

**2007 Norman E. Borlaug/World Food Prize International Symposium**  
*Biofuels and Biofoods: The Global Challenges of Emerging Technologies*  
October 18-19, 2007- Des Moines, Iowa

**SESSION IV. FUTURE SCIENCE AND POLICY CHALLENGES**

October 19, 2007 – 10:00 – 11:30 a.m.

*Conversation with Speakers and Participants*

*Moderator: Margaret Catley-Carlson*

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Catley-Carlson      I'm told we have four minutes left. Who wants to disagree with something that somebody else in the panel actually said? Comments, yes.

Rosenzweig      I would just like to ask Susanne and David – How can we work together better? We have the water, we have the biofuel. Let's stick to biofuel because this is the topic of the symposium. What do you each see as a way forward? From the science side, researcher's side - what are real pathways to make this work?

Hunt      Oh, that is such an important question, and I don't claim to have all of the answers, but I think that just asking it and discussing it is an important first step, and that's kind of the weak answer to that. But I think we need to create more fora for real interaction. And this kind of – to give a speech, listen, give a speech – may be not the right fora for this kind of interaction that you're talking about. So I think that creating different working groups – and the U.S. Government is working on this. The Agriculture and Energy Departments are working, are talking to each other, so there's movement.

But it's interesting to interact with industry folks and then interact with the scientific community and then interact with the policymakers. And they're definitely not saying the same things, and they're not getting the same information. So maybe we need to put our heads together to create a forum, because it's happening at the international level, and I've not seen it in the U.S.

Molden      I think the main point of my talk was just think about the water impacts of biofuels. And I think that must happen in other areas too, so it may even be a little bit broader group than sitting here. Some of the actions we take have kind of unpredictable outcomes, so it is looking and seeing from a broad range of people how this is going to play out.

Catley-Carlson

I'm really sorry we don't have time for more dialogue, or particularly not questions, but what we're crowding now is our Laureate statement. And so therefore we've had spillover in time all morning, some spillover in time, so we really have to give our Laureate time to tell us about the extraordinary things he's done, which has made him our Laureate. And so therefore what I'd like you to do is say a very strong word of thanks to this panel, which I think has taken us and really expanded our horizons. Thank you very much.

Well, while Al Clausi is coming up to the stage, this is our last session on the biofuels issue, so I'd like to give you my closing thoughts on this, and they're very short and very simple.

First of all, once again, we're reminded there's no single solution; that when we're talking about alternatives to fossil fuel energy, yes, the biosolutions are there, but they must be real, they must be varied, and anybody that privileges one uniquely over others is taking us in the wrong direction.

Second is that we have to get into the real world, that the theoretical models have to be mitigated by the way people live, the way they think, the way institutions operate. And we cannot make a contribution unless we put these two things together. And I think this was what was coming forward in the last statement.

Third is that scale looks very different, depending on where we are. In the amazing visions of what can happen in this country, for example, we were shown large pictures of very large-scale enterprises. When we heard from other parts of the world, they said this could solve some of the problems of isolated communities, lack of access, and how much it costs us to move fuel from one place to the other. So let's – if we're really going to make a contribution using these technologies, remember that scale will have a great difference, depending on where we are.

Mitigation, we had the message on that so recently I won't go over that. But I guess the final – everybody said, yes, the real benefit to this technology will not be there until we get into second-generation or third-generation, depending on your perspective. But I guess the real message here is that we have to learn from the example of GMOs. We have to develop this technology in such a way that we pull critics into the tent.

We need to keep looking at these issues from a 360-degree perspective, and we need to bring the critics and the naysayers into the tent, because otherwise the risks are so high that we can create the kind of barriers that mean the potential of this extraordinary, that's been set out to us in so many ways, the potential could be inhibited or even stopped.

Human beings are funny people. Facts are facts, but perception is reality. And we've got to watch the perceptions that are created and bring as many people as we can into the tent so that there is a greater understanding of the promise and the benefits, but a greater communication of the risks that people either see or feel. And those can be just as important in seeing whether we go forward.

So I think it's been an extraordinary two days.