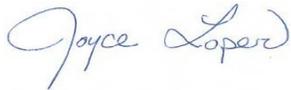


NP 216 Agricultural System Competitiveness and Sustainability Panel Report



Joyce Loper, Scientific Quality Reviewer Officer

July 3, 2014
Date



Michael S. Strauss, Peer Review Program Coordinator

May 21, 2014
Date



Office of Scientific Quality Review
Agricultural Research Service
United States Department of Agriculture

Introduction

This Panel Report provides the background of the 2013 National Program (NP) 216 Agricultural System Competitiveness and Sustainability Panel Review. The project plans reviewed by these panels were applicable to the mission of the National Program that *“integrates information and technologies to develop new practices and dynamic systems that optimally enhance productivity, profitability, energy efficiency, and natural resource stewardship for different kinds and sizes of American farms. New configurations of practices are identified that utilize on-farm resources and natural ecosystem processes to reduce the need for purchased inputs and reduce production costs and risks. Precision management, automation, and decision support technologies are used to increase production efficiencies and enhance environmental benefits. Strategies are developed for sustainable production of bio-based energy products from farms. Production systems incorporate consumer preference and supply chain economic information to expand market opportunities for agricultural and other value-added bio-based products. Diverse improved agricultural systems will support the long-term financial viability, competitiveness, and sustainability of farms and rural communities, and increase food and fiber security for the USA and the world.”*

In collaboration with the Office of Scientific Quality Review (OSQR), the National Program Leader, Matthew Smith, divided 14 plans into five panels. After considering several candidates, Dr. Joyce Loper, Scientific Quality Review Officer (SQRO), appointed a Chair for the four panels and served as Chair for Panel 2, which had a single plan and four individuals providing written reviews (Table 1).

Table 1. Agricultural System Competitiveness and Sustainability Panels

| Panel | Panel Chair | Panel Meeting Date | Number of Panelists | Number of Projects Reviewed |
|---|--|--------------------|---------------------|-----------------------------|
| NP 216 Panel 1 – Cropping Systems | Dr. Deborah Young, Professor and Extension Plant Pathologist, Dept Bioagricultural Sci & Pest Mgmt, Colorado State Univ, Fort Collins, CO | June 25, 2013 | 5 | 4 |
| NP 216 Panel 2 – Integrated Systems | Dr. Joyce Loper, SQRO | N/A | 4 | 1 |
| NP 216 Panel 3 – Modeling and Decision Systems | Dr. Bruno Basso, Associate Professor, Dept Geological Science, Michigan State Univ, W.K. Kellogg Biol Station, East Lansing, MI | June 26, 2013 | 5 | 4 |
| NP 216 Panel 4 – Organic Systems | Dr. Michelle Wander, Professor & Director Agroecology and Sustainable Agriculture Program, Natural Resources & Environmental Science, Urbana, IL | June 4, 2013 | 3 | 3 |
| NP 216 Panel 5 – Sustainability, Agroecosystems | Dr. Mary Stromberger, Associate Professor, Dept Soil & Crop Sciences, Colorado State Univ, Fort Collins, CO | June 7, 2013 | 2 | 2 |

Panel Review Results

Along with the panel's written recommendations, OSQR sends each Area Director a worksheet that shows each reviewer's judgment of the degree of revision their project plan requires. This judgment is referred to as an "action class". The action classes of the panelists are also converted to a numerical equivalent, averaged, and a final action class rating is assigned.

Scientists are required to revise their project plans as appropriate and submit a formal statement to OSQR through their Area Director demonstrating their response to the Panel's recommendations. The project plans are implemented following approval and certification from the SQRO.

Action classes are defined below.

No Revision Required (score: 8). The project plan is feasible as written, requires only minor clarification or revision to increase quality to a higher level.

Minor Revision Required (score: 6). The project plan is feasible as written, requires only minor clarification or revision to increase quality to a higher level.

Moderate Revision Required (score: 4). The project plan is basically feasible, but requires changes or revision to the work on one or more objectives, perhaps involving alteration of the experimental approaches in order to increase quality to a higher level and may need some rewriting for greater clarity.

Major Revision Required (score: 2). There are significant flaws in the experimental design and/or approach or lack of clarity which hampers understanding. Significant revision is needed.

Not Feasible (score: 0). The project plan, as presented, has major scientific or technical flaws. Deficiencies exist in experimental design, methods, presentation, or expertises which make it unlikely to succeed.

For plans receiving one of the first three Action Classes (No Revision, Minor Revision, and Moderate Revision) scientists respond in writing to panel comments, revise their project plan as appropriate, and submit the revised plan and responses to OSQR through their Area Office. These are reviewed by the Officer and, once he/she is satisfied that all review concerns have been satisfactorily addressed, the project plan is certified and may be implemented.

When the Action Class is Major Revision or Not Feasible, responses and revised plans are provided as above, but must then be re-reviewed by the panel, which provides a second set of comments and Action Class. If the re-review Action Class is No Revision, Minor or Moderate revision the project plan may be implemented after receipt of a satisfactory response and Officer certification. Plans receiving major revision or not feasible scores on re-review fail review. The action class and consensus comments are provided to the Area but there is no further option for revision. Low scoring or failed plans are terminated, reassigned, or restructured at the discretion of the Area and Office of National Programs.

NP 216 Program Overview

Following review discussions panels are asked their overall impressions of plans and the process and encouraged to provide general comments or process recommendations. In addition the written statements by panel chairs may also address general issues of review or research plans.

