in response to a human or animal disease outbreak, it's at that point that the registrants who have already been pre-approved to make emerging viral pathogen claims can begin to make off-label communications available that their product can be used against that specific emerging virus. So until the guidance is triggered, they're not able to make those claims. They can only make those claims once the guidance is triggered. Next slide.

And I won't go through this in detail. There's a link in the materials to the full guidance document, but this slide just outlines the types of criteria that are required for a product to be eligible for consideration under the emerging viral pathogens policy and the types of data that -- and the organisms -- that the registrant needs to provide in order to report a potential emerging -- addition of an emerging viral pathogen claim to a registration.

Now, what I talked about was how we do this prior to an outbreak. We have also allowed companies

since implementation of the guidance for in this particular public health emergency to come in subsequent to the initiation of the policy to also seek to add the emerging viral pathogen claim to their labels. And those have been being processed in about a three- to four-week, on average, time frame, presuming that we receive a complete application and the materials that the registrant has submitted support adding the emerging viral pathogens claim to their labels. Next slide.

So when the guidance was first triggered at the end of January, we initially had about 40 to 50 products that qualified for -- to make claims against SARS-CoV2. You might wonder why it's called List N, and that is because there are lists A through M that have been put together over the years, and some of these lists include products that are efficacious against avian flu or Ebola or other types of pathogenic organisms, with N just happened to be the next list that was created.

We are now at over 400 products that are on this list, so the work in Antimicrobials Division, which has really been supported by virtually every division in the Office of Pesticide Programs, either from a product review standpoint or a labeling

standpoint or helping with communication or responding to stakeholder and public and registrant inquiries, it's really been that old adage, it takes a village. It's taken a village to move that work along.

So we're now at over 400 products. We've been updating the list on a weekly basis so that information is available to the public in real time. And Alex hinted at this as well, but we've also been getting kind of web analytical statistics, and this is the most hit list of -- or site of any EPA's sites, I think for the last two and a half months running. So it's a very popular list and has been a usual resource for a lot of people as they look to find products to use in this current emergency.

We have also been adding frequently asked questions to our website to help guide people through the list, what it represents and what it doesn't represent. And similarly, as we update the list on a weekly basis, we've been adding additional frequently asked questions to help consumers understand how to utilize the list and what it represents.

And then most recently we added information for registrants on how to submit applications for consideration for prioritized or expedited review. These are products that we are -- could also be useful

in the response effort. What we're doing is they go to the top of the review queue. All of the data are required for registration still must be submitted.

They go through the same review process as any other product would. We just have a team of people across the program and with some support from others across the agency to help move these applications through the process in a swifter, more authoritative manner. Our estimate is that or our goal certainly is to move these applications through the review process in about one to two months faster than the PRIA statutory deadline.

That may not seem like a lot of time, but for a lot of these products, a typical PRIA statutory goal for deadline is about four to five months, so if we're able to do these in about one to two months faster, you know, we're looking at, you know, a 40 to 50 percent swifter turnaround time for the completion of these registration decisions. Next slide.

When we first launched List N, it was literally just that, a list, and we added -- over time, we've been adding additional search functionality. We did receive some feedback from users that they were finding it a little bit difficult to navigate or search, so most recently we launched

this web app tool, so it's not like something that's downloadable from the app store, but it is a tool that you can launch directly from EPA's website.

The web address is listed at the bottom of this slide, and you can search for products on -- in a variety of ways, from the registration number, if you happen to have it, to, as Alex was saying earlier, I'm only interested in products with a certain active ingredient or products that can perform this intended function in a certain period of time or, you know, while many of the products are for use on hard surfaces, somebody might be looking for a product that could be used on soft surfaces or could be used as a laundry additive.

And using this tool, you can utilize the "use site" function to try to narrow in, and this becomes particularly helpful as more and more products are added rather than sifting through the list in a more manual way. This app tool will help refine the list for you in a swifter manner. Next slide.

We've also been responding to reports of supply chain disruption. So beginning in March, and then as it turned out it's been about once a month with the most recent temporary change to the process being announced last week, we've been making some

time-limited modifications to our registration procedures to allow registrants to make changes to their product's formulation that won't have an impact on product integrity, product performance, or public health and the environment. What this has allowed is for a company to swap out sources of active ingredients or certain active ingredients if they have encountered a supply chain disruption or swapping out like inerts, again, in the event of supply chain disruption, so that product can continue to be available for use in the response effort.

We primarily had been focusing on products that were on List N. The most recent amendment that we released last week did slightly expand the scope of these time-limited modifications to include food contact surface sanitizers that contain isopropyl alcohol as the active ingredient. What we learned from the food manufacture and preparation industry is that they were encountering supply chain issues in accessing food contact surface sanitizers, and as an essential industry, we wanted to make sure that they had products available to keep their workplaces safe and food protection continuing. Next slide.

We already touched on this a little bit. So we're not allowing companies to change the active

ingredient or change the inert. It's swapping out the source. So if they typically obtained it from Company A, for certain active ingredients, we're letting them switch to Company B to source their active ingredient, and same thing with the inert ingredient.

And then we were also hearing about the need to simplify the process for adding additional production facilities into the registration. So the changes that are permitted under these temporary modifications help to facilitate meeting those markets, meeting -- as I mentioned earlier, we don't anticipate that any of these changes result in substantive changes to the formulation. We've done comprehensive risk assessments on the product formulations and the labels.

These changes are temporary in nature. If we were to decide to make these procedures permanent, we would only do so following an opportunity for public comment on such a proposal. Next slide.

So I want to wrap up with sharing with you some work that our microbiology laboratory at Fort Meade is undertaking. For those of you that aren't aware, we maintain two laboratories at the Fort Meade Army Base in Maryland. One is an analytical chemistry laboratory; and the other is a microbiology

laboratory. The microbiology laboratory has been working on developing test methods for a number of infectious pathogenic organisms for 20-plus years, you know, ranging from clostridium difficile to candida auris to legionella and now with the SARS-CoV2 virus.

One of the things that's unique about the OPP microbiology laboratory is that it is the only laboratory in the EPA network that is authorized to study organisms that require handling in a biosafety Level 3 laboratory. The SARS-CoV2 virus meets the criteria to only be handled in a BSL3 laboratory, and so we have a unique opportunity in our laboratory to begin to study this virus more directly.

A goal of the work that they're doing is to study the relationship between other human coronaviruses that are typically handled in BS Level 2 laboratories with the SARS-CoV2 virus to determine whether or not there's a comparative tolerance to disinfectants between other human coronaviruses and the SARS-CoV-2 virus. Next slide.

So we are in the early stages of beginning to prepare for testing of already-registered disinfectant products against SARS-CoV2. We're actually right now working with a Level 2 virus to refine our standard operating procedures, have our staff gain some

familiarity with the appropriate procedures for handling the virus so that when we do move to testing of the SARS-CoV2 virus they're prepared and they're doing things appropriately to keep themselves and their coworkers and families safe.

The goal of the work will be to evaluate testing products against both hard and porous surfaces. There is a priority focused on test method for soft, porous materials. In part why this is important is that we have already begun to receive submissions from registrants who had earlier access to the SARS-CoV2 virus, and so we will be beginning to evaluate those studies where registrants have data on the efficacy of their product specifically against SARS-CoV2 rather than against a surrogate. Next slide.

Some of the areas that -- where we've also received some requests for flexibility and/or consideration and we are scoping out what these might look like, one is a mechanism to provide increased communication to consumers at the point of sale. So as I mentioned under the emerging viral pathogens policy, there are different options for companies to provide off-label communication to consumers about their products once policy is activated. What we've

heard from some areas is an interest in expanding those off-label communications to include distribution or availability of materials at the point of sale.

We've all heard about concerns -- if we could go back to the previous slide, I'm sorry. We've all heard about reports of shortages of personal protective equipment in the medical sector and healthcare sector. We are also beginning to hear of the potential if not immediately later on this year for shortages of personal protective equipment in the agricultural sector. And so we have begun to explore how we might address those shortages of personal protective equipment as part of -- as they intersect with pesticide labels.

We've also been working with our state co-regulatory partners to identify some additional options for agricultural employers to provide the annual required worker protection safety training to their employees. And then as -- similarly we've been working with the states on identifying some expanded flexibilities to allow the states to maintain their ongoing applicator certification programs, part of the pesticide applicator certification role. Next slide.

The next two slides just give you all some resources that you can consult if you have questions.

So this slide is a link to some websites, either for more information, not just on OPP's role in the Federal Government's COVID-19 response but to EPA's response overall. There's also a link to the mobile-friendly List N, as well as to the FAQs that I mentioned earlier in the presentation.

And then the last slide is a set of resources for questions that you or family members or colleagues may have. So what we're trying to do is route those questions to different mailboxes based upon the type of inquiry, so -- and we have people that are monitoring each of these mailboxes every day. So I won't walk through this in detail, but I'll encourage you to keep this available so that if you have a question in any one of the areas listed, you know where to reach out to to get a prompt response to your inquiry.

I think that's my last slide, and so with that, I will open this up for questions or comments from the Committee. I think what we're going to do is ask members of the Committee, so we don't have tent cards that we can show is in presenter chat, if you type in a question, if you'd like to ask a question, we'll call on you and open your line as you type in.

So I think Iris has raised her hand, so we'll

start there. Iris?

MS. FIGUEROA: Yeah, thanks, Rick. So I was just hoping to get a little bit more information on two things that you mentioned in one of those last slides. On the shortage of PPE, I know it's sort of beginning stages, but can you talk a little bit about what are the options that you're considering to address that?

And, also, you mentioned additional options for worker protection training. What specifically are we talking about in terms of changes to the training?

MR. KEIGWIN: Sure. So, you know, we're still in our formative stages, so some of the things that we have looked at in terms of the PPE shortages, the Occupational Safety and Health Administration has issued some enforcement discretion guidance on things such as testing for personal protective equipment that has been certified in other countries that meet or are similar to the certification of PPE that has been undertaken by NIOSH. So we've been looking at whether or not that is a starting point for some considerations on the PPE front.

There's also been some good work that's been put out from some of the pesticide safety educators relative to, you know, looking at labels and seeing if

you can't find certain PPE, is there an alternative product that doesn't require that PPE that could still help you meet the pest management need that you're trying to address.

Similarly, labels oftentimes will say the minimum PPE requirement, so something could be included that there could be a more protective piece of equipment that would also maintain the level of protection for the worker that's being sought by the label. What we've heard from some is I think that they can only use a PPA -- a PPE that's on the label. So those are some of the things that we're exploring on the PPE side.

On the training side, it includes things like are there ways to provide the training remotely and how could you do that. Are there ways on the certification side to facilitate reciprocity? So we're still developing what our guidance might look like, but those are some of the things that we're exploring.

So I think the next person I had was Charlotte Sanson.

MS. SANSON: Yeah, hi. Thanks, Rick, for that overview. And it's obvious that OPP has done a tremendous job in working so quickly to get additional

flexibility and for the products to be approved. I know it's much appreciated. But I was looking at your slide that you were showing about the work that's being done at Fort Meade with regard to efficacy trials, efficacy evaluations, and I was just curious if EPA is collaborating in this regard with other regulatory agencies, other countries, because being as this is certainly a global issue, just interested in what collaboration you might be doing outside of the U.S. in this area.

MR. KEIGWIN: Sure. And I don't know if Kimberly's able to join us. We've certainly been having some discussions with our colleagues in Canada. Obviously we've had a quarter-century, if not longer, relationship with them.

Kimberly, is there anything that you would add?

MS. NESCI: So we have not been collaborating with external agencies at this point, but it's certainly something that we are considering, with other countries, I mean.

MS. SANSON: Yeah.

MR. KEIGWIN: Okay, I think the next person was Komal.

MS. JAIN: Hi, thanks. So, again, Komal

Jain, the Center for Biocide Chemistry. So I wanted to reemphasize some of the points made by Rick for the benefit of the PPDC members and members of the public listening in. And I have a couple of recommendations for future consideration.

First of all, from the disinfectant registrant community's perspective, EPA, in particularly the Antimicrobials Division, has been incredibly responsive to the COVID pandemic. You know, never have we faced a situation like this, and forced to work within an existing paradigm that is somewhat rigid and really compliment OPP and AD for finding ways to quickly provide flexibility, particularly when we realized that the current framework was hindering industry's ability to produce much of the needed COVID-fighting products. And I'm really pleased to hear that some of the temporary procedures that have been instituted under amendments for 98-10 may become permanent. And we look forward to being able to comment on that.

And I do hope that the pesticide and chemical industry have been strong partners in addressing this crisis. You know, we've worked in coordination with EPA and other federal and state authorities on developing a comprehensive list of hard surface

disinfectants. We've produced educational material, and, more importantly, we've really increased manufacture and donation of disinfectants, hand sanitizers, and other personal protective equipment. And we want to continue to support EPA now but also for the future.

So as far as recommendations, you know, we're hopeful that in a post-COVID environment we can do a deep dive with EPA to see how EPA could more easily deploy flexibility in a regulatory process, particularly when it comes to strains with the supply chain in sourcing material.

And, Rick, we're also recommending again at a later time that there be, you know, thorough evaluation of whether or not the emerging viral pathogen policy can be or should be improved, particularly when it comes to allowable claims, and something that's already on your agenda, you know, how can the producers of these disinfectants and maybe in coordination with retailers better communicate information to the public.

So, again, just a real thanks to OPP and ask that, you know, we can support future conversations once we get through this crisis.

MR. KEIGWIN: Thanks, Komal.

Amy Liebman.

MS. LIEBMAN: Hi, this is Amy Liebman from Migrant Clinicians Network. Are you getting the echo with me? Okay, it was echoing on my end.

