Report NP306 – June 2015

NP 306 Quality and Utilization of Agricultural Products Panel Report

Michael A. Grusak, Scientific Quality Review Officer
(January 2014-December 2015)

August 5, 2015
Date

Michael S. Strauss, Peer Review Program Coordinator

August 4, 2015
Date

Introduction

This Panel Report is an overview and analysis of the 2015 National Program (NP) 306 Quality and Utilization of Agricultural Products Panel Review. The project plans reviewed by these panels were applicable to the mission of the National Program to "*enhance the marketability of agricultural products, increase the availability of healthful foods, develop value-added food and nonfood products, and enable commercially-preferred technologies for post-harvest processing.*"

Candidates to chair each panel were recommended by the National Program Leader (NPL), Dr. Gene Lester and vetted by the Office of Scientific Quality Review (OSQR). Dr. Michael A. Grusak, Scientific Quality Review Officer (SQRO), approved a Chair for 14 out of the 17 panels. Panels 12 and 17 consisted of a single plan for which written reviews were solicited and a composite review prepared under Dr. Grusak's signature. Panel 15 had two unique plans and individual reviews were sought for each plan and a composite review prepared under Dr. Grusak's signature (Table 1). The Chair for Panel 10 withdrew at a late date from the review so individual reviews were sought for each plan and composite reviews were prepared under Dr. Grusak's signature.

Table 1. Quality and Utilization of Agricultural Products Panels with the date of the initial review meeting where all plans before the panel were discussed and rated, the number of panelists appointed to the panel, and the number of projects reviewed by each panel.

Panel	Panel Chair	Panel Meeting Date	Number of Panelists	Number of Projects Reviewed
Panel 1: Lipid-Based Bioproducts	Dr. Larry Johnson, Professor & Director, Center for Crops Utilization Research, Iowa State University, Ames, IA	January 30, 2015	5	5
Panel 2: Polysaccharide-Based Bioproducts	Dr. Jinwen Zhang, Associate Professor, Composite Materials and Engineering Center, Washington State University, Pullman, WA	February 5, 2015	3	3
Panel 3: Protein-Based Bioproducts	Dr. Deland Myers, Professor, Department of Plant Sciences, North Dakota State University, Fargo, ND	January 23, 2015	3	3
Panel 4: Miscellaneous Bioproducts	Dr. Manjusri Misra, Professor, School of Engineering, University of Guelph, Guelph, Ontario, Canada	March 2, 2015	5	5
Panel 5: Biopesticides	Dr. Brian Federici, Distinguished Professor of Entomology, Department of Entomology, University of California, Riverside, CA	N/A	2	1
Panel 6: Cotton Processing	Dr. Dana Porter, Associate Professor & Extension Specialist, Department of Biological and Agricultural Engineering, Texas A&M Agrilife Research and Extension Service, Lubbock, TX	March 10, 2015	4	4
Panel 7: Wheat/Grain Quality	Dr. Andrew Ross, Professor, Department of Crop and Soil Science, Oregon State University, Corvallis, OR	March 26, 2015	5	5
Panel 8: Grain Engineering	Dr. Jon Faubion, Singleton Endowed Professor, Department of Grain, Science and Industry, Kansas State University, Manhattan, KS	March 31, 2015	3	3
Panel 9: Peanuts/Oils	Dr. Casimir Akoh, Distinguished Research Professor, Department of Food Science and Technology, The University of Georgia, Athens, GA	January 21, 2015	3	3

Table 1. (Continued) Quality and Utilization of Agricultural Products Panels with the date of the initial review meeting where all plans before the panel were discussed and rated, the number of panelists appointed to the panel, and the number of projects reviewed by each panel.

Panel	Panel Chair	Panel Meeting Date	Number of Panelists	Number of Projects Reviewed
Panel 10: Citrus	Dr. Michael A. Grusak, SQRO	N/A	7	2
Panel 11: Dairy	Dr. Joseph Marcy, Department Head, Department of Food Science and Technology, Virginia Tech University, Blacksburg, VA	January 13, 2015	3	2
Panel 13: Processing	Dr. Cristina Sabliov, Associate Professor, Biological and Agricultural Engineering Department, Louisiana State University Agricultural Center, Baton Rouge, LA	January 28, 2015	4	4
Panel 14: Functional Foods	Dr. Vivian Wu, Professor, Department of Food Science and Nutrition, University of Maine, Orono, ME	February 24, 2015	5	5
Panel 15: Meats	Dr. Michael A. Grusak, SQRO	N/A	6	2
Panel 16: Fruit and Vegetable Quality	Dr. Cindy Tong, Associate Professor, Department of Horticultural Science, University of Minnesota, St. Paul, MN	February 9, 2015	6	5
Panel 17: Quality and Marketability	Dr. Michael A. Grusak, SQRO	N/A	5	1

Panel Review Results

Following panel review, OSQR sends each Area Director a document that contains the consensus recommendations for each plan from their Area. This may include recommendations for revision of the plan to which researchers are required to respond in writing and, as appropriate, revise their written plans.

In addition, as part of their discussion panelists provide a judgment of the overall quality of the plan, expressed in terms of the degree of revision that may be required. This judgment is termed an "Action Class." Each reviewer is asked to provide an Action Class rating for each plan. OSQR assigns a *numerical equivalent* to each Action Class rating and then averages these to arrive at an overall Action Class Score for the plan.

The Action Classes and their Numerical Equivalents are defined below.

Average Score 7.0-8.0	**No Revision Required (Numerical Equivalent: 8).** An excellent plan; no revision is required, but minor changes to the project plan may be suggested.
Average Score 5.1-6.9	**Minor Revision Required (Numerical Equivalent: 6).** The project plan is feasible as written, requires only minor clarification or revision to increase quality to a higher level.
Average Score 3.1-5.0	**Moderate Revision Required (Numerical Equivalent: 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.

Average Score 1.1-3.0	**Major Revision Required (Numerical Equivalent: 2).** There are significant flaws in the experimental design and/or approach or lack of clarity which hampers understanding. Significant revision is needed.
Average Score 0-1.0	**Not Feasible (Numerical Equivalent: 0).** The project plan, as presented, has major scientific or technical flaws. Deficiencies exist in experimental design, methods, presentation, or expertise which make it unlikely to succeed.

For plans receiving one of the first three Action Classes (No Revision, Minor Revision or Moderate Revision) scientists respond in writing to panel comments in the consensus recommendation document, revise their project plan as appropriate, and submit the revised plan and responses to OSQR through their Area Office. These are reviewed by the SQRO and, once he/she is satisfied that all review concerns have been satisfactorily addressed, the project plan is certified and may be implemented. *Certification is contingent upon satisfactorily addressing panel comments and recommendations.* Plans have not "passed" review until receiving the Officer's certification.

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 Consensus Recommendations and Action Class. If the re-review Action Class is No Revision, Minor Revision or Moderate Revision the project plan may be implemented after receipt of a satisfactory response and Officer certification as described above. Plans receiving Major Revision or Not Feasible scores at this point fail review. (The Action Class and Consensus Recommendations are provided to the Area but there is no further option for revision). Such plans are terminated, reassigned, or restructured at the discretion of the Area and Office of National Programs. On occasion, it is elected not to further revise plans that have received a low score on initial review. In such cases these are treated as having not successfully completed (i.e., failed) review, they cannot be certified, and appropriate action becomes the responsibility of the Area and NPL leadership.

