

UNITED STATES DEPARTMENT OF AGRICULTURE

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STAKEHOLDER WORKSHOP ON COEXISTENCE

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FRIDAY
MARCH 13, 2015

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The Workshop was held in the McKimmon Conference & Training Center, North Carolina State University, 1101 Gorman Street, Raleigh, North Carolina, at 8:30 a.m., Abby Dilley, Vice President of Program Development, RESOLVE, facilitating.

SPEAKERS

PHILIP KARSTING, Administrator, Foreign
Agricultural Service
PEDRO SANCHEZ, World Food Prize Laureate,
Columbia University
GARY WOODWARD, Deputy Under Secretary for
Marketing and Regulatory Programs, USDA

ALSO PRESENT

ABBY DILLEY, Facilitator, RESOLVE

PETER BRETTING, Agricultural Research Service,
USDA

SHIELA CORLEY, National Agricultural Statistics
Service, USDA

CATHERINE GREENE, ERS, USDA

MIKE GREGOIRE, Animal and Plant Health
Inspection Service, USDA

NEIL HOFFMAN, Animal and Plant Health Inspection
Service, USDA

ED JHEE, Animal and Plant Health Inspection
Service, USDA

KRISTINE KRING, Bayer CropScience LP

ASHLEY MARTIN, Marketing and Regulatory
Programs, USDA

ROLAND MCREYNOLDS, Carolina Farm Stewardship
Organization

RONALD SEDEROFF, North Carolina State University

JEFF WAITE, Agricultural Marketing Service, USDA

WAYNE HONEYCUTT, National Resource Conservation
Service, USDA

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1 P-R-O-C-E-E-D-I-N-G-S

2 (8:36 a.m.)

3 FACILITATOR DILLEY: Good morning. If
4 people would please take your seats, we'll get
5 started. Good morning to those of you who are
6 joining by webcast and audio.

7 Just a couple of brief announcements.
8 First of all, hopefully everybody had a good
9 relaxing evening, had a chance to do your
10 homework assignments and take a look at some of
11 the materials in the packet.

12 But it was really a lovely reception
13 and an opportunity to peruse the posters which
14 again are up here posted along the sides of the
15 conference room.

16 And I just wanted to note that
17 yesterday and today, I mean, it really takes a
18 village to put on a session like this in two
19 locations, lots of people, lots of moving parts,
20 not only to have lots of people in the room but
21 also apparently there were 200 people
22 participating, listening in to the webcast or the

1 audio. And all that happens because lots of
2 people are doing lots of things to make it
3 happen.

4 And I just wanted to note this is, I
5 think, the second meeting I've done or been a
6 part of at NCSU, and what a great facility.
7 They're really demonstrating collaboration.
8 Everybody pitches in. You've got graduate
9 students, staff, everybody has just been
10 incredibly helpful

11 And also just a lot of USDA staff that
12 have supported this meeting, and I just would
13 like everybody, including those of you on the
14 webinar and audio, to give a round of applause to
15 all those who make this happen.

16 (Applause)

17 FACILITATOR DILLEY: Also, I just
18 wanted to mention, for those of you in the room,
19 that to access your computer for the wireless
20 network you just need to, in your browser, look
21 for NCSU-Guest and then double click on that,
22 open your Internet browser and then you just

1 click I agree for the terms and conditions which
2 basically signs away your life. No, just
3 kidding. It's just your standard you agree to
4 terms, and then you can access the Internet.

5 All right. So today we have another
6 very full agenda. As we mentioned yesterday, a
7 lot of the time is going to be spent in smaller
8 working group sessions. And we'll get into more
9 of the details about that to set up for those
10 conversations.

11 But it's really an opportunity for the
12 participants in the room to engage with one
13 another around three questions. Each of the
14 groups will take on the same questions.

15 And again, we'll go into that in more
16 detail. But it's really to reflect on the AC-21
17 recommendations, the work that's underway, not
18 only what you heard yesterday but what you'll
19 hear this morning in terms of proposed activities
20 that USDA is considering and under development
21 that they want your feedback on.

22 And then also to take a step back for

1 another question and session for deliberation
2 around what else do we need to help support
3 coexistence, to continue to really try and find
4 ways to support robust agriculture and provide
5 for opportunities and choices for growers and for
6 consumers, so trying to really support that. And
7 that's what this has been all about.

8 And then also a more specific question
9 around coexistence really starting, happening on
10 the ground and putting some additional thought
11 into some mechanisms and who could help support
12 that in local areas. But again, we'll get into
13 more of those details in terms of setting you up
14 for those breakout sessions.

15 For those of you who are participating
16 over the day via the webinar and audio, you can
17 take a break during those segments. So that will
18 be before and after lunch. There will be a
19 lunchtime speaker. So please join us again for
20 that.

21 And then the groups will have
22 reporters from each of their sessions reporting

1 out the key pieces of the deliberations during
2 the work group sessions and ideas and feedback
3 that is provided. So we really want to have you
4 join us again for that as well.

5 In addition today, just to help
6 continue the conversation, this morning we're
7 going to take some time to reflect a little bit
8 on yesterday's discussion, a little bit on the
9 poster session. Because there was lots of
10 information, again, thinking about different
11 various tools and strategies and get a little bit
12 of discussion and feedback on that. And then
13 we're going to hear from another panel about
14 those actions and policy options that are
15 underway.

16 And again, those of you who have your
17 packets in front of you, there's another sheet, a
18 separate sheet, one of which we referenced
19 yesterday, that talks about what the panel
20 discussed at the end of the day about current
21 activities underway and then another one that
22 provides more detail on those that are

1 anticipated or under development.

2 And you'll hear more about that in the
3 discussion this morning. So that then will give
4 you an opportunity to really have the information
5 at your disposal and hear preliminarily about
6 some of those activities which will set you up
7 for your discussion in your breakout session.

8 We do have, as I mentioned, a
9 lunchtime speaker who is Pedro Sanchez, who's a
10 World Food Prize Laureate and at Columbia
11 University. So after, I think it'll be somewhat
12 the same strategy in that we'll get you fed and
13 get settled in and then have the opportunity to
14 hear Dr. Sanchez.

15 Well then, as I mentioned, after the
16 breakout sessions, come back to general session
17 and have an opportunity for report outs and a
18 little more dialogue. And then there'll be wrap
19 up and conclusion session with Gary Woodward and
20 Philip Karsting to just put a summary touch on
21 some reflection on the two days and send you on
22 your way at 4:40 and get everybody to start your

1 weekend at that point.

2 So just any questions about the
3 overall overview of today's deliberations?

4 (No response)

5 FACILITATOR DILLEY: I did want to
6 also mention for those of you in the room and on
7 the webcast and audio that there is an open
8 docket, as was mentioned yesterday. USDA really
9 wants as much feedback, ideas, suggestions as
10 possible.

11 Obviously, you have the opportunity
12 through that docket to provide additional
13 comments after hearing the reflections from
14 today, thinking about it. That docket will be
15 open for a period of time.

16 For those of you who are not in the
17 room, you can certainly either send in comments
18 during that time if you've got that scheduled for
19 this activity today.

20 Or you can wait and hear from the
21 report out sessions, have some additional ideas
22 stimulated and then certainly take some time and

1 follow-up with some comments. So really
2 encouraging people to take advantage of that
3 opportunity to maximize as much feedback and
4 input as possible. I just want to encourage
5 that.

6 The only other just logistical thing
7 I wanted to mention at this point is that your
8 name tents, it would be helpful for those of you
9 who have them in the room to take those with you
10 for the breakout sessions.

11 So be sure when you get up from your
12 table you put it in your folder and take them
13 with you. That way you can use them in your
14 breakout sessions. You'll be staying in the same
15 room for the duration of the breakout sessions.

16 For those of you who are looking
17 around for your tent and going, oh dear, I left
18 it on my table, we picked up, I think, almost all
19 of them. And they should be out on the table out
20 front. So at the break, you can go retrieve your
21 name tent so you have it.

22 All right. So with that, I think

1 we'll jump in to the first part of the session
2 this morning. And we did want to provide an
3 opportunity, and we're going to have roving mics
4 and people to attach them to get those roving
5 mics to you, to just reflect on any kind of
6 general comments about yesterday's session.

7 There was a lot of information, a lot
8 of presentations on some ideas and just some
9 reflections on yesterday. So we want to open it
10 up for that briefly for a little bit of
11 reflection on yesterday.

12 We'll then come back to the poster
13 session in particular and then talk a little bit
14 about any additional feedback or thought on the
15 last panel yesterday talking the products already
16 developed.

17 You'll have an opportunity to talk
18 about those more in your small groups as well,
19 but if there were any additional questions or you
20 had any particular feedback on that, we'll take
21 that time to hear that.

22 So what I would like to start on is

1 just any general comments or feedback that people
2 have. Leon? So we've got a couple of hands up.
3 Do you have -- oh, you don't have microphones.
4 Wow. Then I'll give you mine.

5 MR. CORZINE: I like taking Abby's.
6 I'm Leon Corzine. I farm in central Illinois.
7 I've been a member of AC-21 for a while. I
8 wanted to start off first by congratulating the
9 USDA folks, Cindy, and Michael and Abby have done
10 a great job here, I think, putting this together.

11 I appreciate Secretary Vilsack's
12 comments yesterday and his leadership on this
13 whole issue that is not an easy one. But we're
14 going through it. And I thought we had a really
15 good day yesterday.

16 And I have to add I want to emphasize
17 that, because I was extremely disappointed and
18 troubled with some of the press that came out
19 afterwards. Don't know what meeting they're
20 watching, but I don't think it was this one.
21 Talk about scorched earth, and people doing
22 battle and those kind of things is not real

1 world. And I don't know where they came from.

2 But I don't think any of us in the
3 room are there. So I think we need the press's
4 help, because it doesn't help what all of us are
5 trying to do when those kind of comments come out
6 in print. So I have to emphasize that, and I
7 hope that changes in the future.

8 I also want to mention, as a farmer,
9 that didn't come out yesterday that belongs to
10 part of the coexistence discussion, is that we
11 have technology use agreements from every company
12 that we deal with. And we buy seeds from several
13 companies. And they have added, and I think some
14 maybe were doing it before, but as a result of
15 USDA and our AC-21 work, they include coexistence
16 guidelines in that agreement that we all sign.

17 There's at least, on the companies we
18 work with, it's about a page. In think maybe one
19 of them is a page and a half. So I think
20 everybody needs to know that, that there is
21 guidance. There are things that are being done
22 out in the countryside.

1 Another thing as we go into our work
2 groups that I have a little trouble
3 differentiating, and I think a lot of us do, that
4 there is a difference in the contracts as we look
5 forward.

6 And I think it belongs in the
7 discussion if you're looking at the organic
8 standards in organic contracts which is a
9 process-based, and that's fine. They've got a
10 great market, offer choices to growers and
11 consumers.

12 But there is what I have called
13 organic-plus. And that's where you get into
14 testing, and that's where you get into setting
15 whatever threshold the marketplace or whoever
16 you're dealing with wants to set it. But there
17 is a difference there.

18 And as we move forward and talk about
19 coexistence, I think that needs to be on our
20 minds as well as we go into our work groups, and
21 continue that discussion and try and come up with
22 some results. So thank you very much for the

1 time. And I really look forward to today.

2 FACILITATOR DILLEY: Thanks, Leon.

3 And we have another --

4 MR. KEMPER: Madam Chair, yes. This
5 is Alan Kemper, a farmer from Indiana, a member
6 of AC-21. I want to just thank the staff of not
7 only North Carolina State but USDA for putting
8 this together.

9 As we talked yesterday, there were
10 several key points that we've been wrestling with
11 on coexistence. And I value all those inputs,
12 from Laura's on organic, and we did a good job
13 discussing that as we tried to reach some type of
14 agreement with coexistence. This type of
15 dialogue is really key.

16 There were some people here that were
17 sharing some of their marketing plans with
18 general food organizations that we also needed to
19 hear from. Because it gives us their viewpoint.

20 I was extremely disappointed in the
21 Wall Street Journal calling Raleigh a scorched
22 earth of conversation. As a farmer, I'm appalled

1 that they would use those type phrases when I'm
2 in the room with the dialogue and witnessing a
3 very cordial, very statesperson type approach to
4 a discussion of a very difficult subject.

5 I just want to conclude with two
6 things. One, the food was outstanding yesterday.
7 Even though they made light of it in the Wall
8 Street Journal, I grazed all three tables, and I
9 was proud of it. I mean, the food was fantastic.

10 I want to commend Secretary Vilsack
11 and Secretary Glickman. They came down here and
12 gave us some really good comments to kind of kick
13 us off and keep us focused. As a farmer and as
14 an AC-21 member, hopefully this dialogue can go
15 on a cordial approach in the future. Thank you.

16 FACILITATOR DILLEY: Thanks.

17 (Applause)

18 FACILITATOR DILLEY: Other comments,
19 reflections?

20 MS. OLSEN: Yes, Hi. Hi, everybody.
21 My name is Angela Olsen. And I work for DuPont
22 Pioneer. I also just wanted to echo the thanks

1 to the Secretary, to USDA, Abby, and to North
2 Carolina State for hosting this great event.

3 This is a difficult discussion. I'm
4 also an AC-21 member, and so I've been in the
5 heart with a lot of my fellow AC-21 members in
6 the room. These are difficult discussions, but
7 they're important ones. And we all recognize
8 that they're important. And that's why we're
9 here.

10 And so I just want to thank everybody
11 for bringing us together, for having this
12 discussion. As Leon mentioned, we heard at the
13 AC-21 table that it was important to folks to
14 have coexistence language and to encourage
15 communication among neighbors as part of the
16 technology use agreements. And we've done
17 exactly that.

18 We have heard the conversation at the
19 table and we took it seriously. So again, I just
20 really just wanted to express my thanks and also
21 I wanted to echo what Alan said about the food.
22 My plate was the perfect example of coexistence.

1 It came from all three tables. I enjoyed it
2 immensely, and hat's off to the chef. So with
3 that, thank you very much.

4 FACILITATOR DILLEY: Thank you. Any
5 other reflections on yesterday, additional?

6 (No response)

7 FACILITATOR DILLEY: I do want to
8 point out it's always nice to stand up here,
9 because you get thanks for not doing a whole lot
10 except in the moment. And I have enjoyed and
11 loved working on this topic and with a great
12 group of people who are ready to roll up their
13 sleeves and work.

14 There are two people who haven't been
15 mentioned by name. Michael and Cindy are
16 certainly two of the key organizers of the
17 session, but also Mike Tadle and Kim Ogle have
18 done a huge amount of work in making this happen.
19 And I think they're not in the room,
20 unfortunately, to thank them. But we will do
21 that again when they're back in here. And I just
22 want to be sure that they get the recognition

1 they deserve.

2 So just shifting gears a little bit,
3 on the poster session, it'd be great to get a
4 little bit of feedback. I think one of the
5 intents of -- one of the themes you heard
6 yesterday was just the need for lots of different
7 strategies. Not every strategy works for every
8 single thing. That's why it's complicated, a
9 complex challenge to help support coexistence.

10 But clearly, one of the themes of the
11 poster session is there are lots of tools and
12 activities out there that people are trying to
13 contribute to supporting coexistence.

14 There is research, there is frameworks
15 that are being offered and ways to think about it
16 or sort through some of the questions and
17 challenges. And there are also, in the field,
18 tools, things like pinning maps, and opportunity
19 zones and some other things that people have
20 tried.

21 And just in looking around at the
22 posters and hearing some of the conversation, I

1 think there is some interest in just people's
2 reflections on looking at the posters, any
3 questions about some of those that you had
4 follow-up.

5 And another question that was coming
6 up was so what are some of the challenges to
7 scaling some of these tools up or making them
8 more viable from your perspective or more
9 productive as tools and strategies that can help
10 support coexistence?

11 So just any thoughts, reflections,
12 additional questions on the posters? The posters
13 were great. I really enjoyed looking around at
14 all the different ideas and examples that you
15 were able to look at. So thoughts on the
16 posters? Apologies to those of you on the
17 webinar and the audio who can't see them. But
18 those of you in the room? Yes. Please, Fred?

19 DR. GOULD: I just want to say I
20 really enjoyed the poster session. I just want
21 to draw attention to the posters --

22 (Microphone malfunction)

1 FACILITATOR DILLEY: We've got the
2 back-up microphone coming.

3 (Pause)

4 DR. GOULD: Wow, that's really on.

5 FACILITATOR DILLEY: Yes. Now we can
6 hear that.

7 DR. GOULD: Well, I just was saying,
8 I really enjoyed the poster session. I just
9 wanted to draw attention to two posters that, or
10 three posters actually that I was looking at that
11 seemed important to me.

12 One was we had a lot of discussion
13 about the possibility of corn varieties that
14 would not accept pollen from other corn
15 varieties. And of course that seems like a very
16 useful technical solution to some things. But
17 also within the posters there was this question
18 of whether there was some germplasm now that
19 overcame that.

20 And, of course, that would make that
21 strategy leaky. And it just points to the need
22 for research to look more into that kind of

1 strategy. And when we talk about the BRAG
2 program and others for risk assessment, I think
3 it's important to recognize that if we don't
4 invest in this, we're going to be in trouble.

5 And another poster that I thought was
6 really interesting was by Brett Lolley from
7 Monsanto, talking about something very, very
8 specific in terms of how they're dealing with
9 their sweet corn seed production.

10 And I think that really brings us back
11 to the real details of how this has to be worked
12 out and how farmers have to deal with each other
13 as well as with the companies. I hope everybody
14 saw a little bit of that poster, but I actually
15 would appreciate more comment from him at some
16 point during this.

17 FACILITATOR DILLEY: Great. Yes,
18 we've got back here. Thanks.

19 MR. DILLON: Good morning. Matthew
20 Dillon, Clif Bar and Company. I also want to
21 talk about the gametophytic compatibility factors
22 and that research.

1 For transparency sake, through our
2 Clif Bar Family Foundation we do fund the
3 research of Dr. Major Goodman here at North
4 Carolina State University, fund the graduate
5 fellowship in Dr. Goodman's program for a student
6 who has created that poster and is specifically
7 working on gametophytic factors in corn pollen to
8 try to help keep the non-GMO and organic lines
9 cleaner from GMO presence.

10 And I think one of the important
11 things I want to point out about Dr. Goodman's
12 work and the work of others with these
13 gametophytic factors is that the traits work very
14 well but only if we also keep those traits for
15 non-GMO and organic corn.

16 And I don't want to be exclusive here,
17 but I just want to point out just the reality of
18 the technology. And that is that if a farmer is
19 growing a non-GMO or an organic variety with the
20 dominant male factors in it, and their neighbors
21 are also growing a GMO corn that happens to have
22 that variety, because some GMO producers want to

1 block other GMO traits, then the technology
2 breaks down. And it becomes leakier and leakier.

3 So I do think it's one of those things
4 that we need to discuss. I'm not saying there
5 should be laws that only organic or only non-GMO
6 producers have access to that technology. But in
7 terms of a working neighbor to neighbor solution,
8 it's only going to work if it's predominantly
9 used in the non-GMO and the organic sectors, or
10 it simply will break down. But, yes, great
11 posters.

12 I also really wanted to thank the
13 gentlemen from Iowa State University. I think it
14 was Bill -- I can't remember Bill's last name. I
15 thought his poster, looking at a variety of in-
16 field biological practices for contamination
17 prevention, was fantastic and very well worth
18 looking at if you didn't get a chance to
19 yesterday, including developing more, again, male
20 sterile lines in the field.

21 Like the DuPont TOPCROSS High Oil Corn
22 example of looking at could we develop varieties

1 that have more male sterility in the field so
2 that there's less pollen in the wind, as it were.
3 So some good stuff there as well. Thanks.

4 FACILITATOR DILLEY: Great, thank you.
5 Other just comments, reflections on the posters?
6 Obviously a lot of stimulation of different
7 tools, I think.

8 Some of the additional comments are a
9 great backdrop for some of the breakout session
10 deliberations in terms of variety of tools,
11 setting priorities, everything from research,
12 able to have tools that can be used by all the
13 different players, growers throughout the supply
14 chain, et cetera, to help support coexistence.

15 Any other thoughts, or reflections or
16 questions on the posters?

17 (No response)

18 FACILITATOR DILLEY: Great. Well,
19 when we have a couple of breaks, including for
20 lunch and a break this morning, please do, if you
21 haven't had a chance to look at the posters, to
22 take advantage of that.

1 So just before we get to another
2 session, I wanted to have an opportunity really
3 concentrating on -- and this is where you
4 demonstrate whether you did your homework or not
5 -- on some comments on the products underway or
6 the activities underway.