The panels were, in general, very pleased with the online process, considered it efficient, and felt that it afforded ample time and opportunity to thoroughly evaluate plans. There was concern by one panel with regard to one of their plans that the researchers did not seriously consider some of their recommendations (all plans for this panel were certified but one received a low initial score). With regard to plans reviewers found a high range of skills and competencies displayed in the plans and interesting research topics. One reviewer noted that the peer review process opened up new and interesting research topics.

Score Analysis

The initial and final scores for the third cycle review of the Agricultural System Competitiveness and Sustainability Panels are shown in Table 2. Four out of the 14 plans received a failing score. Of these four plans, one project was terminated and another did not pass re-review and was terminated. The majority of the plans received a moderate revision score or higher, were revised satisfactorily, and were certified.

Table 3 compares the initial review scores for all three cycles of the Agricultural System Competitiveness and Sustainability Panels. The average initial score for all three cycles was moderate revision with the second cycle scoring slightly higher (4.69) than the first (4.51) and third (4.28) cycles. The average final score for all three cycles was minor revision.

The impact of panel size on the outcome of review for the present cycle is presented in Figure 1. This seems to suggest that larger panels may provide somewhat lower scores in the initial review. The standard deviation and R^2 values suggest that this is not the case. When the number of reviews is increased by including results from the First, Second, and Third review cycles for these plans (Figure 2) or by including all other ARS plans reviewed in the third cycle (Figure 3), there, indeed appears to be no impact of panel size on review outcome.

Figure 4 suggests that the greater the number of scientists (SY's) on a plan the higher the initial review score, however the total sample is small (n=14). If all the third cycle panels are examined there appears to be no impact on the number of SY's on a project plan and the initial review score (Figure 5).

In comparing the initial review scores for all cycles of the Agricultural System Competitiveness and Sustainability Panels, the first cycle had the highest number of scores (15) of moderate or higher, followed by the second (12) and third cycles (10). The second and third cycles had plans that did not pass review and were terminated (Figures 6 and 7).

Table 2. Proportion of Initial and Final Scores for the Third (2013) Cycle Expressed as Percentage of All Reviewed and the Average Initial Numerical Score for the NP 216 Agricultural System Competitiveness and Sustainability Panels

| Third Cycle, 2013 | Initial Review | | | | | | Final Review | | | | | |
|---|----------------|--------------|--------------|--------------|-------------|-------------------|--------------|--------------|--------------|--------------|-------------|-----------------|
| | % No Rev | % Min Rev | % Mod Rev | % Maj Rev | % Not Feas | Avg Initial Score | % No Rev | % Min Rev | % Mod Rev | % Maj Rev | % Not Feas | Avg Final Score |
| NP 216 Panel 1 - Cropping Systems (4) | 25.0% | 25.0% | 25.0% | 25.0% | 0.0% | 4.5 | 50.0% | 25.0% | 25.0% | 0.0% | 0.0% | 6 |
| NP 216 Panel 2 - Integrated Systems (1) | 0.0% | 100.0% | 0.0% | 0.0% | 0.0% | 5 | 0.0% | 100.0% | 0.0% | 0.0% | 0.0% | 5 |
| NP 216 Panel 3 - Modeling & Decision Systems (4) | 0.0% | 25.0% | 25.0% | 50.0% | 0.0% | 3.28 | 0.0% | 25.0% | 25.0% | 50.0% | 0.0% | 3.53 |
| NP 216 Panel 4 - Organic Systems (3) | 33.3% | 0.0% | 33.3% | 33.3% | 0.0% | 4.83 | 33.3% | 0.0% | 66.7% | 0.0% | 0.0% | 5.83 |
| NP 216 Panel 5 - Sustainability, Agroecosystems (2) | 0.0% | 50.0% | 50.0% | 0.0% | 0.0% | 4.67 | 0.0% | 50.0% | 50.0% | 0.0% | 0.0% | 4.67 |
| NP 216, All | 14.3% | 28.6% | 28.6% | 28.6% | 0.0% | 4.28 | 21.4% | 28.6% | 35.7% | 14.3% | 0.0% | 5 |

Table 3. Proportion of Initial and Final Scores for All Cycles Expressed as Percentage of All Reviewed and the Average Initial Numerical Score for the NP 216 Agricultural System Competitiveness and Sustainability Panels

| | Initial Review | | | | | | Final Review | | | | | |
|-------------------|----------------|-----------|-----------|-----------|------------|-------------------|--------------|-----------|-----------|-----------|------------|-----------------|
| | % No Rev | % Min Rev | % Mod Rev | % Maj Rev | % Not Feas | Avg Initial Score | % No Rev | % Min Rev | % Mod Rev | % Maj Rev | % Not Feas | Avg Final Score |
| First Cycle (20) | 5.0% | 40.0% | 30.0% | 25.0% | 0.0% | 4.51 | 5.0% | 60.0% | 35.0% | 0.0% | 0.0% | 5.5 |
| Second Cycle (17) | 17.6% | 29.4% | 23.5% | 29.4% | 0.0% | 4.69 | 17.6% | 52.9% | 23.5% | 0.0% | 5.9% | 5.42 |
| Third Cycle (14) | 14.3% | 21.4% | 35.7% | 28.6% | 0.0% | 4.28 | 21.4% | 21.4% | 42.9% | 14.3% | 0.0% | 5 |

Figure 1. Panel Size vs. Initial Review Score for the Third Cycle of the NP 216 Agricultural Competitiveness and Sustainability Panels