NP 306 Program Overview

At the end of each panel meeting, the reviewers are asked to provide general comments or recommendations on the process. In addition, Panel Chairs provide a written statement on the review process and research plans. The reviewers said that the strength of this review is that it was not about money but focused on research. The lack of budget makes focus more on science and how to improve research. Before this review, they did not appreciate how much thought goes into ARS research and the level of review these plans undergo. It improved their impression of ARS and they had a better understanding of how ARS Research is planned and were better able to appreciate the work of ARS.

Many of the projects were thought to be quite novel but could be improved by more national and international collaboration. Industry collaborations were not always clear in these plans. In other cases it was good to see breadth of collaboration. The reviewers thought the plans, in general, showed thoroughness and care and often the effort taken in these plans was impressive. One reviewer noticed that some of the plans were a bit large but interesting and much better written

than in an earlier panel five years before. Some of the plans appeared overly ambitious and needed more detail and greater clarity of approach. Some felt that although it is good research it is not likely suitable for competitive research programs.

Table 2 shows the initial and final scores for the third cycle plans expressed as percentages for the NP 306 Quality and Utilization of the Agricultural Products Panels. One plan that received a major revision score was terminated without further review. Two other plans that received major revision scores went through second review and were certified. The third cycle initial score (5.23; Minor Revision) was higher than the first (4.91; Moderate Revision) and second (4.9; Moderate Revision) cycles, but in final review the first cycle had the highest average initial score (5.69; Minor Revision) followed by the second cycle (5.36; Minor Revision) and lastly, the third cycle (5.35; Minor Revision).

There was no influence of the size of the panel on the initial score for the plans in the current NP 306 Quality and Utilization of Agricultural Products review (Figure 1). Even with the inclusion of the first and second cycles, Figure 2 shows that there was no influence of panel size on initial review score. Figure 3 contains data for all plans reviewed by panels in the current review cycle. It also shows that panel size has no influence on initial review score.

Figure 4 appears to show a slight influence on the scientific effort (scientific year, SY) on the initial review score for the current review of the NP 306 Quality and Utilization of Agricultural Products Plans, although the R^2 value suggests that this is not the case. Figure 5 includes the initial review score on all plans reviewed in the current five-year review cycle and confirms a lack of influence of SY time on score.

There is no apparent influence of actual number of scientists on the initial review score for the current NP 306 Quality and Utilization of Agricultural Products Panel Review (Figure 6) and Figure 7, which includes the plans that have been reviewed in the current five-year review cycle, is consistent with this observation.

The first cycle had the larger amount of plans receiving major revision (16) followed by the second (15) and the third cycle (current) had only three plans. The first and second cycle reviews also had one plan each receiving a not feasible score (Figure 8). The second cycle had five plans failing review and the first and third cycles had one plan each failing review (Figure 9).

Table 2. Proportion of initial and final scores for the third (2015) cycle expressed as percentage of all reviewed and the average initial numerical score for the NP 306 Quality and Utilization of Agricultural Products Panels. Note that for plans receiving No Revision, Minor Revision, or Moderate Revision, a second score is not received from the Panel so the initial score is recorded as the final score.

Third Cycle, 2015	Initial Review						Final Review					
	No Revision	Minor Revision	Moderate Revision	Major Revision	Not Feasible	Avg Initial Score	No Revision	Minor Revision	Moderate Revision	Major Revision	Not Feasible	Avg Final Score
Panel 1: Lipid-Based Bioproducts	40.0%	0.0%	40.0%	20.0%	0.0%	4.93	40.0%	20.0%	40.0%	0.0%	0.0%	5.81
Panel 2: Polysaccharide-Based Bioproducts	0.0%	66.7%	33.3%	0.0%	0.0%	4.83	0.0%	66.7%	33.3%	0.0%	0.0%	4.83
Panel 3: Protein-Based Bioproducts	0.0%	66.7%	33.3%	0.0%	0.0%	5.33	0.0%	66.7%	33.3%	0.0%	0.0%	5.33
Panel 4: Miscellaneous Bioproducts	0.0%	40.0%	60.0%	0.0%	0.0%	4.77	0.0%	40.0%	60.0%	0.0%	0.0%	4.77
Panel 5: Biopesticides	0.0%	100.0%	0.0%	0.0%	0.0%	6	0.0%	100.0%	0.0%	0.0%	0.0%	6
Panel 6: Cotton Processing	0.0%	75.0%	25.0%	0.0%	0.0%	5.4	0.0%	75.0%	25.0%	0.0%	0.0%	5.4
Panel 7: Wheat/ Grain Quality	40.0%	20.0%	40.0%	0.0%	0.0%	6.48	40.0%	20.0%	40.0%	0.0%	0.0%	6.48
Panel 8: Grain Engineering	100.0%	0.0%	0.0%	0.0%	0.0%	7.33	100.0%	0.0%	0.0%	0.0%	0.0%	7.33
Panel 9: Peanuts/Oils	0.0%	0.0%	66.7%	33.3%	0.0%	4	0.0%	0.0%	100.0%	0.0%	0.0%	4.66
Panel 10: Citrus	0.0%	100.0%	0.0%	0.0%	0.0%	6	0.0%	100.0%	0.0%	0.0%	0.0%	6
Panel 11: Dairy	0.0%	0.0%	100.0%	0.0%	0.0%	4	0.0%	0.0%	100.0%	0.0%	0.0%	4
Panel 12: Allergies	0.0%	100.0%	0.0%	0.0%	0.0%	6.5	0.0%	100.0%	0.0%	0.0%	0.0%	6.5
Panel 13: Processing	0.0%	50.0%	50.0%	0.0%	0.0%	4.6	0.0%	50.0%	50.0%	0.0%	0.0%	4.6
Panel 14: Functional Foods	0.0%	40.0%	60.0%	0.0%	0.0%	4.99	0.0%	40.0%	60.0%	0.0%	0.0%	4.99
Panel 15: Meats	0.0%	100.0%	0.0%	0.0%	0.0%	5.33	0.0%	100.0%	0.0%	0.0%	0.0%	5.33
Panel 16: Fruit & Vegetable Quality	0.0%	60.0%	20.0%	20.0%	0.0%	4.69	0.0%	60.0%	20.0%	20.0%	0.0%	4.69
Panel 17: Quality & Marketability	0.0%	100.0%	0.0%	0.0%	0.0%	5.6	0.0%	100.0%	0.0%	0.0%	0.0%	5.6
NP 306, All	10.6%	54.0%	31.1%	4.3%	0.0%	5.23	10.6%	55.2%	33.0%	1.2%	0.0%	5.35

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 306 Quality and Utilization of Agricultural Products Panels. See note above regarding No, Minor, and Moderate initial scores. Number of plans are indicated in parentheses.

	Initial Review						Final Review					
	No Revision	Minor Revision	Moderate Revision	Major Revision	Not Feasible	Avg Initial Score	No Revision	Minor Revision	Moderate Revision	Major Revision	Not Feasible	Avg Final Score
First Cycle (91)	9.9%	44.4%	27.5%	17.6%	1.1%	4.91	19.8%	48.4%	30.8%	1.1%	0.0%	5.69
Second Cycle (72)	12.5%	41.7%	23.6%	20.8%	1.4%	4.9	15.3%	47.2%	30.6%	6.9%	0.0%	5.36
Third Cycle (54)	13.0%	44.4%	37.0%	5.6%	0.0%	5.23	13.0%	46.3%	38.9%	1.9%	0.0%	5.35

Figure 1. Influence of the number of reviewers (Panel Size) on the averaged numerical outcome (Score) received on the first review for the 54 plans in the current NP 306 Quality and Utilization of Agricultural Products review.