7 We had a discussion, there was a lot
8 of questions about the plant germplasm program.
9 But there were lots of ideas that are building
10 off the AC-21 recommendations.

11 And you have that sheet, I think
12 they're highlighted, at least eight different
13 activities that are currently underway,
14 everything from the crop insurance options, and
15 organic seed finder database, research on
16 landscape scale, gene flow and alfalfa, those
17 kinds of things.

18 And for those of you who either have
19 additional questions -- again, you'll have some
20 opportunity to talk through some of these in
21 terms of refinement, or deployment or uptake of
22 some of these opportunities in your small groups

1 -- but just any additional questions, thoughts on
2 some of these? We're open for comments on those.
3 So pull those out of your folder, if they're in
4 your folder, and take a look. And any thoughts
5 on those particular activities?

6 (No response)

7 FACILITATOR DILLEY: Okay. Second cup
8 of coffee needs to kick in. Any additional
9 questions? Yes, please? Yes, coming right to
10 you. Thank you.

11 MR. LAVIGNE: Well, from the seed
12 side, and I appreciate Leon making the comments
13 on what the growers are getting, because I would
14 say the seed companies are providing more and
15 more data out to farmers, especially on IP
16 issues.

17 And I guess this is about the fourth
18 one on industry providing additional information.
19 That is happening. And we probably need to do an
20 analysis of that, especially you tend to have
21 areas of the country that are more prone to IP
22 specific production. So how do we analyze those

1 messages and can we work with extension there,
2 USDA, to have almost a joint similar language
3 that deals with that.

4 The other thing that is tied into that
5 that was a little, not necessarily in the title,
6 was the issue of availability of grower demand.
7 And that gets into how can we either tie
8 something into the organic seed database or
9 something else for seed companies to better
10 understand grower demand.

11 As we talked about yesterday, and as
12 we struggle within the industry, is grower demand
13 doesn't just happen. Now, our seed doesn't just
14 happen. You've got to plan on it. And it's not
15 just a year. It's not just a month. It's
16 several years in advance. So how do you have
17 that conversation to get the seed on the shelf?

18 And so that's one thing that our
19 companies wrestle with. And I'm going to be very
20 candid. Our companies that are looking at this
21 are not the major international corporations.

22 They realize that that's not their

1 bailiwick. It's not the wheelhouse. The
2 wheelhouses are regional companies that are
3 producing varieties, that are developing
4 varieties today that can produce some
5 conventionally organic or licensed trades in.

6 And that's where we've got to have
7 that conversation. So if there's a way that we
8 can have -- we've had this discussion with USDA-
9 NOP. We don't know where growers are getting
10 exceptions to plant conventionally untreated
11 corn. So if we don't know, how do we develop
12 varieties for that?

13 And if there's a way that we could put
14 something in a database where companies can
15 access, somebody who's in Minnesota can access,
16 okay, where are the zeros and the ones for corn,
17 then you have an idea of what may be there and
18 what may be the acreage. So two years from now I
19 could plant a little bit more.

20 But they're not going to plant it, and
21 put it on a shelf and hope it comes. This is not
22 Field of Dreams, it's business. So how do we

1 create something there?

2 So I think the title on that one was
3 a little misleading. We're working on the
4 language. We hope to have some more things
5 there. We'd love feedback on the language that
6 people are getting.

7 But at the end of the day, how do we
8 also look at the demand and possibly tie
9 something into the organic seed finder database
10 where a lot of our companies are listing what
11 they have available. So that's just a
12 suggestion.

13 FACILITATOR DILLEY: Yes, I know.
14 It's an interesting idea. I mean, I think to
15 your point, you raised this a couple of times,
16 Andrew, yesterday in terms of you need some kind
17 of run-up time to develop seed. And if you have
18 some sense of demand over time, then that can
19 give you a heads up as to what people are looking
20 for.

21 And I also heard just another thought
22 in terms of just having some of these

1 conversations at the regional level. Because
2 you're going to have regional specific, tailored,
3 different growing conditions, different interest
4 in seed and also those who are producing the seed
5 in these more regionally based companies. So
6 lots of ideas there. That's great. Thank you.
7 Leon?

8 MR. CORZINE: Leon Corzine again. I'd
9 like to speak to the crop insurance for a moment.
10 Crop insurance is really important. Because all
11 of us that farm are investing more and more every
12 year. Every crop we put in, my son and my wife
13 and I, it seems like the cost per acre just
14 continues to climb.

15 So that means our risk is higher. Our
16 opportunities, in a lot of cases, are higher as
17 well, but when we look at risk management, crop
18 insurance is really important. It's important to
19 me as a conventional, or biotech or an IP farmer.

20 And I'm really glad to see that the
21 suggestion was taken from our AC-21 comments and
22 really put into action by USDA and the risk

1 management agency.

2 The issue that we have now, I think,
3 is that as we look at providing some incentives
4 or some help for the organic farmers, I mentioned
5 the organic-plus, or IP. Because we look at
6 identity reserve contracts every year, because we
7 can do those things. And it all depends on
8 whether it makes economic sense.

9 But if we're going to have that for
10 organic producers, I think we need to be
11 conscious that the identity preserved, or
12 organic-plus, or whatever I may be doing for
13 whether it's a seed company or whether it's a
14 specific food-grade corn or something I'm
15 growing, that that opportunity ought to be there
16 as well. So we need to take a look at that and
17 have balance in that as we go forward.

18 And along that line politically,
19 there's a lot of talk in the budget process now.
20 We just passed a farm bill that included this in
21 it. And there's a lot of talk, and it seems like
22 some are trying to target crop insurance as a

1 place to save money.

2 And we're looking at commodity prices
3 are lower. That means generally the identity
4 preserve contracts, whatever they are, they're
5 based off of a start price, Chicago Board of
6 Trade price. So as they go down generally, not
7 always, but the IP price will go down as well.

8 So in all of that, we really are in a
9 time where it would be a real disadvantage and
10 hurt whatever you happen to be growing to take
11 away from that program now and make it less
12 attractive to producers.

13 Because a thing to remember about crop
14 insurance, 2012 was a really bad year clear
15 across the Midwest. You would call it a
16 disaster. And it didn't matter what kind of corn
17 or soy you were growing.

18 But you know what, because of crop
19 insurance, and this wasn't an isolated area, this
20 was clear across the Midwest and well documented,
21 there was no call for a disaster relief program.

22 So I think we forget that we're saving

1 the government a lot of money, because my view of
2 the disaster programs, it's always too little,
3 too late and politically motivated. And we've
4 gotten away from that.

5 And so I would encourage all of us, as
6 you talk to your Congressman or wherever we can
7 get the support, and I know Secretary Vilsack in
8 USDA is helping push on this, but people need to
9 understand the importance of the crop insurance
10 program to all of us. So thanks.

11 FACILITATOR DILLEY: Great. Thanks,
12 Leon. So any other growers who are just, you
13 know, a lot of these tools are, Leon mentioned
14 the crop insurance and risk mitigation, others
15 that you're seeing, some of these activities that
16 are underway that are helping support
17 coexistence? Any other comments on that?

18 (No response)

19 FACILITATOR DILLEY: Okay. Any other
20 thoughts, reflections on activities underway?

21 (No response)

22 FACILITATOR DILLEY: Well again, we

1 would encourage people to have you take a look at
2 those again. There'll be another opportunity in
3 the breakout sessions to provide some feedback
4 and input. And I really encourage you to do that
5 and provide as much specific input as possible.

6 So I'm going to move then to the next
7 session. And we'll do it a little bit early.
8 But that's good, because we have, I think, ten
9 subject matter experts coming up. So they're
10 going to have a lot to say.

11 And I'll also ask Gary Woodward, who's
12 the Deputy Under Secretary for Marketing and
13 Regulatory Programs with the USDA, to come up.
14 We'll get you set up and ready for it with the
15 slides. They are going to go over, again,
16 another section.

17 And your packets for those of you
18 joining to the webinar and audio, if you'd go to
19 USDA's website for this session, those documents
20 are also online and give some overview on new
21 proposed USDA activities, again, that are
22 building off the AC-21's deliberations, and

1 recommendations and some insights that they've
2 provided.

3 So I'm going to line up those of you
4 who are coming up. And subject matter experts, I
5 know that there are ten chairs up here. You like
6 a basketball team almost, which is appropriate
7 this time of year. So we'll have you come on up.
8 Great.

9 MR. WOODWARD: I'll go ahead and get
10 started while these folks are getting situated
11 just to keep things moving. So good morning, and
12 welcome to the second day of USDA's Stakeholder
13 Workshop on Coexistence.

14 I want to welcome stakeholders in the
15 room and the members of the public who are
16 participating in today's workshop by webcast.
17 Sorry that time and space constraints limited who
18 could be here in person, but I assure you that we
19 welcome your input, and we're glad to have your
20 participation.

21 If you are one of those folks who's
22 watching at home, I hope you're taking advantage

1 of the opportunity to have some of the NCAA
2 basketball games on in the background. There
3 were a lot of great finishes yesterday, and every
4 person in this room missed every single one of
5 them, which is unfortunate.

6 But for those of you who I haven't had
7 the opportunity to meet yet, again, I'm Gary
8 Woodward, Deputy Under Secretary for Marketing
9 and Regulatory Programs at USDA.

10 If you had a chance to look at my bio,
11 I'm a former high school teacher as well. But I
12 assure you that I will not be grading you on your
13 homework from last night. So if you were waiting
14 on the second cup of coffee to kick in, that's
15 okay. Everybody still gets an A.

16 But this month is actually my one year
17 anniversary at USDA, a year, and a week and some
18 change actually. So March 3rd I started with the
19 Department last year. But I can tell you that
20 this year has been very deeply gratifying for me.

21 In addition to working with the
22 wonderful people who are truly committed to

1 improving American agriculture, I frequently have
2 the opportunity to meet with folks like you,
3 industry leaders, interested stakeholders, whose
4 partnerships with USDA help us go further and to
5 do more than we could on our own.

6 Today, I'm going to call on that
7 spirit of collaboration and cooperation. And I'm
8 going to challenge each and every one of you to
9 extend yourself even further. I'm going to ask
10 each and every one of you to renew your
11 commitment to partnering with the USDA, and most
12 importantly with each other, to help us further
13 coexistence.

14 Today we'll move into some of the
15 tougher issues that face us, as if yesterday
16 wasn't difficult, and focus a great deal of our
17 time and attention on coming together to have
18 what Secretary Vilsack calls an adult
19 conversation on coexistence.

20 But first, I want to talk about why
21 coexistence is so important. As you all know,
22 USDA supports the safe and appropriate use of

1 science and technology, including biotechnology,
2 to help meet the agricultural challenges and
3 consumer needs of the 21st century. That means
4 supporting all forms of agriculture, genetically
5 engineered, conventional and organic.

6 We need all three to meet our
7 collective needs for food security, energy
8 production, carbon offsets and the economic
9 sustainability of farming. Market realities are
10 driving coexistence issues like never before.

11 To give you an example, GE soybeans
12 made up 17 percent of US soybean acreage in 1997.
13 But as of 2014, that percentage was up to 94
14 percent. Similarly, 96 percent of cotton and 93
15 percent of corn planted in the United States in
16 2014 were biotech varieties.

17 And while use increases, producer
18 demand for new GE varieties has also increased.
19 At the same time, we've seen consumer demand
20 expand greatly for organic and other non-GE
21 products in both domestic and foreign markets.

22 In just the past decade, for instance,

1 we've seen sales of organic food rise from a
2 little over \$5 billion annually to more than \$35
3 billion. As a result, the relationship between
4 GE and non-GE production chains is becoming more
5 significant for American farmers, consumers, the
6 broader food production industry and, of course,
7 the USDA.

8 Because of this, coexistence isn't
9 just the right choice for American agriculture,
10 it's the only choice. If we're going to do
11 what's best for all sectors of US food
12 production, we have to figure out how to work
13 together.

14 It's imperative that we promote as
15 diverse an agriculture economy as possible, where
16 farmers can engage in whatever type of
17 agriculture they're interested and that they
18 think can make them a living. It's good for the
19 economy, it's good for consumers, it's good for
20 farmers and it's good for our communities.

21 Now, as you all have heard already as
22 part of the USDA's commitment to coexistence, in

1 January of 2011 Secretary Vilsack announced the
2 reactivation of the AC-21 Committee.

3 AC-21 was designed to examine the long
4 term impacts of biotechnology on the US food and
5 agriculture system and to provide USDA with
6 guidance on how to further coexistence. AC-21,
7 as you know, was tasked with making a number of
8 recommendations. And specifically the group was
9 asked to recommend appropriate compensation
10 mechanisms, if any, for addressing economic
11 losses by farmers from the intended presence of
12 GE materials in their crops.

13 They were tasked with determining how
14 such mechanisms would be implemented, and how
15 compensable claims would be decided and
16 identifying what steps USDA might take to bolster
17 coexistence.

18 During its deliberations, the AC-21
19 Committee reviewed stewardship practices, the
20 importance of seed quality and ways to facilitate
21 communication and collaboration among
22 stakeholders on matters of coexistence.

1 In November of 2012, the committee
2 presented the balanced report to Secretary
3 Vilsack and recommended actions in five major
4 areas, potential compensation mechanisms,
5 stewardship, education and outreach, research and
6 seed bulk.

7 As you heard Under Secretary Woteki
8 outline yesterday, USDA has already implemented
9 many of these recommendations where possible.
10 The recommendations that have not yet been
11 implemented are still very much a priority for us
12 however. Some of them are long term goals, and
13 others will require additional legal authorities
14 from Congress before they can be fully
15 implemented.

16 And perhaps the most challenging piece
17 of the puzzle is what I'm here to talk to you all
18 about today, and that's education and outreach.
19 As was mentioned yesterday, in November of 2013
20 the USDA published a request in the Federal
21 Register to get feedback on the best way for us
22 to address education and outreach as recommended

1 by AC-21. We asked how we could reach out to
2 farmers on the subject of coexistence and
3 solicited best practices on the farm to support
4 coexistence.

5 Of the more than 4,000 comments
6 received, only a small handful were substantive
7 and addressed the questions we posed. To those
8 commenters, we want to thank you for your input,
9 your time and your careful consideration.

10 Unfortunately, the vast majority of
11 the comments were about finger pointing or
12 ignoring the problem. Half the comments argued
13 the products derived from biotechnology were too
14 dangerous and needed more strict regulation or
15 should be banned outright.

16 The other half of the comments claimed
17 that there are no challenges with coexistence,
18 that all is well and no other feedback was
19 necessary. This was a disappointment for USDA.
20 But more importantly, it was a lost opportunity
21 for you all to weigh in and shape the coexistence
22 discussion in a meaningful way.

1 The truth is, the time for placing
2 blame and burying our heads in the sand is over.
3 GE products have been in the food supply for
4 decades and are not going away anytime soon.
5 Likewise, we are not going to be moving toward a
6 Wild West environment of zero oversight or
7 regulatory framework surrounding the development
8 of new products and traits.

9 Rather, now is the time to have the
10 adult conversation about coexistence. It is
11 imperative to agriculture, to our farmers and to
12 our consumers that we find a way to address these
13 issues head on.

14 As I said earlier today, I asked that
15 each and every one of you extend yourselves and
16 go further than you have before in the name of
17 collaboration and cooperation. This workshop is
18 another opportunity to take part in this
19 conversation and have your voice heard.

20 So in addition to the measures that
21 USDA has already taken to implement AC-21's
22 recommendations which you heard about yesterday,

1 we've also developed ten draft initiatives.

2 Prior to developing these, we
3 carefully considered the comments received on the
4 Federal Register request, such as they were, and
5 where necessary attempted to fill in the gaps
6 using our own best judgement.

7 And I want to take a few minutes to
8 outline those proposals. And then afterwards,
9 we'll have some time for questions for the panel
10 here next to me.

11 So firstly, we proposed to study the
12 economic implications of coexistence. USDA's
13 Economic Research Service is planning to publish
14 a report this year that broadly examines the
15 economic issues related to the coexistence of
16 organic GE and non-GE crop production and
17 processing, including adoption trends, these
18 crops and their identity for serving labels.

19 The study will analyze the potential
20 for GE crop production to impose costs on organic
21 and conventional crops via accidental pollination
22 and other mechanisms. Next, we'll be surveying

1 farmers about actual economic losses incurred as
2 a result of unintended GE presence.

3 Through the 2014 organic survey,
4 USDA's National Agricultural Statistic Service
5 and Risk Management Agency will speak with
6 producers certified as meeting the USDA standards
7 for organic production, those exempt from
8 certification and those transitioning to
9 certified organic production.

10 Among others, excuse me, among other
11 things, respondents will be asked to answer
12 questions related to economic losses resulting
13 from unintended presence of GE material in
14 organic crops produced for sale. The survey is
15 expected to be published later this summer.

16 USDA will be developing a coexistence
17 education and outreach strategy. The goal of
18 that strategy is for all producers to recognize
19 the interconnectivity of their cropping
20 practices.

21 In addition, as part of this strategy,
22 USDA will leverage the experience of its

1 personnel and that of its private sector partners
2 to promote local voluntary solutions that address
3 gene flow at the county and community level.

4 This network of assistance and expertise could be
5 mobilized through existing information and
6 communication systems.

7 Next, we'll be seeking to revise
8 policies and best management practices for GE
9 traits in plant germplasm and breeding stocks.
10 This is something we've heard a lot about.

11 USDA's Agricultural Research Service
12 is in the process of revising its policies and
13 procedures for handling GE traits and for
14 managing unintended GE policies, excuse me,
15 presence in its crop breeding stocks and genebank
16 collections.

17 This revision will focus on the five
18 major crops with widely cultivated varieties that
19 incorporate deregulated GE traits, cotton, maize,
20 soybean, alfalfa and sugar beets.

21 These policies and practices will
22 encompass five major elements, well documented,

1 reviewed and accessible best management practices
2 for maintaining seed purity in both breeding and
3 genebank programs.

4 Testing for purity at critical control
5 points, mandatory purity testing of new varieties
6 or enhanced germplasm prior to formal release,
7 guidelines for mitigating the effects of
8 unintended presence of GE traits in breeding
9 stocks and germplasm accessions, and
10 communication strategies for disseminating
11 information about agency procedures and practices
12 and for handling future occurrences of unintended
13 presence of GE traits.

14 Next, we will continue to work with
15 the seed industry to provide additional
16 information for farmers at the point of seed
17 sale. USDA is working with the American Seed
18 Trade Association to ensure the availability of
19 seed to meet grower demand for GE identity
20 preserved, non-GE in organic markets to provide
21 additional information to seed purchasers about
22 best production practices for coexistence at the

1 time of seed purchase.

2 We want to provide informational
3 materials on strategies for facilitating
4 production of all types of identity preserved
5 products. USDA will provide information to
6 producers about pinning maps, grower zones,
7 screenable markers, pollen excluding traits and
8 procedures utilized in the organic industry to
9 prevent commingling and unintended presence.

10 We will also offer information
11 describing some of the parameters around and
12 viewpoints relating to the use of marketing
13 thresholds.

14 We'll also be creating an online
15 toolkit with resources that encourage
16 communication, planning and crop-specific
17 practices to reduce unintended gene flow or post-
18 harvest mixing.

19 USDA will host a new website devoted
20 to informational resources about coexistence.
21 The site will consolidate and present coexistence
22 related information and resources from all across

1 the USDA agencies as well as partners and
2 estates, industry and the scientific community.

3 Content on the site will help support
4 continued discussion and engagement regarding
5 agricultural coexistence. A series of new fact
6 sheets that define agricultural coexistence,
7 explain its importance and highlight key aspects
8 of supporting coexistence in different sectors of
9 US agriculture. Those will also be available on
10 the site.

11 We will be proposing to use USDA's
12 Process Verified Programs to verify non-
13 genetically engineered crops and processes. The
14 USDA Process Verified Program provides
15 agricultural supply companies the opportunity to
16 assure customers of their ability to provide
17 consistent quality products or services.

18 Companies with approved USDA Process
19 Verified Programs are able to make claims
20 associated with their processes, excuse me, with
21 their process verified points, including age,
22 source, feeding practices and other raising and

1 processing claims and to market themselves as
2 USDA Process Verified with the USDA Process
3 Verified shield and term on their label.

4 USDA will utilize this existing
5 framework to process verify non-GE crops and
6 processes. We will be developing an initiative
7 to encourage analyses of and means to address
8 coexistence challenges for new products.

9 USDA could encourage developers to
10 provide a conflict analysis prior to or
11 concurrent with submitting a petition for
12 determination of non-regulated status of GE
13 plants.