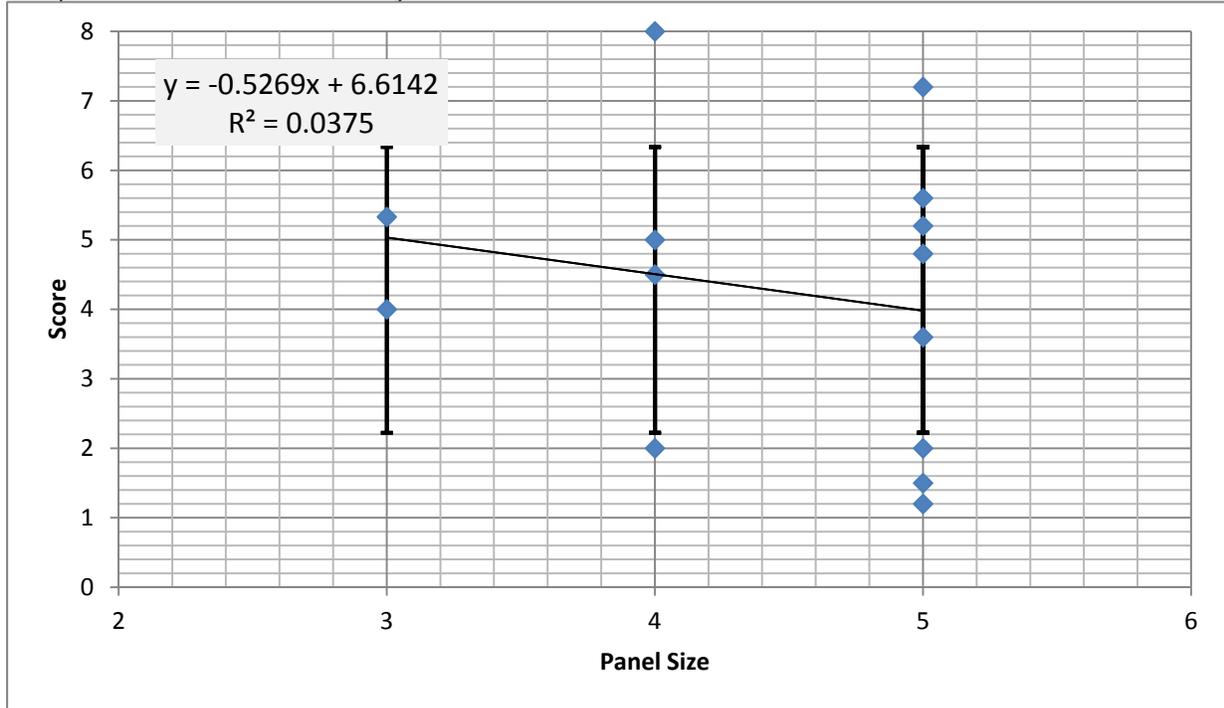


Figure 2. Panel Size vs. Initial Review Score for All Three Cycles of the NP 216 Agricultural Competitiveness and Sustainability Panels