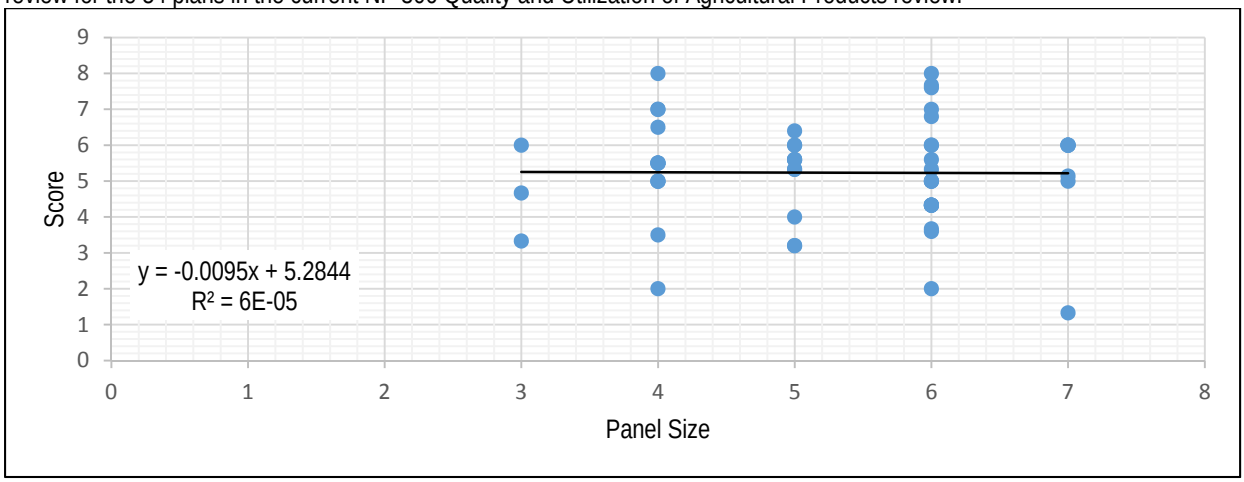


Figure 2. Inclusion of review scores for plans reviewed in the first (2004), second (2010) and third (2015) with the data in Figure 1 (217 plans total) for NP 306 Quality and Utilization of Agricultural Products Panels

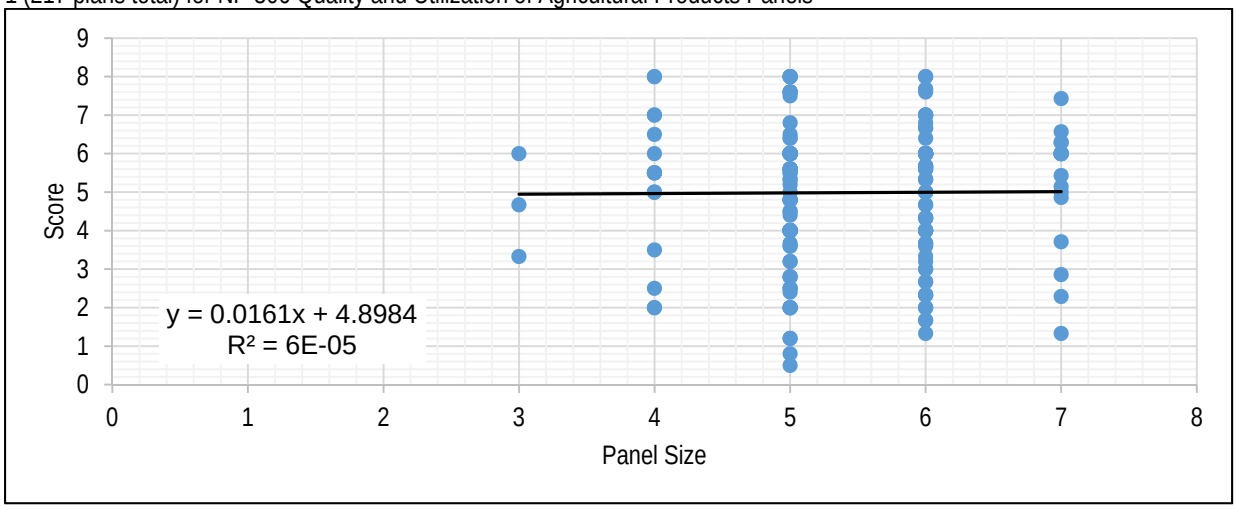


Figure 3. Similar to Figures 1 and 2 but for all plans reviewed by panels in the current 5-year review cycle.

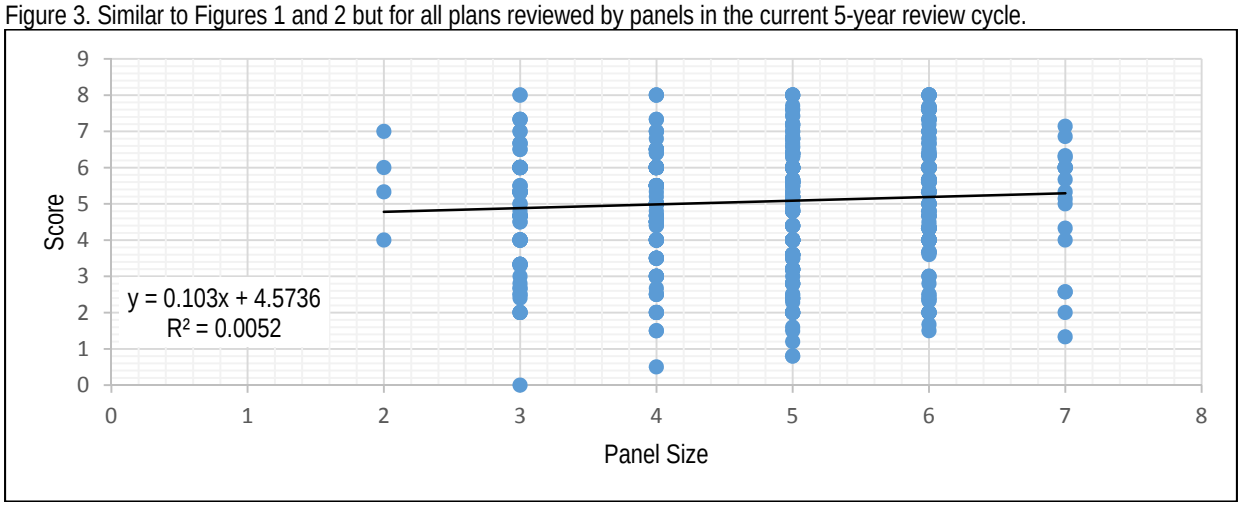


Figure 4. Influence of the overall scientific effort (in terms of Scientific Years, SY) assigned to a plan on the score received on initial review for the 54 plans in the current NP 306 Quality and Utilization of Agricultural Products Panel Review.