14 The conflict analysis could be used by
15 USDA to develop the socioeconomic impact portion
16 of a National Environmental Policy Act analysis,
17 helping to facilitate timely analysis and
18 addressing a broad range of potential conflicts.

19 A range of incentives could be offered
20 for provision of such analysis. If a developer
21 lacks the resources or otherwise does not prepare
22 a conflict analysis, USDA could prepare one under

1 a yet to be determined mechanism. If the
2 conflict analysis identifies significant
3 concerns, USDA could encourage applicants to
4 provide a coexistence plan.

5 Another initiative will be to use
6 conservation programs to facilitate farmers'
7 efforts to promote coexistence. USDA recognizes
8 that although genetic isolation is not a natural
9 resource concern, there may be occasional
10 opportunities where producers can mutually
11 achieve conservation and coexistence goals.

12 We propose to task the National
13 Resources Conservation Service to develop a pilot
14 program that would allow NRCS to call upon the GE
15 expertise throughout USDA and consider using its
16 conservation practices to address coexistence
17 concerns.

18 So those, in a nutshell, are the ten
19 proposed initiatives we wanted to tell you about
20 this morning and that you all will be discussing
21 earlier. So now is the time for you all to join
22 the discussion.

1 Later today, you'll be split up into
2 working groups to provide your feedback. The
3 first session will be a Q&A on these proposals.
4 And the subsequent breakout sessions will give
5 you an opportunity to provide your feedback.

6 Let me be clear that we want to hear
7 from all of you about all of these proposals, and
8 that includes the folks who are listening on the
9 phone or through the Web. And positive or
10 negative feedback is welcome in equal amounts.

11 But as I and others have said, the
12 need here is for constructive feedback, not an
13 entrenching into already established untenable
14 positions on the extremes of this debate.

15 But because we recognize that your
16 time here is limited and you may need to consult
17 with others in your organization, we are also
18 going to be soliciting feedback via the Federal
19 Register again.

20 So I strongly encourage all of you to
21 consider these proposals carefully and use this
22 opportunity, as I said earlier, to really shape

1 the conversation. If you don't speak up in a
2 meaningful way now, someone else will. And they
3 may not know your industry or your interests as
4 well as you do. So please, set aside suspicions
5 or rancor that you might have, and help us come
6 up with real solutions.

7 Without you, this isn't a
8 conversation. It's a lecture. And although I
9 used to be a school teacher, I'm not any more.
10 So I'm not really big on giving lectures except
11 to my 21 year old nephew. And God help that boy
12 with the lectures I give him. He's something
13 else.

14 But now, before I open it up for
15 questions, I want to introduce the expert panel
16 sitting beside me. So in no particular order and
17 in no particular rank of importance, I have with
18 me Catherine Greene, who's a senior agricultural
19 economist with ERS.

20 Shiela Corley, who's an Environmental
21 and Economic Survey section head with the
22 National Agricultural Statistics Service. Greg

1 Crosby, who's the national program leader for the
2 Division of Global Climate Change with the
3 National Institute of Food and Agriculture.

4 Peter Bretting, who's the national
5 program leader of Plants, Germplasm and Genomes
6 with the Agricultural Research Service. Neil
7 Hoffman, who is science advisor with the Animal
8 and Plant Health Inspection Service.

9 Ed Jhee, who's the director of
10 Regulatory Operations with APHIS' Biotechnology
11 Regulatory Services. Mike Gregoire, who is the
12 APHIS associate administrator.

13 Jeff Waite, who is the national audit
14 supervisor with the Agricultural and Marketing
15 Service. And Wayne Honeycutt, who is the deputy
16 chief for Science and Technology with the
17 National Resource Conservation Service.

18 And I want to thank you all for being
19 here with me today. So this panel comes from
20 across the government and a real broad swath of
21 USDA, broad backgrounds, a variety of backgrounds
22 in policy making and economics of coexistence.

1 And their knowledge, I think, will be helpful in
2 informing this debate today.

3 So now, with that being said, I'll
4 open up the floor to questions. And if the
5 second cup of coffee still hasn't kicked in,
6 that's okay. Because I've only had one myself
7 this morning.

8 (Applause)

9 MR. MOORE: Yes. I was wondering, Ron
10 Moore from Illinois, I was wondering if you could
11 talk about the NRCS using their opportunity to
12 create buffer strips, or how would that work and
13 just more information?

14 MR. CROSBY: Thanks for your question.
15 Yes. As you all know, just a little to frame it,
16 that NRCS, the Natural Resources Conservation
17 Service, provides farmers and ranchers with
18 financial and technical assistance to get more
19 conservation on the ground.

20 And so we have a number of programs,
21 like our Environmental Quality Incentives
22 Program, where we can use financial and technical

1 assistance to implement a number of conservation
2 practices, like for addressing natural resource
3 concerns, things like water quality, reducing
4 soil erosion, improving soil health, providing
5 wildlife habitat.

6 And so there are a number of practices
7 that are available to us in our toolbox for
8 addressing those natural resource concerns,
9 things like, oh, field border strips, riparian
10 buffers, hedgerow planning, even crop rotation
11 itself.

12 And so to remain in our existing
13 authorities, we would still need to address those
14 natural resource concerns using those practices.
15 So we do recognize that there is some additional
16 co-benefits that could be derived from using
17 those practices.

18 For example, we do believe some of
19 those buffer strips would also be helpful in
20 restricting gene flow, like pollen moving in the
21 wind. But we also recognize that there are
22 things like, you know, local topography, stage of

1 plant growth, oh, wind speed and direction, how
2 much moisture is in the air. I mean, there are a
3 number of variables that could influence the
4 efficacy of those types of buffers for
5 restricting gene flow.

6 And again, these types of practices
7 are designed for addressing natural resource
8 concerns. And so they're not really designed to
9 restrict gene flow. And so we do think there
10 could be some of those co-benefits.

11 But I think that's really what Gary is
12 going to talk about here, is how they were
13 looking at tasking us to see, one mechanism or
14 another, how we may be able to pilot that to see
15 if we can, you know, kind of quantify some of
16 those potential benefits in the future. I hope
17 that helps.

18 MR. MOORE: Yes. Just to follow-up,
19 you're trying to have co-benefits, you're still
20 going to do your buffer strips and your programs
21 based on conservation, not necessarily based on
22 creating a buffer. Okay, thank you.

1 MR. CROSBY: Yes. We still have to
2 stay within our authorities.

3 MR. WOODWARD: Other questions? I
4 think there's a couple in the back there.

5 MR. CLARKSON: Lynn Clarkson. Gary
6 and panel, bravo. Thank you for the attitude,
7 thank you for the range of substance.

8 A question. Your Process Verified
9 Program, Company X wants to run its own nine or
10 0.9 percent GMO tolerance program. Can they do
11 that now through you and have a USDA seal on a
12 0.9 percent tolerance program?

13 MR. HOFFMAN: Can everybody hear me
14 all right? Yes. As Gary was mentioning, this is
15 a potential program, process verified. And 0.9
16 has been the, as I heard yesterday, kind of
17 moving trait for GE crops and such. And I think
18 it's a potential program that anybody could apply
19 to. It has a lot of flexibility built in. So I
20 believe it could.

21 MR. WOODWARD: Let me elaborate just
22 a little bit on that, remind folks that the PVP

1 Program, they are company-specific programs,
2 right? They're not broad standards that USDA is
3 setting.

4 And I should also mention that, again,
5 USDA is a third party auditor in those
6 circumstances. We're not creating standards,
7 we're not setting guidelines. We are just
8 auditing that a company is doing what they say
9 that they are doing. So other questions?

10 MR. DILLON: And I thank you all.
11 There are some great recommendations on here, in
12 particular very excited to see some of the data
13 research on economic losses, and burdens, and
14 challenges in coexistence that Cathy Greene is
15 going to be, I believe, leading up.

16 I do have a question on the point of
17 development of updated procedures and best
18 management practices for GE traits and plant
19 germplasm in breeding stocks.

20 This seems to be primarily focused on
21 looking at key critical points within the
22 USDA/ARS germplasm system. And as many of us in

1 the room know, there are very few USDA/ARS or
2 land-grant universities that are actually
3 releasing new public cultivars that are -- land-
4 grant universities more and more are not in the
5 business of releasing new cultivars and are not
6 releasing new inbred corn lines, for example, as
7 much as they used to.

8 So I just, one, I want to point out
9 that that's something we need more of and would
10 love to have more funding for USDA/ARS
11 researchers to be doing that work.

12 But on a technical note I think that,
13 I know that one of the key points, one of the key
14 challenges that organic seed companies have is
15 that when they're producing hybrid corn they
16 often have to go to outside sources to find good
17 inbred lines that, with consolidation in the
18 industry and with land-grant universities not
19 releasing as many inbred lines, organic and non-
20 GMO corn seed companies turn to larger industry
21 to lease inbreds.

22 And when they're leasing those

1 inbreds, they have no assurance that those lines
2 are free of transgenic traits. And they are not
3 allowed, because of intellectual property
4 restrictions, to test those inbred lines to
5 determine if they have transgenic traits.

6 And so as a seed producer, they are
7 starting off with a very big unknown variable and
8 potentially are starting off organic and non-GMO
9 seed production with inbred lines that already
10 have the transgenic traits they're trying to
11 avoid.

12 So is there any way we can take these
13 guidelines and recommendations for USDA/ARS and
14 bring them more into the industry which is where
15 the reality of seed production actually exists?
16 Is there a way that ASTA can work with its
17 partners more directly and give these corn seed
18 companies that want to produce for the non-GMO
19 markets greater assurance that these inbred lines
20 they're leasing are, in fact, what they need, not
21 just in terms of optimal genetics but purity from
22 non-GMO traits or from GMO traits?

1 MR. WOODWARD: Sure. The question is,
2 I think, both practical and sort of
3 philosophical. And I'll certainly let ASTA speak
4 for ASTA but, Peter, did you want to elaborate
5 any one of those concerns?

6 DR. BRETTING: Hi, this sure looks
7 great. Thanks for the question, Matthew. I'm
8 not sure how applicable the best management
9 practices we are developing will be to a large
10 scale commodity production.

11 So as I outlined yesterday, we have
12 some unique challenges in gene banks and in a
13 breeding context. But we have highly diverse
14 materials, genetically, coming in from multiple
15 sources, being managed in small quantities, being
16 distributed in small sources.

17 As was mentioned, we distribute our
18 materials free of charge and restrictions. So we
19 can pass on to our customer the cost of testing.
20 We heard some comparisons yesterday of how much a
21 bushel of soybeans conventionally grown was
22 worth, and then identity preserved and then

1 organic. And a lot of that was the cost of
2 segregating materials and testing of particular
3 thresholds.

4 I think we probably have more to learn
5 from industry, organic production and identity
6 preserved techniques, than we perhaps could offer
7 to the industry. It's a matter of taking all
8 this existing literature and information that's
9 out there and seeing how we can apply it to a
10 pretty different context.

11 And recall, we're distributing seeds
12 primarily to breeders and to researchers. So
13 it's not going into commodity production. And
14 those folks are going to cross so that there is
15 going to be other checks and balances.

16 To give you some examples of the
17 challenges, and one of the reasons it's taken so
18 long, is that I suppose you have a threshold of,
19 let's say, one percent.

20 To test for, at a 95 percent
21 confidence interval, that you have one percent or
22 less or even 0.9, it's not all that different.

1 Depending on the way you calculate it, it'll
2 require around 400 to 500 seeds.

3 A lot of times the material coming
4 into our gene banks may be 50 seeds. We
5 distribute in quantities of maybe 100, 200 seeds.
6 Oftentimes, we harvest from a separate sample
7 that's been grown out in the field, 300 or 400
8 seeds.

9 So one of the things we're wrestling
10 with is the tyranny of statistical sampling and
11 how to apply that to a really small, context of
12 really small almost batch production, hand-
13 harvesting or whatever.

14 I think we'll have some interesting
15 approaches that may be helpful to small scale
16 organic production. But my sense is we'll have
17 more to learn from industry all the way from
18 organic IP production to the very large scale
19 efforts we heard.

20 I hope that helps. It's going to have
21 to be a dialogue with this. And I'll be taking a
22 lot of notes scrupulously today to incorporate

1 into our standards. And hopefully, we can
2 reflect back some that will help everybody.

3 MR. WOODWARD: Other questions? We'll
4 just go in the back here first and then we'll
5 come back to the front.

6 MS. LOVERA: Patty Lovera, I'm with
7 Food and Water Watch. So I suppose I'm one of
8 the extremes that have been referenced multiple
9 times in the last day and this morning.

10 And so I do just have to say if we are
11 -- there's official worry about the atmosphere of
12 this conversation, the scorched earth nature of
13 this conversation.

14 I just really need to say there are an
15 enormous number of people not in this room. And
16 this room is not representative of the
17 conversation that should be happening.

18 And this attitude that it's
19 inappropriate for the public to participate in a
20 comment period and talk about what the government
21 has failed to do in this conversation, the
22 inadequacy of the questions that AC-21 was asked

1 to address and the questions in that comment
2 proposal specifically, that is inappropriate use
3 of a public comment period. And to suggest
4 otherwise is part of why we have a dialogue
5 problem.

6 So the specific question I want to ask
7 is will you consider extending this two week
8 comment period. Because there's a lot of people
9 not in this room. And if they're watching on the
10 web at their computer today, they won't be
11 participating in the dialogue this afternoon,
12 which puts the burden on a fairly small number of
13 us, very small number from the consumer sector
14 and the organic sector, to reach out to folks who
15 are not here.

16 We need more than two weeks to do
17 that, or I think this is another comment period
18 where you all are kind of dismissing what the
19 public has to say. And they have a lot to say.
20 They're not going to stop saying it.

21 So I think that we need a different
22 conversation that is framed at a bigger level

1 about the role of federal agencies in approving
2 these crops, their failure to do these conflict
3 assessments or even consider that that's their
4 job. That has to be part of this dialogue.

5 And it's been supremely frustrating to
6 me in the last day and to the public in general
7 that this debate has been so narrow. So I think
8 one tiny step you could take to address that is
9 to make this comment period longer so people can
10 actually participate in a meaningful way.

11 MR. WOODWARD: Yes. We can definitely
12 consider that. We appreciate your feedback.

13 MR. LAVIGNE: Thanks. And I would
14 respectfully disagree. I think this comment
15 period has been open, whether we have it the next
16 two weeks or whether we have it the next year or
17 five years. The question is do we want to find a
18 solution and lean forward, as the Secretary said
19 and others.

20 So from our perspective, we do have
21 opportunities to do that. We have several crop
22 improvement agencies that are part of ASTA. We

1 have several multiplication companies that are
2 part of ASTA that provide seed for organic
3 producers that are members of ASTA.

4 But I think we need to have the
5 facilitating of the discussion of people who may
6 just be part of the organic industry and not what
7 we would call part of the overall bigger seed
8 community.

9 And so how do we make that
10 conversation between where we are with the
11 organic companies we have? Because we're trying
12 to facilitate that, you know. Whether it's Blue
13 River Hybrids or it's Beck's Hybrids who produces
14 conventional biotech and organic, they are out
15 there producing the seed.

16 And we have people licensing. They're
17 not giving out, but they're licensing seed. And
18 they are licensing with no defect in 3,000 seeds.
19 So the opportunity is available. How do we have
20 that conversation to bring everyone into it?
21 They don't have to be a member of ASTA. They can
22 come to the table. So it's there.

1 PARTICIPANT: Sorry. Can you give him
2 a mic so --

3 MR. WOODWARD: Yes. I think he's got
4 one.

5 MR. DILLON: About ASTA members who
6 have expressed to us multiple times that when
7 they are licensing seed from one of the larger R
8 and D seed firms, the material transfer
9 agreement, the license agreement for that seed
10 restricts them from being able to test those
11 inbred lines for the presence of transgenic
12 traits.

13 And they, as seed producers, therefore
14 are producing, flipping a coin. Does this female
15 line have transgenic traits or not? I'm talking
16 about big companies like Albert Lea, like Mac
17 Ehrhardt --

18 MR. LAVIGNE: Right, right. No, we --

19 MR. DILLON: I'm talking about ASTA
20 members --

21 MR. LAVIGNE: We'll have that
22 discussion. But I understand also that --

1 MR. DILLON: I'm not blaming ASTA. I
2 appreciate you guys --

3 (Simultaneous speaking)

4 MR. LAVIGNE: But I think it's the
5 bigger, broader discussion around the table, and
6 we're having that. We'd be welcome to bring you
7 into that discussion as well. Because it's being
8 tested whether at the Illinois Foundation seed
9 level, you know, and other levels.

10 And I think companies are opening up
11 to that issue. If they're going to deposit it in
12 there, there's a guarantee that it is zero in
13 3,000. But at some point in time, whoever
14 assumes it next has to say, okay, I now have the
15 liability. And when I multiply and I produce,
16 I'm not going to go back to Pioneer, or Monsanto
17 or Syngenta if the mistake was made at that
18 level. So how do we deal with that?

19 MR. DILLON: Absolutely.

20 MR. LAVIGNE: And the discussion is
21 there. So I think we need to get back past the--

22 MR. DILLON: I wasn't trying to say

1 that --

2 (Simultaneous speaking)

3 MR. DILLON: -- let me just first of
4 all say I appreciate that ASTA has been trying to
5 encourage this dialogue. I know, through the
6 Madison Group and others, that you guys have been
7 at the table trying to find a solution. So let
8 me just first, I'm --

9 MR. LAVIGNE: Right. That's okay.

10 MR. DILLON: -- not at all accusing --

11 MR. LAVIGNE: I just wanted to make
12 sure it wasn't across the board comment that --

13 MR. DILLON: No, no. I'm not accusing.
14 I think ASTA's been --

15 MR. WOODWARD: Okay, great. Well,
16 thanks, gentlemen. I think we can use that as
17 sort of the --

18 MR. DILLON: But I think it's
19 important to --

20 MR. WOODWARD: -- in the small groups
21 later. Because I think we're just about out of
22 time. I need to move on --

1 MR. DILLON: I just wanted to clarify
2 that --

3 MR. WOODWARD: -- to the next section
4 of the program. But so you made your
5 clarification and --

6 MR. DILLON: Real quick, it's not --

7 MR. WOODWARD: -- we'll move on to one
8 more question.

9 MR. DILLON: -- ASTA's responsibility
10 alone. They have been trying to be a good, I
11 would say, diplomat in this situation and a
12 mediator.

13 I think this comes down to those of us
14 in the room who do work for the professional seed
15 industry to recognize that there is this need and
16 demand. While we might be a small market, we're
17 also this vocal market.

18 And then if you can provide us with
19 the assurance of clean inbred lines, there are
20 going to be a lot fewer problems. It's a
21 relatively easy step in trying to find workable
22 on ground solutions in seed production.

1 And so it's not ASTA's fault. It's a
2 Pioneer, Monsanto, Syngenta, work with us to make
3 sure those inbred lines that organic companies
4 are leasing are clean and give them some
5 guarantee of that.

6 MR. WOODWARD: Great. And let me
7 clarify one point that was raised earlier. And
8 the USDA would never suggest that we don't want
9 comments and that we don't want comments from
10 everyone all of the time.

11 There's a distinction though between
12 comments that move the discussion forward and
13 bring us closer to solutions and comments that
14 move us further away from the solutions that we
15 need to these problems.

16 And what we're trying to get at is the
17 comments that move us forward, new, innovative,
18 thoughtful ideas that drive the discussion, not
19 just a rehashing of opinions that have already
20 been stated and expounded upon for decades. So
21 that being said, I think we've got a question
22 here.

1 MS. SONNABEND: Hello. Is this on,
2 yes.

3 MR. WOODWARD: Yes.

4 MS. SONNABEND: I'm Zea Sonnabend, a
5 member of the National Organic Standards Board
6 and a small farmer from Watsonville, California.
7 Well, I see a lot of -- we organic farmers have a
8 USDA rule that we comply with.

9 And we follow a lot of complicated
10 provisions in that rule in order to achieve the
11 certification which involved a very involved
12 process of record keeping, prevention strategies
13 and other things.

14 I'm concerned here that while, you
15 know, there is some great, you know, data
16 gathering and voluntary projects, but there is
17 really almost nothing in here in terms of
18 regulatory activities to regulate what we
19 consider to be genetic trespass of GMO traits
20 into our fields.

21 And I would like to see things such as
22 a revision of the coordinated framework so that

1 GMOs could be properly regulated and rules that
2 conventional and GMO farmers have to follow that
3 are similar to our rules in order to do
4 prevention strategies like we do.

5 And I don't see that here. And so I'm
6 not sure if any of this is really going to have
7 much effect until we have some actual regulatory
8 activities to go with it.