I just wanted to ask, just follow up, first of all with what Iris asked about. And thank you, Rick, for giving us that explanation about what you're looking into in terms of alternative PPE and also looking at different types of training. I'd just ask that you consider checking in with farmworker stakeholders and making sure that what's going to get recommended as potential alternatives will be as protective as possible for our farmworker population.

The other question that I had for you is about the disinfectants and our farmworker community is being asked to use more disinfectants in terms of keeping lodging disinfected, keeping transportation disinfected. We're seeing just general reports to the poison control center increasing, so I'm just wondering if you can reflect with all these increases in products how we can keep the farmworkers and consumers that are using them, what kind of training, what kind of resources are being put out there to make sure that farmworkers and those that are using these new products are educated about them and protected.

MR. KEIGWIN: Thanks, Amy. I might first check to see if Anita Pease is online, if she had anything to add in response, particularly to the second question from Amy.

MS. PEASE: Hi, this is Anita. Can you hear me?

MR. KEIGWIN: Yes.

MS. PEASE: Great. So in terms of educational material to make sure that farmworkers know to -- how to use these products safely, I would refer them to a joint guidance we developed collaboratively with CDC on how to use products, not only disinfectants but other types of products to clean surfaces and use them safely. So disinfectants are not always needed in all cases. Sometimes soap and water is just fine.

And I would also recommend that, you know, you look at the directions for use on the label. We just -- that's the most important thing when using these products is to make sure that you follow those directions for use, that the surface remain wet for the appropriate contact time to kill the virus, but those are two resources I would look at, just basically the label and again some of the guidance we developed with CDC.

MR. KEIGWIN: And, Amy -- thanks, Anita.

And regarding the first one, our goal is to ensure that our workers who are utilizing these products continue to remain safe. And so that's a key consideration for us as we develop a potential response relative to the PPE issue that I know a lot of sectors have been grappling with.

Carol Black.

MS. BLACK: All right, thank you. Regarding the PPE fact sheet that Rick mentioned, it is posted on AAPFE website, and that's AAPFE.org, and it's under COVID. And basically it says that pesticides may not be applied -- may not be applied -- without the label-required EPA. There are no substitutes, so there are no alternatives, unless you just want to wear something more protective. And there's no exemptions to this, and selecting the alternative products as Rick mentioned. So that's a resource.

And the other resource that people will typically reach out to related to pesticide information is the National Pesticide Information Center, and they have information as well on that topic, as well as proper handling of disinfectants. And the good thing is is when I took our great tree fruit guide that has all the herbicides and

insecticides and fungicides and select products for that, there were very few of them that required respirators. So we're quite relieved that I don't think we're going to be facing the challenge we were thinking we might be. Thank you.

MR. KEIGWIN: Thanks, Carol.

Joe?

MR. GRZYWACZ: So I just wanted to echo a couple of questions that I think I've already heard, and from a health point of view, I guess I was wondering what do we really know about sort of the combination of the disinfectants, for example, inside the mass transportation that farmworkers are using and the buses that they're, you know, going into the fields in, what do we know about the ventilation in there as far as whether or not those -- whether or not those are posing potential threats to the workers in transit, as well as sort of potential interactive effects with pesticides then when they actually get into the field?

Are folks looking at that kind of -- these kinds of complexities I realize that we're in a crisis mode, but it seems as though, you know, making coordinated decisions would be helpful on these kinds of actions.

MR. KEIGWIN: Anita, do you want to talk about the risk assessments that we do as part of the registration process for antimicrobials?

MS. PEASE: Sure. So, again, this is Anita Pease, the Director of the Antimicrobials Division. For all the products (inaudible) we've conducted a comprehensive human health and environmental risk assessment to ensure that the products are safe for use as directed on the product label. Typically, we -- to your point regarding interactions with potential exposure to other chemicals, we don't typically look at that in our risk assessments.

The risk assessments are really based on exposure to those particular products based on the labeled use. So we have evaluated the safety and effectiveness of all the products, not only if they're safe for human health and the environment but also that they're efficacious against the virus.

MR. KEIGWIN: Thanks, Anita.

Damon?

MR. REABE: Yes. I just want to thank you for the briefing and wanted to encourage the EPA to work quickly on the reciprocity issue. With many states not providing testing, we're finding ourselves in a situation where when there's needs for commercial

pesticide applicators, particularly aerial applicators, that arise that were not anticipated, our ability to get certified in nonreciprocal states is actually -- in some cases may not be possible because the tests aren't being issued.

And, of course, the pest control season is upon us, so I would just ask that the EPA move very quickly at communicating with state lead agencies the importance of developing some immediate flexibility in that subject matter.

MR. KEIGWIN: Thanks, Damon. We appreciate that. I think we've had at least three conversations with, you know, all of the states and then many one-on-one conversations. And those conversations have been helping to inform how we would express more publicly some flexibilities that exist.

MR. REABE: Thanks a lot.

MR. KEIGWIN: Karen Reardon?

MS. REARDON: Thanks, Rick. I just wanted to pivot a little bit. You touched briefly at the end on the resources the agency has provided in this extraordinary time and wanted to ask how -- have there been differences in the queries you've received from consumers and others through those portals and, you know, are there lessons learned we can extrapolate

from the kind of information people were seeking during this unusual time? You know, are there lessons learned we could take forward outside of the situation when talking about pesticides?

I think this is a time where everybody has been acutely aware of the need for efficacious products and the appropriate ways to acquire them and use them, so just wanted to get your take on that.

MR. KEIGWIN: Anita, I know you've been having a lot of conversations, you and your staff, on this topic. Any initial thoughts come to mind?

MS. PEASE: Sure. So we have a number of different mailboxes, as Rick showed on one of his slides, and we really tried to organize them in a way that provided the best response for the type of question that we get. So we have, you know, a number of mailboxes in the Antimicrobials Division that are designed for registrants who have provided us with submissions to track their submissions. So that's kind of one bin of comments.

We also have an ombudsman mailbox that we use to track general inquiries from the public, as well as information from companies or questions from companies. And then the Field and External Affairs Division has another mailbox that's being used to

track just questions from the public. So we've been getting a lot of different inquiries. When we start to see trends in those inquiries, we develop frequently asked questions just to put that information out to the general public.

But I think in terms of lessons learned, I think, you know, when we get past the -- if we ever get past the hump on this one, definitely going back and making some of the information more readily available in terms of frequently asked questions I think is probably the way to go. And just I think, you know, getting the feedback today at this meeting has been very -- you know, will be very informative moving forward, so appreciate all the feedback.

MR. KEIGWIN: Thanks, Anita.

Jim Fredericks?

MR. FREDERICKS: Thanks, Rick. I want to just start out by commending OPP on your efforts. It's been fast-moving, and the group has really done a great job in terms of what you've reported on here today. Specifically, the List N web app was a great improvement over the first few iterations, and that has proven to be helpful for our members' work in the field.

As Damon kind of mentioned, this public

health crisis has coincided with the seasonal increase in structural pest pressure that we see on an annual basis as the structural pest control industry. It also happens to coincide with our seasonal hiring phases, and what we're finding is that many testing centers are closed, and some states have found really creative ways of addressing it, especially for new technicians, but in other places, our members are still running into a roadblock. And so we -- so I want to thank you for initiating that conversation with the states and providing any guidance that you can, specifically with regard to finding creative ways to make sure that new technicians are trained and testing.

And also to echo Damon's comments with regard to reciprocity because now more than ever it would be extremely useful to have reciprocity on a wide-scale basis across states.

And then, finally, just one last note with regard to PPE guidance. So as you -- as OPP continues to develop guidance specifically with regard to PPE, I know that AAFCE and a number of other groups have done a really great job of trying to get the word out about PPE, but one of the phrases that I heard here today is "more protective PPE" and that may not be necessarily

clear right away what it more protective if something is specifically stated on a label. So help with understanding what that is would be of great use to applicators in the field.

MR. KEIGWIN: Thanks, Jim. That's helpful as we continue to build out our response.

I want to make sure if I skipped someone and you had raised your hand in the presenter chat, you might want to retype it in. Or if not, I'll just see if there are any other --

MS. TREVINO-SAUCEDA: This is Mily. Can you hear me?

MR. KEIGWIN: Yes, Mily, go ahead.

MS. TREVINO-SAUCEDA: Oh, okay, sorry. I had a lot of problems trying to get in. I'm sorry I wasn't earlier --

MR. KEIGWIN: It's okay.

MS. TREVINO-SAUCEDA: -- involved in how to do everything. I'm very bad with technology, so I should have been more mindful.

MR. KEIGWIN: No worries.

MS. TREVINO-SAUCEDA: No worries.

MR. KEIGWIN: This is a first for all of us, so you're good.

MS. TREVINO-SAUCEDA: Okay, thank you. Well,

good morning, everybody. Well, morning for me. I'm in California, and the people that are over here on the West Coast. I do want to come back in terms of the question that Amy Liebman asked and mention, and I think some of the other -- some other members also in a way said it. It's -- for us, because we're out in the trenches, we work directly with workers, and we've seen so much, you know, different exposures and situations, incidents that workers have gone through in terms of the pesticides, misuse of pesticides, lack of training of workers, lack of really supervision, lack of many, many, many things.

So I would like to find out from you if you do have -- and because of COVID, we all know that we have to -- we have to cancel meetings, and we had a convening, which we would have loved to come in and meet with EPA people, which we did like several -- several years back.

And this is the Alianza Nacional de Campesinas, and the reason for this is because we were going to be bringing about 70-some women from 11 different states to really hear you in terms of some of the -- you know, some of the things, some of the processes, the protocols that you use, but at the same time, we would have wanted you to listen to our

members in terms of what -- you know, from in Spanish we say "[speaking Spanish]," which means from saying and the willingness to do things is one very -- it's, you know, it's very helpful, but at the same time, from doing it, from what we say we want to do and doing it is a very different thing, so -- in terms of the implementation.

So my question is can you please explain how you're making sure workers are trained and prepared, because you did say, yeah, when you were trying to make sure that workers were safe and workers are trained, but can you explain how, because we're finding out that -- and I'm going to applaud for companies that do training with workers, but there's many, many companies, businesses, that do not.

And so how can we make sure, how is EPA making sure that it is really monitoring, because we -- we don't -- we don't see -- you know, we don't see the monitoring, the supervising, and much -- much less right now but we haven't seen that. And at the same time, just to end my question or my side of frustration maybe is because -- because California is starting the hardest -- right now we're entering into the peak harvesting era, and during this -- this time of the year, it starts around the middle of May all

the way to the middle of October.

And the virus already started infecting many workers and connecting it with the lack of protection of workers with the applications, everything else that I just mentioned. We're getting worried because we already have had workers that died, not just got infected, but have died. Here in the Coachella Valley where I'm at, there is -- there are -- there are workers that have been infected, and companies say, oh, well, workers, now we're having half of the workers working one shift and now -- they changed, but after 15 workers had been infected and one of them died.

So -- and you've heard about what happened in Washington State of there's several companies that workers are being infected because there's a lot of lack of protection, of really doing the distancing, doing -- doing the -- making sure that if in the past we have had the field sanitation, not, you know, there's a lot of negligence there, which many more times we're not part of that in terms of EPA's not part of trying to monitor the field sanitation, but it's all connected, it's all connected.

Workers -- at times, if they have restrooms, restrooms are cleaned only on Monday, on Wednesday,

and then on Friday, when you have 30 or more workers in a crew. And we all know that if they're not cleaned several times a day with the amount of workers how bad it gets.

So all this -- all this is we're creating -- I'd like to know in what way this -- this agency is also connecting with OSHA and connecting and trying to find a way to see how their safety -- we're called essential workers now. We've been always essential workers. Right now, I'm glad we -- you know, the world has realized that if we don't work, we don't labor in the fields, the agricultural fields, people cannot eat. So it's -- I hope you're hearing my frustration, but at the same time, I'm going back to my question, please -- please explain if EPA does have the resources or putting priority in terms of making sure that workers are going to be safe. Thank you. And trained.

MR. KEIGWIN: Thanks, Mily. Let me first see if Carolyn Schroeder from our Certification and Worker Protection Branch is on the line and if she has any comments in response to Mily's question.

(No response.)

MR. KEIGWIN: While we get her connected, Liza, I think you might have some thoughts from the

state perspective as our co-regulatory partners in this area.

MS. TROSSBACH: Yes, thank you, Rick. Again, this is Liza Fleeson Trossbach. I'm representing AAPCO or the Association of American Pesticide Control Officials, and I just wanted to make a comment regarding the worker protection standard specifically and ensuring that workers and handlers are trained and are also, you know, receiving all of the personal protective equipment, et cetera, that they need.

You know I can say without hesitation that worker safety is a priority for states and territories, always has been and always will be. And all states and territories conduct both routine inspections of agricultural facilities, as well as complete investigations or conduct investigations when there are concerns regarding the misuse, and any violations of the Worker Protection Standard would fall under that misuse.

And so while, you know, there well may be situations where there are concerns with workers and handlers, either not receiving training or not having access to decontamination facilities, one of the things that I would encourage workers and handlers or those associations do is to contact your local

pesticide, you know, regulatory authority. Normally, it's under the Department of Agriculture. In some states, it may be under your environmental agencies or it may be -- and California is a little unique with their local county ag commissioners, but that is in place.

And, you know, every state program is a little bit different when it comes to inspections and investigations, but all of us are out there, you know, conducting those, so I would certainly encourage, you know, folks to be aware of that and again to follow up with your local agriculture communities. Again, that includes not only, you know, initial training but, you know, the annual training requirements, the surety for decontamination facilities, that medical information is available. So it does cover all those things.