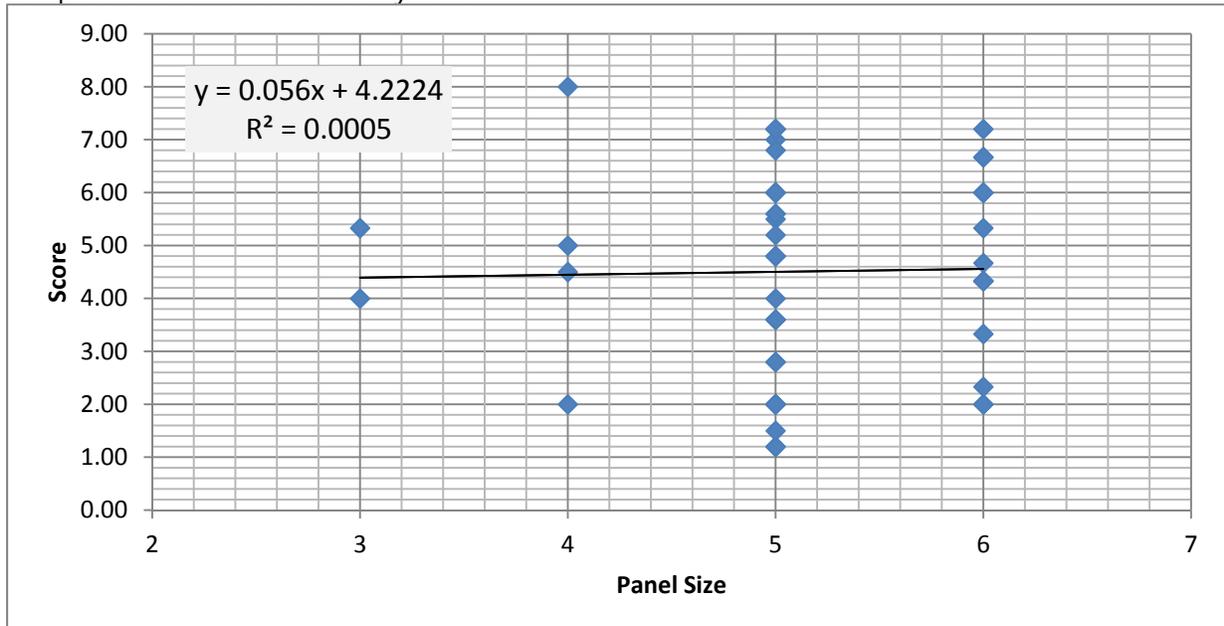


Figure 3. Panel Size vs. Initial Review Score for All Third Cycle Panels

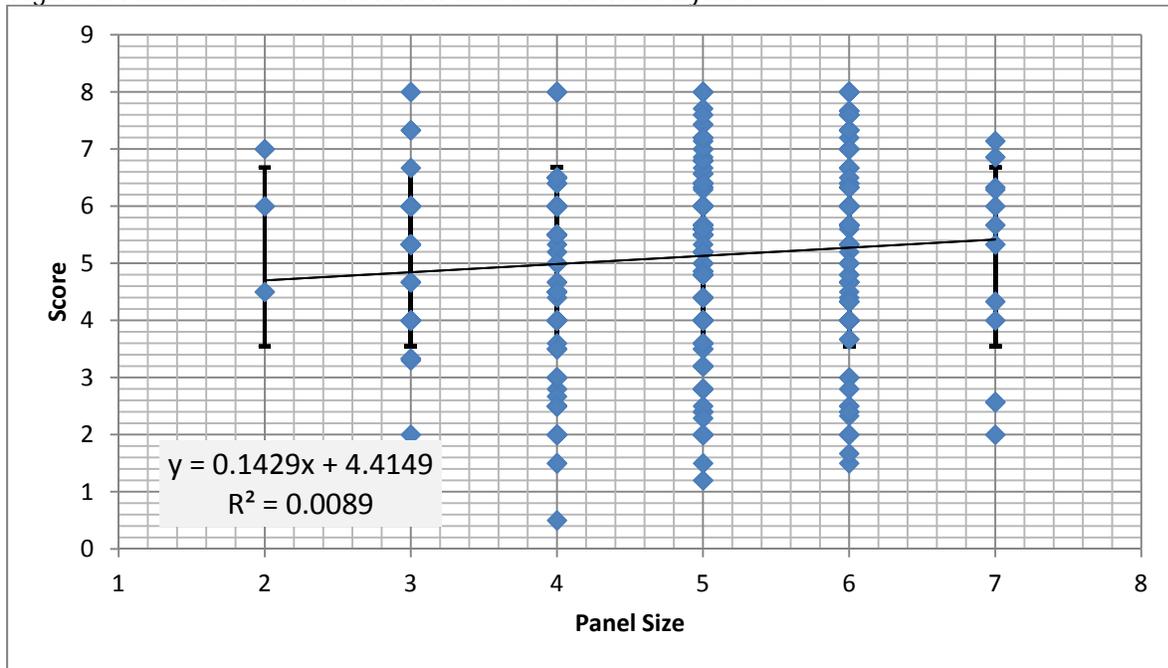


Figure 4. Number of Scientists vs. Initial Review Score for the Third Cycle of the NP 216 Agricultural Systems Competitiveness and Sustainability Panels

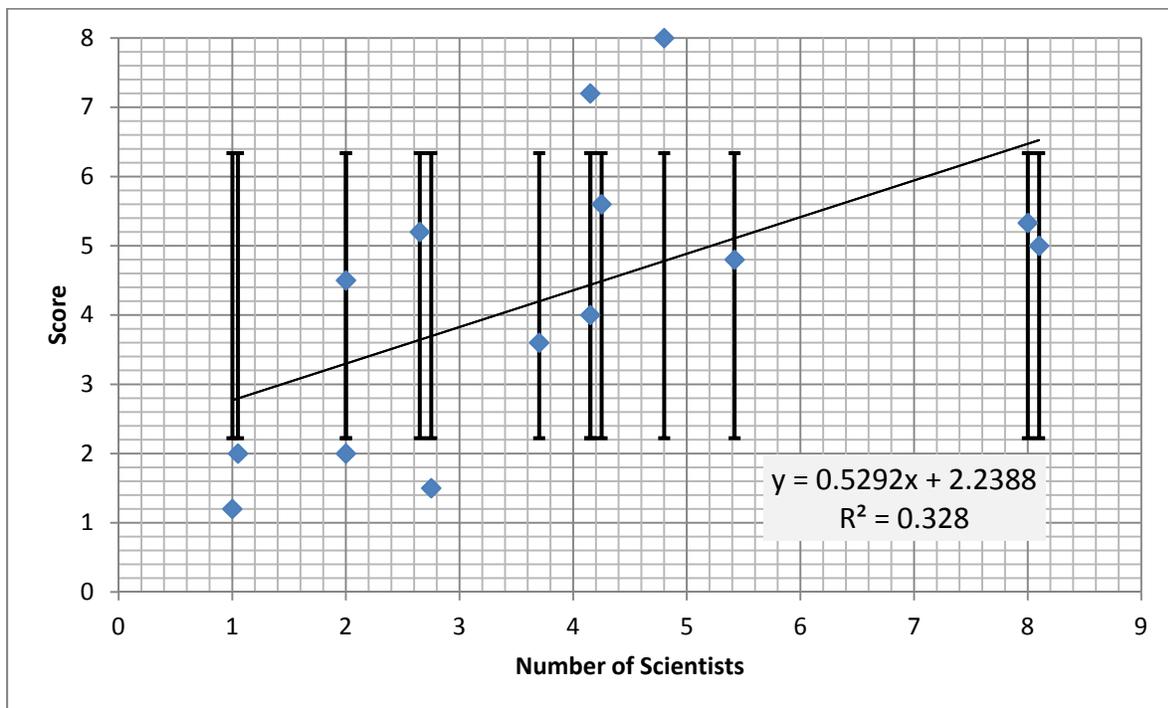


Figure 5. Number of Scientists vs. Initial Review Score for All the Third Cycle Panels