9 MR. WOODWARD: Appreciate the
10 feedback. We'll maybe take this opportunity to
11 remind folks that regulations flow from statute
12 and statute flows from Congress. And so to some
13 extent, at times the agencies that I represent in
14 the USDA are constrained in what they're allowed
15 to do.

16 I think we heard this from NRCS about
17 making sure that they stay within their mandate.
18 They're constrained sometimes in what they're
19 able to do by Congress and what they've told us
20 we can and can't do.

21 But with that being said, there is
22 probably room for adjustment. But what those

1 adjustments would be is, obviously, subject to
2 lots of vigorous discussion, not just today at
3 this workshop but in the past and in the future
4 as well. Are there other questions?

5 If not, then maybe I'll ask the
6 question and see if I can get my folks from
7 APHIS/BRS to maybe elaborate a little bit more on
8 what they're talking about when they say that
9 they could include conflict analysis in some of
10 their NEPA considerations. Because I think that
11 could use some elaborating.

12 MR. GREGOIRE: So one of the options
13 that we've put in here would be a voluntary
14 process whereby developers, when they submit
15 their petition for non-regulated status to APHIS
16 that they provide us with a conflict analysis and
17 a coexistence plan.

18 The objective really is to encourage
19 and facilitate those kinds of considerations, and
20 impacts, and discussion that would be some
21 benefit to the agency in being able to use that
22 analysis in the environmental assessments or the

1 environmental impact statements that we prepare.

2 We proposed this be voluntary, because
3 it could be put into place more quickly than
4 making it mandatory which would require a
5 regulatory if not a statutory change.

6 We already have a program whereby
7 developers can voluntarily submit an
8 environmental report with their petition. And
9 most developers do. It touches on some of these
10 subjects. We're looking for something that
11 perhaps goes deeper into those kinds of issues.

12 I do want to acknowledge that the
13 industry has an excellent stewardship program.
14 And in part of that program they have a product
15 launch stewardship policy for commodity crops,
16 food and feed, and another for commodity crops
17 with special use traits.

18 And those policies call for looking at
19 the impacts of the introduction of the new crop
20 into the value chain, analyzing those impacts,
21 engaging the stakeholders about how to mitigate
22 those impacts.

1 So I don't think it would be a
2 particularly heavy lift to kind of leverage what
3 may already be taking place in a pretty
4 significant way. And if there is interest in
5 this, if people think there is value in adopting
6 this, then we would like to work with folks to
7 flesh it out further.

8 MR. WOODWARD: There's one question
9 over here on the right hand side.

10 MS. KUZMA: Yes. I just wanted to say
11 that I really like the idea of the conflict
12 analysis. And I am curious about, you know,
13 under NEPA and what you comply with when you
14 write these FONSI's and environmental assessments.

15 There is a requirement for
16 socioeconomic considerations, is that correct,
17 under NEPA? So I'm wondering why it has to be
18 voluntary. And if you could perhaps clarify
19 that, that position of the voluntary conflict
20 analysis.

21 MR. GREGOIRE: Yes. So a couple
22 things, NEPA doesn't, well, we have to do a

1 socioeconomic analysis in NEPA if it's related to
2 an environmental impact. So you don't have to do
3 an analysis absent some environmental impact.

4 But in some of the court cases that
5 we've had, courts have said gene flow commingling
6 is an environmental impact. So therefore, we do
7 look at the socioeconomic impacts of that.

8 The second thing is under NEPA the
9 requirement is agencies would do that analysis
10 with the best available information that they
11 have. So legally, we can't compel anyone to
12 provide us with a NEPA analysis. So having this
13 really gives us access to better information to
14 analyze those kinds of issues. And so that's
15 sort of a connection of those things.

16 MR. WOODWARD: Anyone else? In the
17 back here.

18 MALE PARTICIPANT: Could you say a
19 little bit more about the conflict analysis,
20 what's an example of what that might look like
21 concretely? That would be helpful.

22 MR. GREGOIRE: Well, we're suggesting

1 this would be perhaps for a new crop or a new
2 trait that's not already been commercialized on a
3 wide scale.

4 So it would be looking at, you know,
5 what the impacts are in the value chain for
6 introducing a new crop in terms of, in the
7 production phase, what are the risks of gene
8 flow, what measures might be taken to minimize
9 those. And in the marketing and trade aspects,
10 looking at, again, issues of segregation, how
11 those might be furthered and so on.

12 Yes. We're suggesting that this sort
13 of analysis would be done in advance of
14 deregulation, it might be submitted with the
15 petition for non-regulated status to the agency.

16 And USDA could help perhaps further
17 that analysis, maybe amplify the steps that might
18 be taken to minimize those conflicts and so on.
19 That's it.

20 MALE PARTICIPANT: Yes. I think
21 that's helpful to understand. So I'm assuming
22 then there would be some analysis as to whether

1 that looked adequate or not. Is that the point?
2 Did I understand that correctly?

3 MR. GREGOIRE: That would certainly be
4 a part of it, yes.

5 MR. WOODWARD: There was a question in
6 the front here.

7 DR. ZILBERMAN: It sounds great to
8 have something like this. But would you look at
9 the impact of traits, both in terms of impact on
10 -- when you do conflict analysis, would you look
11 at the trait in terms of impacts on consumer
12 welfare, and benefit to consumers and the
13 economic risk as well as other issues?

14 What I'm worried that there will be a
15 lot of attention to issues of a transaction cost
16 and how it affected different groups in
17 agricultural communities. And at the end, we
18 will end up in situations like in Europe that
19 basically a lot of traits are eliminated in
20 persons today who consume it.

21 MR. GREGOIRE: I honestly hadn't
22 thought of that aspect of it. But again, we've

1 put sort of a broad concept out here. And if
2 folks think there is value in doing this, we
3 would want to flesh it out further in terms of
4 what one of these might look like, what the scope
5 of it would be, what it should encompass and so
6 on. And so there's more work that I think would
7 need to be done to define this, to provide some
8 guidance about what one of these would look like.

9 MR. WOODWARD: Other questions?

10 DR. GOULD: Sorry, can you hear me?

11 So, you know, this is a very complicated issue,
12 and I recognize I don't want to throw a monkey
13 wrench in here. But I at least want us to
14 consider the fact that what USDA has considered
15 to be regulated, genetically engineered material
16 is different from what a lot of other people
17 consider genetically engineered.

18 And, you know, you have enough to deal
19 with, AT traits and herbicide tolerance, but at
20 least to keep in mind that things are coming on
21 the market that people consider to be genetically
22 engineered that are not regulated by the USDA.

1 And are those going to be things that you are
2 going to consider in terms of coexistence? Or
3 are those going to be not considered?

4 MR. WOODWARD: I don't know if anybody
5 has thoughts on that? I certainly don't have a
6 great answer for you this morning. But I think,
7 and again, USDA's position is that we want all
8 forms of agriculture to be able to succeed. So
9 we'll take anything and everything into
10 consideration, quite frankly.

11 I mean, this is the short answer. How
12 that looks practically sort of remains to be
13 seen. Are there further questions?

14 I think we've still got a little bit
15 more time. So if nobody has questions, then
16 maybe I'll ask the folks from NASS and ERS to
17 elaborate a little bit more on some of the data
18 gathering that they're doing. Because I think
19 data has been discussed quite a bit as being a
20 knowledge gap. So we'll try to facilitate that a
21 little bit. So please?

22 MS. CORLEY: Sure. I'm Shiela Corley

1 with NASS. And we are currently ongoing doing an
2 organic survey. It's in data collection mode
3 right as we speak. We'll be doing our phone
4 follow-up in the next couple of weeks, and coming
5 back, and analyzing the data and releasing the
6 results in August. So we're just in the midst of
7 the data gathering piece.

8 MS. GREENE: I think what NASS and
9 Shiela just described is probably the biggest
10 missing piece which many of you in the audience
11 are really interested in. And that is how many
12 shipments are being rejected? How much economic
13 loss is there from incidental, accidental,
14 adventitious presence of GE materials in non-
15 genetically engineered organic crops?

16 It's not going to cover the -- it
17 won't cover the non-GE production part of it. So
18 what ERS is doing is a lot more broad brushed
19 than that. We're looking at the market, we're
20 looking at production systems, we're looking at
21 the strategies to prevent, we're looking at
22 mitigation strategies and we're looking at

1 perspectives.

2 We've got some economic survey data.
3 We've got some interviews, information from
4 interviews that we've conducted. We have a
5 little market data. And so what we're going to
6 be doing is really kind of bigger picture. But I
7 think they will be very complimentary products.

8 MR. WOODWARD: Any other questions?

9 Oh, in the back here?

10 FEMALE PARTICIPANT: So I'm one of
11 the, I'm probably the unreasonable person in this
12 room. Because I'm not into the commodity markets
13 or large scale farming, all of that. For us, I'm
14 from New Mexico, and so for many of us in New
15 Mexico, corn, it's a sacred crop. It's a
16 religious, it's part of the religion of many of
17 the people in New Mexico.

18 It may sound primitive to you, or
19 backwards or whatever, but that's the way it is.
20 And so when we have corn that we can't grow
21 anymore because we're concerned about it being
22 contaminated, that's basically like if I was to

1 come into, you know, North Carolina, and start
2 plowing down all the churches. Because that is
3 part of the religion of these people.

4 So my concern here is that, you know,
5 these rules, they all apply to all of the
6 commodity markets, and the orange growers, and
7 the members of the ASTA.

8 But there are a lot of people across
9 the United States, a lot of young farmers that
10 are trying to start up seed companies of their
11 own. And these are the new entrepreneurs.

12 And they're not organic certified,
13 they're not interested in doing large scale
14 farming. They're doing regional seed companies,
15 locally adapted seeds which are the ones that you
16 keep, you know, a lot of them are land-raised
17 varieties which have all the traits that now
18 everyone's patenting, all of our traits in our
19 seeds.

20 And so this doesn't take any of us
21 into account. And also, what is the biological,
22 the biodiversity loss of all of this? And so for

1 us, I mean, time is running out. We have a seed
2 collection, and I can't grow out our corn
3 anywhere.

4 Because I'm so afraid that I'm
5 probably going to have to send it Europe or
6 somewhere where we know that when we plant it out
7 it's not going to become contaminated.

8 And for us, corn is a staple food
9 crop. We need something we eat every day. And
10 so I don't want to be eating GE, because I just
11 don't know what, you know, because I would make
12 the choice not to eat GE. And I should have the
13 right to do that.

14 So there needs to be -- something
15 needs to be place immediately. But we need to
16 have USDA or someone to pay for us to take
17 samples from all of our fields. And who do we
18 send the bill to? Are you guys going to pay for
19 the testing?

20 And like you were saying before, I
21 forget who was up there, that, you know, some of
22 the seeds that we have, we only have a handful of

1 these seeds that are left, of these genetics.

2 And yes, I mean, some of them we
3 probably can't test until we grow them out.
4 Because we don't have enough to do the testing
5 with. So these are things that need to be
6 addressed. And I don't see it being addressed
7 here at all. Thank you.

8 MR. WOODWARD: We appreciate your
9 feedback. And certainly, if you have specific
10 thoughts and ideas, feel free to share them.
11 Other questions? Yes, in the back.

12 MR. BROWN: Good morning. My name is
13 Charlie Brown, and yes, really. And I own a
14 genetics company in Wisconsin.

15 And as I've been listening here, and
16 I've been involved in seed for quite a while, one
17 of my hopes was -- and I think a lot of problems
18 could be solved if someone could come up with a
19 number that was based on research and based on
20 surveys of what's practically feasible at a
21 reasonable cost of what that level of AP would
22 be. I'm talking Indian corn.

1 And I don't know if -- my hope was
2 that USDA would weigh in on that. It's difficult
3 for seedsmen to do that. Because, you know, it
4 gives us some heartburn that GMOs may be seen as
5 unsafe and somewhat that would -- we don't want
6 to weigh in on that.

7 But even if there would be -- I
8 thought I heard you say that 0.9 you would
9 consider that. But then I'm not sure if you were
10 referring to we'll let the food companies
11 determine that. My only concern there, if the
12 food company is doing that it may or may not be
13 feasible from the production side in seed.

14 And I'll give you an example of -- I
15 mean, we developed a system for purifying lines
16 five years ago. It's on the shelf ready to go, a
17 single ear to start with, harvest that ear. You
18 do it under bags. And it's validated in a lab by
19 an ASTA representative.

20 And there's been no demand for that
21 service. And it's just starting. I will have to
22 say it's just starting. Foundation seed

1 companies are starting to weigh in. And they
2 want to do the right thing and make seed
3 available.

4 But unless there is some reason to do
5 it or somebody willing to pay for that, because
6 there is extra cost to accomplish that, and I'm
7 not sure if -- I was hoping, like, through your
8 BRAG grant you could do some research and say
9 here's what's really feasible, you know, as far
10 as producing foundation seed and hybrid seed.
11 And here's what the market needs, and base it on
12 some data. And I'm just not hearing that yet.
13 And I feel like the can's getting kicked down the
14 road again.

15 MR. WOODWARD: I think that the
16 discussion came up when we were talking about
17 USDA's Process Verified Program. And again,
18 those are company-specific targets. And USDA
19 doesn't have a dog in that fight. You're right,
20 we're just a third party, the auditor of what the
21 company says they're doing.

22 And I think there was a discussion

1 around this yesterday. I think I overheard about
2 some of these threshold numbers and whether or
3 not that's what the market wanted. And I think
4 that probably, just philosophically, that the
5 market will lead on that and sort of do the
6 standard setting on its own.

7 I think, as a public policy maker, I
8 think one the things that I struggle to remind
9 myself, and I try to make sure my colleagues
10 remind themselves of, is that we're in customer
11 service. All of us have customers.

12 And sometimes the best way to serve
13 those customers is to step back and let them do
14 some of the work on their own. But I think that
15 it's one of the situations where the market's
16 evolving. And USDA will watch that and see where
17 it goes.

18 I think Greg Crosby, from NIFA, wanted
19 to elaborate on some of these points earlier. So
20 if there are no questions right now, maybe I'll
21 let him --

22 MR. CROSBY: Thanks, Gary. I come

1 from the National Institute of Food and
2 Agriculture. And the agency headed up a small
3 broad-based team across USDA on education and
4 outreach. And we talked a bit about some new
5 developments in terms of the cooperative
6 extension system and the use of information and
7 communication technologies to actually maintain
8 this debate and to find solutions.

9 So there were some groups that you
10 might be interested in knowing about. And one is
11 what we call user groups where farmers can
12 actually get online and talk and share
13 information between one another.

14 And another is a community practice
15 where experts or scientists can actually
16 communicate using these new technologies. I
17 mean, we're seeing this new technology
18 demonstrated right here today where lots of other
19 people can hear and participate in public policy
20 making through ICT.

21 And lastly are what we call learning
22 networks. This is where the user, the experts,

1 and even the private sector can become involved
2 in sharing information back and forth.

3 So, you know, one of the things that
4 might be helpful here, for example, is to make
5 professional development kinds of courses
6 available and directly accessible to what we call
7 third party brokers. These are like extensions,
8 certified crop advisors and even a USDA agency
9 entities.

10 So, you know, I work with a number of
11 international activities. And one of the major
12 trends, I think, in the world now is we all
13 realize that we can't solve some of these
14 problems without direct communication with the
15 private sector. So the whole notion of
16 public/private NGO partnerships is kind of a new
17 trend here.

18 And so I think whatever we do in terms
19 of education and outreach, I think our group
20 would like to see the private sector be really
21 involved with USDA agencies in finding ways to
22 offer outreach and education around coexistence.

1 Thanks, Gary.

2 MR. WOODWARD: Great. Thanks, Greg.
3 Well, one last thing that I want to mention is I
4 talked a little bit about a coexistence website
5 that the USDA will be hosting. I think I
6 referred to it as an online toolkit. That
7 toolkit is online now.

8 There's a link to it on the conference
9 website. So if you want to visit the
10 conference's website, you can find the link there
11 and take a look at some of the materials that we
12 have available on coexistence right now.

13 And as I understand it, that website
14 will be updated periodically with newly available
15 information. That being said, I know the issues
16 we talked about this morning will be the subject
17 of your breakout sessions later today. So I
18 think I'll just leave it here and turn things
19 back over to Abby. Thanks again to our panel.
20 We appreciate you elaborating. And thank you all
21 for your questions and feedback.

22 (Applause)

1 MR. WOODWARD: Thank you.

2 FACILITATOR DILLEY: So I think a
3 great start to the morning. There were lots of
4 comments, questions for clarification on
5 initiatives and activities underway. Also
6 comments about I'm not seeing here what I think I
7 need. And those are all going to be the subject
8 of the breakout sessions here in a bit so
9 opportunity to provide additional feedback.

10 And USDA is really looking for as much
11 reflection, feedback, this doesn't work for me
12 but this could kinds of comments, dialogue in the
13 small groups or the conflict assessment. There
14 are some questions about that. What's the scope,
15 what does it look like, what variables are you
16 thinking about?

17 And you're hearing back from them. I
18 don't know. Help us figure it out. If you think
19 this is a productive way to pursue, or it needs
20 to be thought through and it would work this way
21 but not that way for you, those are the kinds of
22 conversations we're really looking forward to

1 having in the breakout sessions, so more thinking
2 along those lines.

3 And I think this is just such a great
4 backdrop for getting into those small groups and
5 really rolling up your sleeves and having some
6 conversation around those questions.

7 What we're going to do is take a 20
8 minute break. So we'll come back at 10:30. I'll
9 give you more specific details in terms of how to
10 move into your breakout groups, what the focus is
11 going to be. If you're really curious, it's
12 written right on your agenda. So you can look
13 down the agenda and see what those topics are
14 going to be.

15 But we'll get into more details on
16 that and how to move you into your breakout
17 sessions. But avail yourselves of more coffee
18 and food. And for those of you on the webcast
19 and the audio, we're going to give instructions
20 for the working groups. Certainly you can tune
21 in for that.

22 And then there won't be much until the

1 lunch, the actual lunch speaker which is, timing
2 wise, just for those of you, is going to be
3 between 12:15 and 1:15, probably similarly to
4 yesterday.

5 We'll spend the first 15, 20 minutes
6 with people getting their lunch and then, when
7 people are settled in, we'll have the presenter,
8 so about 12:30 or so. So that's just a heads up
9 to those of you online. Take a break, and we'll
10 be back at 10:30. Thank you.

11 (Whereupon, the above-entitled matter
12 went off the record at 10:15 a.m. and resumed at
13 10:36 a.m.)

14 FACILITATOR DILLEY: All right. So we
15 are going to take a little bit of time. I mean,
16 I think the great part about being so efficient
17 this morning is that you're going to have a
18 little bit more time available to you in the work
19 group sessions.

20 And again, we've been saying this
21 yesterday and this morning, this is really an
22 opportunity for you to get into conversations

1 around some of the ideas, and helping and
2 throwing in new ideas to help support
3 coexistence.

4 And we're going to have six breakout
5 sessions. Each of the working groups are going
6 to talk about the same topics. You're going to
7 field three topics or table three topics that we
8 really you to take on.

9 The first topic is around the
10 conversation so far in terms of the AC-21's
11 recommendations. Activities are underway based
12 on those, both those that are well established
13 activities, those that you heard more about this
14 morning that are proposed ideas.

15 Some of them need some more work.
16 They're asking for more input on shaping what
17 those could look like and how to make them most
18 useful. And so that's the first question, is
19 that suite of ideas that you've heard about to
20 provide some feedback and to say, you know, this
21 might work if you did this or we could think
22 about this.

1 The plant germplasm or using -- there
2 were a bunch of ideas that came out in terms of
3 what else could be taken advantage of, or built
4 on to make it that much more useful, or really
5 needs some additional thought in terms of setting
6 some priorities around that particular mechanism
7 or the conflict assessment, what that might look
8 like, what are the variables to consider, those
9 kinds of things. So that's Question 1. And we
10 really want the first breakout block, if you
11 will, to focus on those two categories.

12 The next question that each of the
13 groups will take one is other steps USDA or other
14 entities, so again, just in terms of -- and
15 another theme of this is you can make some
16 recommendations to USDA. They're looking for you
17 to make some recommendations, provide some input.

18 What they can do needs to be
19 supplemented. They can't do everything. They
20 need help with other things. That's partly what
21 the poster session was about, to demonstrate or
22 show what other groups are doing and try to add

1 to the mix of things, tools, information, ideas.

2 And they want those other ideas.

3 And I think, again, some of the
4 comments before the break were I'm not seeing
5 what I think is going to work for me here.

6 That's where the conversation really should focus
7 around. Well, what are those other things that
8 are needed? What do you need, and others to
9 chime in in terms of here's maybe how that could
10 work. Or maybe that doesn't work, but maybe this
11 could.