Regarding the training, I'll just make a brief comment since I have been involved in a number of those discussions, particularly when it comes to worker protection standards. Obviously, with social distancing and wanting to maintain small groups, it has been very difficult for states to be able to provide that training; however, there have been a number of states, and Virginia is one of them, that has embarked, working with extension to do virtual,

live training, and we've had great success with that, having our growers have workers, you know, sometimes just, you know, two or three at a time to participate in a virtual meeting much like this. We've been able to have, you know, individuals that are bilingual who were able to conduct the training in both English and Spanish, and I know that that is also going on in other states to, you know, various degrees.

This unprecedented time certainly has had a lot of challenges for all of us, both the regulated industry as well as regulators, not only with worker protection but Jim Fredericks had mentioned certification testing and Damon had, you know, mentioned, you know, the reciprocity. States are working on all of those issues actively, and, again, if there's a particular situation or in a specific state, I really encourage folks to contact the pesticide regulatory officials in that state to talk with them about options that are available or things they are considering. Thank you.

MR. KEIGWIN: Thanks, Liza.

Has Carolyn Schroeder been able to join us?

(No response.)

MR. LLOYD: Hey, Rick, can you hear me? This is Matt.

MR. KEIGWIN: Hey, Matt. Yes, please.

MR. LLOYD: Hi, how's it going? So Carolyn -- yeah, she is having some trouble -- connectivity issues connecting, so I was just trying to let her know to reconnect and get back on the line. But over the past couple of weeks and months, you know, we have had a couple meetings with two SLAs, you know, highlighting some of the training issues and as Liza was mentioning those challenges with trainings, both, yeah, for WPS and some of the -- being able to connect folks on highlighting the success stories and letting folks kind of work together to try to translate that, that to other areas.

MR. KEIGWIN: Thanks, Matt.

Carol Black, did you have a comment?

MS. BLACK: I do. Again related to Jim and Damon's comment about the lack of testing opportunities, obviously that's a significant issue at this point in time, and one of the things that I know that the AAPCO supply leg is working on, as well as the certification training and assessment group, as well as AAPSE and EPA, so all of us are kind of working on parallel tracks trying to look at remote testing options.

Obviously, identity of who's taking that test

and the exam security are the biggest issues, but if there's anybody on PPDC -- and I'm thinking maybe Douglas Burkett with Armed Forces Pest Management Board, if anybody's got some ideas or knows of vendors that can do secured testing, if you'd share that with us, that would be very helpful. Thank you.

MR. KEIGWIN: Thanks, Carol.

So, you know, for OPP, you know, the conversations that we've been having with the states has been invaluable. As we talked about with the other aspects of our response, this public health emergency as relates to the availability of products, we want to continue to hear from people on (inaudible) that they have on the worker protection side of things, on what else we can be doing or what is needed to continue to promote the need to protect our farmworkers. So we want to continue to have this dialogue as part of the PPDC and then with groups individually as well.

We want to be as responsive as we can. We know we don't have all the answers, and working together, we can find some solutions that will work to advance the public health goals that I think we all share.

Lauren?

MS. LURKINS: Yeah, hi. Can you hear me?

MR. KEIGWIN: Yes.

MS. LURKINS: Sorry, I just wanted to offer a comment from Illinois. Our Department of Agriculture worked with our extension and also I believe even OPP to very quickly address -- I mean, they were kind of in the middle of the in-person pesticide training and licensing and exam portion of their work, and in the middle of COVID, they had to readjust to look for the first time ever for online training. And I just want to take a minute to applaud all the people who helped do that. It was a -- it was done in a very quick way, and it was done with all of the approvals that were necessary in bringing a lot of people on board.

And our membership, you know, the 80,000-or-so farmers that we represent across Illinois was very grateful for that really quick pivot to allow them to still sit for exams and be able to take care of that. So I really just wanted to lift that up as an example that it can be done and it was done and to say thank you for that.

MR. KEIGWIN: Thanks, Lauren.

Are there any other comments or suggestions or questions from PPDC members?

Doug?

MR. BURKETT: Oh, yeah, hi, this is Doug --

MR. KEIGWIN: (Inaudible).

MR. BURKETT: Yeah, I was just going to try to send Carol Black a note about her question about secure testing and just that, yeah, DOD doesn't do anything special. We have our own certification program in DOD but we have testing centers for the various services that do it for their respective service certification requirements, and their testing standards, of course, they have, you know, monitored testing. And for those few people that take it by correspondence, it's usually sent to testing centers at an installation or if that's not available through supervisors. So we don't do anything particularly special for secure testing for certification. Sorry to disappoint. Over.

MR. KEIGWIN: Okay, thanks.

Liza?

MS. TROSSBACH: Thank you, Rick. Well, I wanted to make a follow-up comment regarding the certification testing based on the couple of folks that have chatted. States are very aware -- keenly aware -- of the challenges with testing. You know, many states' programs have been in place for many, many years. All states are a little bit different.

Some already use online technology; some folks still are paper-based systems. And, you know, I just want to make the comment that, you know, again, states are keenly aware. They're looking at what options are available.

We have to remember that states and territories also have laws and regulations, and some of those in some ways prohibit changes to current testing systems. And even if current testing systems are alive, they can -- you know, they can require a great expenditure of, you know, resources and putting things into place. And so states are trying to be very creative. Some states have been able to because their laws allow them to waive certain requirements in emergency situations.

Some states are doing in-person testing meeting all the social distancing and small group requirements, disinfecting between, you know, trainers or, excuse me, between testers. There are also states that have literally gone to allowing prospective applicators to test in their vehicles in parking lots, you know, and so trying to do what they can. And, you know, again, we understand that there are prospective applicators that need to get certified, and states have been active.

Also, just for the group's knowledge, states also have approved state certification plans with EPA, and some changes would require amendments to those plans, which also just adds to the complexity. I think as states begin to hopefully reopen, I think there will be additional testing opportunities for those states that have testing centers. You know, again, if they rely on those and they're closed, you know, another challenge. So I would just, you know, just kind of remind folks that not only are we trying to provide those services to the industry and to do that, but we're also trying to, you know, protect our own workers, you know, as well. So thank you.

MR. KEIGWIN: Thanks, Liza.

Damon?

MR. REABE: Just one other comment, for those of you that aren't directly involved in pesticide application, I can speak for our own business and our aerial application business, I think it's important to note that all training and certification requirements are -- they are really considered bare minimum forms of training. And there's extensive amount of training that's job-specific that is done after those credentials are achieved.

And it doesn't -- I can't speak in regards to

farmworkers but I can speak on behalf of professional commercial applicators, that those parts of the process are thoroughly rehashed after the credentials are achieved and then far more additional training is done to safely handle and apply pesticides.

MR. KEIGWIN: Thanks, Damon.

Amy Asmus, did you have a comment?

MS. ASMUS: I just wanted to point out that -- I just want to point out that Certified Crop Advisers has been doing secure testing so there's certification for I believe the last two years. So if anybody would like their contact information, I'm sure they would share some of their woes and their learnings and maybe the system they use with any states that are looking to flip something fairly easily and have an example to maybe follow.

MR. KEIGWIN: Thanks, Amy.

Any other comments before we close up discussion?

MS. STUCKER-GASSI: I have a quick topic I'd like to flag for the conversation we're having. Here in Idaho, we've recently had an academic study that involved the review of Worker Protection Standard violations and found about a 40 percent compliance rate. And just looking at how it was mentioned before

and some follow-up to Mily's question that a lot of this is state-specific.

So that may not be the same across the board, but looking at how inspectors are measuring the different components of the worker protection standards and then marking whether it's in compliance or not in compliance and then doing that follow-through to make sure that applicators that fall under licensed -- non-licensed applicators that fall under licensed applicators or workers that are exposed to pesticides are being best protected. There seems to be a crack there that we're finding that needs to be solved and addressed.

MR. KEIGWIN: I just want to confirm, was that Christina?

MS. STUCKER-GASSI: Yes, it was.

MR. KEIGWIN: Okay. Thank you for that.

Any other comments?

(No response.)

MR. KEIGWIN: If not, what we will do is thank you all for the feedback. We appreciate it. It will be helpful as we continue to develop our responses in the Office of Pesticide Programs on the response effort. Again, thank you for the candor as always and the input.

At this point, what we will do is we will take a break. Our next session starts at 1:15, so you'd have about an hour. It might be helpful for PPDC members to log back in if you can at about 1:00, just so that we can make sure that -- some of you might shut down the Adobe Connect if you need to and just so that Shannon, Carla, and Troy can get you all kind of repopulated back into the presenter chat function.

So thanks again, and we'll reconnect in about an hour. Thank you.

(Luncheon recess.)

AFTERNOON SESSION

MR. KEIGWIN: -- very helpful and gave some really good ideas. Let me at this point turn things over to Arnold Layne and Susan Jennings to lead us through the next session.

Arnold?

MR. LAYNE: Thank you, Rick, and good afternoon, everyone. This is Arnold Layne. I am the Deputy Office Director for Management in the Office of Pesticide Programs. And with me I have Susan Jennings.

Susan, would you like to take a moment to introduce yourself?

MS. JENNINGS: Sure. I'm Susan Jennings from the -- I'm the Senior Advisor for Public Health for the Office of Pesticide Programs.

MR. LAYNE: Great. Thank you, Susan.

So today we're going to talk to you about the Public Health Workgroup that was started in 2017. Before I do, Rick mentioned that I was away on a detail, and I came back to the Office of Pesticide Programs in October. We formed this workgroup in 2017, and I do want to pause to thank Susan Jennings, as well as Wynne Miller, while I was on detail for continuing to shepherd this very important effort that

we put underway in 2017 with the PPDC and the sub-workgroup of the full PPDC.

And so the goal of the Public Health Workgroup was to develop and provide -- I realize that I'm driving, so I've got to -- I'm not seeing how to move slides, Shannon, anymore.

MS. JEWELL: Okay, let me advance those for you, Arnold.

MR. LAYNE: Thank you.

MS. JEWELL: Sure.

MR. LAYNE: So our goal of forming this Public Health Workgroup of the full PPDC was to provide suggestions to the full PPDC to help the Office of Pesticide Programs respond more effectively (inaudible) and considering when and if and how to involve other agencies in the response, as well as something that we thought was the pinnacle of any sort of output, and that was communications with (inaudible) about pesticide needs to be harmonized across the board. Slide, please.

And with the hard work of the PPDC members who were on this workgroup, we made recommendations to the Office of Pesticide Programs that focuses on four key areas, and this is just the first step in improving emergency response preparedness for the

Office of Pesticide Programs.

So the first area was for EPA to clarify its roles and responsibilities. The second was to engage and involve our stakeholders and to do that early and often. The third was to improve access and education for pesticides, integrated pest management, control measures and tools, and again, improve communications during an emergency response.

And by being proactive, preparing for emergencies now, we wanted to improve future emergency response, and by doing so, we would have the ability to reduce resources needed for an emergency response, as well as respond more rapidly, accurately, and consistently. And so I want to clarify what EPA's role is. Next slide, please.

MS. JEWELL: Okay, I'm bringing them right back up, Arnold. Something happened. They'll be right back.

MR. LAYNE: Okay. So the Office of Pesticide's role in an emergency, we are not expected to be the lead responder in an emergency, although we are fully engaged. We are -- we rather serve as a vital role when pesticides are needed, whether alone or in part of an integrated pest management program; to respond in an emergency situation; and providing

information on registered pesticides to control microbial vertebrate and invertebrate threats to public health.

At this juncture, I'm going to turn it over to Susan, who is going to walk you through in a little bit more detail the areas that were recommended to OPP from the full PPDC.

Susan?

MS. JENNINGS: Okay, thank you, Arnold.

Shannon, could we have the next slide? And the next one maybe, too. Okay.

The first basically topic area that the workgroup wanted us to address was defining EPA roles and responsibilities a little bit more clearly because and a lot of this -- you know, we'll take it back a year. These roles and -- these recommendations were developed -- were finalized almost a year ago now, and this was prior to the pandemic and prior to the entire response to the COVID-19.

Now, what we're doing now, so what we're going to do in this presentation is we're going to talk a little bit about what these roles and responsibilities are and then go into how the current COVID-19 response dovetails and feeds into the recommendations that came out of the PPDC last year.

And so the roles and -- so many of these things were kind of related on the Zika, because that was our most current response afterwards, and the roles and responsibilities of EPA need to be very, very clear to people because frequently they'll try to -- you know, we speak for pesticides, so there will be lots of different queries, you know, what kind of pesticide should I use, should I do this, should I do that, you know. And so it's very important to -- for us to make sure that our role is clear to everyone else so that it doesn't have this side set of results and confusion and misinformation and ultimately the potential misuse of pesticides, which doesn't work and serve the roles of any of us.

Okay, so I think I have control now, Shannon? Is that what I'm seeing?

MS. JEWELL: I think you do. You want to give it a try? There you go.

MS. JENNINGS: Okay. So the PPDC recommendation was that we should make -- we should clarify in detail how OPP's role might vary by crisis type. And now this particular is very well illustrated. This particular bullet is very well illustrated by the difference between the Zika response and the COVID-19 response in that, you know,

Zika was mosquitoes, and so there was a lot of how much are we involved in mosquito control advice versus mosquito control pesticide advice and things such as that nature.

In this thing, the COVID-19, it's pretty clearly that it's the disinfection angle that we're working from, so that has made it very clear for us. The recommendation was also that we -- our communication role's made clear throughout the public health emergency, that we make sure that we define our role relative to other programs for the federal agencies, and that we ensure that others are aware of our roles and responsibilities so that they rely on us for the areas where we do have expertise and then don't rely on us in the areas where we are not the lead voice.