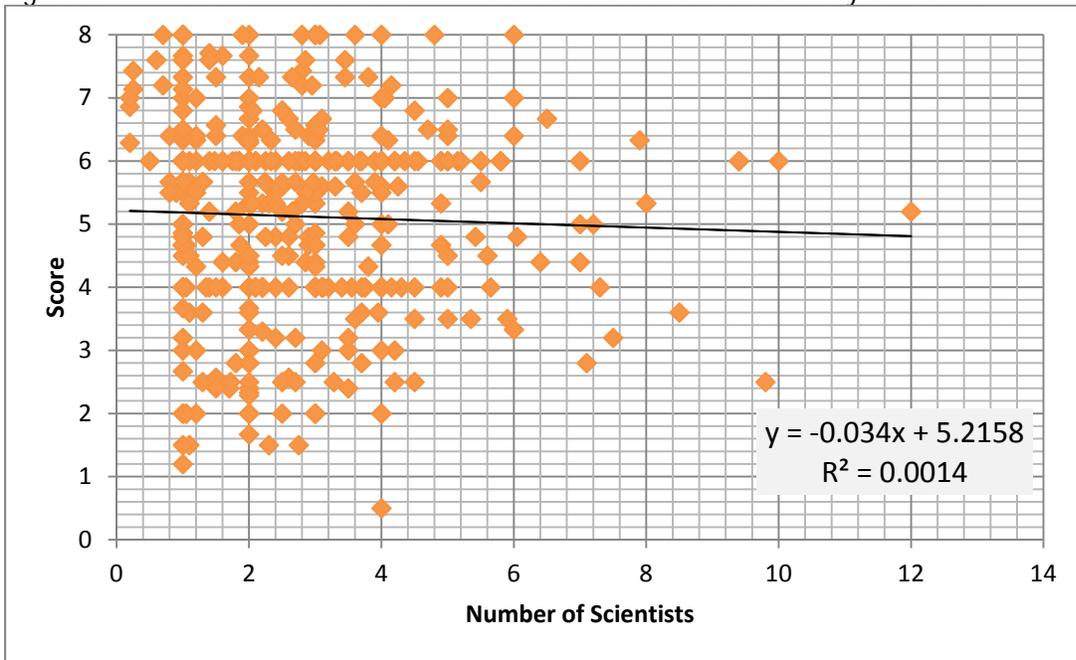


Figure 6. Initial Review Scores for the First (2003), Second (2008) and Third (2013) Cycle Distribution for the NP 216 Agricultural System Competitiveness and Sustainability Panels (4.51; 4.69; 4.28, respectively). The number of plans reviewed by each cycle is in parentheses. Number over columns is the actual number of plans receiving that score.

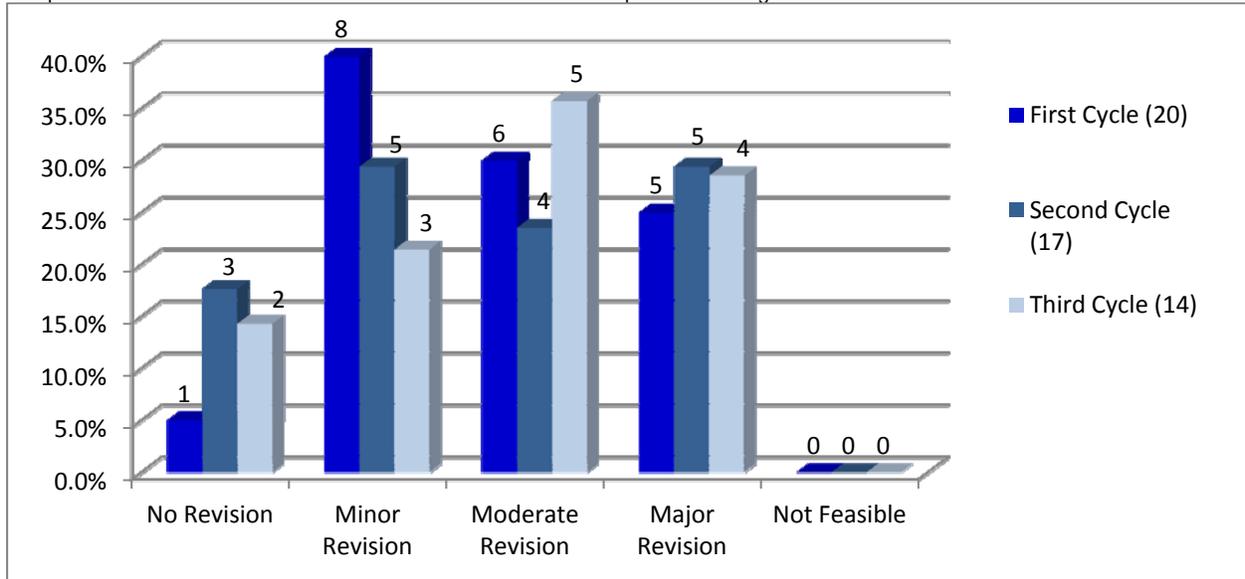
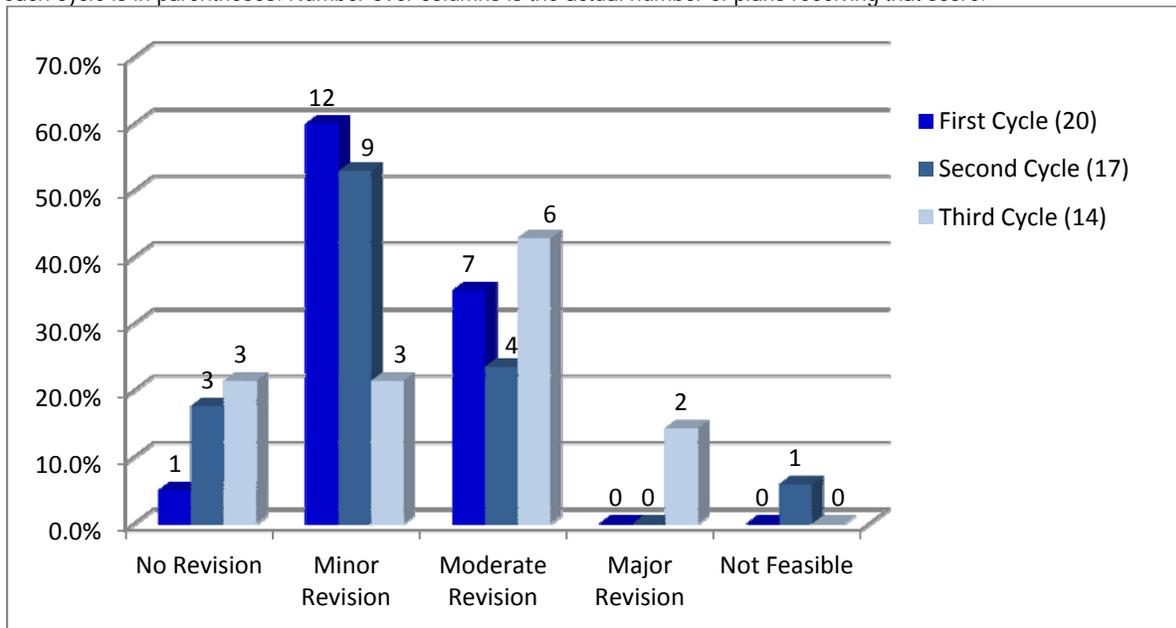