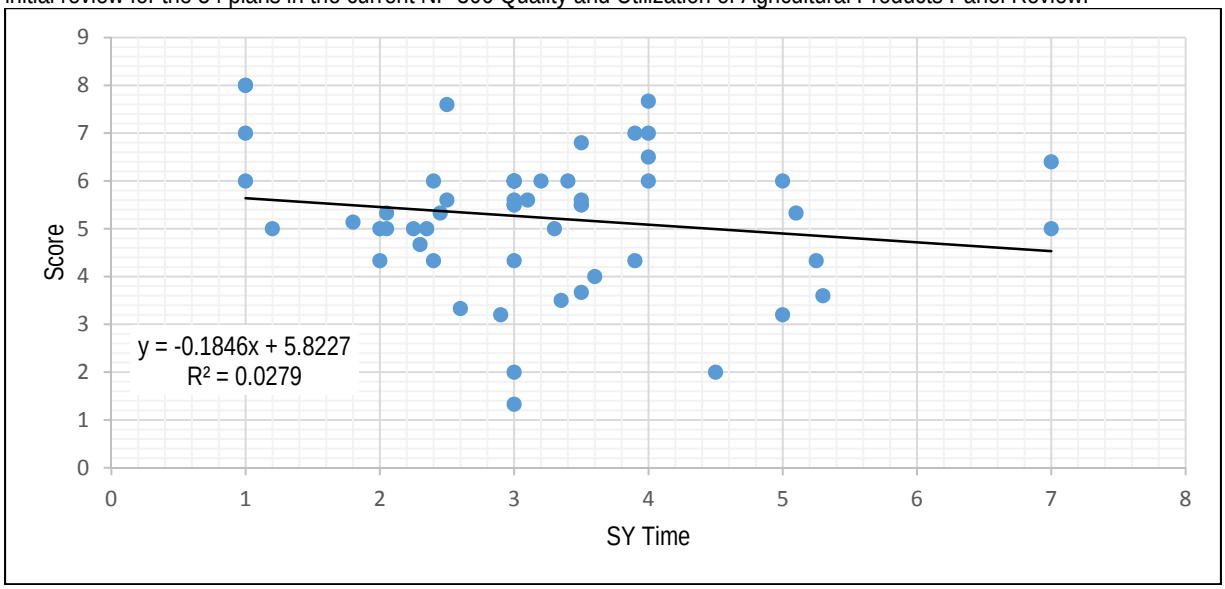


Figure 5. Same as Figure 4 but for all plans reviewed by panels in the current 5-year review cycle.

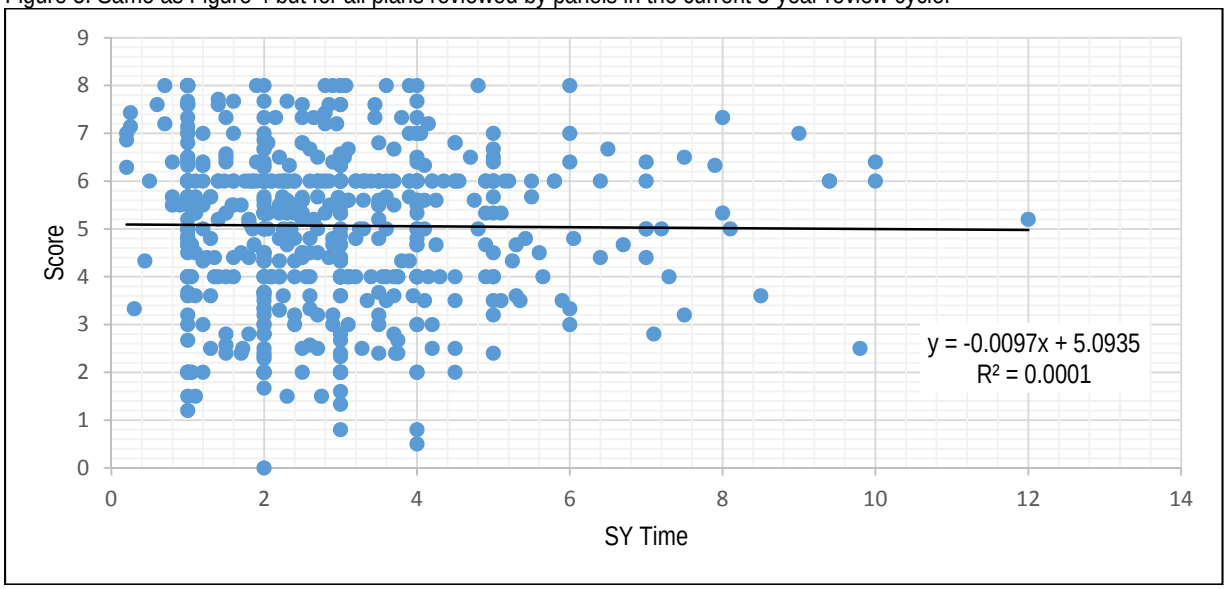


Figure 6. Influence of the number of scientists on a plan (independent of the proportion of their time) on the score received on initial review with the current NP 306 Quality and Utilization of Agricultural Products review.

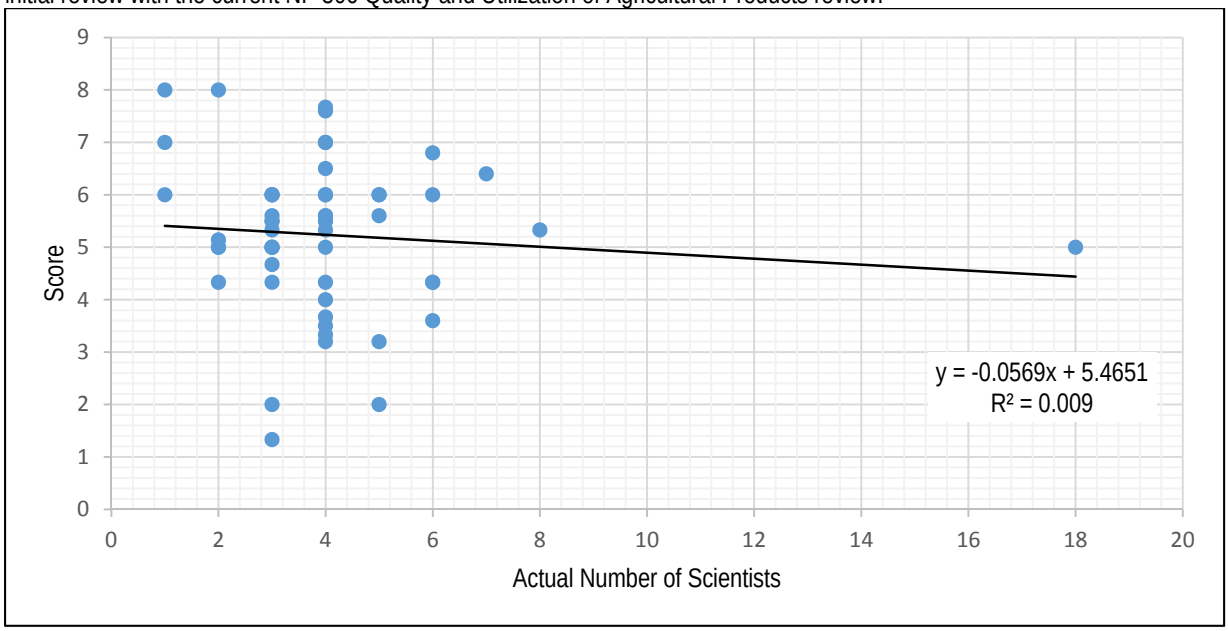


Figure 7. Same as Figure 6 but for all plans reviewed in the current 5-year review cycle.

