The annual Business Meeting of NC-1034 – Impact Analyses and Decision Strategies for Agricultural Research – was held on February 27, 2016 in conjunction with the project’s annual research symposium, held February 26-27, 2016 in Tampa, Florida. Themes of the research symposium included:

* Implications of R&D for Energy Crops
* Patents and Technology Commercialization
* Distributional Aspects of Agricultural R&D
* Implications of Climate Change for Agricultural Productivity

A full list of presentation titles and presenters is available at the project website at: <http://ricardo.ifas.ufl.edu/NC-1034-2016/> and shown below.

Friday, February 26

Welcoming Comments 8:30 - 8:45 – Chuck Moss and George Frisvold

Session 1 : Research and Development - Implications for Energy Crops

8:45 - 10:00 a.m.

Corn Ethanol and U.S. Biofuel Policy Ten Years Later: A Systematic Review and Meta-analysis — Gal Hochman, Rutgers University and David Zilberman, University of California, Berkeley

Motivations to Grow Energy Crops: The Role of Crop Contract Attributes — Madhu Khanna, University of Illinois, Jordan Louviere, University of South Australia, and Xi Yang, University of Arizona

Coffee 10:00 - 10:30 a.m.

Session 2: Commercialization and Patents of Innovations

10:30 a.m. - 12:00 noon

Citations as Indicators of Patent Value: A non-linear reinterpretation of the empirical evidence — Brian Wright and Zhen Sun, University of California, Berkeley

University Ownership, Patent Flow, and Signaling Effects of Licensing on Follow-on Research — Kyriakos Drivas, University of Piraeus, Zhen Lei, Pennsylvania State University and Brian Wright, University of California, Berkeley

Why Has not Genetically Modified Wheat Been Commercialized: A Game Theoretical Perspective — Manhong Zhu, University of Florida, Andrew Schmitz, University of Florida, and Troy Schmitz, Arizona State University

Lunch 12:00 - 1:30 p.m.

Session 3: Estimation of the Impact of and Distribution of Agricultural R & D

1:30 - 3:00 p.m.

Effects of Restrictions on Estimates of Technical Change in US agriculture — Alejandro Plastina and Sergio Lence, Iowa State University

Implications of the 2014 Farm Bill for Agricultural R&D and Productivity — Vincent Smith, Montana State University

Distributional Effects of Agricultural Productivity in Benefit Cost Analysis: Implications of Working's Model — Charles Moss and Andrew Schmitz, University of Florida

Break 3:00 - 3:30

Potpourri of Measurement Issues 3:30 - 5:00 p.m.

Impact of Text Messages on Adoption and Knowledge of Integrated Pest Management on Potato and Blackberry in Ecuador — Elli M. Travis, Vanessa Carrion Y., Jeffrey Alwang, Catherine Larochelle, and George W. Norton, Virginia Tech

Transformational Agriculture - Implications of Kuznets and the Dual Economy Model — Charles Moss University of Florida and James F. Oehmke, USAID

On-farm Field Trials: Optimal Stopping Time and the Value of Statistical Efficiency — David S. Bullock, University of Illinois

Saturday, February 27

Session 1: Climate Change: Implications for Agricultural R&D

8:00 a.m. - 12:00 noon

Potential Impacts of Climate Change and Extreme Weather on U.S. Agricultural Productivity — Sun Ling Wang , Eldon Ball, Richard Nehring, Ryan Williams, and Truong Chau, USDA – ERS

Climate Change, Health Care Access, and Regional Influence on Components of U.S Agricultural Productivity — Darlington Sabasi and C. Richard Shumway, Washington State University

The Economic Impacts of Technology and Climate Change: New Evidence Unearthed from U.S. Corn Yields — Wallace E. Huffman, Iowa State University Yu Jin, Shanghai University, and Zheng Xu, University of North Carolina

Break 10:00 - 10:30

Climate Change and Agricultural Productivity (Continued)

Productivity Growth in Postwar Agriculture — V. Eldon Ball, Richard Nehring, and Sun Ling Wang, USDA – ERS

Climate and Choice of Irrigation Technology — George Frisvold and Ting Bai, University of Arizona

Business Meeting/Lunch noon - 1:30 p.m.

NC-1034 Business Meeting Adjourns 1:30 p.m.

**Minutes**

**Comments by Administrative Advisor, Marshall Martin.**

Marshall provided an update on the project renewal process. He noted that participants needed to complete their Appendix E forms as there is no automatic roll-over of participants for renewed projects. He also reminded participants that Appendix E has a section where participation under Extension is available. People from non-land grant universities (LGUs) and USDA – ERS could contact him directly about signing up. Those at LGUs could get help with completing their Appendix E forms from their experiment station offices. He further noted that the NIMSS system has a new look and interface and emphasized the importance of keeping reports up-to-date in the system.

Martin thanked participants contributing to writing the renewal proposal after the project’s 2015 meeting at the Agricultural and Applied Economics Association annual summer meeting. The submitted renewal proposal was assigned to a department head in a North Central (NC) agricultural economics department and is now in review by an NC committee. The decision will be to (a) approve the proposal as is, (b) approve pending revision and resubmission and (c) renewal declined. The project if approved would start 10/1/ 2016 and run to 9/30/2020, with a three-year, interim review.