12 And it's really trying to be a problem
13 solving conversation. We're really looking for
14 not just I don't like that idea, but it's more
15 like I don't like that idea, here's what I think
16 could work. What do you think about this?

17 That's going to get us moving forward
18 a little bit more. And that's what would be
19 really helpful. So again, it's recommendations
20 or other ideas for USDA, but it's also for other
21 entities to take on and build on.

22 And the last question in the last

1 block, we're going to have three different
2 sessions. Some groups may really get into
3 talking about how to build -- they may develop
4 the whole conflict assessment program. And
5 that's going to be their focus, and that's going
6 to take one and a half parts of the segments
7 today or a good chunk of it. And that's fine.

8 We'd like each group to at least take
9 on, for some portion of your time, each of the
10 three questions. But if you really get into the
11 first, second or third question, that's great.
12 And we would encourage you to do that.

13 Your facilitator is going to try and
14 move you through each of the three questions.
15 But if you really get into and have a really
16 productive conversation going on one, you should
17 just, you know, scratch that itch. That's a good
18 thing. Because we're looking for ideas and ways
19 to move things forward.

20 So the last topic is how can local
21 coexistence related conflict resolution
22 activities be conducted when needed, and who

1 might be in a best situation to help facilitate
2 that?

3 So we've been hearing some of the
4 challenges around it and that it can happen
5 grower to grower. Sometimes that's happening,
6 and that's working and it's working for some
7 communities with the assistance of some tools,
8 the pinning maps, or growing zones or some other
9 ideas.

10 Others are saying, you know, that's
11 really complicated. It's a lot more difficult
12 than that in my community, because maybe the
13 grower is not the land owner. So who do you have
14 that conversation with? And I think some ideas
15 around that in terms of what mechanisms to help
16 facilitate that might be helpful. And that's
17 what they're looking for, some ideas around that.

18 So those are the three questions,
19 again, that each of the six working groups will
20 take on. So the secret is in your badge. And
21 you have a number on your badge and specifically,
22 the invited participants.

1 We're going to ask USDA staff and NCSU
2 staff to try and sprinkle yourselves among the
3 six groups. We're trying to get fairly nice
4 size, which is seven to ten people per group, and
5 a good mix of people.

6 And that's why you've been assigned to
7 groups, because we were trying to get a real good
8 mix for each of the breakout sessions, a range of
9 perspectives and different points of view and
10 expertise. So we'd encourage you to go in those
11 groups. Because then you're going to have
12 people, a good mix of people, to have the
13 conversation with.

14 And it's one through six. The one,
15 two, three, four groups will be stage left. So
16 if you're looking at me, it's on your right.
17 Those four groups are going to meet on this side,
18 their breakout sessions. We'll get you into
19 smaller rooms. Five and six, five you can
20 actually pick up some cash, because there's an
21 ATM machine right near you breakout session. And
22 then six, I think, is along this hallway. So

1 you're stage right.

2 So when you look at your badge and you
3 see what number you are, you'll know generally
4 which direction to head. Each group is going to
5 have a facilitator that's going to help move you
6 through the discussion, make sure everybody gets
7 a chance to join into the conversation, get
8 through the discussion in good order, keep you on
9 time.

10 There is going to be one session that
11 leads you up to lunch. Then we'll have you come
12 back, reconvene and have lunch in here and hear
13 the speaker, the lunch speaker.

14 And then you'll go back into your
15 group, same groups, we're not going to mix you
16 up. Because I think it's helpful, it's going to
17 be helpful for you to have the first round of
18 introductions the first session. Then you'll get
19 a pace in terms of taking on each of the three
20 questions that we want you to deliberate on.

21 And so after lunch, you'll go back to
22 those groups. Wherever you left off, you'll pick

1 up again. And then there will be a slight break
2 and then have the third segment so that you can
3 make sure you get through all three of the
4 discussions.

5 There will probably be some time at
6 the end to try and summarize. Because there will
7 be somebody designated or volunteered. And
8 that's always, I find, is the facilitator. When
9 nobody makes eye contact with you, they start
10 looking at everything, not at you, as much more
11 interesting. But they'll look for volunteers,
12 people to provide a report back.

13 So those of you joining by webcast,
14 audio, you don't need to worry about what are the
15 other groups saying, because you're going to hear
16 about that in the later session this afternoon.

17 So all the working groups will
18 conclude by 3:15, come back in here. Each group
19 will have designated a reporter to provide
20 summary, not a blow by blow, because obviously
21 that's almost three hours of discussion.

22 So we're not going to go through

1 everything, though notes will be taken, so all of
2 that information will be gathered up, but also
3 have an opportunity for people to hear some of
4 the highlights of each of the discussions or some
5 ideas that come out of that discussion to share
6 with the larger group and have some additional
7 conversation in the large group.

8 And then we'll have the last session
9 of the day around wrap up and conclusion, so some
10 of the things that people have been hearing and
11 what the next steps are, et cetera, and have you
12 on your way by 4:40, no later than 4:40. So
13 first, any questions about what we're doing next?

14 (No response)

15 FACILITATOR DILLEY: Okay. That's
16 good. I must be giving instructions fairly well.
17 Yes, question?

18 (Off microphone comment)

19 FACILITATOR DILLEY: Yes. So if you
20 don't have a number, the man to talk with is Mike
21 Tadle, right here. Because he will help you join
22 up with a group. So that would be great. Yes,

1 if you don't have a number, then talk to Mike.
2 He'll get you squared away.

3 So we're all set with that. Make
4 sure, again, that you take your name tents
5 please. Because, like me, I have a relatively
6 short amount of names I keep in my head. And
7 it'll just help facilitate the conversation.

8 Michael?

9 (Off microphone comment)

10 FACILITATOR DILLEY: Oh, yes. If
11 you're USDA or NC State, you won't have a number.
12 You just need to sprinkle yourselves, find a
13 group where you're seeing people you know and you
14 recognize. So we're trying to keep decent
15 numbers and just have a good mix of people in
16 each of the groups. Yes?

17 (Off microphone comment)

18 FACILITATOR DILLEY: Sure. So the
19 facilitators that we have are USDA staff and NCSU
20 staff. And then I think the reporters, we just
21 need to designate somebody. I don't know if
22 there's anybody designated. So it's just anybody

1 who is willing to write on the flip charts or
2 take notes, that great. All that will be taken.

3 And there's a last person that's
4 needed who will be willing to work with the group
5 to summarize and then bring back and report back
6 to the large group. So, yes. So those are the
7 three things that each group should designate up
8 front. And then that will help support your
9 group in your conversations. Any other questions
10 about the breakout sessions?

11 (No response)

12 FACILITATOR DILLEY: All right. So
13 just a reminder of those on the webcast and
14 audio, we will be back at 12:15. But you'll hear
15 a lot of clanging, because people will be helping
16 themselves to lunch.

17 Probably the lunch time speaker, Pedro
18 Sanchez, will be around 12:30 or a little after
19 that. So please join us again for that session.
20 So with that, I would say if you could be sitting
21 down and ready to go no later than 11 o'clock,
22 then we can get those conversations underway.

1 And then we'll see you back here at 12:15 for the
2 lunch. Thank you.

3 (Whereupon, the above-entitled matter
4 went off the record at 10:48 a.m. and resumed at
5 12:33 p.m.)

6 FACILITATOR DILLEY: So hopefully
7 everyone has gotten their food and settled in.
8 Just a couple of things. One, if you're a
9 reporter, you've been designated a reporter, if
10 you could just let me know your name and group at
11 some point before you go back to your working
12 groups. That would be great, so I know who you
13 are to call on for the report outs.

14 And also, I just want to reinforce
15 that the questions that were posed to the group,
16 and people are already doing this in your working
17 groups, that they are suggestions, they are not
18 required.

19 If you think a different framing of
20 the question or you want to spend more time on
21 another question, that is completely fine. It's
22 really kind of a structure, a proposed structure.

1 So I know a lot of the groups were making their
2 way through those questions, taking some on,
3 revising some others. And that's completely
4 encouraged.

5 So we now are going to take some time
6 to welcome up here Dr. Pedro Sanchez. He is the
7 World Food Prize Laureate and is based at
8 Columbia University. And we welcome him. Do you
9 want to speak from there or up here, Dr. Sanchez?
10 Okay, great. So I'll turn it over to you.

11 DR. SANCHEZ: Well, thank you very
12 much, Abby. This is new for me. I am stranger
13 in a strange land here. I'm a tropical soil
14 scientist. My thing is to help the world feed
15 itself, especially in Africa. So when I was
16 asked to do this and representing the outside of
17 the US stuff, I asked a lot of friends here, and
18 in Africa, and Europe and so on. And what I may
19 say may be naive, but please take it with a grain
20 of salt.

21 So I'm going to start with a summary
22 of what I'm going to say. First, we need a

1 worldwide major information campaign to inform
2 the public about the science, I would say, I
3 would modify my slide, about food and
4 agriculture. And, of course, this means the
5 science behind the GMOs and organic.

6 But not only that, what I have found
7 is, being in a university based in New York City,
8 is that most people there have no clue about food
9 or agriculture. And they enormous
10 misconceptions. And when we teach some classes
11 in which we address these things, the answer from
12 most people is, oh, I didn't know. Oh, I didn't
13 know.

14 So I would urge USDA that, sure, your
15 mission is to work with farmers. But the real
16 decision makers out there are no longer the
17 farmers, because they represent such a small part
18 of the population.

19 So I would say we need a major,
20 professionally run, international campaign at all
21 levels, social media, public media, television,
22 what have you, like what happened to the anti-

1 tobacco movement, although in this case we're not
2 anti-anything, but how tobacco got totally rooted
3 out with a long, persistent campaign. I think we
4 need that. The world needs that.

5 The second, the key to changing Sub-
6 Saharan Africa's agricultural policy is Europe.
7 It continues to be true. I suggested that you,
8 and you, U.S. diplomatic exchange, Secretary
9 Vilsack told me that's been tried for a long time
10 and failed totally. So you can scratch it off
11 the list.

12 The third is to promote simple and
13 robust regulations on poor countries, for poor
14 countries for approving new GMOs and organic
15 certification. The reason for that is many
16 countries want to adopt U.S. regulations, but
17 they don't have the analytical capacity that we
18 do in this country, that we've seen ad nauseam
19 yesterday, how sophisticated and how deep the
20 analysis is.

21 So working in other countries, I
22 think, you've got to be a bit more flexible,

1 still be robust, and maybe that would help a lot.
2 Because people are so scared about these
3 extremely sophisticated regulations, appropriate
4 for a highly developed country but inappropriate
5 for the rest.

6 And the fourth one I want to talk
7 about is we've got to put this business of the
8 extensive use of GMOs in medicine in perspective.
9 And somebody mentioned it yesterday. I'm
10 delighted. And it has to be mentioned more and
11 more, so to realize that we do, we consume a lot
12 of GMOs or GMO products in our medicines as well.

13 Organic farming, and this is more
14 technical stuff, but organic farming is not
15 possible, and one of the few areas where, as a
16 scientist, I say it's not possible, in nutrient
17 depleted soils which are the main soils of
18 Africa. And it will be very, very difficult in
19 low-fertility soils anywhere.

20 Organic farming worked here, works
21 here at the beginning and worked in Europe,
22 because you were capitalizing on decades or

1 centuries of inorganic fertilization that gave
2 the soil a huge nutrient capital. And then you
3 could use that while in transformation. Where
4 there's no nutrients there, organics simply
5 cannot grow.

6 There's some meta-analysis that I
7 looked very recently that shows that organic
8 farming produces 25 percent less yields in
9 general, in general, but with lower pesticide
10 issues and more anti-oxidants than conventional.
11 I'm not sure. The lower pesticide issue I
12 appreciate. The anti-oxidants, I'm not so sure.

13 And calculations show that if the
14 world would turn totally organic, ban mineral
15 fertilizers, it could only feed about half the
16 population we have now and a third of the
17 population we expect to have by mid-century.

18 So there are limits to that. I think,
19 it's my personal opinion now, that coexistence
20 and engagement efforts of the ones that are being
21 talked about here, the ones that I'm proposing,
22 will really help erode the anti-GMO sentiments in

1 poor countries. And coexistence should also
2 better inform farmers and consumers worldwide
3 about the advantages and the limitations of
4 organic farming.

5 The science is clear, just to say it,
6 a quote from the EU. "Research on GM plants and
7 derived products so far developed and marketed" -
8 - and so far is in 2013 -- "followed in the usual
9 risk assessment procedures have not shown any new
10 risks beyond those of conventional practice on
11 human health and the environment." And that
12 seems, you know, it's the same stuff.

13 My opinion now, organic agriculture is
14 one way to produce food, mainly for consumers
15 willing to pay a premium price but at lower
16 yields and significant land and labor costs. And
17 it's a choice. Scientifically, I've got nothing
18 against it.

19 And the GMOs are compatible with
20 sustainable agricultural intensification. That's
21 another assertion from my side. But science is
22 not enough. And you know about all the

1 arguments, and so on and so on.

2 In my view, there are two kinds of
3 anti-GMO, pro-organic audiences, a vocal minority
4 completely convinced regardless of the facts.

5 You are not going to change these people just by
6 telling them that our meta-analysis showed a 25
7 percent yield or any of that stuff.

8 They're not going to listen. There
9 are very few farmers involved in this ideological
10 thing. I would say don't try to turn them
11 around. Eventually, they will fade in history or
12 they will dominate.

13 But there's a silent minority
14 concerned about their family's nutrition and
15 health, and they're not familiar with the science
16 and willing to listen. The educated moms, the
17 millennials, my own daughter with her two little
18 kids, I think this is where to focus in the urban
19 sphere.

20 And apparently, some of the polls show
21 that the majority of the U.S. people simply don't
22 care. So again, I'm repeating here, I'm

1 recommending a major worldwide, sustained
2 information campaign.

3 Now, I hope you can see that. And I
4 may just try to convert you over. I tried to put
5 together the basic data on GMO areas, millions of
6 hectares, 2011 data, percent GMOs of the
7 cultivated land. It's easier to look like this.
8 Organic farming, millions of hectares in 2012,
9 and organics, percentage of cultivated land.

10 In the U.S., you may have more recent
11 situation, but about 40 percent are GMOs, and
12 only about 1.4 percent organic. Europe, we don't
13 know about that, but there's more organic.
14 China, very little. Developing countries have
15 about half of the GMOs and mainly in Latin
16 America. And Asia and Africa, very little GMO
17 areas, and even smaller in terms of organic
18 farming.

19 Another one I want to put here is
20 something like I call one, three, five and ten.
21 This is in tons per hectare of cereals
22 equivalent, I'd say, corn cereals.

1 Okay, one ton per hectare, 60 bushels
2 to the acre is the average, what African farmers
3 are getting now. Three tons per hectare is what
4 Asia and Latin America are getting now. Five
5 tons per hectare, which is 80 bushels to the
6 acre, is what China is getting now. And I
7 understand now it's even a bit higher than that.

8 And ten tons per hectare is what the
9 United States, Canada, Europe, Japan or so are
10 getting now. And the numbers for corn are higher
11 than that, higher than 160 bushels here. But it
12 doesn't matter.

13 I want you to remember this one,
14 three, five and ten, because what many of us are
15 trying to do in Africa is we're going from one to
16 three, then from three to five there. And that
17 kind of puts it in perspective.

18 In Europe, you've heard of the new
19 directive, every country is on its own. That may
20 or may not help. I don't know. But there's
21 also, as has been said before, strong GMO
22 approval of the European Academies of Science and

1 Medicine and also ICSU, the International Council
2 of Scientific Union, FAO, the agricultural
3 organization of the UN, but not UNEP, as far as I
4 know. UNEP is the United Nations Environment
5 Program.

6 And there is one thing I did get from
7 my European friends, sorry, is that there's
8 increasing convergence of anti-GMO, pro-organic
9 almost becoming one in Europe.

10 Europe is the key to policy in Africa.
11 Because there are bilateral European agencies
12 that provide four times as much funds, foreign
13 aid, than we do. UNEP, until very recently, was
14 anti-fertilizers completely, saying in audiences
15 like this, bluntly, that fertilizers poison the
16 soil and stuff like that. I understand that's
17 changing. But it's been pretty harmful when you
18 get to that.

19 And the European-based NGO campaigns
20 against GMOs and fertilizers have been very
21 effective. They scared very much the African
22 government. And then Africa's agricultural trade

1 is so much related to Europe, about six times
2 more exports to Europe than the United States.

3 And there's a strong cultural tie,
4 particularly in the Francophone speaking
5 countries in Africa. Still, having said all
6 that, there's a small Francophone country,
7 Burkina Faso, that just made legal the use of Bt
8 cotton, because they are major cotton producers.
9 So they saw the advantage of that.

10 Regulations, there are a lot of
11 regulatory mechanisms in Sub-Saharan Africa.
12 They've been increasing. Sub-Saharan African
13 countries chose -- many of them have to choose
14 between the U.S. way, which is what you guys are
15 doing, and the EU regulatory approaches.

16 The big difference is that UA -- EU,
17 I'm sorry, Europe requires separate laws and new
18 institutions. We don't. EU can disapprove on
19 uncertainty alone without evidence of any
20 perceived risks or anything that can be
21 quantified such as toxicity, allergenicity, and
22 digestibility. In other words, they have a lot

1 more flexibility in stating this.

2 The U.S. regulations are very
3 cumbersome, I feel. Africa doesn't have the
4 analytical capacity to do that. So we must have
5 some simple but robust regulations. And we sure
6 would like to see the U.S. working maybe with
7 USAID, USDA and AID, to putting additional
8 flexibility into countries that have less
9 analytical capacity.

10 I've never been to an organic farm in
11 Africa. They are there. But I never had a
12 chance. But I've been to a few in the States,
13 including Organic Valley in Cortland County.

14 And one thing that, I mean, everything
15 was technically very, very sound. But the farmer
16 said I've turned into an accountant. I spend all
17 my time just making sure that all the rules are
18 followed, and I'm getting tired. He says I can't
19 go to Florida anymore, he said. So there's a
20 certain burden that I understand has been
21 addressed to.

22 Now, what do we want in Africa? We're

1 not really that excited about Roundup ready
2 soybeans. I mean, the corn/soybean rotation is
3 not major there.

4 So what do we want? We want drought
5 tolerance, especially for corn. And that is
6 coming, both from the GMO and the traditional
7 planned breeding line. We want insect
8 resistance, certainly Bt corn and Bt cotton have
9 been amazingly good in the areas where they are
10 allowed.

11 We want disease resistance to things
12 like cassava virus mosaic, banana wilt, called
13 sigatoka. Banana is the basic food crop of two
14 or three African countries like Uganda, Rwanda
15 and Burundi, the basic crop. And so it's not a
16 fruit there, it's something you eat regularly.

17 Biofortification, iron and zinc
18 enhancement in the grains, Vitamin A precursors
19 which is Golden Rice which has already proven,
20 and David Zilberman has shown the economic and
21 the social cost of preventing the adoption of
22 something that will get millions of kids out of

1 Vitamin A deficiency and blindness.

2 But also there's Golden Banana, Orange
3 fleshed sweet potato. That's not a GMO, but it's
4 the same idea. My question is iodine. It's one
5 of the biggest deficiencies in Africa outside of
6 the ocean or the ocean coasts. That's something
7 to look at.

8 There's also large room for
9 conventional breeding with new marker techniques.
10 And we need more varieties, hybrids, GMOs, run
11 increased yields, address climate variability,
12 mainly by drought tolerance. There are all sorts
13 of climate variability, but I think you can boil
14 it down in most of African places to drought
15 tolerance.

16 Flood tolerance is pretty hard. And
17 the increasing changes in temperature are there
18 too. But I like to focus on the big ones. So
19 drought tolerance is a big one there in terms of
20 climate change.

21 So again, I recommend that USAID and
22 USDA develop and promote simple and robust

1 regulations so these very promising things can
2 really happen and happen quickly.

3 Maize resistance to droughts, this is
4 a non-transgenic and a transgenic under moderate
5 drought, that will make such an incredible
6 difference. Also transgenic virus-resistant
7 black beans developed by Embrapa in Brazil and
8 the transgenic sigatoka wilt disease being
9 developed now, these are life savers. These are
10 incredibly important life savers. So help us get
11 the Africans and the other countries to approve
12 the six. It will make a huge difference.

13 Now, GMOs in medicine, I learned this
14 very recently. But in my PowerPoints at the end,
15 there's a list of references and so on. Forty to
16 45 percent of all drugs in clinical trials are
17 now done via GMOs using either genetically
18 modified material or plants to create antibodies
19 to produce vaccines and other things.

