
*Student Voice Report*¹

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We thank NABC for sponsoring the Student Voice program, allowing us to come here and share in this lively discussion. We leave with many issues in mind and are excited to continue the discussions. Also we thank our member institutions for participating in the program and, for some of us, for providing matching funds.

A lot of perspectives are necessary to address the issues underpinning food security. We represent a wide variety of disciplines including plant pathology, food science and soil science with projects ranging from hormonal signaling in rice to food microbiology and all places in between and beyond. As such we especially appreciated the broad spectrum of topics and the interdisciplinary nature of the presentations including experts from the fields that we are in and also from public health, entomology, water-resource science, engineering, public policy, industry leaders from both private and public sectors.

¹To encourage graduate-student participation at NABC conferences, the Student Voice at NABC program was launched ahead of NABC 19. Feedback from those involved was positive, therefore the program was continued for NABC 20–23. Grants of up to \$750 are offered to graduate students at NABC-member institutions (one per non-host institution) to assist with travel and lodging expenses. Registration fees are waived for the SV participants. NABC-member institutions are listed on page v. Student Voice delegates attend the plenary sessions and breakout workshops then meet as a group to identify current and emerging issues relevant to the conference subject matter. Information on the Student Voice at NABC 24 will be available in due course at <http://nabc.cals.cornell.edu/studentvoice/>.

²Verbal reporter at the conference and co-author with contributions from the other students.

We offer the following comments and suggestions:

- The breakout sessions promoted interaction in a more intimate setting and enabled us to hear views of attendees while also sharing our views. Many conferences lack this special feature, and even more breakout sessions or workshops would be beneficial for future conferences.
- Including farmers in the breakout sessions facilitated our understanding of some of the issues addressed in the presentations. For this reason, inviting farmers and/or extension agents as speakers would increase the interdisciplinary nature of the conference.
- We would like to see more publicity of the event in advance to the public and throughout the various universities involved (press releases; updated, detailed webpage).
- Poster sessions at future events should be considered.
- It would be helpful to have presentation materials available at or shortly following the conference.
- There was good insight on the issues of food safety and security, but there could have been more information on the issues of food sustainability and self-sufficiency (*e.g.* water/nutrient use efficiency, crop-yield increases).
- Increasing involvement of students after the conference (*e.g.* Student Voice ambassadors, a mailing list of previous participants) would facilitate discussion beyond the conference.
- As for future conferences, we feel that the following points need emphasis.
 - Water availability is becoming critical in certain areas of the world. In order to meet the future demands for water, technologies that facilitate sustainable water use should be discussed.
 - The solutions presented should take account of local, socio-economic and cultural characteristics of every agricultural region. Something that proves to be effective in one place, might not work in another.
 - More research is needed into alternative sources of raw materials for biofuel production that can substitute for food and feed material. For example, oil-rich microalgae could be an alternative model because of its ability to grow on non-arable land and use non-potable water.
 - Food security is a multidisciplinary problem. We need to address it at multiple levels by including all stakeholders, including policymakers, scientists and farmers.
 - Prevention is key. We need to be proactive rather than reactive when it comes to food security and sustainability.

- Education is fundamental to raise public awareness of problems such as food availability, food safety, population growth, water scarcity and pollution. The general public can motivate the policymakers to make changes. Targeting young generations is essential to ensure the long-term effectiveness of implemented solutions.

Ralph Hardy (National Agricultural Biotechnology Council): Thank you Caroline. Thank you Michelle. Any audience questions or comments for our future professionals in this area? And other Student Voice members—if there are other points that you would like to make, certainly that's fine.

Michael Kahn (Washington State University): Do you leave the conference more optimistic than when you came, or less optimistic?

Caroline Anderson: I am leaving more optimistic. In the beginning it was a little overwhelming to hear some of these talks with so much new information—especially since I wasn't exposed to it prior to coming here. But I'm leaving optimistic because I feel that, obviously, a lot of people are aware of these problems in different disciplines—in science as well as not necessarily in science such as policymakers—and I feel like they are starting to come together to come up with solutions.

Michelle Martin: I am leaving less with a framework of optimism or pessimism, but with more questions—not so much glass half-full or glass half-empty, but what is in the glass? Right now at a conference like this, we are realizing more and more that technology is advancing, so potential solutions are available. Now we are dealing with questions of how we can bridge this to application, and social, economic, political and environmental considerations are needed.