**2017 Meeting: Location and Date**

There was general discussion about the pros and cons of different times and places for the NC-1034 annual meeting and research symposium. There was general agreement that the end of February was a good time for a meeting. George Frisvold noted that too early in February, the meeting would conflict with the annual meeting of the Australian Agricultural and Resource Economics Society, which some NC-1034 participants attend. Too late in March, and the meeting conflicts with the Berkeley Bioeconomy Conference, also attended by a number of NC-1034 participants. It was also noted by a few present that Friday-Saturday was a better configuration than Thursday-Friday because faculty with teaching assignments on Tuesdays and Thursdays could make the former, but not the latter. The group agreed on dates of February 24-25, 2017 (Friday and Saturday) for the project’s next meeting.

Discussion then turned to possible locations for the 2017 meeting. Chuck Moss noted that the University of Florida was initiated some projects with USAID, that participants and Rutgers, UC-Berkeley, and Virginia Tech have research interests in developing countries, that economists from the International Food Policy Research Institute in Washington, DC have participated in NC-1034 meetings. There may be interest then, if holding the meetings in Washington, DC. Vincent Smith noted the advantages of holding the meetings in Washington, DC prior to years when the next Farm Bill is being drafted. Participants have the potential to inform policy makers prior to development of the Research Title of the Farm Bill. Marshall Martin noted that NC-1034 meetings have often rotated between Washington, DC and other venues. George Frisvold noted that USDA-NIFA and USDA-NIFA have hosted NC-1034 meetings. A disadvantage of holding meetings at USDA facilities is that they are closed on Saturday. This means that for Friday-Saturday meetings, the venue has to be changed to a more expensive hotel or conference facility. Chuck Moss noted the great expense of holding this year’s meetings in a hotel.

George Frisvold noted that the University of Arizona’s new Environmental and Natural Resources 2 Building (ENR2) with conference facilities and audio-visual equipment available at quite modest cost. The ENR2 Building is available on Saturdays and is in walking distance to a Marriott Hotel and several restaurants. It is also near the streetcar line that runs from the University of Arizona campus and downtown Tucson. Frisvold offered to host the 2017 meetings and to make facility arrangements and hotel arrangements with the Tucson Marriott University Park. The group voted to have the 2017 NC-1034 meeting and research symposium February 24-25 in Tucson, Arizona.

Next, discussion turned to what topics or themes the 2017 research symposium might have. In general, people liked the idea of having the second day of the symposium to be wider-ranging, to cover all topics relevant to NC-1034 and not confined to conference-theme topics. Robbin Shoemaker, NC 1034’s NIFA representative, discussed areas where NC-1034 could be more effective. He noted that there was a critical need for better understanding of mechanisms and incentives for economic growth. NC-1034 had potential to produce more outputs to inform decision making. Important areas would be highlighting the role of economics in evaluating research projects and informing research resource allocation. NC-1034 could continue to be a “place to go” for the economics of science and technology policy. He noted that NIFA would benefit from the project’s guidance on the use of economics to improve allocation of research funds. Finally, he noted the importance of ERS’s agricultural productivity accounts. Many of the presentations and this year’s meeting and in past meetings rely heavily on this data. NC-1034 is an important stakeholder group that depends on these data. More could possibly done to emphasize the importance of maintaining these accounts and data to policy makers.

There followed general discussion of the pros and cons of having a specific, theme-based symposium. One disadvantage of a specific theme is that it may discourage NC-1034 participants not working on that particular theme. An advantage of a theme is that it makes it easier to organized symposium outputs for later publication. Have a body of work on a central topic may also be better able to engage policy makers. A University of Florida graduate student suggested that along with a call for papers, one could have a call for session topic proposals that annual agricultural economics and economics meetings often have. This would allow NC-1034 participants working in similar areas to organize sessions themselves. George Frisvold thought this was an excellent idea. Marshall Martin suggested that one could devise a relatively broad, over-arching theme and allow participants to frame specific sessions more easily. Robbin Shoemaker noted that issues of water use and water productivity are important issues to USDA. George Frisvold noted that a general theme of water would be attractive to other researchers at the University of Arizona and would encourage participation of people outside of NC-1034. Marshall Martin noted that another issue of growing interested is sourcing of food production and local food systems. Chuck Moss noted that there might be developing country topics and that we could consult further with Jim Oehmke of USAID. George Frisvold noted that the 2015 conference had guest speakers in the later afternoon, which worked well. In late afternoons, energy levels tend to flag after a full day of technical presentations. Having an engaging guest speaker of panel may be a nice feature of late afternoon sessions. Further discussion of a specific conference theme was tabled and it was agreed to solicit a call for sessions for the 2017 symposium.

David Bullock asked whether it was possible to get support for graduate student attendance to the annual symposium. Marshall Martin note that such funding decisions were at the discretion of each state’s experiment station director.

George Frisvold was nominated to serve as chair for 2017 by David Bullock and seconded by Wallace Huffman. This was agreed by voice vote. Charles Moss was nominated to serve as secretary / webmaster by Gal Hochman and seconded by Wallace Huffman. This was agreed by voice vote.

Marshall Martin noted that there is a mandate that 25% of Hatch funds be on Mult-state projects. Expectations for NC projects are higher, with reviewers and NIFA wanting more demonstration of collaboration. In future reporting, it is important to demonstrate true collaboration and not just sharing of independent research findings. So it is good to report collaboration of NC-1034 participants on grant projects, research publications, and data generation and sharing. George

Frisvold thanked participants who provided information and comments to support submission of the project renewal. He also noted he was pleased that a number of younger researchers have recently joined NC-1034.

Wallace Huffman noted that he has turned his state-level data set on the stock of agricultural research and extension over to USDA-ERS. Those interested in using this data could contact Paul Heisey at ERS. Several participants noted that they were very appreciative of access to USDA productivity data, USDA international R&D data, and Wally Huffman’s data.

Meeting Adjourned 1:30 Saturday, February 27, 2016