Figure 7. Final Review Scores for the First (2003), Second (2008), and Third (2013) Cycle Distribution for the NP 216 Agricultural System Competitiveness and Sustainability Panels (average score 5.5; 5.42; 5, respectively). The number of plans reviewed by each cycle is in parentheses. Number over columns is the actual number of plans receiving that score.



Panel Characteristics

ARS places responsibility for panel member selection primarily on external and independent Panel Chairs. ARS scientists, managers and the Office of National Programs may recommend panelists but the Panel Chair is under no obligation to use these recommendations. Several factors such as qualification, diversity, and availability play a role in who is selected for an ARS peer review panel. The five panels were composed of nationally and internationally recognized experts to review 14 projects primarily coded to the Agricultural System Competitiveness and Sustainability Program (see Table 1, page 2). The information and charts below provide key characteristics of the Agricultural System Competitiveness and Sustainability Panels. This information should be read in conjunction with the Panel Chair Statements.

Affiliations

Peer reviewers are affiliated with several types of institutions, especially universities, government, special interest groups, and industry. In some cases, peer reviewers have recently retired but are active as consultants, scientific editorial board members, and are members of professional societies. Also, a government-employed panelist is recognized for both their government affiliation and faculty ranking. Table 4 shows the type of institutions with which the Agricultural System Competitiveness and Sustainability Panel members were affiliated with at the time of the review.

Table 4. Faculty Rank of Panelists Affiliated with Universities and Other Affiliations Represented on the Panels

| Panel | Professor | Associate Professor | Assistant Professor | Government | Industry & Industry Organizations | Other |
|---|-----------|---------------------|---------------------|------------|-----------------------------------|-------|
| NP 216 Panel 1 – Cropping Systems (5) | 4 | 1 | | | | |
| NP 216 Panel 2 – Integrated Systems (4) | 1 | | 2 | 1 | | |
| NP 216 Panel 3 – Modeling & Decision Systems (5) | 2 | 2 | 1 | | | |
| NP 216 Panel 4 – Organic Systems (4) | 2 | 1 | 1 | | | |
| NP 216 Panel 5 – Sustainability, Agroecosystems (3) | | 1 | 2 | | | |

Accomplishments

The peer review process is intended to be rigorous and objective, striving for the highest possible scientific credibility. In general, panelists are expected to hold a PhD unless the norm for their discipline tends to not require doctorate level education to achieve the highest recognition and qualification (e.g., engineers and modeling specialists). Panelists are also judged by their most recent professional accomplishments (e.g. awards and publications completed in the last five years). Finally, the panelists who are currently performing or leading research to address a problem similar to those addressed in the National Program are preferred. Table 5 describes their characteristics in the Agricultural System Competitiveness and Sustainability Panels.

Table 5. The Panels' Recent Accomplishments

| Panel | Published Articles Recently | Received Recent Professional Awards | Having Review Experience | Currently Performing Research |
|---|-----------------------------|-------------------------------------|--------------------------|-------------------------------|
| NP 216 Panel 1 – Cropping Systems (5) | 5 | 4 | 5 | 5 |
| NP 216 Panel 2 – Integrated Systems (4) | 4 | 4 | 4 | 3 |
| NP 216 Panel 3 – Modeling & Decision Systems (5) | 5 | 5 | 5 | 5 |
| NP 216 Panel 4 – Organic Systems (4) | 4 | 4 | 4 | 4 |
| NP 216 Panel 5 – Sustainability, Agroecosystems (3) | 3 | 2 | 3 | 3 |

Current and Previous ARS Employment

The Research Title of the 1995 Farm Bill 105-585, mandated ARS's requirements for the peer review of ARS research projects: 1) panel peer reviews of each research project were mandated at least every five years and 2) the majority of peer reviewers must be external (non-ARS scientists). Table 6 shows how many panelists were formerly employed by ARS.

Table 6. Affiliations with ARS

| Panel | Formerly Employed by ARS |
|---|--------------------------|
| NP 216 Panel 1 – Cropping Systems (5) | |
| NP 216 Panel 2 – Integrated Systems (4) | |
| NP 216 Panel 3 – Modeling & Decision Systems (5) | 1 |
| NP 216 Panel 4 – Organic Systems (4) | |
| NP 216 Panel 5 – Sustainability, Agroecosystems (3) | 1 |

Agricultural System Competitiveness and Sustainability Panel Chairs



Deborah Young, Ph.D.