And in the COVID-19 response, as I mentioned earlier and I think Rick and Anita all mentioned this morning, OPP is really laser-focused on the appropriate and the proper use of pesticides or disinfectants to combat SARS-CoV-2 or the COVID-19 disease. The EPA website is EPA.gov/coronavirus, which has information from both Pesticide Programs and the Office of Water on it. And then OPP has a disinfectant website, which you heard about this

morning, and it clearly states our roles, and it lists all the pesticides that can be available, the List N.

When we're responding to communications, they're very, very focused on staying in the lane. We have made sure that, you know, different -- the team starts to stray and somebody -- it's never the same person -- will pull it all back together again, knowing to stay in our lane, stay in our lane. It's kind of turned into a little mantra, which has made everything more efficient and effective as well.

We've also been working on a new public health webpage that's going to be available that is going to have a -- be a more direct response to this issue on the public health -- that the public health recommendations were. And that particular webpage is expected to be active fairly soon.

Okay, so number two, let's talk about stakeholder involvement. During an emergency, we have to respond to a number of queries from different entities, and so the concern was raised by the PPDC last year that we need to reach out directly to stakeholders and make sure that stakeholders are involved and recognize that the particular stakeholders will vary -- sometimes significantly -- on the type of emergency and the seriousness of the

emergency. So the recommendation was made that we do more of it essentially. So we do outreach, use the tools that we have in a more concerted and focused manner to reach out to our stakeholders in general. And then it went on to list the number of different types of stakeholders, which you can all see here.

Now, for the COVID-19 response, again, this has been very focused on the disinfectants, which are considered antimicrobial pesticides. And we have reached out, the Antimicrobial Division and our communications folks, to the regulatory communication enforcement issues. There's a lot of communication within OPP, across OPP, and across EPA with our Office of Enforcement and Compliance to try to ensure that we're all essentially keeping abreast of the activities.

So this has turned into not only stakeholder involvement but also internal stakeholders, trying to ensure that across all of EPA we're all focused on the same goal and the same -- we all have the same marching orders, which has been pretty effective so far. It's been very effective so far.

We have reached out to other federal agencies, state governments, registrants, trade groups, and communications have occurred through

pesticide updates, standing meetings, social media, and others to increase the stakeholder awareness.

The third topic that was recommended by the full PPDC last year was pesticides, IPMS, and other control tools and basically stating that we have mandates to educate and encourage proper use of pesticides and the corresponding use of IPM. And this was mentioned then and is still mentioned very regularly, that for public health pesticides the maximum efficacy is critical to an emergency and that the use of the pesticide must be done appropriately and properly in order to ensure not only the safety of the people but also the efficacy of the pesticide so that it does perform as it needs to to help control whatever the target organism is.

So for this, the PPDC recommended that we adapt existing tools, processes, because some of the initial tools -- the EUPs, the Section 18s, primarily the Section 18 emergency exemption to a formal registration process, many of the tools online in the descriptors and the directions -- am I here?

(Brief audio interruption.)

MS. JEWELL: Hi, Susan, you're here.

Carla, do you know anything about that? Were you able to mute that?

I think Carla probably got it for you, Susan. Sorry about that. Please go on.

MS. JENNINGS: Okay, thank you.

So basically the pesticides, IPM, other control tools, we were charged -- one of the recommendations was basically to update EPA's website so that it specifically addresses public health concerns, as well as the -- what needs to be done in an emergency to address these issues. Some of our websites tend to be a little bit agricultural-focused, and so what we're trying to do is we're -- and this is a constantly evolving area, but to update those sections so that it does specifically address public health and emergency response and preparedness because that's what this entire initiative is about, is about making sure and trying to encourage OPP to become as prepared for emergencies as we can possibly be.

One of the areas was also discuss the roles and the options for pesticides that are not registered, and this means, you know, include novel delivery options for pesticides. In the current emergency, we've seen electrostatic sprayers, we've seen some other issues that are not necessarily in the specific realm of what we have registered. And so we are investigating those and seeing whether or not --

what type of role they may have in this type of an emergency response.

So for the COVID-19 response -- I know I'm kind of waffling back and forth between these slides -- but as I said, antimicrobial pesticides are the focus. And AD, as Rick went through this morning, was very well prepared for this type of emergency with their emergency viral pathogen guidance that was issued almost five years ago. The List N was quickly developed, made available to the public, and is being updated weekly with updates and new products.

The antimicrobial regulatory process has been streamlined during the emergency, and this is a response that we're seeing OPP embrace more and more with each emergency in that we -- but we are trying to formulate -- I think one of the concerns addressed by the last PPDC was whether or not these issues are -- this process is publicized, formalized, structured in such a way that everyone is aware of exactly what it is. And so with each emergency, we're seeing more and more steps into that, into trying to make this a more regular part of our -- and formal part of our regulatory process.

And IPM methods, including nonchemical means of control, are also covered during the COVID-19

response.

The last issue I'm going to discuss here today is communications. During an emergency, accurate pesticide information is needed quickly, and what our job is in the OPP is to ensure that the accuracy does not suffer as a result of the time pressure. And so we need to -- and, secondly, consistent pesticide messaging is really critical. It helps short-circuit any misinformation that might be distributed by other people, by other parties, and it helps people to really -- to understand what is the message as opposed to just trying to put our message out there, put it out there in such a way that other people can embrace that message and magnify it out to their particular constituents.

So consistency on the next slide, messages, communication being proactive, that means trying to -- some of these thorny issues, trying to work through them prior to the emergency so that when the emergency does occur, because we always -- we will have another emergency. They might not always be pandemics, but, you know, these emergencies are coming with some regulatory at this point. We'll be ready for that. We can issue statements out very quickly and effectively.

There was a concern about using plain language. They wanted our communications to be a little bit more plain language, particularly when it involved discussions about pesticides and specific pesticides and the risk assessments and the risk management pieces of those messaging. They want that to be -- the PPDC recommended that that be done in plain language so that everyone can understand it.

Then, lastly, create standard statements for pesticide use during emergency. Sometimes we see a lot of the same issues arising in each emergency, and we've made a lot of steps towards improving this, and I think that there's even more for us to do in the future.

So for the communications in the COVID-19 response, I think some of this we've covered, but we've been collaborating both internally and externally to maximize consistent messaging. One of the more recent achievements was for -- was issuing a joint guidance with CDC on cleaning and using EPA-registered pesticide to kill SARS-CoV-2 on surfaces; posted a webpage for coronavirus inquiries and information. There's a "frequently asked questions." There's the List N site. Not only have we updated the content of the List N, but as was mentioned earlier,

the whole adaptation of the app for the phone, the mobile app, and different improvements to that site have been occurring, have been ongoing.

We have made, again, the -- frequently the top 10 EPA sites, if not the top EPA site. And, lastly, intra-agency workgroup and coordinating consistent responses across agencies has also occurred.

I'm going to turn it over now back to Arnold, who's going to talk a little bit about the conclusions and next steps.

MR. LAYNE: Okay, thank you, Susan.

So I guess in conclusion, I think that the PPDC's recommendations to the Office of Pesticide Programs certainly have helped improve our response during COVID, the pandemic. And the Antimicrobials Division, in fact all across OPP, has been working very, very hard to ensure that we are responsive as we need to be, and so while we have done, I believe, very well in responding, there is always additional work that can be done. So in that vein, all emergencies are not the same, and so we have to be agile enough to be able to respond with different types of emergencies, whether it's microbial, vector diseases, or natural disasters.

And so as a result, the Office of Pesticide Programs plans to continue implementing those recommendations from the PPDC so that we are better prepared should, and hopefully not, another emergency happens.

So the next slide here, we just wanted to take an opportunity to thank the members of this workgroup and also the full PPDC body for its recommendations to the Office of Pesticide Programs and the folks who worked so diligently from the PPDC on this effort on the slide that you see. And appreciate the support that you have given to the Office of Pesticide Programs and suggestions. Thank you very much, and I guess we'll turn it over to Q&A at this point.

MR. KEIGWIN: We have some music in the background for our entertainment. So for PPDC members, if you type your name in chat, we will call on you in the order...

MS. JEWELL: We are working on it right now.

MR. KEIGWIN: Amy Asmus?

MS. ASMUS: Awesome. Can you hear me now?

MR. KEIGWIN: Amy Asmus, did you have a question?

MS. ASMUS: I did. Can you hear me?

MR. KEIGWIN: Yes.

MS. ASMUS: Okay. First of all, I would like to thank this Committee because I think they have done an excellent job and have been an excellent example of what PPDC could do through workgroups, and we'll talk about that tomorrow.

My question was as we work through this I thought it was great that you made the comment that you don't make it about COVID-19, you don't make it about Zika; you make it about the emergency response to those. Is there a difference in responses based on the vector that causes the emergency? If we have a pest and we need to eliminate that pest, or if it's human-to-human and we have to disinfect so that's not passed on, is there many differences between the two vectors? And how do we set up something for emergency response that actually hits on all the different vectors and how to control those vectors?

MS. JENNINGS: Should I take this one, Arnold?

MR. LAYNE: Sure, Susan. I have some comments, too, but go ahead.

MS. JENNINGS: No, you go ahead. That's fine.

MR. LAYNE: No, no, please. Go ahead.

MS. JENNINGS: Oh, okay. I just wanted to say that there's -- it can be both. There's a lot of underlying as a structure that underlines our response and preparedness for emergencies such as we discussed expediting registrations, making sure the communications are good and strong and consistent, but then -- and so those underlying tenets are the same for every single emergency pretty much.

But what will vary tremendously are the stakeholders. So for example in the current emergency, there's not a whole lot of interaction with mosquito control districts or, you know, the tick people or even, you know, community type of response because it is a pandemic across the whole nation. A lot of the same material is not -- it's not as geographically specific as the others.

And so I think that there's -- that part will vary tremendously within how we respond and why and what the different issues are. So I think the answer is both.

Arnold, did you want to add something to that?

MR. LAYNE: I think you nailed it, Susan. Thank you.

As Susan alluded to, I think the

recommendation of the PPDC and the subsequent work that the Office of Pesticide Programs has done has put in place an infrastructure to deal with these types of emergencies, whether, you know, it's vector or human-to-human or whatever the case may be, a natural disaster. And we're called upon many times over that you may not know about when there's a natural disaster, for example. Our Office of Emergency Management may call upon us to provide information about a particular pesticide and its use.

So I would agree with Susan that it is certainly both, but, again, the whole purpose of this workgroup was to put in place an infrastructure and some tenets that are common to use in emergency situations. And, again, I am very pleased with the fact that this workgroup was successful, and we have, as an agency, used the tenets and the recommendations coming from the PPDC almost a year ago now.

And having worked on Zika and COVID-19, there's quite a difference obviously, but there's a lot of similarities, so -- in terms of how the agency responds. And, again, I think the most important tenet that came out of the PPDC group is our ability to communicate and communicate often and be very clear about what it is we're communicating with regard to

pesticide products and our response.

Thank you. I hope that answers your question.

MS. ASMUS: It does, and thank you again for all your work on this.

MR. KEIGWIN: Okay, it looks like the next person having a question is Dan Kunkel.

MR. KUNKEL: Yeah, hi, Rick, thanks. Good afternoon, everyone, and I think I'm kind of following along the same lines from Arnold and Susan's responses, but I just didn't really see in the presentation -- and I know it's happening -- but how are the guidance updated? I assume it's a living document and a lot of the, as you know, information that you're gaining from this most recent pandemic you're incorporating into the guidance, but I just didn't hear how that's actually taking place formally, being implicated into the guidance and being used. If you could comment on that, thank you.

MR. LAYNE: So, Dan, this is Arnold. I assume that you're referring to the recommendation from the PPDC, correct, and how are those being updated from -- while we're in this pandemic. Is that basically what you're asking?

MR. KUNKEL: Yeah, just to capture --

MR. LAYNE: Yeah, I think we're taking one day at a time. The amount of work and the pace at which OPP is moving to be responsive may not allow us to stop and pause right now with regard to updating the recommendations of the PPDC, but I don't want to speak for my office director, but certainly a question has put in my mind that in all likelihood, as we did with Zika, we had what's called a hotwash after things started to settle and talked about what went well, what areas we can improve upon and in that sense improve the guidance or any sort of other recommendation going forward from having what we call hotwashes.

So -- and I'm hopeful that we will be able to do that in this scenario and in case something very similar -- and hopefully not -- comes along, we would have updated the guidance based on all the experience that we've gained through this pandemic --

MR. KUNKEL: Great. Thank you, Arnold. And I can appreciate, you know, you're in the throes of the fight right now, so having a retrospective would be very important. Thank you.

MR. LAYNE: Yeah, Rick, I don't know whether you wanted to respond to any of that, or Susan.

MR. KEIGWIN: So, Arnold, this is Rick. I

think one of the important reasons why we put this on the agenda is so that we're thinking about these things while we're in the midst of our response and so we're all kind of taking notes about not only what we would do differently the next time, as Susan said, there will be a public health emergency next time. Hopefully it's not a pandemic like this time, but then there's also things that we can do in the midst of our response as appropriate.

So some type of a hotwash or series of hotwashes, and in some respects this is a part of that effort, this conversation, will be among the things that we do and have been doing actually throughout, so thank you, Dan, for that suggestion.

Susan, did you have anything to add?

MS. JENNINGS: No. The only thing I would say, too, is that I think -- personally what I'm seeing is that during this emergency I think people are more aware of the actual process of responding and of preparing for the response, so I think the last PPDC recommendations have kind of shone a light on this across OPP, and so I think we'll probably see some good suggestions at the end of this because people will be aware of it as they're going through. And that's all I have.