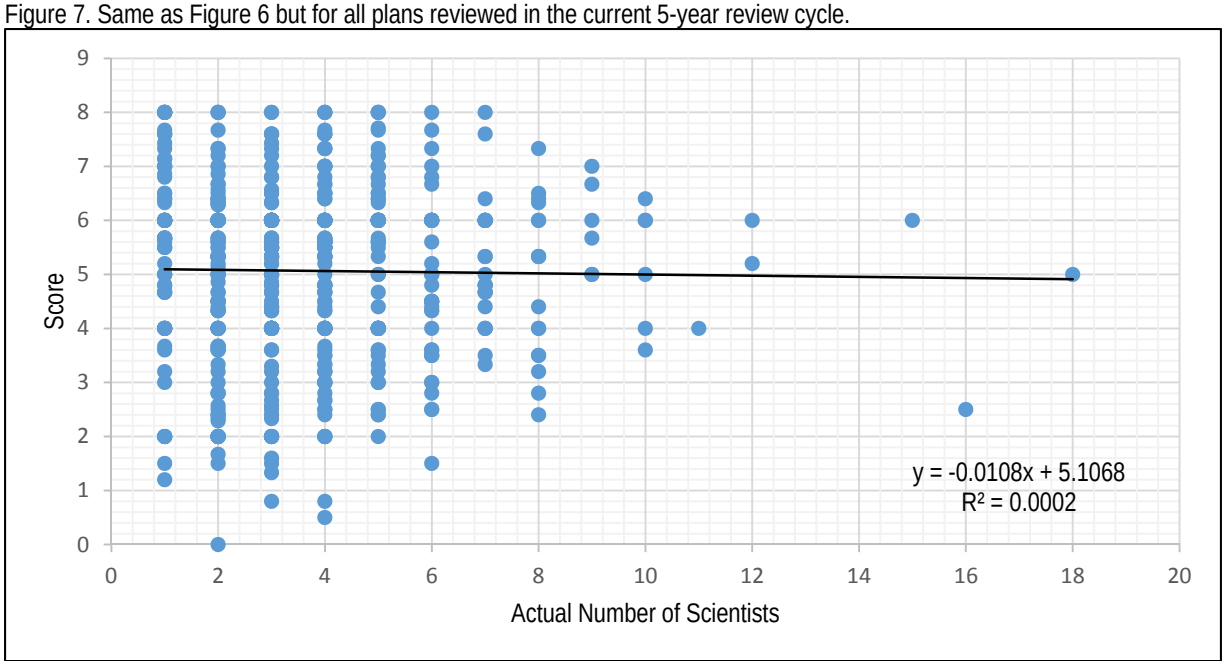


Figure 8. Percentage distribution of initial review scores for the first (2004), second (2010) and third (2015) cycles for the NP 306 Quality and Utilization of Agricultural Products Panels (4.91; 4.90; 5.23, average composite scores, respectively). The number of plans reviewed by each cycle is in parentheses. Number over columns is the number of plans receiving that score.

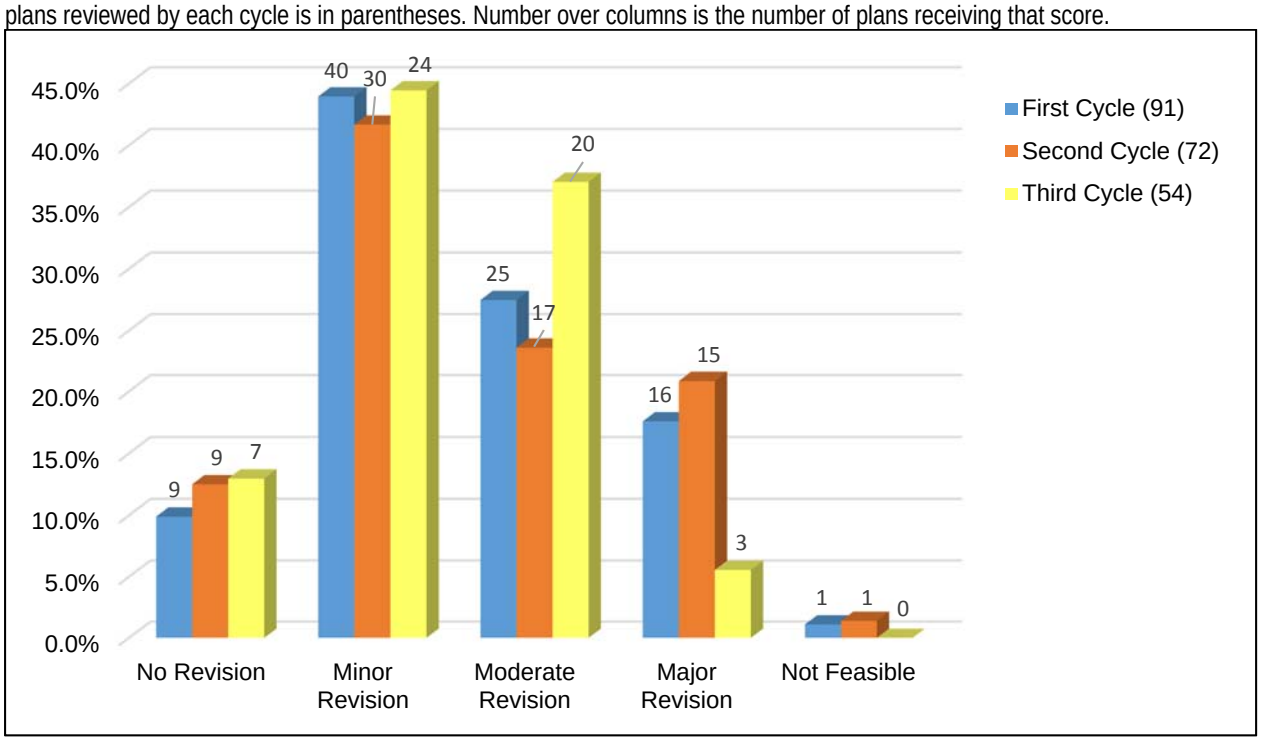
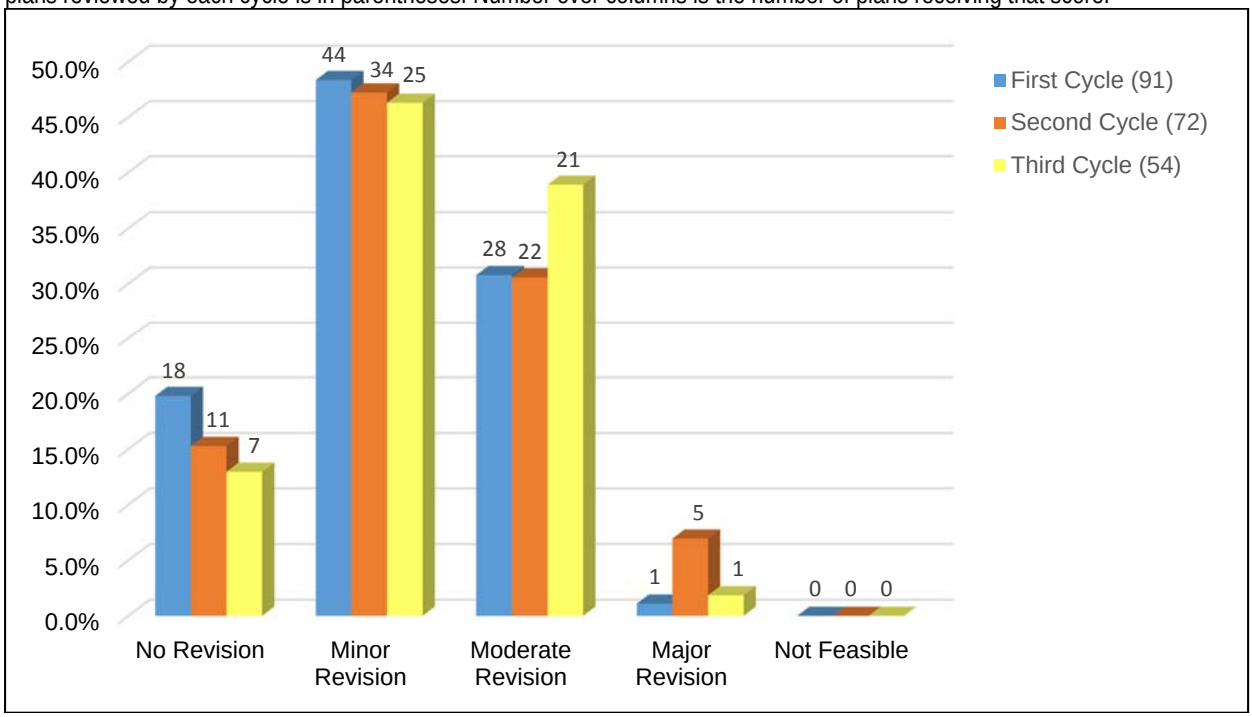