Panel 1 – Cropping Systems

Professor, Department of Bioagricultural Sciences and Pest Management, Colorado State University, Fort Collins, Colorado

Education: B.A. Indiana University; M.S. & Ph.D. University of Arizona

Dr. Young's research interests are integrated pest management, sustainable agriculture and community.



Bruno Basso, Ph.D.

Panel 3 – Modeling and Decision Systems

Associate Professor, Department of Geological Science, W. K. Kellogg Biological Station, Michigan State University, East Lansing, Michigan

Education: Ph.D. Michigan State University

Dr. Basso's research interests are crop modeling, precision agriculture, water, nitrogen, carbon cycling and modeling, agronomic management, and remote sensing applied to agriculture.



Michelle Wander, Ph.D.

Panel 4 – Organic Systems

Professor and Director, Department of Natural Resources and Environmental Sciences, University of Illinois, Urbana, Illinois

Education: B.S. University of Michigan; M.S. University of California; Ph.D. Ohio State University

Dr. Wander's research interests include agriculture management, organic matter, soil ecology and sustainable agriculture.



Mary Stromberger, Ph.D.

Panel 5 – Sustainability, Agroecosystems

Associate Professor, Department of Soil and Crop Sciences, Colorado State University, Fort Collins, Colorado

Education: B.S. West Chester University; M.S. University of Delaware; Ph.D. Oregon State University

Dr. Stromberger's research interests are soil quality, soil microbiology and ecosystem services.

Panel Chair Statements

All Panel Chairs are required to turn in a statement that describes how their Panel was conducted and possibly provide comments on the review process that might not otherwise be found in the individual research project plan reviews. Panel Chairs are given some guidelines for writing their statements, but are nevertheless free to discuss what they believe is important for broad audiences.

*Deborah J. Young, Ph.D.
Department of Bioagricultural Sciences and Pest Management
C209 Plant Sciences
Fort Collins, CO 80523-1177*

27 June 2013

Dr. Joyce Loper, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Re: Panel Chair Statement

Dr Loper:

In response to your questions:

1. Did the Cropping Systems panel (NP 216) have discussions that reflected sound and credible scientific peer review and/or ideas, creative thinking, and alternative approaches to improve the quality of research that may not have been considered by Agency scientists and staff?

The panel represented a diverse geographic and disciplinary group of scientists that were able to bring forward suggestions for approaches from both their own and published research.

2. What were the most notable (positive or negative) characteristics of the discussion process and why:
- Level of preparation for the discussion – several reviewers noted that this took longer than anticipated
 - Time spent discussing each project -- appropriate
 - Logistical arrangements – ARS staff were helpful and timely
 - Exclusion of peer reviewers who had a conflict with the project – no issues
 - Understanding of the review criteria and roles as peer reviewers – no issues
 - Scoring and critique writing procedures – process went smoothly; reviewers had an opportunity to reflect and/or change their initial scores if necessary

3. What suggestions do you have to improve the peer review process? The reviewers did not know each other. As chair, in retrospect, I suggest a joint conference call so that reviewers know their fellow panel members.

4. Overall, was this an effective peer review panel? yes



*Deborah J. Young, Ph.D.
Professor, Colorado State University*

MICHIGAN STATE UNIVERSITY

Panel Chair Statement

June 27, 2013

Addressed to:

Dr. Joyce Loper, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

1. *Did the NP 216 – Panel 3- Modeling and Decision Systems (2013) have discussions that reflected:*

Panel Chair: The panel had a sound and productive scientific review. The panel made several improvements to the plans to improve the quality of the research, the final outcome and the overall impact of the research proposed.

2. *What were the most notable (positive or negative) characteristics of the discussion process and why:*

Panel Chair: The level of preparation for the discussion was time consuming, but it led to an extremely high level discussion due to reviewer's scientific profile. The panel spent on average 30 minutes for each project. The discussion took place remotely using the teleconference facilities provided by the USDA. Mike Strauss presided the discussion and the panel chair interacted with each of the primary and secondary reviewers. There was one case of a conflict of interest, which was solved by discussing all the other plans first, then the reviewer who had the conflict of interest left the panel.

The panel had a good discussion on whether we needed to judge the proposal based on the objectives assigned by USDA or if we needed to provide suggestions for improvements. Initially it was not clear to us, but it was later clarified by Mike Strauss that our suggestions, which in some cases were drastic, should have been put forward as options for future planning.

3. *What suggestions do you have to improve the peer review process?*

Panel Chair: The teleconference system had some initial technical issues, but it worked well in the end.

4. *Overall, was this an effective peer review panel?*

Panel Chair: I think this panel was really outstanding. The reviewers were excellent and the panel came to agreements on all the comments provided by reviewers and Chair.

Sincerely yours,



Bruno Basso, Ph.D.
Associate Professor
Dept. Geological Sciences and W.K. Kellogg Biological Station
288 Farm Lane, 307 Natural Science Bldg.
Michigan State University
48824 East Lansing, MI
USA



College of
Natural Science
Department of
Geological Sciences

206 Natural Science Building
East Lansing, MI 48824-1115

517-353-4626
Fax: 517-353-8787
<http://geology.msu.edu>

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Department of Natural Resources
and Environmental Sciences

College of Agricultural, Consumer
and Environmental Sciences
W-503 Turner Hall
1102 South Goodwin Avenue
Urbana, IL 61801



Dr. Joyce Loper, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Dear Dr. Loper,

It was a pleasure to manage the USDA NP 216 Panel 4 - Organic Systems. The process was very well structured to allow a complete and credible scientific peer review. The panel members were impressed and all did an excellent job as they conducted a thoughtful review. Written and oral discussion of all three projects was carefully done. Feedback provided should aid researchers in their work.