MR. KEIGWIN: Any other comments or questions, suggestions from the Committee?

(No response.)

MR. KEIGWIN: If not, Arnold and Susan, thank you very much.

We are about 40 minutes ahead of schedule. I would suggest that we -- if Ed, we'll ask you if you think your team is available to begin the emerging technologies session.

MR. MESSINA: I'm here, I can start if you'd like. Liza's on.

MR. KEIGWIN: Yeah, why don't we start.

MR. MESSINA: Liza, are you there?

MS. TROSSBACH: Yes, I am.

MR. KEIGWIN: All right, why don't we move into Session 3, and Ed Messina will lead that discussion.

MR. MESSINA: All right. Can folks see me on the video? Hello, everyone.

Shannon, will this work with video and with the slides? Or should we just do slides?

MS. JEWELL: Oh. We can certainly try that.

MR. MESSINA: Okay. Hello, everyone. I'd much rather be there in person with you. Obviously during these times, you know, interesting times that

we live in, I figured I'd do a little video, too, so you could at least see my face. We can go to the beginning, to the title slide there, Shannon. Do you want me to control anything, just sort of scroll up and down?

MS. JEWELL: If you would like to control, you can certainly do that.

MR. MESSINA: Yeah, I'll do that.

MS. JEWELL: Okay. You had added a webcam there, Ed. I don't know if you would like to do that again. I tried to switch you over.

MR. MESSINA: So are you not seeing my webcam anymore, or...

MS. JEWELL: Not seeing it, no, un-nuh. There you go.

MR. MESSINA: How's that? Okay. All right, great.

All right. So this session, we're going to talk about emerging technologies. It's an area that's been in my portfolio since I've been at OPP. I'm the Deputy Office Director for Programs and work for Rick. And this is sort of one of the areas that I pay attention to in my portfolio. And it's a fun topic, but I have lots of pictures to try to make it fun and interesting. It's a provocative topic, too, and so

really the premise is that, you know, technology is really changing the way we go about our day. I think this meeting is an example of that. And then technology is also changing the way we grow our food, which is the space that I care about in OPP.

And so the question that I have as a regulator is, and the question I ask myself, is in the face of these technological advancements, what policy and label changes are necessary to adapt to these changing technologies and meet rising public expectations. You know, for example, is a long paper label sufficient nowadays? Is that meeting customer needs? Is that ensuring efficacy and public health protections?

So on my introduction slide, I sort of talk about setting that up, you know, what are the technological forces at work, how are they influencing agriculture? Talk about sort of the problem statement as a regulator. I've got lots of fun examples. I talk about some EPA efforts and then talk about some potential workgroup charge questions. And Liza's going to take a deeper dive on some of the work the states have been doing and particularly in the area of UAVs.

So really the premise is that how we use

pesticides to help grow our food tomorrow will look very different from how we use them today, and then what policy and label changes are necessary. You know, when you think about these advances in microchip computational capabilities and miniaturization, the connectivity of devices, the internet of things, artificial intelligence, and predictive analytics, 3D printing, robotics, voice recognition, the ability to really rapidly process incredible amounts of data and augmented and virtual reality.

You know, these things have made this meeting possible. They influence how we buy products today, how we drive semiautonomous vehicles and we control our SmartHops. And the pace is increasing. And if you think about what these technologies will look like in the future, we can already sort of see, you know, how our lives are going to be changing from a societal standpoint and then also how we are going to be growing our food in the future.

I don’t know if folks have heard about the Apple glasses yet, but they are really close to launching something soon, which is sort of the augmented reality piece where you have a dashboard up front on your visual display similar to the old Google glasses. Apple has been in the works on that, so, you

know, we could all be walking around with those sometime soon.

And then as the technologies advance and they become cheaper to deploy, they're certainly going to expand into lots of areas of our lives, including agriculture and how we grow our food. So the premise is how we grow our food tomorrow will look very different from how we grow our food today. And, in fact, folks on this call are probably already aware of the technologies that are out there and already examples that are in current agricultural practices, so precision farming, robotics, artificial intelligence, advanced sensor technologies, hyperspectral imaging, the internet of things, QR codes, product traceability, where you can find out, you know, exactly where that head of lettuce was picked, what truck it was on, what was next to it, when it shipped until it makes its way to the store or sort of restaurant that you're in, unmanned aerial vehicles, an example of this, and then sort of augmented reality.

So, oh, yeah, when we think about a tractor, you think about sort of the old tractor that's in the field, and this is sort of an example of what the current tractor looks like. This is the scale, me

standing -- Rick and I attended a session for the Equipment Manufacturers Association, and you can see the scale of this tractor.

The amount of technology on this tractor, with GPS positioning, sensor technology, so it's taking information from last year's growing season and it's using it to plant new seed and spray nutrients and spray pesticides in amounts that vary depending on the data that the tractor has in its system. And you also have tractors that have imaging in real time on the tractor, so they're looking through the field. They're examining weed pressure compared to, you know, the crop that you're growing, and they're making calculations to determine whether pesticides need to be sprayed.

So for an example, as a regulator, you know, who is the user of the pesticide at that point? I mean, is it the tractor? Is it the person operating the tractor? There's sort of questions that our regulations sort of ask or interpret and suppose that one thing is happening, and that's how they're written, but yet a new technology has come along and it's creating a scenario that the regulations hadn't contemplated yet. So how is regulating going to keep up with that?

The UAVs are part of that example as well. We've got a number of requests in-house and have had many requests asking, you know, can I use UAVs to spray the pesticide in the field. We're seeing examples. We have members in the PPDC, and this was a topic of our PPDC in the past specifically on UAVs, using it for mosquito control or forestry and being able to access remote areas where potentially manned aircraft can't go or high-terrain areas where it's difficult to get manpower in those areas to help. So UAVs are a new technology that we've been asked to look at.

On the one hand, there is certainly a benefit. You can potentially get more precise delivery of a pesticide. On the other hand, maybe they're lighter, maybe the spray nozzles are different. Maybe the rotor vortices are different, and maybe you're getting drift. So that's an area that we are continuing to obtain research on, work with our partners, and understand the risk potentials from these UAVs. And Liza will go into a little bit more detail about some of the state efforts, and we've been partnering with the states on that.

Now, this is a picture of an autonomous robot. So this is -- you think about the tractor of

large scale in the first picture; this is -- you know, you can have many, many small tractors and robots going through the fields that are looking in real time for weed pressure and making a decision to spot spray, roaming the fields all the time, day and night, and kind of looking at weed pressure. So the amount of pesticide you might need to use would be, you know, very reduced as a result of being able to go out in real time and exam weed pressure using this sort of automated approach to robotics.

Here's an example of a robot inspecting a head of lettuce at an indoor grow. So you have a new sort of way of growing our food is a lot of indoor growing areas, where the food is on trays and it cycles through. It's getting the right amount of light. The robots move the product through the factory.

They're looking -- they're using in this next slide sort of hyperspectral imaging, which can tell you many things: how much nutrients are needed, where are the weed pressures, where is the moisture needed and nitrogen content so you can, you know, take a hyperspectral imaging picture, either using satellite or a UAV, or it can be mounted on the tractor, and then decisions are made in real time about the

particular pesticide spraying that needs to happen.

This is a QR code. In terms of labeling, you know, when someone is at the store, can they just take a picture of the QR code and get all the information that they need on that particular product? In fact, can the label come with that QR code and then the label is communicating with the tractor.

You scan -- the tractor can scan that code and know exactly what product they're being sprayed on, how much they need to spray, what the application rates are, and you can contain lots of data and communicate and have the label basically be talking to the tractor as it needs to spray and go through the field. And, so, you don't really have a user interpreting that label; you potentially have an automated sort of AI interpreting what the label is saying. How do we account for those sort of scenarios?

This is the augmented reality, so it's, you know, through your phone or through a video. It's taking -- it's using different light wavelengths that the human eye can't see, and it's showing you sort of the health of the product. There's a dashboard on the left and the right to indicate, you know, how much -- whether you need more nutrients or not, and so how are

decisions being made using this new technology?

So that's sort of, you know, the future of things. You know, the here and now in terms of what OPP has been doing in this space is sort of helpful and sort of builds a foundation for how we might be able to adapt in the future. So we within OPP have been undertaking an IT digital transformation. Currently, a lot of our data tends to be segmented and tends to be in specific databases that individuals need to query.

We're hoping to take some of that data, move it to the cloud, make it more user-friendly and able to be queried so that we can answer questions more rapidly. And so if people are pinging our data and saying, hey, does this label allow this rate, we'll be able to serve up that information in more real time than we currently are able to do. So we're undertaking that digital transformation as we speak.

OPPEL is the example, and QR codes and OPPEL came out of discussions within -- with PPDC in the past. So this is an example of sort of the PPDC workgroup's working or conversations working and saying, okay, how can we improve things. So OPPEL, QR codes, web-distributed labeling, sort of all examples where the label can be more interactive for that

customer who's about to use that label and apply the pesticide.

And so by more interactive I mean potentially using your phone while you're searching the web and searching for the product that you're about to spray on. And then rather than having to search through a 40-page label to find the information that you need, the label is served up to you in a way that makes it much more user-friendly. It distills the information to a format that you need in real time and at the precise amount of sort of knowledge that you need, which ensure efficacy and public health protection because there's potentially a greater understanding of that user with the product and then saying that for this specific task, here's what I need to do and the information is served up.

On the UAV side, we have an internal workgroup within EPA. We've been working with the states technology workgroup, and then I mentioned the Commodity Classic that we -- that Rick and I attended, the Association of Equipment Manufacturers, talking to the manufacturers of these sort of large technological, you know, tractors and precision farming tools and really sort of asking them, you know, what -- how can the labels be better, how are

they being used, and sort of gathering information in that way.

So these are some of the questions that I would pose to the group and that we're asking within OPP and of our state partners and registrants and growers and consumer groups and workers, you know, how should EPA obtain a greater understanding of how the use of emerging technologies leads to reduced or increased risks that differ from those resulting from current methods, and then what changes to EPA's approach to labels, if any, are needed to accommodate emerging technologies?

And then I have lots of hyperlinks and quick links you can kind of search around and see some of the fun photos and technological solutions that are sort of out there today and are influencing the work that we do and will continue to influence the work that we do within OPP as we try to meet consumer demand and try to meet the demand of these emerging technology expectations.

So with that, I'll toss it over to Liza. I thank you for your time on this workgroup. I've attended a number of these, and I've found them incredibly informative, so we really value your time and thank you for the work that you do in the various

sectors that you represent.

MS. JEWELL: Hello?

MS. TROSSBACH: Hi, it's Liza. So will I be advancing the slides, I guess, just to make sure?

MS. JEWELL: You can if you see the arrows on the lower left.

MS. TROSSBACH: Okay.

MS. JEWELL: Okay.

MS. TROSSBACH: Okay. Thank you very much.

Thank you, Ed, and I appreciate the opportunity to provide an overview of AAPCO's technology workgroup. As Ed had mentioned, AAPCO has been working on a variety of technologies and new ideas that have come in front of its members and in 2019 decided that it was time to put together this workgroup, and so I'm going to just provide a little bit of information about what the group has been working on and where we see it going in the future.

So just to provide, you know, an overview of pesticide regulatory programs, you know, when we talk about state and territorial pesticide regulatory programs, you know, there's overarching goals of all those programs, just like with the EPA to protect human health, the environment, and ensure the availability of pesticides. We all work towards that.

And in those programs, we do welcome new and emerging technologies into our programs; however, it can be very challenging for states based oftentimes on our current laws and regulations, policies and procedures. It is possible that something new will come onto the market, but our current laws and regulations may prohibit it or may not specifically allow it, and so we have to work through a process to be able to have those technologies incorporated into what we do.

In addition to that, I mean, there's also a huge learning curve that's often involved. Some of the challenges to implementing or bringing in some of those technologies into our current programs is the public process. Unlike, you know, a private entity that may be able just to be able to make a change, the government's process is a public process, a transparent process, and so oftentimes there may be a -- you know, months, multiyear process, for example, to promulgate a new regulation or even to amend a regulation before a government, for example, like in Virginia, before we can implement something new, and so oftentimes technology tends to be ahead of regulatory authorities and, therefore, implementation and adoption may be delayed.

We also have to look at all those technologies in a variety of aspects. Ed talked a little bit about some of those technologies, one, do our laws and regulations allow it, but are our certification programs, you know, where they need to be? What does the label say? How does that, you know, affect other aspects of our program? And so there's a lot of things that we have to take into consideration. So, you know, we want to move forward and we want to embrace things, but it does take some time.

And another thing is I always say if you know how one state works you know how one state works. And so every regulatory program, meaning every state or territory, is going to proceed at a different pace. It's going to depend on their public process. We all have a public process, but they vary in length.

It's also going to determine -- or be impacted by the human resources that are available as part of that process. Is there staff to work on it? Do they have the financial resources? There are some states or territories where they will not allow any changes to regulations that could, you know, potentially increase fees in some way, so there are a lot of things that are going on.

And then, of course, other priorities. I think the best example is COVID-19. I think all of us have been impacted in one way or another whether you're in the private sector or the public sector. There are a lot of things that we want to do, but certainly that has taken, you know, its toll on a lot of our programs.

So keeping all those things in mind, as I mentioned, AAPCO put together a Technology Work Group, and the mission or the goal of the workgroup is to work with, of course, states and territories, which are our members, EPA, and other stakeholders as well to understand the issues that are involved with whatever that new specific technology is that we're looking at. We want to look at it within the existing regulatory framework, to develop guidance where needed that, you know, to help and show consistency and compliance interpretation and assistance and to serve as a communication hub. We heard about that. We -- with the Public Health Workgroup, and we talk about it all the time, so this workgroup is really trying to pull all of those things together.