Figure 9. Percentage distribution of final review scores for the first (2004) second (2010) and third (2015) cycles for the NP 306 Quality and Utilization of Agricultural Products Panels (5.69; 5.36; 5.35, average composite scores, respectively). The number of plans reviewed by each cycle is in parentheses. Number over columns is the 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. However, the SQRO does review and approve the Panel Chair's panel member selections and may ask for alterations or additions. Several factors such as qualifications, diversity and availability play a role in who is selected for an ARS peer review panel. The 17 panels were composed of nationally and internationally recognized experts to review 54 projects primarily coded to the Quality and Utilization of Agricultural Products Program (see Table 1, page 2). The information and charts below provide key characteristics of the Quality and Utilization of Agricultural Products 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, but also 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. Table 4 shows the faculty rank of panelists affiliated with universities and the type of institutions with which the Quality and Utilization of Agricultural Products Panel members were affiliated with at the time of review.

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

Panel	Professor	Associate Professor	Assistant Professor	Government	Industry & Industry Organizations	Other
Panel 1: Lipid-Based Bioproducts (6)	2	1			2	1
Panel 2: Polysaccharide-Based Bioproducts (4)	2	1	1			
Panel 3: Protein-Based Bioproducts (4)	3				1	
Panel 4: Miscellaneous Bioproducts (6)*	3	2			1	
Panel 5: Biopesticides (3)	3					
Panel 6: Cotton Processing (5)	2	2	1			
Panel 7: Wheat/Grain Quality (6)	2		1		2	1
Panel 8: Grain Engineering (4)	4					
Panel 9: Peanuts/Oils (4)	3	1				
Panel 10: Citrus (7)	7					
Panel 11: Dairy (3)	3					
Panel 12: Allergies (4)	1			1	2	
Panel 13: Processing (5)	3	2				
Panel 14: Functional Foods (6)	6					
Panel 15: Meats (6)	3	3				
Panel 16: Fruit and Vegetable Quality (7)	1	3		1	1	1
Panel 17: Quality and Marketability (5)	1	1		1	2	

*Data not available.

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 Quality and Utilization of Agricultural Products Panels.

Table 5. The Panels' Recent Accomplishments. Number of panelists in parentheses.

Panel	Published Articles Recently	Received Recent Professional Awards	Having Review Experience	Currently Performing Research
Panel 1: Lipid-Based Bioproducts (6)	5	4	5	4
Panel 2: Polysaccharide-Based Bioproducts (4)	4	2	4	4
Panel 3: Protein-Based Bioproducts (4)	3	4	4	4
Panel 4: Miscellaneous Bioproducts (6)	6	4	5	6
Panel 5: Biopesticides (3)	3	3	3	3
Panel 6: Cotton Processing (5)	4	5	5	5
Panel 7: Wheat/Grain Quality (6)	6	5	6	4
Panel 8: Grain Engineering (4)	2	4	4	4
Panel 9: Peanuts/Oils (4)	4	3	4	4
Panel 10: Citrus (7)*	6	3	4	5
Panel 11: Dairy (3)	3	3	3	3
Panel 12: Allergies (4)*	3	1	4	1
Panel 13: Processing (5)	5	5	5	5
Panel 14: Functional Foods (6)	5	6	6	6
Panel 15: Meats (6)	6	6	6	6
Panel 16: Fruit and Vegetable Quality (7)*	6	4	6	5
Panel 17: Quality and Marketability (5)*	4	2	4	4

*Data not available.

Current and Previous ARS Employment

The Research Title of the 1995 Farm Bill 105-585, mandated ARS's requirements for the peer review of the 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 the number of peer reviewers for each panel that are currently or formerly employed by ARS.

Table 6. Affiliations with ARS. Number of panelists in parentheses.

Panel	Currently Employed by ARS	Formerly Employed by ARS
Panel 1: Lipid-Based Bioproducts (6)	0	0
Panel 2: Polysaccharide-Based Bioproducts (4)	0	0
Panel 3: Protein-Based Bioproducts (4)	0	1
Panel 4: Miscellaneous Bioproducts (6)	0	0
Panel 5: Biopesticides (3)	0	0
Panel 6: Cotton Processing (5)	0	1
Panel 7: Wheat/Grain Quality (6)	0	3
Panel 8: Grain Engineering (4)	0	0
Panel 9: Peanuts/Oils (4)	0	1
Panel 10: Citrus (7)	0	0
Panel 11: Dairy (3)	0	0
Panel 12: Allergies (4)	0	0
Panel 13: Processing (5)	0	0
Panel 14: Functional Foods (6)	0	0
Panel 15: Meats (6)	0	1
Panel 16: Fruit and Vegetable Quality (7)	0	1
Panel 17: Quality and Marketability (5)	0	0

Quality and Utilization of Agricultural Products Panel Chairs

Lawrence A. Johnson, Ph.D.

Panel 1: Lipid-Based Bioproducts (2015)

Professor and Director, Center for Crops Utilization Research, Iowa State University, Ames, Iowa

Education: B.S. The Ohio State University; M.S. North Carolina State University; Ph.D. Kansas State University

Dr. Johnson's research interests are fats and oil chemistry, corn and soybean processing.

Jinwen Zhang, Ph.D.

Panel 2: Polysaccharide-Based Bioproducts (2015)

Associate Professor, Composite Materials and Engineering Center, Washington State University, Pullman, Washington

Education: B.E. Suzhou Institute of Silk Textile Technology, China, M.E. Dalian University of Technology, China; Ph.D. University of Massachusetts

Dr. Zhang's research interests are polymer materials, organic synthesis, and polymer characterization and processing.

Deland Myers, Ph.D.

Panel 3: Protein-Based Bioproducts (2015)

Professor, Department of Plant Sciences, North Dakota State University, Fargo, North Dakota

Education: B.S. University of Missouri; M.S. & Ph.D. University of Missouri

Dr. Myers research interests are protein, industrial uses of agricultural crops and product development.

Manjusri Misra, Ph.D.

Panel 4: Miscellaneous Bioproducts (2015)

Professor, School of Engineering and the Department of Agriculture, University of Guelph, Guelph, Ontario, Canada

Education: B.S., M.S. & Ph.D. Utkal University, India

Dr. Misra's research interests are renewable and biobased materials, bioplastics, biocomposites, bioproducts, sustainability, and biorefining.

Brian Federici, Ph.D.

Panel 5: Biopesticides (2015)

Distinguished Professor of Entomology, Department of Entomology, University of California, Riverside, California

Education: B.S. Rutgers University; M.S. & Ph.D. University of Florida

Dr. Federici's research interests is insect pathology.

Dana Porter, Ph.D.

Panel 6: Cotton Processing (2015)

Associate Professor and Extension Specialist, Department of Biological and Agricultural Texas A&M Agrilife Research and Extension Service, Lubbock, Texas

Education: B.S. & M.S. Texas A&M University; Ph.D. Mississippi State University

Dr. Porter's research interests are agricultural engineering, irrigation, agricultural water management and cotton.

Andrew Ross, Ph.D.

Panel 7: Wheat/Grain Quality

Professor, Department of Crop and Soil Science, Oregon State University, Corvallis, Oregon

Education: B.Sc. University of Sydney; Ph.D. University of New South Wales

Dr. Ross' research interests are cereal science.