20 Insulin is the oldest one of that.
21 And anybody who has diabetes is treated by a GMO
22 drug. So this is largely unknown. And it's even

1 been tried now recently, it was in the news,
2 trying to develop the vaccine for Ebola using
3 tobacco plants as a carrier.

4 We should know, people should know
5 what's in their medicine. I mean, why are we so
6 hung up about GMOs on food while we don't care or
7 maybe don't know the enormously, I mean, the
8 majority probably of GMOs by now are done by
9 medicine. I'm sorry, the majority of medicine
10 probably by now is done via GMOs.

11 So it's okay for our pills but not
12 okay for food? I think this is partly a matter
13 of people don't know this fact. But I think it
14 should be spread. It's the truth.

15 Organic farming, now that's a little
16 bit closer to my soil scientist thing. I think,
17 personally, there's nothing wrong with organic
18 farming from the science point of view, as long
19 as the nutrients are provided in sufficient
20 quantities, and this is an important issue, and
21 as long as weeds are controlled. And I think any
22 of you who work with this, you know the

1 importance of those too.

2 Organic farmers to me represents a
3 choice where consumers are willing to pay premium
4 prices and farmers are willing to put up with
5 lower yields, not forever, I hope, I hope
6 research resolves that, but extra labor. And you
7 need additional land usually to grow the organic
8 inputs. This is, you have to get the organic
9 inputs from somewhere. It's very seldom that you
10 can grow it in your own land.

11 Now, this is all true, but it does not
12 apply to nutrient-depleted, small holder farms in
13 Africa. And there, it is almost criminal to
14 advocate that. Most small holder farmers in
15 Africa are organic farmers by default. They
16 don't put in much organic matter, they don't put
17 any fertilizers. And they're stuck at one ton
18 per hectare or 60 bushels to the acre.

19 This is an idea where we're talking
20 about, in many places, this is nitrogen balance,
21 the inputs of kilograms per hectare per year, and
22 the outputs in harvest, or erosion losses and

1 whatever and the balance.

2 The balance in Midwestern United
3 States now is very, very good. I mean, it's just
4 a little bit, it's balanced, but before we used
5 too many. On the Mississippi River, we paid the
6 consequences.

7 The balance in China is atrociously
8 high and bad but on the polluting side. And
9 that's also being addressed. But it's too much.
10 The balance in Africa is totally different. It's
11 too little. We're extracting the last bits of
12 nitrogen, phosphorus and the rest of the elements
13 from the soil and cutting down organic matter.

14 This is the situation. In a place
15 where you have nutrient depletion, there ain't no
16 way you're going to be able even to grow legume.
17 It's not going to happen.

18 So where do farmers, where do organic
19 farmers get their stuff in Africa? Well, if
20 you're on a fertile soil or you have access to,
21 if you have the funds and so on, yes, you can do
22 that if you have the market. But for the

1 majority of the farming population, you have to
2 regenerate the fertility before.

3 In this country, as I said before,
4 fertility was already built up tremendously,
5 tremendous nutrient capital due to mineral
6 fertilization. In this state, you can almost
7 mine some top soils in Eastern North Carolina for
8 phosphorus. They could almost serve as a mine
9 for phosphorus, the amount of phosphorus they had
10 applied.

11 So this is not going to help in Africa
12 much. There will be some areas, I'm certain
13 there are some areas of fertile soils and so on,
14 but very little.

15 Again in farming, the plant doesn't
16 care whether the nitrate or phosphate ions they
17 absorb comes from a bag of fertilizer, a piece of
18 manure or a decomposing leaf. That's pretty much
19 the case.

20 The soil does care, because it needs
21 carbon as fuels for microorganisms and energy.
22 And the mineral fertilizers, they don't contain

1 any carbon. So that's a big difference. But
2 again, organic inputs have to be grown and
3 usually requiring more land.

4 Vaclav Smil made a calculation a few
5 years ago that if the world turns totally
6 organic, that means no mineral fertilizers, it
7 could feed only three to four billion people
8 right now. So there are limits to it. But that
9 doesn't mean there's anything wrong with it.
10 It's just that we cannot do it globally. But we
11 can do it specifically.

12 And this is sort of a theoretical
13 idea, a divisional land issue. Suppose that
14 under conventional farming a growing crop of
15 cassava or it could be potatoes, it doesn't
16 matter, and it produces 40 tons in one hectare.
17 And then you have a bit of land into pasture that
18 produces one ton of manure per hectare. So
19 that's an extra piece of land. If you average
20 them all, you're getting 36 tons per hectare of
21 cassava or potatoes.

22 Now in the organic, you have to grow

1 at least one hectare of pasture to produce ten
2 tons per hectare of manure. And even though you
3 get the same yields, if you consider the extra
4 land you need, the yields are half. This is
5 seldom in the organic advocacy agriculture, this
6 is seldom mentioned. This is a fact.

7 And again, some of you may be able to
8 grow the organics in your farm during the winter
9 time and so on, like North Carolina. But in most
10 areas, it is a problem.

11 But the major reviews, metadata that
12 I've been able to see show, one by one, 2010 in
13 nature that organic crops yields an average of 25
14 percent less, plus or minus four percent than
15 conventional systems. And most organic systems
16 appear to be nitrogen limiting and very probably
17 phosphorus limiting.

18 Then another study published in the
19 American Journal of Clinical Nutrition, the
20 nutritional quality of organic foods is the same
21 as conventional. Another study in the Annals of
22 Internal Medicine says no difference in food

1 safety or food health between organic and
2 conventionals.

3 And then a new one that one of my
4 European friends called to my attention, contrary
5 to these two, there are lower pesticide residues
6 in organic farming, and more anti-oxidants and
7 less cadmium -- and I'm not sure what that really
8 means -- than conventional.

9 So the science is evolving. If this
10 supersedes this too, well, certainly on the
11 pesticide residues there is no question. I mean,
12 that comes with the territory.

13 But anyway, let the science continue.
14 This meta-analysis is useful, because it's not
15 anecdotal or just deals with one field experiment
16 or anything else. But now there are statistical
17 ways to put it together in a meta-analysis.

18 But I'm going to get this off my chest
19 now, as a scientist, okay. I've got to get it
20 off my chest. Organic farmers consider lime,
21 calcium carbonate, rock phosphate, calcium
22 phosphate, potassium chloride, ACO, and even

1 potassium nitrate as organic. They say it's
2 natural.

3 Well, it's not organic chemically.
4 And the reason why many of these things are
5 approved is to take advantage of the fact that
6 nitrogen-fixing plants do not produce a lot of
7 phosphorus, much potassium that you get in the
8 grain. And sometimes you need liming to overcome
9 soil acidity. So technically speaking, not
10 organic.

11 Organic is something that has carbon.
12 Organic, sorry, organic farming produces GMO
13 seed, which I raised the question yesterday. I
14 know why, but strictly they are organic, and so
15 are most pesticides.

16 But the real issue is not always
17 somewhat pedantic chemistry, but it's a strong
18 set of values. And they really mean
19 manufacturing inputs or so-called natural.
20 Trouble is, at the end the organic farmings that
21 I've seen use huge amounts of agricultural
22 machinery consuming a lot of diesel, just like

1 any other farmer in the United States. So you
2 figure. Anyway, I just had to get this off my
3 chest.

4 So this is my sort of long term view.
5 What's going to happen? Okay. I raised the
6 question yesterday why require GMOs in organic
7 agriculture. And the answer was there was an
8 uproar of people, as this was ten or 20 years
9 ago, saying no, no, no. We don't want it, we're
10 scared of the GMOs.

11 At that time, we didn't know the
12 science. At that time we didn't have the long
13 term experiments that proves that the GMOs do not
14 do harm to human health or the environment. So
15 right now, with what we know, the science is
16 different.

17 But the political realities that take
18 place, and I am a scientist who believes in
19 politics, because I've used it, and it's
20 basically the urban people's anxieties that we're
21 dealing with. It's not the farmers concerns.
22 It's the urban people's anxieties about this.

1 So let's tackle it. You guys are
2 doing the right thing by tackling this. I think,
3 again, a massive, sustained public education
4 effort on the science of agriculture aimed at
5 urban people is needed. And maybe, in ten years
6 or so, with a campaign like that, we can say
7 that, we can feel comfortable in saying that
8 agriculture is based on science. On these
9 issues, we cannot say that at this point.

10 Now, I want to talk -- what hit me so
11 much, I want to talk about Africa for a moment.
12 And I left the paper back there, a two-pager on
13 this.

14 The thing that is really happening in
15 Africa right now is going, and I now use cereal
16 yields in tons per hectare, is going from one ton
17 per hectare which -- well, I'm glad to say was
18 the average, not anymore -- but it went 60
19 bushels to an acre to three tons per hectare, 48
20 bushels per acre to five tons per hectare, 80
21 bushels per acre.

22 This is happening right now, because

1 there is a lot of action going on at all stages
2 in the food supply chain and governments that are
3 really committed to this. The average now is
4 1.5. And this is 2005 data now. The latest
5 average is that.

6 Going from one to three is perfectly
7 possible. It doesn't require any -- it requires
8 fertilizer, just throw it, as much as you can.
9 It requires hybrid seeds in the case of corn.
10 Use whatever you have. It certainly doesn't
11 require any GMOs to do that.

12 Now, as we go to five tons per
13 hectare, we'll probably find, sorry, that we'll
14 need, certainly we'll need a lot more technology
15 such as soil testing. Certainly drought tolerant
16 hybrids of maize are going to make tremendous
17 difference, whether it's GMO or not GMOs. It
18 doesn't matter.

19 But eventually we'll need more and
20 more technology to get to the yields of 160
21 bushels per acre or 10 tons which are perfectly
22 achievable in Africa. So I am thinking about

1 this all the time. And then I'm thinking about
2 the position of your analysis here, whether it's
3 0.9 or 0.5 percent.

4 And we call it contamination or unsafe
5 while, you know, it's not the case with juveniles
6 and kind of makes me wonder a little bit about
7 everything. You have a real problem here, and
8 you have to tackle it. And that's fine. So I
9 left you, sorry, with a bunch of references just
10 in case you have them. Thank you very much.

11 (Applause)

12 MS. DILLEY: You obviously had a lot
13 of strong perspectives. And in some respects, I
14 think, getting things off your chest, I almost
15 wish you were here yesterday, because there was a
16 lot of getting off your chest here yesterday.

17 (Off microphone comment)

18 MS. DILLEY: Well, but you didn't do
19 your presentation yesterday. That's what I
20 meant, sorry.

21 And today, I mean, I really feel like
22 we're -- I think some of the challenges you

1 pointed out in terms of a global campaign makes
2 it really critical to have people come together
3 in more of a unified look at how you support all
4 these different systems.

5 And I think there was a lot of
6 progress in that in the breakout sessions
7 earlier. And we want to get back to that. But
8 before we do that, there is a little bit of time
9 for questions to you. So if you want to take a
10 couple of questions, we do have the --

11 DR. SANCHEZ: Sure.

12 MS. DILLEY: -- microphones. So if
13 people want to ask some questions, we will take a
14 couple of minutes to do that. And then we want
15 to make a couple of more announcements before you
16 go back into your working groups. Any questions?
17 I've got some mics that are moving. There we go.

18 FEMALE PARTICIPANT: Just a clarifying
19 point on the tallying up of all the hectares
20 towards the beginning. When presenting the data
21 again, I'd encourage you to show both the
22 increase in organic and also for, I think it was

1 the 46 percent cultivated for GMO foods, what
2 that's going to, so over, you know, 70 million
3 acres of GMO corn, that's half of which,
4 according to Dr. Foley, Dr. Jonathan Foley, is
5 going to cows and cars and the other half going
6 to processed food.

7 Whereas organic food is food, and if
8 you start your presentation with "feeding the
9 world", what we're feeding and who we're feeding,
10 I think, is an important caveat.

11 DR. SANCHEZ: I absolutely agree.
12 And, you know, I put the date, which this figure
13 is worth throwing in, because things are changing
14 very rapidly, especially in the organic variety.
15 But I agree, totally agree. I would rather have
16 the U.S. spend less feed in feeding cattle and
17 let cattle graze, as it does in other parts of
18 the world. But that's not reality here.

19 MR. LAVIGNE: Thank you for your
20 presentation, Dr. Sanchez. Andy Lavigne with the
21 American Seed Trade Association.

22 One of the issues that we have in

1 working in a lot of the developing areas of the
2 world is just basic seed systems being able to
3 have a germplasm system, or repository or
4 curation as well as testing seed, carryover seed
5 production, you know, preservation of the purity
6 and variety type.

7 It seems to be one of the major issues
8 for trying to increase food production in these
9 countries to make them more stable. Do you see
10 any improvement in that? Or does that continue
11 to be the ultimate challenge for countries?

12 DR. SANCHEZ: First, let me say I'm
13 seeing quite a bit of improvement right now.

14 AGRA, the Alliance for a Green Revolution of
15 Africa has a very, very successful seed system
16 which they have empowered small companies to
17 produce their own seeds.

18 Also companies like Pioneer and
19 Monsanto are doing a lot of work in the countries
20 that GMOs are permitted in. GMOs in most of
21 them, they're just having conventionally bred.
22 This is getting a lot better, but it's a long way

1 to go.

2 And I was just flabbergasted by
3 hearing all the stories about non-GMO seed and
4 the intricacies to it. Oh, my God, we're not
5 even thinking about that. You've got to clean
6 your combines, what combines? So it's getting
7 better, yes. It is getting better. But it's far
8 from what you have here, for sure.

9 MS. THRO: Perhaps a different kind of
10 question. I'm Ann Marie Thro, and today I'm with
11 USDA. But in the 90s I worked with a different
12 employer working. And my job was to link small
13 farmers in developing countries with their own
14 national plant breeding programs and then with
15 laboratories anywhere in the world that were
16 working on biotechnology to help pass the needs
17 upward so that those researchers could direct
18 their research.

19 And often, as we traveled about, I
20 would meet other groups working, for example, for
21 organic farming. And they would be speaking to
22 the same farmers and getting different sets of

1 priorities, or perhaps the farmers in the next
2 village, getting different kinds of priorities.

3 And I would ask my colleagues in the
4 extension service, in the national extension
5 services, why is this. Why are similarly
6 situated farmers, even relatives perhaps, giving
7 very different answers.

8 And the answer that I got back was
9 because we are polite. We are courteous. We
10 don't have much money, but we see that you want
11 something. And we want to try and give you what
12 you want.

13 And so my question would be, as you're
14 still working in that area, how do we help
15 countries find their own voice? Is it a matter
16 of education? Have you seen a change in that?
17 I'll stop there and --

18 DR. SANCHEZ: Okay. Well, first your
19 answer about politeness is very correct. But
20 right now, I think, instead of getting into this
21 issue of organic versus conventional, I'd rather
22 think about how to get from one to three tons per

1 hectare of increasing yield.

2 And once you get to that level, which
3 is nothing in the States, then some farmers would
4 be asking the question should I go organic or not
5 and so on. But right now, the level is so low,
6 so low that it's, I think we'd better deal with
7 more important things just like basically
8 increasing yields.

9 As yields increase, yes, you'll have
10 more these issues. And just like coexistence
11 here, you know, everybody's welcome to try their
12 things. But right now, I think it's too early to
13 worry about these things.

14 DR. ZILBERMAN: One issue that you
15 raised that I think is really important is the
16 issue of simplifying regulatory framework.

17 Today, the paradox is that the U.S. is
18 exempt from a lot of the Cartagena Protocol
19 because our regulations were basically
20 grandfathered. Now, Africa basically is subject
21 to the Cartagena Protocol that is very
22 restricting on development of GMOs.

1 In South Africa is some GMO variety
2 and actually food farmers are using it. They
3 think it is a medicine. In South Africa, food
4 farmers are adopting Bt corn. In the rest of
5 Africa, because of the Cartagena Protocol, it's a
6 real problem.

7 So one of the challenges is to have
8 regulations that are appropriate rather than to
9 have regulations that are basically uniform, and
10 the poor countries can afford them least. So I
11 think your recommendation to simplify regulations
12 is really important.

13 DR. SANCHEZ: Well, I agree with you,
14 David. I think regulations are important. But
15 not regulations to the degree of sophistication
16 and analytical capacity that we have in this
17 country. We have to be smart and still have
18 robust regulations.

19 The issue of "contamination" from GMOs
20 to organic, I never heard of that issue in
21 Africa. It will come. But I never heard of
22 that. So I think the -- if we can follow the

1 KISS principle, keep it simple, sir, and help the
2 African countries who ask for the help to get
3 some robust but simple regulations, I think that
4 would be great.

5 By the way, there are a lot of GMOs
6 used in Africa and Latin America where they are
7 prohibited. And South Africa was that way until
8 they finally approved it. So there's more to it
9 than meets the eye. Because, you know, societies
10 work a lot looser than here.

11 MS. GREENE: Thank you for your
12 presentation. And you have done a tremendous job
13 in analyzing the historical data related to
14 comparison of organic and conventional.

15 As you probably well know, over the
16 last 30, 40 years where these comparative
17 analyses have been done, the data has changed
18 tremendously. And I would be glad to send you a
19 reference.

20 Within the last two years, there's
21 been several meta-analyses that have been
22 conducted that have indeed showed that organic

1 and conventional production yields are similar.
2 And in some cases organic is greater, depending
3 on the crop, of course. That's going to vary
4 according to region where the crop is grown, et
5 cetera. But it is now being shown, compared to
6 40 years ago, that the yields can be comparable.

7 You are correct that the nutrient
8 analysis over time has shown up and down.
9 Sometimes it shows better, it shows less in
10 organics. But we can, I think, safely say now
11 it's as good as, except for in some vegetable and
12 fruit production where also organics are showing
13 higher nutrient levels, particularly in anti-
14 oxidants and other chemicals.

15 Under proper management, under the
16 guidelines of USDA and under organic management
17 practices, nutrient levels in the soil are
18 generally extremely high, improve over time. And
19 you have a lot of other environmental services
20 that are developed because of those management
21 practices.

22 And in some instances actually the

1 nitrogen and phosphorus levels get a bit high.
2 And so they have to stop adding manures to bring
3 those down. So if done correctly, the nutrient
4 levels are sufficient.

5 And lastly, I can provide you with a
6 link of a group in Zambia of over 2,500 women
7 maize corn farmers that have joined together.
8 They save their seed, they have local varieties,
9 and they produce organically.

10 And their production levels are as
11 high as conventional and, in fact, during
12 drought, particularly stress times, particularly
13 drought which they have up and down tremendously
14 drought episodes, have shown that their varieties
15 and their production will produce into this time.
16 So just a few added data points for you. And I
17 thank you for your comments.

18 DR. SANCHEZ: Well, I thank you for
19 yours too. And I want to get those references
20 from you. Because it all adds to the body of
21 knowledge.

22 I think, I have no problems with what

1 you're saying. But again, we should be worried
2 about, there's 2,500 women in Zambia doing this,
3 or that and so on. That's why I like the meta-
4 analysis more. And I pay much more attention to
5 those. So I'm looking forward to seeing your
6 meta-analysis as well.

7 MS. DILLEY: All right. Thank you
8 very much, again. So we are getting prepared to
9 go back into your breakout sessions. I know
10 different groups were at different stages of
11 commenting or working through -- commenting on
12 the three questions that were to be the subject
13 of the breakout session deliberations. And so,
14 again, just a reminder of two things. One, to
15 use those questions as guides, suggestions. But
16 if there are topics that are not in there or
17 questions that you want to speak to then please
18 do that.

19 We do want you to have -- there are
20 two sessions scheduled with a break in between,
21 so groups can take your break around the hour
22 time. But you don't have to stick rigidly to

1 that, people who want to get up, stretch your
2 legs, get some more beverages and then go back
3 in.

4 We do want you to spend a little bit
5 of time towards the end to help the person who's
6 reporting just summarize some main points so that
7 they're prepared to come back in and share those
8 with the larger group.

9 We'll have six report outs, one from
10 each of the groups. And then we'll have the last
11 session, and the summary session, next steps, and
12 adjourn no later than 4:40.

13 If you do need a cab and you haven't
14 talked to Mildred, you need to do that before you
15 start up in your next work group session. Please
16 don't go out and say I need a cab in five
17 minutes. That makes her job that much harder.
18 Help her help you if you need transportation. So
19 talk to her early.

20 With that, I'm going to send you off
21 into your breakout sessions. Why don't people
22 plan to start up in like five minutes. And then

1 we'll see you back in the main room at 3:15 to
2 start up again. I believe that's right, yes,
3 3:15 back here. So those of you on webinar and
4 audio will start back up in the main plenary at
5 3:15. Thank you.