There are some situations where there are regulations in place, but there may be options, for example, I'll use the certification testing and the

fact that there are limitations on that. In that case, you know, there are some opportunities to waive certain requirements in certain states to address, you know, those issues surrounding that and COVID-19. So part of this workgroup is also to say, you know, within an existing regulatory framework, are there ways to work within that framework without necessarily having, you know, to make a change, or is there something that can go in place until, for example, if there's a regulatory change needed that that can be put into place.

So one of the first things that the workgroup did early this year in January is to do a survey of states and territories. And the workgroup has decided to focus first on the unmanned aerial vehicles or unmanned aerial systems or UAVs. This was seen as the most pressing or, you know, newest issue, and as more and more states are seeing this, you know, the thought was to focus on that first. So the survey focused on what are the exposures of states and territories to UAVs.

You know, are they getting calls from applicators and businesses that want to utilize these technologies? What are they trying to -- you know, what are the concerns that they found? Is it about

certification? Is it about training manuals and exams? Is it about label language, to try to get that information? And this information was used to help focus the workgroup's priorities as they move forward in addressing issues. And, of course, the other part of that was to provide feedback to EPA and the Office of Pesticide Programs since, of course, they are also looking at, you know, this particular technology.

So when we're looking at regulating unmanned aerial vehicles, in general, pesticide applications using UAVs are still relatively new to states and territory regulatory programs. While we have seen more of them, it is still relatively in its infancy for us. The technology was first introduced on the West Coast, you know, Washington State, Oregon State, but we've slowly seen it move eastward, and we are considering that here in Virginia, North Carolina, and there are a number of states that are doing that.

And as I had mentioned previously, it's a learning curve for both regulators and the regulated industry. And we have not necessarily had to --

(Brief audio interruption.)

MS. TROSSBACH: -- this before.

One of the things that we've learned about UAVs in this industry is that it's both agile and

innovative. We've seen obviously the use of UAVs in an agricultural setting. We have also seen them begin to be integrated into traditional aero applications, so we're also seeing these UAVs being adapted to new application situations. In light of COVID-19, we've seen these being used for -- to disinfect large areas like stadiums or arenas or convention centers. So very agile and very innovative.

And, again, as governments, we tend not to be quite as agile as the industry is. We have seen a number of implications from the pesticide regulatory programs, and out of that survey really came four areas from states and territories, and I'm going to talk about three in a little bit more detail. The first area that states are most concerned about or really feel like is a priority area is pesticide labeling. There's also the Worker Protection Standard and requirements under that, the certification of pesticide applicators, and then consistency across regions of the U.S. with the implementation of these.

So to start out with the pesticide labeling and the Worker Protection Standard, because the Worker Protection Standard is referenced on pesticide labels, I'm just going to talk about those two together. You know, as the group knows and as I'm sure we've all

heard that, you know, the label is the law, and all states have as a minimum requirements for application is that users follow the label. It's considered a legal agreement between the user, EPA, the registrant, and the regulatory authority. And, of course, as pesticide regulatory officials, our job is to ensure that the label is solid.

You know, the label mitigates the risk of the use of the pesticide, and so any changes, you know, to the label, of course, have to be followed. And that's where really kind of, you know, where the rubber hits the road. You know, the label is based on the outcome of the risk assessment, you know, the risk is mitigated to an acceptable level. And so when we're talking about UAVs and UASs, there are a lot of things that are seemingly unknown right now.

I think most of us think about the use of UAVs as reducing the potential risk for exposure, but, you know, there have also been reports where it is possible that in some scenarios that there could be an increased risk of exposure. And so those are things that we think about, and once that risk assessment is done and the science is out there, how is that going to impact the use of the product? How is the label going to change? You know, how are we going to

enforce that label now? How are we going to do the required outreach and education that's needed? And so those are some of the things related to the risk.

Of course, the failure to follow the label is a violation of both federal and state law. While we do enforce the label, we certainly believe that an educated community is a compliant community, and so, again, we go back to that education piece. But in those cases where there are violations, you know, there could potentially be enforcement action. And so the label and the labeling requirements are very important. And, again, that includes the Worker Protection Standard. If you have handlers and workers, they also need to be aware of those changes, and employers need to make sure that they provide their workers and handlers with whatever equipment may be needed.

Current labels, some of the specific issues, for example, assuming all requirements can be met, do aerial applications include UAVs? Some states think that they do; some states are not so sure. If they do, are the boom length and the wingspan ratio requirements applicable? You know, can an applicator meet those with the use of a UAV? There's also been questions if a label is silent on aerial applications

but not prohibited, can the UAVs be used to make the application?

There's been questions or considerations about personal protective equipment or PPE, for example, gloves. Gloves could hinder a pilot. If the pilot is considered an applicator but doesn't contact the pesticide, do they have to wear the gloves?

And then for the Worker Protection Standard, if a label does reference the Worker Protection Standard, then it does have to be put into -- it has to be implemented, who is the handler? And I'm going to illustrate that on the next slide.

So related to applicator certification, all states require certification of commercial applicators and private applicators or those that are applying restricted-use pesticides to be certified. And commercial applicators and private applicators are core competencies and category-specific competencies that they have to demonstrate that they meet.

So when we talk or think about UAVs and UASs, some of the things that we're now thinking about is, you know, who is the applicator, because there can be multiple folks involved in an unmanned aerial application; what's the appropriate category for certification, for example, do these particular

applicators fall under an aerial category, or should there be an unmanned aerial vehicle category? And if it is, you know, an aerial category, does the training manual and exam reflect those minimum competencies that they need to know. Or if not and they have -- and a new category has to be developed, then what -- then what is required in those manuals, you know, and exams?

And an example of one of those things that is complicated with applicator certification, and this particular example came out of Oregon, in this particular example, there were five people involved in the aerial application for unmanned vehicle. So you have one person who does the mixing and loading of the pesticide; you have a second person who's operating the UAV controls; there's a third person who's serving as the remote pilot in command and has final authority on all decisions and actions on the operation; you have a fourth person who's a second controller who manipulates only the application equipment; and then you have a fifth person who is the observer who radios in advisory information.

So in that particular situation, of the five people, who is the applicator, or who are the applicators and where does that ultimate, you know,

responsibility lie?

So from those three top priority areas that I just spoke about, what the Technology Workgroup is looking to do is to develop some type of a guidance document, frequently asked questions, et cetera, that can be used by states and territories to address some of the questions that we have. There may be some questions that can be answered that there's a very, you know, black-and-white answer for that was with some clarification, you know, can be put into place. And then there are some other maybe potential more gray areas where this group will put together a guidance document for states for them to consider.

And, of course, the guidance document is not the law, it's not a legal requirement, but that may help states determine how they want to proceed in their states. The hope with the work group is to act -- you know, continue to actively engage with EPA on the issues that I mentioned and other issues that arise as it relates to UAVs and UASs and whatever the further -- you know, the next technology may be.

Right now, while we're still working, this workgroup is still focusing on UAVs and UASs, the next potential focus area, one that's come up are self-driving spray rigs. These are rigs that can do

granular applications or liquid applications. Ed had shown a couple photos of some of these, you know, unmanned type of applications, equipment, tractors, and so that may be the next thing that this workgroup focuses on. And, you know, again, the next other, you know, who -- you know, what else might be next, it seems like again technology is very innovative, very adaptive, and I would expect to see many more things.

Just to wrap up, Robby Personette, who's with the Wisconsin Department of Agriculture, Trade and Consumer Protection, is the Chair of AAPCO's Technology Workgroup, and his contact information is here. Also, if you are interested in seeing the results of the survey, they are available at the AAPCO website and under the Technology Work Group block, and any other information can be found there. And with that, I'll close. Thank you.

MR. KEIGWIN: Thanks, Ed. Thanks, Liza.

Questions for the Committee or from the Committee?

Mano?

MR. BASU: Thanks, Rick. Oh, it's an echo on my side?

The first question I had is multiple-part. So who is involved in the EPA UAV working group, what

are the activities they're engaged in, if we can get an overview of that? What other state emerging technology workgroups, are there specific projects that these state emerging technology workgroups are working on, and how are different stakeholders engaging in these technology workgroups? Thank you.

MR. MESSINA: Hi, this is Ed. I'll take that one. Yeah, I mean, we have representation from a number of the OPP divisions. I think that the HED and EFED folks are kind of key players. And so we can get you a list of names. There's maybe about a dozen or so folks that have sort of UAVs in their portfolio within OPP. And we have -- I've attended the Emerging Technologies Workgroup. Jeff Dawson, Dan Rosenblatt, those are some names that are both on the UAV workgroup and are liaisoning with the state technology workgroup. Does that answer your question?

MR. BASU: Yes, that helps. And then on the state emerging technology, are there specific projects?

MS. TROSSBACH: Sorry, you're talking about AAPCO's Technology Workgroup, or are you still talking to Ed about the EPA's workgroup?

MR. BASU: The AAPCO's, the AAPCO workgroups are the state technology workgroups, correct?

MS. TROSSBACH: Correct. I just wanted to make sure. You know, as I had mentioned, right now, that workgroup is just looking at UAVs and UASs. Its first project, I guess you could say, was the survey. From the survey, they are putting together a guidance document and frequently asked questions to assist its members which are state and territorial regulatory officials. When looking at some of those issues, of priority, again, are certification issues, the pesticide labeling issues, and the Worker Protection Standard and how UAVs apply to those and, you know, to ensure that we understand how that's interpreted, how EPA's interpreting those things, and then how we can assist the user community in being with compliance. So that's the first activity.

I would expect as this group gets farther into those activities and other issues will arise and they may find that other projects or other specific focuses come into being. With the current public health crisis, while that work has started out, you know, pretty vigorously, there have been somewhat of a slowdown just given as states adjust to that, but I do know that that workgroup is continuing its work, and I would expect as time goes on for that to become more robust again.

MR. MESSINA: Yeah, the other thing I would add is the PPDC has had two sessions on this. So if you look on the PPDC website, in addition to these materials, if you look at the prior meetings, the May meeting and the October meeting, we had Lee County Pest Control talk about their mosquito operations using UAVs. We had a company that was doing UAVs with regard to forestry out West in Washington or Oregon. And there's presentations that exist on the PPDC website as well. And the AAPCO website, I believe, right, Liza?

MS. TROSSBACH: Yes.

MR. BASU: Thank you very much, Ed and Liza.

MR. KEIGWIN: Okay, Joe.

MR. GRZYWACZ: Thanks so much for this forward-looking presentation. It seems as though a lot of the technology, especially on the first part of the presentation, so I guess that would be from Ed, you know, sort of assumes good connectivity. And I guess I'm kind of wondering, you know, the extent to which a fair amount of ag occurs in areas where there isn't as much bandwidth or where accessibility to all the cloud-based computing and that sort of stuff is available, you know, how are those shortcomings being addressed or considered as you think about, you know,

putting everything up into the cloud so that people can find things and use things more accessibly?

MR. MESSINA: Yeah, great question, and it's a great example of the things we need to think through. So I don't have a panacea answer for you. I think, you know, when you think about 5G coming potentially, you know, the other things is, like, these tractors and these spray rigs sort of exist now, and generally what they're doing is because of the lack of connectivity, and I know there's probably folks on this PPDC group that can answer this question better than I, but, you know, you're taking the data from the tractor, you're using last year's sort of harvesting records that's contained, you bring it back to your computer in your office, you kind of download the data, you communicate with the tractor, and so you can have your own sort of, you know, data ecosystem, if you will, on the farm that's communicating with the tractor so that when the tractor is planting the seeds in the spring, it's using last year's data and it's sort of making adjustments depending on if there was a depression in this area, or there's more moisture, and that is occurring right now, as we speak. And there's products that are out there to help you manage your growing to get better efficiencies all about sort of

the market there.

In terms of, you know, connectivity for a user looking at the label, I mean, yeah, you're right, I think that would need to be solved, but I think, you know, that's a bigger issue that EPA won't solve, but I think looking at the past and looking at the future, it's going to change. I mean, that connectivity, that last -- they call it the last mile, right, of connectivity, that's going to be fixed at some point, and then there's going to be a lot more users that are out there sort of pinging the EPA data system as a customer of that data system to get more data, but it's a great question.

MR. GRZYWACZ: And I really appreciate your response to that. I mean, I'm looking at a map right now of broadband distribution, you know, in various parts of my region of North Florida, and there's wide variability, you know, from one place to the other. And, you know, so if a farmworker was going to try to, you know, find one of your quick labels and try to figure out what it actually means, well, in some parts of the State, they're going to -- it's going to work just fine, and in other parts it's not going to work very well.

MR. MESSINA: Yes. And you think about parts

of the West, and I know this is a tribal nation issue as well in terms of connectivity and the amount of data they have, so, yes, great question.

MS. TROSSBACH: Ed, can I make a comment? This is Liza. Just talking about that, that's one of the things that, you know, states and territories also discuss and, you know, talk about when we talk about anything with technology, anything that relies on the internet. There are a lot of areas in a lot of states that just do not have that.

And so when we talk about things like web-distributed labeling or being able to go just look and get specific instructions, one thing that states and territories are adamant about is that all that information, while it can be available electronically via the internet, it also needs to be available on the container of the product that's being used by the applicator, because they want to make sure everybody has the information that they need however they want to get it.

And maybe at some point in the future that will be the only option available, but, you know, but right now, that's just not the reality. And so as pesticide regulatory officials, and I would expect all of the users and pesticide safety educators, it's

really important that applicators have access to that information in more than one way and an access to all the information that they need. Thank you.