The most notable positive aspect of the process was its efficiency. The staff support and structure were effective and allowed busy people to participate in a meaningful way. One small weakness of the structure is that once the panel gives a recommendation to a researcher there seems little requirement that recommendations be taken to heart. The panel was a little frustrated by the response to suggestions in one instance.

You might be able to motivate researchers to take suggestions to heart by having the panel make its decision after receiving feedback from the researchers. This might be done by adding a defer decision choice into your process.

Overall it is a very effective and productive process.

Sincerely,

A handwritten signature in blue ink that reads "Michelle Wander".

Michelle Wander
Professor of Soil Fertility/Ecology



Department of Soil and Crop Sciences
C-127 Plant Sciences Building
Fort Collins, Colorado 80523-1170
(970) 491-6517
www.soilcrop.colostate.edu

June 7, 2013

Dr. Joyce Loper, Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Dear Dr. Loper:

Thank you again for the opportunity to serve as Panel Chair for the NP 216 Panel 5 on Sustainability and Agroecosystems. Two project plans (from ASRU in Sidney, Montana and NRMRU in Mandan, North Dakota) were reviewed and rated by two reviewers and myself. During the panel, our discussions focused on the overall strengths of each project plan, the organization and readability of each proposal, specific weaknesses to be addressed, and alternative or new approaches to strengthen those weaknesses. Detailed comments and suggestions were provided in each written panel recommendation, as well as our feedback regarding the probability of success and scientific merit of each plan. Our discussion addressed overarching needs related to mechanistic-based hypotheses to suggestions for analyses to be conducted on specific experiments. Thus, our panel provided a thorough and credible scientific review of these projects.

Among the positive characteristics of the discussion process was the high level of preparation prior to the panel discussion. Each reviewer completed their comments on-time (or early); comments were forwarded to me so that I was able to read them prior to the panel meeting. Peer Review Program Coordinator Dr. Mike Strauss captured the written reviews in a draft of the Panel Recommendation Form, which he also forward to me and the reviewers prior to the panel meeting. During the panel, Mike did an excellent job in summarizing our discussion points in a clear and concise manner to add to the recommendation form. Another positive aspect of the panel discussion was our focus on providing examples and ideas of how to strengthen specific weakness, such as alternative methods or hypothesis revisions. At least 30 minutes were given to each project plan for discussion, which was enough time for everyone to provide detailed feedback. Additional time was allotted for project rating and final comments. The online process was efficient and there were no issues with connecting over the internet or phone. You and Mike were excellent facilitators of the panel, and I appreciate the review of the rating criteria just prior to beginning our discussions. I experienced no negative aspects of the discussion process, and I have no suggestions to improve the peer review process. The entire process was extremely efficient, and participating over the on-line system was easy. Overall, this was a very effective peer review panel.

Best regards,

Mary Stromberger
Associate Professor, Soil Microbiology

Projects Reviewed by the Agricultural System Competitiveness and Sustainability Panels

Beltsville Area

Michel Cavigelli

Defining Agroecological Principles and Developing Sustainable Practices in Mid-Atlantic Cropping Systems

Mid South Area

Kipling Balkcom

Sustainable Production, Profit, and Environmental Stewardship through Conservation Systems

Johnie Jenkins

Integration of Site-Specific Crop Production Practices and Industrial and Animal Agricultural Byproducts to Improve Agricultural Competitiveness and Sustainability

Gretchen Sassenrath

Develop Tools and Practices that Enhance the Sustainability of Agricultural Production Systems in Humid Areas

Mid West Area

John Kovar

Cropping Systems for Enhanced Sustainability and Environmental Quality in the Upper Midwest

North Atlantic Area

Robert Larkin

Improved Crop Production Systems for the Northeast

Northern Plains Area

John Hendrickson

Management Strategies to Sustainably Intensify Northern Great Plains Agroecosystems

Liwang Ma

Apply Agricultural System Models to Help Optimize the Use of Limited Water for Crop Production, Mitigate Greenhouse Gas Emissions, and Adapt to Droughts and Climate Change in the Great Plains

Bart Stevens and Upendra Sainju

Development of Ecologically-Sound Pest, Water and Soil Management Practices for Northern Great Plains Cropping Systems

Pacific West Area

Eric Brennan

Strategies to Improve Soil and Pest Management in Organic Vegetable and Strawberry Production Systems

Harold Collins

Enhancing Sustainability of Irrigated Specialty Crops and Biofuel Feedstock Production

Stephen Griffith

Multi-Objective Optimization of a Profitable and Environmentally Sustainable Agriculture to Produce Food and Fiber in a Changing Climate

Frank Young and Daniel Long

Cultural Practices and Cropping Systems for Economically Viable and Environmentally Sound Oilseed Production in Dryland of Columbia Plateau

South Atlantic Area

Ronald Sorensen

Enhancing the Competitiveness of US Peanuts and Peanut-Based Cropping Systems

Office of Scientific Quality Review

The Office of Scientific Quality Review manages and implements the ARS peer review system for research projects, including peer review policies, processes and procedures. OSQR centrally coordinates and conducts panel peer reviews for project plans with ARS' National Program every five years.

OSQR sets the schedule of National Program Review sessions. The OSQR Team is responsible for:

- Panel organization and composition (number of panels and the scientific disciplines needed).
- Distribution of project plans
- Reviewer instruction and panel orientation
- The distribution of review results in ARS
- Notification to panelists of the Agency response to review recommendations
- *Ad hoc* or re-review of project plans

Contact

Send all questions or comments about this Report to:

Christina Woods, Program Analyst

USDA, ARS, OSQR

5601 Sunnyside Avenue

Beltsville, Maryland 20705-5142

osqr@ars.usda.gov

301-504-3282 (voice); 301-504-1251 (fax)