Jon Faubion, Ph.D.

Panel 8: Grain Engineering (2015)

Singleton Endowed Professor, Department of Grain, Science and Industry, Kansas State University, Manhattan, Kansas

Education: B.S. & Ph.D. Kansas State University

Dr. Faubion's research interests include grain science, baking science, cereal quality and cereal chemistry.

Casimir Akoh, Ph.D.

Panel 9: Peanuts/Oils (2015)

Distinguished Research Professor, Department of Food Science and Technology, The University of Georgia, Athens, Georgia

Education: B.S. University of Nigeria; M.S. & Ph.D. Washington State University

Dr. Akoh's research interests includes lipid chemistry and lipid biotechnology, food chemistry.

Joseph Marcy, Ph.D.

Panel 11: Dairy (2015)

Department Head, Department of Food Science and Technology, Virginia Tech University, Blacksburg, Virginia

Education: B.S. & M.S. University of Tennessee; Ph.D. University of North Carolina

Dr. Marcy's research interests include food packaging, food processing and aseptic processing.

Cristina Sabliov, Ph.D.

Panel 13: Processing (2015)

Associate Professor, Department of Biological and Agricultural Engineering Department, Louisiana State University Agricultural Center, Baton Rouge, Louisiana

Education: B.S. Lucian Blaga University of Sibia, Romania; M.S. University of Missouri; Ph.D. North Carolina State University

Dr. Sabliov's research interests include nanoparticles, nanodelivery systems and bioprocess engineering.

Vivian Wu, Ph.D.

Panel 14: Functional Foods

Professor, Department of Food Science and Nutrition, University of Maine, Orono, Maine

Education: M.S. & Ph.D. Kansas State University

Dr. Wu's research interests are functional foods, food safety and microbiology.

Cindy Tong, Ph.D.

Panel 16: Fruit and Vegetable Quality (2015)

Associate Professor, Department of Horticultural Science, University of Minnesota, St. Paul, Minnesota

Education: A.B. University of Chicago; M.S. Duke University; Ph.D. University of California

Dr. Tong's research interests include postharvest physiology, apple fruit texture, potato anthocyanins, and small farm food safety.

Panel Chair Statements

All Panel Chairs are requested to turn in a statement that describes how their Panel was conducted and to 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.

IOWA STATE UNIVERSITY
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515 294-0160
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April 26, 2015

Dr. Michael A. Grusak
Scientific Quality Review Officer
Office of Scientific Quality review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Dear Dr. Grusak:

It was a pleasure and an enlightening experience to have served as panel chair for the ARS review panel for five research plans centered on lipid-based bioproducts in your Quality and Utilization of Agricultural Crops National Program. All the reviewers and I appreciated the professionalism of the process. We all understood how important this task is.

I feel the quality of the reviews was excellent, all the reviewers took the process serious and engaged in thought provoking discussion. I felt all reviewers were committed to helping make the projects better – not destructive criticism. The reviewers were often slow in getting written reviews in and providing all the details that might have been desired but these came out during the discussions.

I general, all proposals were well-written. One project needed a lot of rewriting and was unacceptable on first submission; but, on second submission was well done. It was unfortunate that that project required so much rewriting. I do think more discussion of global hypotheses is important. We often forget that scientific hypotheses are the foundation of good science. I have no other suggestions for improvement of the process.

Thanks for all the support, communication and handling the review details.

Sincerely,

Lawrence A. Johnson

Lawrence A. Johnson, Ph.D.
Director, Center for Crops Utilization Research
Director, BioCentury Research Farm
Professor, Food Science & Human Nutrition

WASHINGTON STATE UNIVERSITY

School of
Mechanical and Materials Engineering
VOILAND COLLEGE OF ENGINEERING AND ARCHITECTURE

April 28, 2015

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

Dear Dr. Grusak,

This letter is to report on the completion of the review of the proposals submitted for the NP306 Panel 2: Polysaccharide-based Bioproducts (2015). Also, it is to confirm that the review process was transparent and objective in all aspects from panelist selection, proposal assignments to panel meetings. All review comments submitted are thoughtful and based in fact.

The four panelists, myself included, are professors from four institutions each located in different regions of the country. Every panelist is currently conducting active research in the related areas. The panel brings to the table sufficient expertise which encompasses a broad spectrum of the polymer materials ranging from chemistry, characterization, processing, manufacturing to application development of polymer materials which is the appropriate background for reviewing all proposals. Each panelist possesses two or more of the strengths mentioned here and was assigned as a primary reviewer, a secondary reviewer and a scribe for three proposals, respectively. As the panel chair, I reviewed all three proposals and made necessary comments. At the panel meeting, each proposal was fairly presented by the assigned reviewers and then received full discussion. Every proposal was evaluated for its strengths and weaknesses following the review criteria. As a result, the panelists in general reached a consensus decision for each proposal. The PIs of each proposal were provided clear and detailed comments and recommendations for either minor revision or moderate revision; the revised proposals are satisfactory to the panel upon secondary review.

Finally, on behalf the panel, I want to thank you for the opportunity to be of service in reviewing the proposals for USDA.

Sincerely,

Jinwen Zhang, PhD, Associate Professor
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NDSU NORTH DAKOTA STATE UNIVERSITY

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

Dear Dr. Michael (Mike) Grusak:

This letter is being sent to you in accordance with your request for a letter of review regarding the panel and review process for the "Protein-Based Bioproducts Panel of the USDA, ARS Quality and Utilization of Agricultural Products National Program" from myself as Chair.

Regarding the process let me first state that the professionalism and organization by USDA staff was exceptional. As Chair of the panel, it facilitated my efforts to lead the panel significantly. The reviewers were very diligent in their review of the proposals and used their expertise masterfully in their reviews. This is evidenced by the responses from the writers of the proposals who accepted many of the recommendations from the panel in their final proposal submissions. I had worked personally and professionally with only one of the reviewers that I selected from the list of potential reviewers that you provided; however the individuals I selected from the list were very professional and extremely competent in their fields of expertise. The proposals submitted were very well written and the issues we found with the proposals, for the most part, were based on content, and not on issues such as a grammar and organization.

Regarding the review process, let me first state that I guess I am "old school" in the fact that I prefer face-to-face meetings; however I am aware that reviewer's time and government costs need to be considered; moreover, today's communication technology allows us to meet from our respective home locations. In light of my personal preferences, I thought the process went very well as it was efficient, professional and thorough. In the future, even though I am still "old school", the use of video cameras so we can see each of the reviewers as well as you and your staff from USDA I believe would be an excellent addition.

In summary, I found this panel to be well organized, efficient and worth the time and effort devoted to the review process. Speaking on behalf of the panel, I hope that you find that our reviews assisted the leaders of these respective research programs in implementing successful research efforts that meets their respective goals. Thank you again for the opportunity to serve as the Chair of this Panel and to work with you and your excellent staff.

Sincerely,

Deland J. Myers Sr. Ph.D.
Professor, Cereal and Food Sciences

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Biotechnology Breeding Cereal Science Food Science Forestry Genetics Horticulture Physiology Production Turfgrass Weed Science

UNIVERSITY of GUELPH

SCHOOL OF ENGINEERING/ECOLE D'INGENIERIE

April 7, 2015

To:
Dr. Michael A. Grusak
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

RE: NP 306 Panel Review - Panel Chair Statement

Dear Dr. Grusak,

It is my pleasure to provide feedback on the overall review process and the panel activities for the NP 306 panel, which I chaired. This feedback follows the completion of the review process.