MR. KEIGWIN: All right, thanks.

Damon?

MR. REABE: Yes. So we've -- this will be the third meeting now that we've, you know, had a pretty lengthy discussion on unmanned aerial vehicles as a platform for pesticide application, and it was brought up today specifically in the agricultural setting. What were the EPA's plans for spray drift risk assessments in the agricultural setting?

MR. MESSINA: Yeah, great question, and I would say we're getting a little more momentum around that. We are -- you know, our hope is to get some workgroups together to parameterize some of our existing spray drift models. And so, you know, that's kind of where we are. We're looking at protocols for what study submissions would look like, and Amy Blankenship from our EFED workgroup, someone who's putting some think pieces together on what we might need from at least an ecological risk assessment standpoint, so activity continues to evolve.

We continue to reach out and seek information on studies from universities and registrants and

manufacturers. And as we get individual requests for pesticide registrations using UAVs, which has been mentioned, we've had a couple of those requests, we're continuing to talk with the registrants and the equipment manufacturers to solicit data that will help us make an informed decision from risk standpoint.

MR. REABE: When I look, there's -- I can look up the docket number, but there was a request for public comment back in 2013, and it had to do with some new methodologies that the EPA was going to implement for pesticide spray drift, and when I go back and look at that document, I'd like to point out that I think there's a very large space for unmanned platforms to operate within the existing confines of existing spray drift risk assessment.

And that would apply -- I'll just read the -- basically just a lead-in of background information on that docket. And it says, "Exposure to spray drift is assessed for agricultural and residential spray applications of liquid formulations except for applications with handheld or backpack sprayers." And a lot of interest in these vehicles is centered around agricultural settings where backpack applications or handheld spray applications are being conducted. And so I just want to remind the EPA that in those

particular scenarios, spray drift risk assessments are not required.

Conversely, in agricultural settings where we're talking about large enough acreage, where we now are using ground-based equipment or existing manned equipment, I think there needs to be very clear messaging to those applicators that because those assessments have not been done, they're not part of any existing modeling, and therefore we don't know what those risks are, that those applications are not in any way legal.

And so I think that leaves a tremendous -- I don't believe that public health applications require those same types of assessments, which would take care of needs of the people who are using them for mosquito control. And we talked about stadium disinfection, you know, again not an agricultural setting.

But I think in order to provide this emerging technology with the appropriate direction so that it can expedite the technology's adoption, I think the existing framework is very clear, and it is an extremely important element for the safe application of those large volumes that are done in agricultural settings.

MR. MESSINA: Yeah, thanks. And, of course,

happy to talk further offline with you about this, as we have in the past, and I would say also happy to talk individually with anyone on the research side, on the modeling side, to gain a better understanding. And I think your point is a really good one and it illustrates partly what we're struggling with, right?

So if you compare a UAV to a backpack sprayer, you would suppose that you'd probably have a better risk profile because that person is not standing as close to the equipment as, you know, someone who's using the backpack sprayer. And, so, presumably, if the health risks were fine for the backpack sprayer person then they'd be fine for a UAV operator who's maybe standing away.

You know, the rub becomes how -- what does the drift profile look like in terms of, as I mentioned, sort of the rotor vortices, how much of this stuff is getting stirred up. We know what the nozzles look like, but we haven't really modeled what the downwash and the rotor speeds look like, and that's some information, along with other information, that we'd be looking towards for --

MR. REABE: Yeah, and it's specifically important to get out in front of if we were, say, for instance, going to protect, say, the U.S. corn crop

with unmanned vehicles of these varying platforms before we would -- I think before the EPA would want to make it clear that that's a legal activity on any type of scale that obviously we'd need to be doing those types of -- those types of assessments would have to be conducted.

MR. MESSINA: Yeah, and as we've -- when I've talked about this topic, the first thing we say is anyone interested in using UAVs as an application equipment, please talk to your state lead agency and work with them. We want to work closely with you on that to see what applications you're examining, and then let's take the label that you're looking at and you want to use, and let's run it through its paces to make sure that there aren't label requirements that are going to prohibit the use of the UAV, and then let's see what, if any additional data we need to sort of talk about how that label is going to be used.

And that's why we've had some discussions with mosquito folks and we've gotten some applications in-house as a result of the conversations we've been having with those parties. And, again, happy to talk further.

MR. REABE: Yeah, and I know I've used up a lot of my time here. I don't mean to -- you know, on

the same -- along the same lines, we're talking a lot about unmanned aerial vehicles, but the aerial -- National Agricultural Aviation Association, that industry is working with stakeholders within the current industry of manned aircraft to start developing autonomous systems for the manned aircraft.

And, you know, we would -- our industry would never expect to be able to walk into the EPA's Office of Pesticide Programs and say, hey, we have an autonomous spray system, product only comes out under these following parameters, and, you know, now we don't think that we'd have to have any drift risk assessments done.

I think the issue here is is that because the science hasn't been perfected in the unmanned vehicles in these platforms that it's a cost of entry issue, but I don't know that the cost of entry should really have much to do with what the actual requirements are to safely do it.

MR. MESSINA: Yes, thank you.

MR. KEIGWIN: All right, thanks, Damon.

Lauren?

MS. LURKINS: Thank you. Lauren Lurkins with the Farm Bureau. I want to go back to -- well, first of all, I just want to say I appreciate the

information from both OPP and then the states, the AAPCO effort on emerging technologies. It's really good to know that, you know, even given the comments about not being as flexible within the Government as we are out in private industry, it's really great to know that you all are looking and forecasting ahead.

I want to sort of build off a comment from not the most recent one but the one before that, looking at the label technology. I think from, you know, my perspective in working with a variety of growers, I think that the electronic label approach will be a really cool solution for a lot of different growers, but when I look at the way that we communicate to our growers right now at a state farm bureau level and then I would guess our peers at American Farm Bureau would say the same thing, we usually do have to use every bit of technology from paper, newsletters, all the way to text messages and radio and social media. So we try to reach people at various levels of willingness and understanding of that technology.

So I do think it's probably meeting each kind of grower where they are at and some sort of mixture of -- at least in the beginning -- technology as well as those hard copy on the side of the product. And

maybe it could be done in a phase where you have a relatively simply label and you're using that as you roll that technology out to watch it sort of be adopted in the grower community.

In addition to the farmers sort of being at various levels of wanting to adapt to that technology, I do think there's quite a few concerns from, you know, not being a regulator myself but working with several at the state and federal level. I do think there are a lot of regulatory questions that come about, you know, the state approvals at different times. In the State of Illinois, we've seen quite a bit of special local needs labels that have changed, even within, you know, our Director of Agriculture making some additional changes to that.

So I would just say that, you know, trying to make sure that whatever -- whatever combination of technology is used that from a regulatory side you try to iron that out because I think our growers and the commercial applicators are all very concerned on the interpretation and the enforcement at the end of the day on all of these labels. So I just want to sort of highlight both that grower mentality and also the concerns from a regulatory enforcement and implementation side.

MR. MESSINA: Great. Thank you.

MR. KEIGWIN: Thanks, Lauren.

Dan Kunkel.

MR. KUNKEL: Yeah, thanks, Rick.

I have two questions. The first is for Liza. We work with specialty crop growers, and I always see this, especially the unmanned aircraft, as a very important tool for the specialty crop growers. So I was -- my question is when you did this survey, and I'm not sure if this is one of the questions you asked, but did you get a feel for are the growers really asking for this? I know this is still a relatively new technology, but is there a lot of push from the growers that they want to use this technology for the plant protection?

MS. TROSSBACH: Thanks for the question. The survey didn't ask that specifically. This was the survey of the pesticide regulatory officials, and their viewpoints on UAVs and how it implements or impacts their programs. I will say that just based on the conversations that we've had about the UAVs and the questions that states are getting, they seem to be getting more questions from commercial businesses that want to utilize this technology to make very specific types of applications, you know, to Christmas trees or

on forestry situations, et cetera.

So I don't have any direct data about how much of that is coming from the grower community and those from monocrops, but I can certainly take that suggestion back to the Technology Workgroup. It sounds like that may be something that they want to consider, you know, as they move forward and address the issue, and --

MR. KUNKEL: Sure.

MS. TROSSBACH: -- to see how they may be able (inaudible) that group, so I appreciate that.

MR. KUNKEL: Yeah, thanks, Liza. And I'm actually a little bit surprised because, you know, we have small plots, like cranberry beds and things like that, and I'm not really getting a lot of information from our stakeholders that they're pushing and asking for this type of technology.

And that kind of leads to my second question in that we do work with Canada quite a bit, and we know in Canada they're also looking at, you know, generating data, looking at information they need to allow UAVs to be put on product labels. So my question -- my second question is for Ed, and what's the interaction with Canada and even OECD with regards to some of the guidance that you're looking at for

these types of emerging technology pesticide applicators. Thanks.

MR. MESSINA: Yeah, thanks. And we've worked with OECD and Canada. In fact, OECD put out their own survey for OECD members about how each country was dealing with UAVS. And it really runs the gamut. Some countries have said absolutely no use, and other countries have said, yeah, they're fine, they're just sort of like any kind of aerial equipment and we're not going to even do any additional sort of data call-in. So as you would expect, the U.S. is sort of in the middle, you know, making sure that we work with individual registrants and users.

You know, the other thing in terms of responding to your first question to Liza, as Liza pointed out, the survey was done for state lead agencies. The first question was, Has your state received any requests to apply pesticide products using UAVs, and 74 percent of the states had indicated that, yes, they had at least had inquiries for UAV requests.

So I think this is an area that the states are definitely getting questions from, but I do think it's still in its nascent phase, meaning we're not seeing, as Damon pointed out, the requests for the

giant UAV sort of cropduster to go over, you know, the cornfield. It's really the niche areas, hard-to-get terrains, like a wetlands for mosquito control or a high-terrain, cliff area for weed control or a forestry sort of application.

But, again, you know, it's an example of a thing that didn't exist when the labels were written that now exists, and so how does this thing fit into our labels and our current guidances and processes? And as an agency, how do we make sure that we're keeping an eye out for that and encouraging the new technologies which will help growers but also making sure that they are safe from the public health standpoint.

MR. KEIGWIN: Charlotte Sanson.

MS. SANSON: Thanks, Rick. It's Charlotte Sanson. I have a question on what EPA's position is on some of the new targeted technologies. I know we've been talking a lot about UAVs, but when you're looking at some of the precision technologies that are used rather than an application that would be across all acres or large acreage, you know, these tools place the pesticides where it's needed on the fields and not in a broadcast type sense. So I was wondering if you explored that scenario and how you're looking

at that while using a risk-based approach.

MR. MESSINA: Yeah, great question. Yeah, I mean, my personal opinion is that, you know, UAVs may not be as ubiquitous in the future as sort of these miniaturized smart tractors, smart spray rigs, in part because it takes a lot of energy to sort of lift that UAV off the ground. And if you don't need to use all of that energy to lift something off the ground because there's something in the field that's slowly, you know, moving or, you know, using its own sort of momentum to kind of move the field, it's a more efficient and less costly way to apply the particular pesticide.

But, you know, that remains to be seen. You know, there's arguments to be made on the other side that the UAVs will become more and more useful as the technology gets cheaper and cheaper.

And then on the spot spray issue, I think I sort of teed that up, and I agree, it's sort of, you know, what does the label say in terms of label rates and what does that mean when you're not -- when you're doing a spot spray versus when what was contemplated was sort of a broadcast type of application. So that's an exact example that you've identified that I would say is something that the agency needs to

consider and get ahead of, and we need more conversations with registrants who are looking to add that type of process to the label, and then we can do the risk/benefit analysis.

Presumably, you know, if you're using less pesticide then you are reducing risk, but maybe you're doing multiple spot sprays over different applications and different times, and maybe you're spot-spraying more, so, you know, what is the calculation there and do those sort of scenarios sort of look like.

So I hope -- I probably answered your question as best as I could. I don't know if Rick has anything to add as well, or any others on the phone, or do you?

MR. KEIGWIN: Not at this -- I don't at this time.

MR. MESSINA: And happy to talk offline. And happy to talk offline about it if you'd like.

MS. SANSON: Yeah, exactly. Probably will do so.

MR. KEIGWIN: Great. Thanks, Charlotte.

Mano?

MR. BASU: Thanks, Rick. One comment and a question. The emerging technologies are critical for evolution of agriculture and, you know, some of these

emerging technologies that we heard today and those which are coming up are based on precision application of pesticides. And these prescriptive precision application offer safe use and can lead to reduced risk and reduced exposure.

You know, there's a lot of training and education that needs to be provided and the benefits, so that is again something to consider and think about on the benefits of these emerging technologies. And it is good to know that EPA is engaging with the technology developers for reviewing these technologies and on safe use before moving forward.

One question I have as we heard a lot about EPA's approach to labels and, you know, the need to accommodate emerging technologies, and how will the agency adopt such technologies? Is there a -- I don't want to call it a decision-tree, but is there a approach in determining the regulatory process, regulatory approval, review that is needed for some specific technologies which, you know, the risk is negligible or may not require much of regulatory intervention versus others where it may have to go through a more detailed regulatory evaluation?

MR. MESSINA: Yeah, this is Ed, I'll take that. I mean, my first response is, you know, we have

our own ideas within EPA, but I think that's why I personally and I know Rick wanted to tee this up for this group because I think all the answers don't necessarily need to come from OPP, and certainly reaching out to the constituencies like yourself who are experiencing this sort of, you know, on the ground is why we're teeing this up for this group as the potential, you know, for advising the agency on how we should proceed here.