6 (Whereupon, the above-entitled matter
7 went off the record at 1:20 p.m. and resumed at
8 3:36 p.m.)

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1 have you go blow by blow.

2 The reporters are actually all going
3 to email their notes to Mike Tadle, and that will
4 be part of the information gathering and trying
5 to extract as much of the ideas and suggestions
6 as possible. So this is really a lot about
7 generating lots of feedback and input.

8 And along those lines, just want to
9 encourage again, I think I told Kim that I would
10 say this early and often, or Mike. I can't
11 remember. But remember that there's an open
12 docket and to provide some additional comments.

13 So those of you who are here in the
14 meeting and think of something on your way home
15 today, or those of you who are on the webcast or
16 listening on the line, please make sure you avail
17 yourselves of that and provide some additional
18 input.

19 So we have two sessions remaining.
20 The first we'll be able to go through the six
21 breakout groups and have report backs. Again,
22 these aren't going to be comprehensive.

1 And some of the groups were talking
2 right until the end. So they didn't have a lot
3 of chance to digest and highlight completely.
4 But we're gathering all that information. And
5 they're going to hit some of the discussion
6 points in their respective groups.

7 Then there will be some opportunity
8 for a little discussion about that. And then
9 we're going to move into the last session which
10 is a wrap-up conclusion, next steps, trying to
11 pull things together and where do we go from
12 here. So then we'll have you on your way no
13 later than 4:40.

14 So any questions about that, about
15 what we're doing? Last call for Mildred's
16 assistance too. If you haven't done that and you
17 need a cab, you need to talk to her now. So as I
18 say, that's a last plea.

19 All right. With that, I'm not going
20 to go necessarily in order. But I just thought
21 I'd start with Group 6. Because usually when you
22 have report outs you start with one and you go to

1 six. So I'm just going to mix it up a little
2 bit. Let's get crazy Friday afternoon.

3 And Major Goodman is the presenter for
4 that. I will say I would like the reporter to
5 come up and use the podium. Because it's we're
6 recording the -- we're trying to get a
7 transcript, a completed transcript. And if
8 you're not using a microphone, it makes it
9 difficult. So I'm talking about that as our
10 first reporter makes his way to the podium. All
11 right. Thank you.

12 DR. GOODMAN: Well, thank you. I was
13 planning to be the last one. And I could say
14 that all the topics have been covered, and we
15 could go home.

16 But the thing that came up over and
17 over again in our group is what are the real
18 priorities. That's really the first thing. And
19 that came up on at least two or three occasions
20 when we were discussing various possibilities.

21 The crop insurance situation seems to
22 largely have been equalized across crops. But

1 there's no insurance at all on unexpected gene
2 flow if the gene flow is disadvantageous. And
3 there is apparently a question mark about long
4 term crop insurance and expanding the crop lists
5 that are covered by insurance.

6 If I understand correctly, crop
7 insurance is sort of based on whole farm type
8 receipts rather than crop by crop receipts.

9 The organic database was really sort
10 of put together as a grass roots effort. It's
11 maintained by the USDA. It is far from complete.
12 It apparently actually costs money for anyone to
13 get on the list as a commercial company. So
14 there are listing fees. And there is apparently
15 a need for sort of feedback to the people who
16 list their products. And the feedback doesn't
17 seem to occur very well.

18 The pollen blockage, research on
19 pollen blockage, the only thing I would say is
20 I'm an active participant in that. That's not
21 going to result in a product overnight.

22 Keep in mind that developing a corn

1 hybrid when you're real lucky, takes seven or
2 eight years. It's not going to take any shorter
3 time to get a hybrid that has pollen blockage.
4 But it is possible. And it is doable. And the
5 folks at AIMS and the folks in Raleigh are both
6 making reasonable progress I think.

7 The work of the National Genetic
8 Resources Council, again, the emphasis is on what
9 are the real priorities. Don't get side-tracked
10 on minor issues, worry about the big picture.

11 There is some question about how much
12 international cooperation we should have. For
13 example, should wheat and corn be farmed out to
14 CIMMYT which sits at the end of the runway of the
15 airport in Mexico City which their germplasm bank
16 is perhaps more vulnerable than the one in Fort
17 Collins. And the general idea, I think, was that
18 regeneration needs to go to the top of the list,
19 activities of the National Germplasm System.

20 Now, the new initiatives that the USDA
21 is working on, the question is what's the most
22 effective way to disseminate conclusions, ideas.

1 And the Cooperative State Extension Service
2 probably has a major role to play in that. The
3 USDA website could be helpful. It would be more
4 helpful if it was more easily accessed and
5 navigated.

6 There are really multiple sources of
7 information. And one of the questions really is,
8 you know, the USDA needs to define its users and
9 cater to the users rather than cater to USDA
10 insiders.

11 The issue of gathering information
12 about GE-relates losses, there are relatively few
13 studies of the documented losses versus anecdotal
14 studies. So it's rather difficult to operate on
15 the basis of anecdotal studies.

16 There's quite a bit of variation among
17 the various stories and there may be some
18 benefits of coexistence that we really haven't
19 mentioned in this room. Some of them are that,
20 you know, you can now grow non-Bt corn in areas
21 where Bt was once absolutely necessary for a full
22 crop, because there are not corn growers. And

1 this is just one of several indirect
2 possibilities and advantages of some coexistence.

3 The coexistence and outreach efforts,
4 again, the idea came up, we need an overall view.
5 What is important? What is most important, and
6 what really needs emphasizing now?

7 If you're going to try to have
8 discussions among organic and industrial
9 suppliers, it really works better in small groups
10 than in a room with several hundred people which
11 can be dominated by people who have axes to grind
12 and proceed to grind them.

13 There was a question about how to work
14 with the seed industry, what types of
15 information? The seed industry can give some
16 sort of general recommendations. They sometimes
17 have some specific things they can contribute.

18 But in the end, the seed industry is
19 often basically the recipient of blame. If
20 something goes wrong, you don't blame your
21 neighbor, you don't blame yourself. You blame
22 the seed company. And apparently that happens

1 more often than I realized.

2 The other thing which came up, I
3 suspect at my suggestion, was again it would be,
4 I think, very helpful -- and whether the whole
5 group agrees on that, I'm not sure, no one
6 objected -- but it would be very helpful if the
7 USDA had a target maximum percentage of
8 contamination that they encouraged. If 0.9
9 percent is good, then encourage it. If it needs
10 to be 0.5 percent, encourage it. If it's zero
11 percent, forget it.

12 The USDA website, make it more
13 friendly. Make one specific site for coexistence
14 and link other things to it. And for process
15 verification, while this is desirable, it really
16 is a blessing of procedure. It's not a blessing
17 of outcome. And so you can take and follow all
18 the appropriate rules and regulations, you can
19 still get turned down at the elevator.

20 But obviously, if you're producing
21 something under contract, then you're producing
22 things in the way that that contract specifies.

1 That may take care of the problem for that.

2 It really wasn't terribly clear to us
3 how APHIS and coexistence got together or why
4 APHIS was involved in coexistence discussions.
5 But one of the comments is that APHIS often does
6 not discuss what I would call, say, sort of
7 secondary effects.

8 If you have resistance to a herbicide,
9 the question is the product not the increased
10 use, say, of 2.4-D, for example, and what effect
11 that might have on neighboring orchards or the
12 Southern Magnolia that's growing in your
13 grandmother's yard.

14 There were comments that there needed
15 to be better coordination between agencies such
16 as EPA, USDA, FDA. But there were also comments
17 that that has greatly improved over the years.

18 How the conservation program would
19 work in with the coexistence efforts is not quite
20 clear. Obviously you could have hedge buffer
21 strips to decrease pollen. But to most of us, it
22 wasn't really clear how conservation and

1 coexistence really were made to work with each
2 other.

3 And again, this comes back to the
4 point that things need to be prioritized, do the
5 important things first and don't worry quite so
6 much about things which fall in the minor
7 category.

8 If there are folks in the group that
9 have something to add, I appreciate their adding
10 it. These were sort of my summary comments
11 scribbled down and stuff that I no longer could
12 read. So thank you very much.

13 (Applause)

14 MS. DILLEY: It's always hard to be
15 the reporter. Okay, great. Apparently you did a
16 great job. And again, the recorders will collect
17 the additional notes as well. I thought we'd
18 move to Group 3, Kristine Kring is the reporter
19 for Group 3.

20 MS. KRING: Hi. We're from Group 3.
21 We had a really, I think, a very cordial
22 discussion, interesting discussion, hit on a lot

1 of the same points it sounds like Professor
2 Goodman's group did.

3 First one, and I think probably one of
4 our top priorities, would be the germplasm bank,
5 that that's very important for all of industry.

6 We thought the prioritization plan was
7 good and necessary. One suggestion, and we got
8 information that it's already done, but continue
9 and maybe even bring land grant universities more
10 into that process in helping get the collection
11 caught up, which we think should be the priority
12 of getting the collection caught up.

13 And one thing we thought that could be
14 a concrete thing that maybe all of us in this
15 room could do is do a funding letter campaign to
16 get the support of government funding for this.
17 So that's sort of a concrete thing we came up
18 with.

19 Crop insurance was our next topic.
20 And we're in support of that. We thought progress
21 so far was good. But we understand the real crux
22 is working on the coverage for gene flow, so we

1 would just encourage working on that solution.

2 Organic Seed Finder Database was our
3 next. And again, that was well liked. One
4 suggestion would be to use that database and that
5 tool to link it to some education, especially
6 around gene flow issues.

7 The next topic, Number 4, was the
8 National Genetics Advisory Board. We thought
9 that they were doing important work generally.
10 We understand there is a report coming out and
11 that it may call for some additional data, but
12 hopefully they'll have some recommendations.

13 Our education, when we came back from
14 lunch we started with education and how to take a
15 lot of these initiatives and reports that are
16 coming out and how best to get them to farmers.

17 We would say grower meetings is a
18 really good tool. You know, different seed
19 companies have grower meetings, even some of the
20 equipment manufacturers have meetings. And we've
21 learned that they're willing to do different
22 topics. And the key there is to hook it to

1 pesticide credits, and food and prizes.

2 And we also, in our group, you know,
3 talked about another important step would be some
4 urban outreach, making the general public
5 understand what agriculture, all the systems are.

6 Then we talked about some of the
7 reports, the ERS report. And we kind of took
8 that. That will be a tool that will be useful
9 for when you're talking to different groups,
10 maybe as some background information. There
11 probably aren't recommendations coming out of
12 that, but it's a good background piece.

13 The NASS, the economic loss, there was
14 a lot of discussion around that. And so how we
15 understood, and it was explained to us, is that
16 it will be in question form only. Have you
17 experienced loss and then the amount. But there
18 is no documentation behind it, so just to keep
19 that in mind. We think that it's good to start,
20 have a start base, but the value will still have
21 to be verified.

22 NEPA, so we understood why it has to

1 be voluntary. And then we did say, you know,
2 there is the potential to help. You know, it's
3 always good to try to think of issues before they
4 result, you know.

5 You can always, if you can think of
6 what might happen and you can plan for it, it's
7 always better to be able to do it up front. But
8 there always will be issues you may not perceive.
9 But to the point that it can make you think about
10 it, that's not a bad thing.

11 And our last topic was U.S. process
12 verify. We thought, you know, it's great to have
13 that option. One of the things we talked about
14 is will that be enough. Will consumers in the
15 end understand what it is? Will they demand more
16 or not? But definitely it's an option. And we
17 would support it as that. Thank you.

18 (Applause)

19 MS. DILLEY: Anyone from Group 2 (sic)
20 want to highlight one or two other thoughts?

21 (No response)

22 MS. DILLEY: All right. Great. Our

1 reporters are on a roll. Next, I was going to go
2 to Group 5. Is that Ron who was going to report
3 out? Yes. You have a shorter walk.

4 Also, while Ron's making his way up
5 here, I just want to thank the facilitators, and
6 note takers and reporters for helping support the
7 working group sessions.

8 DR. SEDEROFF: Thank you. Our group
9 was coordinated by Jason Delborne who did a
10 terrific job, equivalent to presiding at a picnic
11 of an equivalent number of cats and dogs.

12 We discussed many things. We came to
13 a number of firm conclusions. The earth is
14 round. And it goes around the sun. Beyond that,
15 we had fairly general agreement on some things.

16 Crop insurance options were considered
17 important. Existing systems should be suitable.
18 Existing systems could be applied, but they need
19 some development, some kind of fine tuning.

20 The problem is not a new one. The
21 analogy is that one farmer has a bull on one side
22 of the fence, and another farmer has a cornfield

1 on the opposite side. And the bull gets into the
2 cornfield and damages the corn so that the owner
3 of the bull should be responsible.

4 The only difficulty is determining
5 whether the GMOs are the bull or not. So some
6 fine tuning and conflict resolution needs to be
7 applied, because it's a different kind of risk.

8 We talked about the Organic Seed
9 Finder Database. One suggestion was that there
10 was some satisfaction in that. But there was
11 discussion about how projecting future markets
12 was important and adding an economic projection
13 component that would allow people to make
14 decisions about what the economics will be years
15 ahead would help them make decisions about what
16 kind of crops to plant and what seeds to use.

17 We talked about the research on crop
18 storage of gene flow, et cetera. Clearly, this
19 is important for a strong role for the USDA. I
20 think from my perspective and from the discussion
21 we had, the extent to which outside work can be
22 done to support the role of the USDA is valuable.

1 And in this case, having extramural
2 competitive work done on these problems, which
3 could then be used by the USDA as a basis for
4 making their decisions, might be a good way to go
5 about that. That would improve the credibility
6 of the USDA with respect to these issues, in
7 addition to what they could do in-house.

8 Effective mechanisms for disseminating
9 information, the extension service is very good
10 for that. Those are traditional mechanisms.

11 We talked a bit about the National
12 Plant Germplasm System. We had Peter Bretting
13 visit and tell us about that in some detail. I
14 think there should be a contest in the USDA for
15 the agency within it that has the greatest task
16 and the lowest funding. And if that ratio were
17 used to calculate the winner, I think this agency
18 would win hands down.

19 They are very poorly funded, they have
20 an enormous task. They need to fill gaps with
21 wild relatives, they have precarious germplasm
22 collections, for example, for tropical plants,

1 that are very difficult to maintain. They have
2 research tool initiatives, there is much more to
3 deal with because of the science of genomics. It
4 would be of benefit with respect to, particularly
5 for organic farming, to have records of exposure
6 history which would help verify seed sources.

7 Work of the National Genetics Research
8 Advisory Council, which is a cool acronym, NGRAC,
9 recommendations were that it expand beyond
10 genetic engineering. It's a rapidly changing
11 area, and relevance needs to be extended to non-
12 GE and GE stakeholders.

13 On coexistence, the new ERS study
14 suggested that this kind of study, a good
15 addition would be to include the National
16 Research Council. Again, because they are an
17 outside agency, they are as well respected as
18 any.

19 And the USDA could then use that kind
20 of a report which would include stakeholders from
21 very diverse sources by a mechanism that NRC is
22 quite experienced and comfortable with that could

1 be used to promote the strategy of coexistence.

2 Information on GE-related losses,
3 there is a survey going on now. Proposed actions
4 should be fine, need for gathering information
5 regarding GE-related economic losses. And the
6 answer to both of the questions we were asked is
7 that that should be done.

8 Coexistence education outreach
9 strategy, again, the external health and the
10 National Research Council were suggested and
11 using the extension service.

12 Working with the seed industry, useful
13 to seed providers, the discussions were around
14 exposure history so with respect to seed sources.

15 And we talked not too much but a bit
16 about process verified programs and thought about
17 whether some entity needs to be constructed that
18 would be flexible but would be able to evaluate
19 programs to follow market standards. Even though
20 market standards vary and change, they could
21 certify what a particular program was or a seed
22 source.

1 The APHIS initiative, would the
2 proposed initiative be useful? Probably.
3 Certainly better than nothing, but it's an
4 ongoing battle. It will continue for a long
5 time.

6 And that's pretty much my accounting
7 of what we did. Any comments from our group,
8 corrections, additions? Yes?

9 (Off microphone comment)

10 DR. SEDEROFF: Not exactly. Not
11 exactly.

12 (Applause)

13 MS. DILLEY: Next we're going to go to
14 Group 4 and keep rolling.

15 MR. MCREYNOLDS: Well, there's a mix
16 of hand-scrrawl and type, so forgive me. Thank
17 you all. So a lot of the things that have been
18 flagged already were things that also came up in
19 our discussion. But I'll try to hit some
20 outliers as well.

21 On the crop insurance question, I
22 think, just one important thing to flag and to

1 understand that came up in our discussion was
2 that alfalfa is really still not addressed well
3 by the crop insurance program.

4 Yield data for alfalfa is poor, and
5 that's leading to probably higher prices that
6 alfalfa producers are paying for crop insurance
7 coverage. And obviously, alfalfa is one that is
8 in the mix in this coexistence discussion.

9 And we discussed the whole farm
10 revenue insurance program. And there was a
11 consensus of being intrigued about the program
12 and its potential and looking forward to how it
13 goes. We certainly would welcome and would
14 encourage USDA to continue to analyze that
15 program as it rolls out.

16 But certainly it helps remove barriers
17 to beneficial practices like cover crops and
18 longer crop rotations. So we found those things
19 about it very encouraging in this context.

20 On the organic seed database question,
21 I think the main thing that our discussion
22 revolved around was that it should be extended to

1 a non-GMO database in order to really capture the
2 variety of concerns and seeds that the farming
3 community is sourcing and then that that database
4 should be leveraged to support continual
5 assessment of the seed needs of non-GM and
6 organic as well as non-certified but organic
7 farmers.

8 And we also felt that it could be or
9 would be beneficial to leverage it in terms of
10 comparative data on non-GM and GM variety
11 performance, including yield performance.

12 This is an important need, and
13 analyzing that information is not really very
14 possible to do right now. And so a government, a
15 USDA function in that regard would really be
16 helpful.

17 And that analysis should go all the
18 way down to plant protection numbers as opposed
19 to simple, you know, company owned varieties.
20 Because the underlying genetics of so many
21 companies' seeds are based on the same original
22 germplasm.

1 And bottom line for us or an area of
2 discussion was the need for increased federal and
3 state funding for fundamental applied science
4 public cultivar development and translational
5 research, again, in order to provide the farmers
6 seeking a choice of crops to produce the dynamics
7 of seed production.

8 And the seed industry is such that for
9 smaller niche markets, whether it's kale or
10 organic grain seeds, the private interest in
11 doing that research is not, the economic private
12 interest is not there yet. Because these are
13 small markets.

14 And so the need for this public
15 research, which was important for why USDA and
16 the land grant systems were founded in the first
17 place, is an especially important priority now in
18 this age of coexistence.

19 In terms of research on gene flow
20 mitigation, you know, we did talk about the fact
21 that the economic aspects of gene flow mitigation
22 are at least an equally important research

1 subject as the actual processes.

2 First of all, farmers are more likely
3 to adopt practices if they are associated with
4 actual economic performance information. And we
5 also talked about the social welfare arguments
6 that were raised in the poster session and the
7 analysis that the best place for liability for
8 genetic drift would be the least cost producer of
9 the problem.

10 And this would be analogous to how
11 conservation environmental problems are dealt
12 with at a policy level. And that poster
13 certainly suggested the low cost carrier for that
14 liability is the GE producer.

15 And we also emphasized that, in terms
16 of dissemination of information about gene flow
17 mitigation, that no single method of
18 dissemination of research is going to work. You
19 need to be able to address limited resource of
20 minority farms, need to be able to address young
21 farmers today who use their personal digital
22 devices instead of extension events to get

1 information.

2 With respect to the National Plant
3 Germplasm System proposal, our consensus was that
4 we were kind of waiting to see the publication of
5 the plan to see how it handles this issue of
6 balancing the need for testing with the need for
7 preservation.

8 And we encouraged USDA, encourage USDA
9 to look at seed chipping as a means in that
10 process to keep track of traits without having to
11 use them up in the testing process.

12 The National Genetic Resources
13 Advisory Council, we would strongly, again,
14 encourage that council to take a look at
15 increasing USDA investment in public cultivar
16 development, again, to address the challenges
17 that we face in terms of ensuring an available
18 supply of public cultivars which all of the rest
19 of industry can use as the basis for meeting
20 market needs.

21 With respect to ERS analysis of the
22 costs of the harms caused by any genetic drift,

1 we emphasize that it's really important that we
2 can't simply just look back at what has happened,
3 but that the changing dynamics of the evolution
4 of GE seed and technology has to be modeled as
5 well.

6 And we talked about the example of the
7 Arctic apple and the fact that, you know, those
8 costs haven't happened yet. But to tell an
9 organic farmer he'll have to move his or her
10 orchard or not use commercial bees is something
11 that obviously is an impact that will happen in
12 the future or potentially could happen in the
13 future. So we can't simply rely on reporting
14 here to date.

15 With respect to education and
16 outreach, we strongly encouraged that the
17 engagement structure around an education and
18 outreach program with respect to coexistence
19 management practices should be a regional
20 process.

21 And make sure that, based on the fact
22 that the adaptations, the mitigations, the

1 strategies, are going to vary from region to
2 region and that it would be more appropriate and
3 easier, really, to develop appropriate solutions
4 in particular regions by focusing on regional
5 sort of stakeholder outreach and even sort of
6 regional advisory councils.

7 And with respect to the sufficiency of
8 the germplasm plan we felt that, you know, as has
9 been stated already, this program is dramatically
10 underfunded. So no, the plan is not sufficient
11 and at least \$45.2 million more is needed
12 annually for that program.

13 With respect to additional information
14 for the seed industry, we talked a lot about the
15 importance of establishing consistent standards
16 for testing. Not with respect to whether the
17 testing level is to nine-tenths or two percent,
18 but that whatever the testing threshold be that
19 there be a standard ASTM, and process and
20 standard operating procedures so that there would
21 be certainty in the market about what the tests
22 actually mean.

1 And just going more through the scrawl
2 here, and with respect to, and again, the
3 outreach around that information, even to seed
4 companies and information gathering, should be
5 done on a regional basis.

6 With respect to toolkits around
7 communication, we certainly recognize the value
8 of communication between producers as a tool.
9 But we had a consensus that it could not be. And
10 it is really important for USDA to understand
11 that that cannot be the sole answer.

12 It is important, but under certain
13 circumstances it's not going to be effective.
14 Demographics changes and the changing face of
15 farmland, of farm country in this country,
16 cultural traditions, certainly here in the
17 southeast, the cooperation over the fencerow is
18 not as strong of a tradition as it is in other
19 parts of the country.

20 And lease turnover particularly
21 reduces the incentive for communication as well
22 as the incentives for just general good

1 stewardship practices.

2 And also we stressed that the burden
3 for communication and, therefore, the USDA
4 outreach to encourage communication, has to focus
5 on both sides of the fencerow, and not put all
6 the responsibility on the IP farmer to initiate
7 these discussions.

8 And we talked a good amount about CA,
9 which, I'm sorry, conflict assessment. And there
10 was basically concern that, Number 1, it would be
11 difficult for that process to have teeth in that
12 it is not actually something that USDA would be
13 able to make regulatory decisions on.

14 But certainly, if there had been that
15 sort of a process in place earlier on in the
16 introduction of GE technologies, we might have
17 been able to handle a void or at least better
18 handle, a long time ago, the coexistence
19 challenges that we face today.

20 But we certainly recognize that the
21 conflict analysis onus can't be only on
22 companies, because it takes more involvement than

1 just companies to actually implement practices.
2 And the companies' incentives to invest in the
3 conflict analysis are going to be minimal.

4 With respect to conservation programs,
5 we talked about NRCS identifying pest resistance
6 as a resource concern which would then
7 potentially give them more leeway to pay farmers
8 to set aside buffer zones.

9 And then in terms of other steps to
10 bolster the coexistence conversation, we simply
11 wanted to make sure that USDA doesn't shy away
12 from the hard question about making your neighbor
13 whole when your bull jumps the fence.

14 And finally, I do think it's important
15 to reflect the consensus of our group as well
16 that we really felt that today's lunch
17 presentation was inappropriate in the context of
18 the positive discussions that have been going on
19 in the rest of this workshop and that were taking
20 place in our work group.

21 It was substantially premised on
22 inaccurate understanding of organic farming

1 practices. And so we felt that that was
2 unfortunate. Anybody else have anything to add
3 from Group 4?

4 (No response)

5 (Applause)

6 MS. DILLEY: So we have one more
7 presenter. I think Ashley was going to try and
8 capture two and one. And I know there they
9 joined about midway through.

10 So if there are additional comments
11 from Group 1, I don't know if there was a
12 designated reporter for that. Group 2, just as
13 we've done with every group, if there are
14 additional comments that weren't quite captured
15 then we'll open it up to the group. So, Ashley,
16 come on up.

17 MS. MARTIN: All right. You get a two
18 for one for your last one. Our group was so good
19 we had two groups, another group come to join us.

20 I want to be able to hit on
21 everything, and I know we're getting close to the
22 deadline here, so I'll just kind of cover the big

1 picture issues. And of course, our notes will be
2 added to the record with everyone else. Very
3 good discussion and I thought very cordial,
4 thoughtful and really asked a lot of good
5 questions.

6 The first issue we did talk a lot
7 about, of course, was crop insurance. The new
8 products that were kind of rolled out are still
9 pretty new, maybe only a year or two old. So
10 there was a question to know if these products
11 will work for all contract types.

12 You know, they're there for basic
13 organic. There is organic price election for
14 particular contracts. But there is a lot of
15 variety here. So we need to know if these are
16 actually workable for all types of organic and
17 what they kind of call organic-plus, so sort of
18 ones that have additional specifications, if
19 these work for everybody.

20 And it was noted that maybe there's
21 only ten percent of producers that have taken
22 advantage of these new products. Maybe some more

1 interest in why is that number going to go up and
2 is there actually a target for what would be
3 useful to aim toward? Maybe not 100 percent need
4 to have crop insurance, but what kind of goals
5 should we have within that program?

6 A suggestion that ERS work with RMA,
7 perhaps to kind of target different grower groups
8 and market to see where the need might be the
9 greatest and what other tweaks can be made to
10 make it more useful.

11 On the organic seed finder database,
12 a lot of good discussion. The database is there,
13 but the biggest issue really, I think, came up
14 again that was raised with the full group is
15 market demand.

16 And it's very hard to catch up to
17 where market demands are going for organic seed
18 and if there is perhaps -- it was suggested that
19 a pilot project be implemented, maybe just for
20 corn, to kind of look nationwide on where organic
21 seed is maybe needed and not being used. What
22 exceptions are out there? And that could help

1 inform additional seeds being added to the
2 database.

3 There was also raised a question on
4 how accurate some of the information is in the
5 database. It's all entered by the companies.
6 And so maybe there's a way to look at oversight
7 or ensuring that people can actually find what
8 they need.

9 In terms of outreach, we talked about
10 this in a lot of different contexts. So I'll
11 kind of probably summarize it all together. We
12 talked about it for disseminating the scientific
13 information that's coming out of the BRAG,
14 grants, about the economic results that will be
15 disseminated from the ERS study and just in terms
16 of the toolkits and electronic information,
17 voluntary best practices.

18 And in general, a couple of themes.
19 The first was maybe being targeted with this
20 information, sort of maybe look at who is buying,
21 for example, the new crop insurance policies.
22 Those regions or growers may be the most in need

1 or interested in some additional information
2 here.

3 Also we talked about a wide variety of
4 stakeholders being used. Obviously, the
5 scientists or the economists who are working on
6 the work publish things like the peer reviews or
7 other studies.

8 But there is a way to kind of
9 translate that into sort of making general fact
10 sheets so that same information can be
11 distributed, whether it's through the extension
12 services, whether it's giving it to groups like
13 the corn growers to share with their growers,
14 whether it's using some of the existing seed
15 companies to help out, using RMA crop insurance
16 agents, using crop advisors and those networks.

17 So we're really trying to think
18 outside the box, but starting with a common set
19 of sort of language that everyone is talking the
20 same way.

21 We talked extensively about the NASS
22 survey and how difficult it is in actuality to

1 gather accurate survey information, especially in
2 this space. We talked a lot about some of the
3 questions that are being asked. And there came
4 to be a bit of a consensus that maybe we'll need
5 some additional follow-up survey questions
6 afterwards, that this may not capture exactly
7 everything for a number of reasons.

8 But one of the things pointed out is
9 in this area there are, A, a number of different
10 types of contracts, so how to know if the
11 rejection that you're getting is due to just, you
12 know, your regular organic contract, or an
13 organic with specifications, if you have just a
14 non-GE contract.

15 And similarly, what type of rejection
16 you're getting, there's different types of
17 rejections. So it's hard to know exactly how
18 impactful that is on you, depending on the
19 specific type of contract or arrangement you have
20 and what money you did not get paid for that.

21 Given that the survey is already out
22 there, there was a thought that, when we actually

1 do roll it out later this summer, it was
2 suggested we be careful and thoughtful to show
3 sort of what it does not capture and that just a
4 lack of reporting on economic losses does not
5 necessarily mean they aren't there.

6 There was a discussion in Oregon when
7 they did a similar survey. A lot of producers
8 just did not want to report, because they were
9 fearful of perhaps losing their contract if they
10 show that there was any loss or any potential
11 contamination from a GE or something like that.

12 So just be thoughtful on how we roll
13 it out. And again, we'd like to maybe engage
14 broader folks when they develop maybe additional
15 questions in the future.

16 On the APHIS coexistence plans and
17 conflict analyses, we also had a very good long
18 discussion there between everybody and with some
19 of the APHIS representatives.

20 A lot of questions on kind of the
21 authority that APHIS has perhaps to do this, will
22 this be creating additional regulatory burdens?

1 And I think everyone kind of understood it's
2 helpful in transparency.

3 We know this is kind of early on, no
4 policy decisions have been made exactly on this
5 yet. But I think there was a good interest in
6 exploring this idea further, how it may inform
7 NEPA analyses in the future, how it may help
8 inform the introduction particularly of GE
9 products where there are no current GE products,
10 where the greatest risk of conflict is. And so
11 we certainly hope that between the seed companies
12 and others we can work together to talk more
13 about this.

14 And then the last thing I'll just
15 note, a new issue was raised. It didn't really
16 fit quite in somewhere, but there is a lot of
17 work being done on pollen deploying systems and
18 how some of the patents and other things that
19 exist for how these can essentially prevent
20 pollen from being spread to other plants.

21 And if we don't get together, perhaps,
22 and have a thoughtful strategy for how those new

1 systems would be rolled out, they may not work at
2 all. And this is kind of one area where there
3 could be some potential benefits. But we want to
4 do it the right way.

5 There's a lot of different interests
6 here. And perhaps this is worth further thought
7 with maybe a larger committee that includes USDA,
8 seed companies, and growers and others, so
9 something to just kind of flag and look out for.
10 And I will probably just end it with that, unless
11 anyone has anything else to add. Thank you.

12 (Applause)

13 MS. DILLEY: So any other quick
14 comments, one and two, just one and two?

15 (No response)

16 MS. DILLEY: Great. Well, you did a
17 great job of covering both. So I would like to
18 now call up Gary Woodward and Philip Karsting,
19 who's the administrator for the Foreign
20 Agricultural Service. And they are providing
21 wrap-up comments and next steps.

22 MR. WOODWARD: Good afternoon,

1 everybody. So we're at the end of this workshop,
2 finally. But it's certainly not the end of the
3 conversation on coexistence. I want to thank you
4 all again for joining us, both those of you who
5 are here in person and those who are watching via
6 webcast.

7 Over the past two days, we've heard
8 from a variety of viewpoints on this issue. And
9 the most common thread among them, I think it's
10 fair to say, is that this is a complex issue with
11 no easy solutions. And certainly there are
12 difficult conversations ahead and difficult
13 decisions to be made for us all.

14 You know, the goal of this workshop
15 was really twofold. The first was to solicit
16 feedback on the actions that USDA has already
17 undertaken and the actions we propose to take in
18 the future.

19 Secondly, this workshop we hope to
20 reset and reinvigorate the conversation around
21 coexistence with the goal of creating practical
22 solutions to these difficult problems.

1 On the first point, I think we've
2 largely succeeded. We've gotten tremendously
3 helpful suggestions, both in the general Q and A
4 sessions as well as the breakout sessions, on
5 what we've done well, what we could do better and
6 what we might start doing in the future.

7 It's our hope that we also get even
8 more constructive feedback on USDA's actions
9 through the Federal Register notice that's open
10 now.

11 And on that point, one bit of feedback
12 that we've already gotten is that the comment
13 period on this notice is too short. So on that
14 point, I will tell you that we've heard your
15 concerns, and we'll commit to keeping that
16 comment period open for an additional two weeks
17 so that anyone who wishes may have time to digest
18 what was discussed here and provide input.

19 On the second goal, we've worked hard
20 to foster an environment the last two days where
21 all viewpoints could be heard. Our hope was for
22 participants and presenters to speak freely. We

1 didn't edit, approve or clear anyone's remarks or
2 questions.

3 In this conversation over the past two
4 days, we've strived for balance on all sides. In
5 some parts of the program, we achieved that more
6 than in others. There's an old USDA proverb that
7 says if we all agree upon everything then there
8 isn't a need for all of us. I can say for sure
9 that on the topic of coexistence, diversity,
10 differing perspectives and unique views are
11 essential.

12 Coexistence is a difficult topic. We
13 knew that coming here this week and we know that
14 today. We appreciate all views and know that we
15 cannot succeed without the collective success of
16 all agriculture, organic, traditional and
17 biotech.

18 We have arrived here at this workshop
19 as associates in the common area of business. My
20 hope is that we can leave here today as friends
21 and partners in a common effort.

22 Unlike many sporting events on college

1 campuses like this one, this workshop is not
2 actually a sporting event. No one was keeping
3 score. There are no winners and no losers. Each
4 of the comments we received here at this workshop
5 will be considered as unique and vital pieces of
6 feedback that the Department can and will act
7 upon.

8 The conversation is just beginning
9 though, as I said. And as Secretary Vilsack
10 stated, these two days have been intended to
11 drive a productive dialogue forward as one U.S.
12 agriculture.

13 We appreciate you all being here. You
14 didn't have to be. Everyone has other jobs to
15 do. But I believe that all of us share the
16 common goal, by being here, of positively
17 affecting the future.

18 So lastly, there are a few people that
19 I want to thank explicitly for their work in
20 organizing this conference, certainly the
21 conference planning team led by Mike Tadler who
22 I'm sure you've seen scurrying around and

1 troubleshooting over the last couple of days.
2 You know, a lot goes into planning and arranging
3 an event like this. And Mike and his team
4 certainly did yeoman's job of accomplishing the
5 task.

6 I'd also like to recognize the poster
7 session organizers, Neil Hoffman and Ann Marie
8 Thro. I hope you found the posters thought
9 provoking and certainly useful during the
10 workshop. I found them personally very
11 interesting.

12 And I also should thank Kim Ogle who
13 helped coordinate the facility and meeting
14 logistics. If you met Kim this weekend, you'll
15 know that she actually sacrificed a leg to make
16 this conference happen. So we certainly
17 appreciate all her hard work and dedication in
18 making sure the trains run on time.

19 And I should also thank the folks from
20 North Carolina State University, especially
21 Alison Wynn, and Sharon Stauffer and the team of
22 volunteers that they had here helping us out, for

1 being such gracious hosts. We appreciate you
2 letting us invade your campus for a couple of
3 days.

4 And before I step down, I want to take
5 a moment to introduce our final speaker,
6 administrator Phil Karsting. As some of you may
7 know, Phil is the administrator for USDA's
8 Foreign Agricultural Service and has been in that
9 position for a little over two years now.

10 From his position, Phil has a unique
11 perspective on the importance of coexistence, not
12 just here at home but in the international
13 marketplace as well. So please join me in
14 welcoming Phil to talk about the role that GE,
15 organic and traditional crops play in foreign
16 markets. Phil?

17 (Applause)

18 MR. KARSTING: Okay, I know that
19 people have been looking at their smartphones,
20 and I think that means they're probably checking
21 their flights to see if they're on schedule. So
22 I will try to be brief yet thoughtful today,

1 because I think this conversation has been
2 remarkably important.

3 FAS, our motto is linking American
4 agriculture to the world. And in my perspective,
5 that means linking all of American agriculture to
6 the world, organic, traditional, biotechnology.
7 From FAS' perspective, we are an all of the above
8 sort of place.

9 And we want to see Americans succeed
10 in whichever realm they choose. And that's what
11 gets our people out of bed and fired up every
12 morning. And when they do get out of bed and
13 fired up every morning, they work on a variety of
14 things, trade agreements like our current
15 conversation at TTIP and TTP.

16 They work on trade disputes and
17 challenges at the borders, clearing product
18 reports, working with our pals at APHIS and FSIS
19 on different things. We work a lot with AMS to
20 advance the access for organics in different
21 markets. We work on export promotion, both
22 traditional, conventional agriculture and organic

1 products. And we work on capacity building in
2 less developed countries.

3 And having been in this post now for
4 a couple of years, I have several sort of
5 observations that perhaps I wasn't as sensitized
6 to before as I am now.

7 First of all is that American
8 agriculture is incredibly strong. We have had
9 five record years of exports. In Fiscal Year
10 2014 we exported \$152.5 billion worth of
11 agriculture goods in the United States,
12 everything from basic commodities to processed
13 goods. And so we feel very good about that.

14 With every good story, there's a but.
15 And in this one, the but is a lot of other
16 countries want to write the rules of the road.
17 And so we need to be unified and cognizant of our
18 strength and sophisticated and disciplined in how
19 we go about reacting to world markets and how we
20 try to make sure that we have continued
21 prosperity in all of American agriculture.

22 The second thing that has hit home to

1 me very clearly in this job is that we're going
2 to have 9 billion people to feed by 2050. Now, a
3 lot of folks automatically think, oh wow, that's
4 a GMO talking point.

5 The other part of that talking point
6 is that there's going to be an enormous increase
7 in the growth of middle classes across the world.
8 And middle class consumers like different
9 products, and they like having choices. And so
10 our mission should be to try to figure out how to
11 balance and fulfill all those needs. And that's
12 where a healthy conversation about coexistence is
13 hugely important.

14 The other part about this job in our
15 portfolio is there's a lot of stuff we just don't
16 know how markets are going to react around the
17 globe. We don't know what civil strife is going
18 to occur somewhere, we don't know what global
19 climate change is going to bring to us. So we
20 need to lock arms and be as agile, and proactive
21 and productive as possible.

22 So those are the three things that, I

1 think, from 50,000 feet sort of govern our
2 thinking on a day to day basis at the Foreign
3 Agricultural Service.

4 All of this behooves us, organic,
5 conventional and GMO, to be strong and smart
6 together. And as I said, that is the essence of
7 figuring out a path forward on coexistence.
8 There are no silver bullets. But we have to lead
9 by example, because I think a lot of the world is
10 watching how we do approach this topic.

11 At FAS, we work across all of our
12 sister and brother agencies and stakeholders.
13 And we need to find a space and a place to be
14 supportive to build others up.

15 I was at a trade show in Shanghai last
16 year that was kind of an eye opening experience
17 for me. It was seven buildings, each the size of
18 a football field, crowded with people. And they
19 were selling everything from California wine to
20 Wisconsin cranberries and organic milk to
21 American beef, all kinds of things. It was a
22 frenzy of commerce.

1 And after visiting this incredible
2 seven football field display, I walked around the
3 corner to another equally intriguing place. It
4 was one of the nerve centers for a company called
5 Alibaba.

6 And you may have heard of them. I
7 think they just had an IPO not long ago. They
8 are the Amazon/eBay of China with potentially a
9 billion-four customers.

10 And they had a big screen set up where
11 they would show where there sales -- they would
12 take representative sample sales. You know,
13 every three seconds or so one would pop up and
14 you would see where something was going across
15 the country.

16 And it really struck home to me not
17 only the value and the volume of the opportunity
18 there, but sort of the virtues that people were
19 looking to achieve in those purchases. People
20 want reliability. They want wholesomeness. They
21 want to have confidence. And in order for us to
22 continue to deliver that on all those different

1 thing, however you define that, we've got to find
2 a way forward on coexistence.

3 So as a group, I hope that we will
4 display our best institutional and executive
5 decorum in working on all these topics. The
6 future is too important to do otherwise.

7 We need to find a space to work
8 together on these things. And that's what I
9 think the American people expect of us. And
10 that's what we're going to continue to do at
11 USDA. And that's why we welcome your
12 cooperation, and we're going to stick with it.

13 So thank you all very much. Have safe
14 travels home. There are some brownies back
15 there, but I don't recommend you eat them,
16 because Ashley and I are going to take care of
17 those on the way out.

18 (Applause)

19 MS. DILLEY: I was supposed to say
20 adjourned, sorry.

21 (Whereupon, the above-entitled matter
22 was concluded at 4:39 p.m.)

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In the matter of: Stakeholder Workshop on Coexistence

Before: USDA

Date: 03-13-15

Place: Raleigh, NC

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Court Reporter

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