So the question that I had in my slide is, you know, how should EPA obtain a greater understanding of the use of these emerging technologies and how are the risks different from the current technologies and then how do we need to change our methods and our policies. That is the question, and I would say, you know, as OPP within the walls of the organization with the nine divisions that are supporting the OPP IO, there's lots of ideas around that, and we'd definitely love to hear your ideas on that.

MR. BASU: Thanks, Ed. And, yeah, I mean, the technology developers have the data and understanding of these technologies, and that's exactly what we are looking forward to close interaction, engagement with the broader stakeholders,

regulators, users, technology developers, everyone together. So I appreciate your feedback. Thank you.

MR. KEIGWIN: I think that may -- so any other members of the Committee who have questions for either Ed or Liza?

MR. MESSINA: Did Charlotte have a last question?

MR. KEIGWIN: Oh, Charlotte, did you have another question?

MS. SANSON: Yeah, thanks. Just to piggyback off of what Mano was just talking about, you know, there is -- I think one thing that I just wanted to be sure is considered is there is a stewardship component to these new technologies, you know? The whole point of them, you know, using some of these new technologies is to help make application of pesticides more prescriptive and, you know, somewhat reduce risk. So I think, you know, looking at the stewardship side of it can be quite exciting. So just a comment.

MR. MESSINA: Yes, and I would add -- and I want to make sure that EPA doesn't get in the way of those stewardship desires, and so, again, making sure that the labels are written in a way that encourages these technologies so that we are potentially using less resources and also making sure that public health

is protected is sort of the balancing act that we'd like to talk with you about at the PPDC and offline if folks are interested. So thanks for your comment.

Rick, I think Liza had a comment, too.

MS. TROSSBACH: Yeah, thank you, Ed, just one final comment. You know, we started out talking about UAVs and UASs and the multiple applications, and most of the conversation has focused on the agricultural use of UAVs and UASs, and I just want to kind of keep in mind for the group that while it's possibly not widespread there are certainly non-ag applications, which is basically anything not grown in a field. And so I just want to, you know, just kind of encourage EPA to take those kind of applications into consideration or the potential for those in the future. And then also for, you know, PPDC as it moves forward in considering how it may want to address or how else, you know, maybe EPA needs to look at these. So just a final comment, thank you.

MR. KEIGWIN: Okay. I think Damon might have another comment.

MR. REABE: Yeah, are you able to hear me, Rick?

MR. KEIGWIN: Yeah.

MR. REABE: Can you guys hear me? Sorry.

MR. KEIGWIN: Yes, we can hear you.

MR. REABE: I'm sorry. Thank you. I couldn't remember if I was on mute or on unmute.

You know, as we're talking about this, it's gotten me thinking. The emerging technologies is a subject matter that is maybe going to get us really revolutionizing potentially how EPA does business. And I'm just thinking back to the National Ag Aviation Association's interaction over the last several years on spray drift risk assessment and, you know, we go through some very laborious and painstaking processes to account for technologies that have been in existence for decades in the writing of labels.

So I would like to make sure that -- and by the way, the EPA has been extraordinarily responsive, has been wonderful to work with, but I think under this banner of discussion I think a big part of the focus should be modifying labels and use and instructions to accurately account for existing technologies, and I can take it past aerial application into hooded sprayers in agricultural settings. There's persistent applications that are being done by air. All of these various novel technologies that are available to aerial applicators, these types of things are extraordinarily slowly being

considered in risk assessments, and this might be the venue for adapting to changes that have already taken place much quicker.

MR. MESSINA: Yeah, thanks. Thanks, Damon. I definitely don't disagree with that comment. I think there's lots of areas where, you know, we can examine our current practices and make sure that they're useful and having the desired result. I think the emerging technologies I think is an area that just makes it even more acute, meaning the odds of our policies being sort of tangent to what the needs are really come forward in emerging technologies. But I think your point is a good one, which is there's probably some current technologies where our policies need to be examined, so appreciate that comment.

MR. REABE: Thanks.

MR. KEIGWIN: Yeah, it looked like Mano had another comment.

MR. BASU: Thank you, Rick. Mano here from CropLife America. It's not related to UAVs, drones, or the label, and I don't know if this is the right session or if you have a different session to talk about the proposed changes to plant-incorporated protectants, plural, for emerging technologies. Is there a timeline of when these rules or proposed

changes are coming for plant-incorporated protectants.

You know, the executive order on biotechnology urges streamlining of government processes. If EPA is considering a confirmation process for a proposed exemption, this process does not have to be duplicative of any process at USDA. I was wondering if, Rick, you can make any comments.

MR. KEIGWIN: What I would say, Mano, is that we do have a proposed rule in interagency review at OMB on this topic. Once that interagency review concludes, we statutorily need to do what's called a FIFRA review by USDA and the FIFRA Scientific Advisory Panel with a concurrent sharing of the draft with some of the designated congressional committees. Once that period ends, we would issue a proposed rule for public comment.

Right now, we're anticipating that that would be sometime late spring, early summer. But beyond that, I don't have any more details.

MR. BASU: That is great. Thank you very much, Rick.

MR. KEIGWIN: Any other questions or comments?

Sheryl Kunickis is asking what rule. I believe Mano was talking about a rule that's at OMB on

plant-incorporated protectants as is discussed in the OMB LOCUS (phonetic) system.

Any other comments or questions?

(No response.)

MR. KEIGWIN: All right, if not, thank you, Ed and Liza, for chairing that session.

So that is our last scheduled session of the day other than the public comment period. Shannon, I know we're about 30 minutes ahead of schedule, but I know we had two public commenters. I wonder if they are available currently.

MS. JEWELL: I shot them both an email, so I would say if we call them out they may well be there to...

MR. KEIGWIN: Okay, I believe Dave Tamayo was one of the people that had requested public comment. Is Dave on the line?

Dave Tamayo, are you on the line?

(No response.)

MR. KEIGWIN: And then the second public commenter, I believe, was Ray McAllister. Ray, are you available?

MR. JEWELL: Rick, Dave is on.

MR. KEIGWIN: Okay, great. Dave Tamayo, the floor is yours.

Perhaps while we check on them, I just was curious if either Ruben Arroyo or Dominic LaJoie had been able to join us. They had not been available for our sessions earlier today.

(No response.)

MR. KEIGWIN: Let's try again. Dave Tamayo, are you online and able to make your comments?

(No response.)

MR. MESSINA: Hey, Rick, I think Dave was in the attendees list, which means he was on his computer, but I think Troy and Carla are making sure that he has the phone number to be able to speak.

MS. JEWELL: Thank you, Rick. I actually sent it to him, but he emailed that he heard he was unmuted but the mic doesn't seem to be working for him. Okay, so, Dave, if you can hear, you need to call the number that I sent you. I'll call it again right now. Give us just a minute.

(Brief pause.)

MS. JEWELL: So I did not receive an email.

Hello? I didn't receive an email back from -- hi.

So I (inaudible) received an email back from Ray, although I do know that Dave is trying to get online, on the phone line. Dave may have stepped away

for a minute.

Oh, here's Ray. He's on the phone line but he's muted and waiting for his turn.

MR. KEIGWIN: Okay. If we're able to unmute Ray, we'd have him make his comments.

MR. TAMAYO: Okay, I'm going to get away from my computer. Can you hear me now?

MR. KEIGWIN: Oh, there's Dave. We can hear you now, Dave.

MR. TAMAYO: Sorry.

MR. KEIGWIN: We're running ahead of schedule, so you had a comment.

MR. TAMAYO: Okay, so, yeah, I had emailed both on the COVID response -- hello?

MR. KEIGWIN: Go ahead, Dave.

MS. JEWELL: You may need to mute your computer speakers.

MR. TAMAYO: Yeah, I walked away from them. I'm in a completely separate room now. Is it working okay now?

MS. JEWELL: Sounds good.

MR. KEIGWIN: Yeah.

MR. TAMAYO: Okay. All right. Yeah, I had emailed before about both the COVID-19 and EPA's emergency response. I had some specific concerns

about the COVID-19, the disinfectants that are -- some of them that are on the list. We're particularly concerned -- I'm with the County of Sacramento Stormwater Program and also California Stormwater Quality Association. And we're stormwater agencies.

And we're concerned about pathways of getting toxic disinfectants into stormwater. We're very, you know, cognizant of the fact that, you know, people need to use disinfectants for surfaces that are frequently touched, but we're very concerned about the potential of things that are being used over wide areas and perhaps unnecessarily.

You know, if somebody's doing a whole plaza or a bunch of sidewalks or stairwells where people aren't going to be touching or licking those surfaces, we're very concerned about unnecessary uses on those surfaces, so we'd like there to be some sort of guidance to consumers and also working with the states, trying to get people to use it where it's actually going to be effective, and then also being EPA really considering what are things that if they're widely used on impervious surfaces throughout urban areas, what is the effect on water quality through runoff or washing it off into receiving waters?

And we understand, if it's really necessary,

it's really effective, there's an emergency going on, that's fine. But if it's just overreaction, we'd like there to be information to discourage people from using it where it's not really going to have the intended effect.

The other thing, so more on the emergency preparedness, I think, you know, just sort of expanding on what I said about the specific concerns about some of the things that are being used for COVID, when there's any sort of emergency, making sure that there's information online, both for the states and licensees and consumers, to point out, you know, good practices for using these and then also pointing out that there are bad actors out there, people that sort of take advantage of the public's fear and sell services that are either -- that may be even unlicensed or against the label and cautioning the public to be very careful about making sure that if they're hiring somebody or buying some sort of device that it's something that's not going to be overapplying or misusing chemicals because -- and I've -- we've seen advertisements for things where it's not really even clear that somebody is even authorized -- you know, licensed -- to make these applications.

And, so, we'd like there to be good,

trustworthy information on your websites and other channels of communication in supporting the states in this as well to prevent overuse and abuse of this because of the -- taking advantage of people's fears.

Anyway, thank you very much. Thanks for your patience.

MR. KEIGWIN: Thanks, David.

And for everybody, for both of the points that Dave was making, I want to -- and we can send this around to all the members as well -- but a couple of weeks ago, EPA and CDC jointly developed two pieces of guidance to assist people who have to manage public spaces, businesses, schools, or homeowners for deciding what they needed to do within their homes two documents. One is a cleaning and disinfecting decision tool, and then the second is a more detailed guidance document with additional resources. The decision tool is a two-pager, really one side or one page on both sides.

And among other things, what it has in it is a -- a step-wise decision tool that somebody can work through, and, for example, it talks about whether or not the area can be treated is indoors or not, and if it's not, there's a recommendation about maintaining existing cleaning practices. And then if the surface

is indoors, has the space been occupied within the last seven days, and if not, then the recommendation is that the area will only need routine cleaning.

And then it just keeps graduating down to, you know, is it a frequently touched surface, yes or no, and then there's guidance where you go there, and then finally the type of surface. So we do encourage -- and I know both we and CDC when we get these types of questions do point people to the decision tool, A, to prioritize when they choose to use a disinfectant for those scenarios when it may be most needed in those scenarios where just a general cleaning as Anita was referring to earlier in today's meeting might be an appropriate place to go. But, Dave, thank you for your comments.

Is Ray McAllister --

MR. TAMAYO: Well, I'll try and share that information with the rest of the stormwater community.

MR. KEIGWIN: Great. Thanks, Dave.

Is Ray McAllister now available?

MR. MCALLISTER: Yes. Can you hear me?

MR. KEIGWIN: Yes, Ray. Go ahead.

MR. MCALLISTER: Okay. I have comments on two subjects, the first one, with a stretch of the imagination, pertains to emerging technology. As we

have all been forced to work remotely, virtually, and electronically, OPP has adapted quickly to accepting, evaluating, and processing applications without the exchange of physical documents. There are a few situations which remain where paper actually has to change hands, and we're working together on ways to improve or ways to move those situations to virtual platforms, but some of the state pesticide regulatory authorities lag behind in this regard, still requiring paper submissions for pesticide regulatory actions, still requiring payment of fees by paper checks. This has caused problems and frustrations for many during the pandemic when physical offices have been closed for the most part.

We would encourage AAPCO to work together with the EPA and across all states to move such bureaucratic processes to electronic/virtual platforms as quickly as possible. We feel that progress in this regard will have significant benefits long after this pandemic is just an unpleasant memory.

The other comment relates to an executive order that was signed yesterday by President Trump. It directs federal agencies to address the COVID-19 economic emergency by modifying regulations and other requirements that may inhibit economic recovery. OPP

has done an excellent job in their quick response to the health emergency of COVID-19, and I wanted to ask how stakeholders might provide input into the agency on changes to regulations administered by OPP that would be compatible with the intent of the presidential executive order to encourage or at least not inhibit economic recovery. And I'll conclude there.

MR. KEIGWIN: Thanks, Ray. I don't know that the agency has decided on how it will solicit feedback broadly, but we are always interested in hearing stakeholder views and would invite you to provide any suggestions you might have to the agency.

Okay. Shannon, did we have any additional people request to make a comment today?

MS. JEWELL: (Inaudible).

MR. KEIGWIN: If not, we'll give everybody about 40 minutes back to their day. Thank you all for today and working with us with this technology. This is new to many of us. Special thanks to Carla and Shannon and Troy and Clive for helping to manage all of us through this platform for holding this meeting. I think at our height we had upwards of 250-plus people participating, which in some respects is more than what we've had when we meet in person, but I also

know the value that we all have when can be together, but I'm glad we could have this meeting in a way that we could all continue to be safe.

So we will start again tomorrow at 10:00 Eastern. Special thanks to our West Coast friends who were joining so early, and have a good evening, and we will talk to you all tomorrow. Have a good evening.

(Multiple simultaneous sign-offs.)

(Meeting adjourned.)