Overall, the entire review process proceeded smoothly and the all panel members worked together very well. We were able to reach our recommendations without difficulty. I am very happy with the composition of the review committee members on the panel, they were professional, and worked hard to provide timely and constructive feedback. To support our work, the forms provided to us by the USDA were well prepared and sent well ahead to provide the panelist enough time for the review – thank you, this time should not be shortened.

The diversity of scientific areas in the proposed projects we reviewed was quite broad, with material science and genomics approaches. I am glad to say that expertize on the review panel was adequate to address it. Reviewing applications with such broad multidisciplinary approaches could have been a challenge, if the review committee wasn't properly balanced.

Based on my experience from other review panels, the overall quality of this review process was very high. There weren't any specific recommendations from the panel with regards to the future review process. Current process worked well for this panel. If you have any questions, please do not hesitate to contact me further.

With best and sincere regards,

Manjusri Misra

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Professor Manjusri Misra, PhD
School of Engineering, (Department of Plant Agriculture, cross appointed)
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http://www.uoguelph.ca/engineering/manjusri-misra-phd
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http://bionibresearch.ca/home/index.php

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March 12, 2015

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

Dear Dr. Grusak,

The review panel for ARS Quality and Utilization of Agricultural Products National Program (306 Panel 6: Cotton Processing) reviewed five-year plans for the ARS Cotton Processing Programs at Stoneville, MS; Lubbock, TX; Las Cruces, NM; and New Orleans, LA .As panel chair, I was very pleased with the quality and thoroughness of the reviewers' analyses of these proposals. It was obvious they dedicated significant time and attention necessary for this effort, and for that I am most grateful to them. When I identified potential reviewers, I took into account their technical capabilities and experience necessary to provide appropriate critical review and constructive comments.

The cotton ginning/processing research community is relatively small in number and highly collaborative. Hence finding qualified and willing individuals without conflicts of interest - and then justifying my recommendations for an acceptable panel– was more challenging than I had hoped. I sought to include panelists with broad and specific knowledge of cotton ginning, cotton production precision agriculture and harvest, air quality, and bio-based value-added options for agricultural processing by-products to provide needed complementary expertise.

The training webinars preparing panel chairs and panelists for the task and the support materials mailed to us were very helpful. USDA-ARS staff involved in these training efforts, coordination of panelists and training, and through the review process and conference call were very helpful. The web-based panel meeting was convenient, allowing us to communicate easily without need for travel.

My impression of the panel discussion was that the reviewers were well prepared and familiar with the all of the proposals. They were able to address general and specific aspects of the work plans. They were familiar with the backgrounds (research team members, past successes, capabilities) of the facilities/teams prior to the proposal reviews, yet several commented that reviewing the proposals was very informative and gave them a greater appreciation for the scientific and technical contributions of these ARS teams and for the practical significance and value of their work. For the most part there was good agreement among the reviewers regarding strengths and weaknesses of the proposals, as well as suggestions for improvement (or questions that should be addressed). One proposal generated some differences of opinion in the draft reviews; through our discussion, we were able to reconcile the reviews and provide recommendations that should strengthen the proposal.

I appreciate the opportunity to review these proposals and to increase my understanding of these ARS programs; I appreciate the dedication of our panelists (all very capable and busy professionals); and I appreciate the great support that you, Dr. Strauss and Chris Woods provided the panel as we conducted this review.

Sincerely,

Dana O. Porter

Dana Osborne Porter, Ph.D., P.E.
Assoc. Professor and Extension Agricultural
Engineering Specialist – Water Management

Andrew S. Ross, Ph.D.
Professor: Department of Crop and Soil Science
Oregon State University, 107 Crop Science Building, Corvallis, Oregon 97331-3002
Tel: (541) 737-9149 Fax: (541) 737-1589 Email: Andrew.Ross@oregonstate.edu

Date: **June 17th 2015**
From : **Andrew S. Ross**
Re : **NP 306 Panel 7: Wheat Grain Quality (2015), Panel Chair Statement**

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

Dear Michael:

I was privileged to be the chair of the NP 306 Panel 7: Wheat Grain Quality (2015) review committee.

In my view the quality of the review was satisfactory. The reviewers appeared to be well prepared for discussions in the online review meeting. The written reviews were detailed and on task and provided sufficient content to fuel the panel discussions. This was helped by the general high quality and detail provided by the authors of the plans.

The overall process was certainly satisfactory. The initial contacts between the OSQR and the panel chair were informative and well documented both in the printed and online iterations. The time taken by Dr. Mike Strauss and Dr. Mike Grusak during the online orientation process, firstly for the chair, and then later for the full panel was invaluable. In addition the professional administrative backup provided by Christina Woods was central to the success of the mission. The help provided to the chair by the OSQR with regard to assessing potential conflicts of interest of panelists with specific programs was also invaluable and streamlined the process. The online interface did at times provide issues for participants. This may have been a question of the compatibility of the meeting software across the various computing platforms used by the panel members. I have no knowledge of a better system, and in the end it worked well enough to complete the panel discussions. The value of use of this technology as a cost saving measure for USDA, and as a time saving measure for the panelists who did not need to commit to at least 2 days to travel to Washington D.C., outweighs any minor problems we encountered.

With regard to the area of research (grain quality) I believe the emphasis placed on this research by USDA reflects well the importance of grains to the U.S.A. in a

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number of areas, including the economic sustainability of rural communities, and the health and wellbeing of the U.S. population. In all the plans we reviewed there was a substantial non-reviewable component. In future it might ease the task of panelists by only distributing only the reviewable elements. Otherwise the structure of the plans, and the level of detail, was sufficient for the panel members, who were scientists versed in the discipline, to make considered recommendations on an objective by objective basis.

In summary, the overall quality of the review process was, in my opinion, satisfactory. Useful constructive feedback was provided to the programs and the programs took the recommendations of the panel seriously in their responses. The panel did not provide any recommendations with regard to future reviews.

Sincerely

Andrew Ross

Professor Andrew S. Ross
Leader: Oregon State University Cereal Science Program

KANSAS STATE UNIVERSITY | Department of Grain Science and Industry

April 1, 2015

Dr. Michael A. Grusak

SQROfficer/OSQR

ARS/USDA

5601 Sunnyside Ave., MS 5142

Beltsville, MD 20705

Dear Mike,

It was a pleasure and a privilege to serve as Chair of NP 306 Panel 8. Without a doubt, it was a completely positive experience. Looking back over process this year, I believe that three factors made the panel's work enjoyable and productive; the uniformly high quality of the project plans, an efficient and effective review process and, top notch support and guidance by you and your colleagues.

Having discussed our views of the process, start to finish, the panel and I have no substantive comments that could improve on it. We do believe that the idea and spirit of the reviews (outside eyes on the plans in a structure that is much like an article review/revision/acceptance) is on target and warrants being continued.

As to the quality of the project plans, it may be that this panel was fortunate in its roster of plans. All addressed areas of relevance, were well thought out, clearly written, well justified, and included excellent collaborators. With such a small N, it is tough to determine if this reflects a larger reality but, if it does, it speaks very well indeed for the ARS.

Finally, if you have any questions or would like to discuss any aspect of the process or the panel's activities further, don't hesitate to get in touch with me.

Best personal regards,

J.M. Faubion, PhD

Singleton Professor of Bakery & Cereal Science

Department of Grain Science

Kansas State University

201 Shellenberger Hall, Manhattan, KS 66506-2201 | 785-532-6161 | fax: 785-532-7010 | grains.k-state.edu

The University of Georgia

College of Agricultural and Environmental Sciences
Department of Food Science & Technology

May 8, 2015

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

Panel Chair Statement – NP 306 Panel 9: Peanuts/Oils (2015)

Peer review panels were carefully selected by the panel chair based on their expertise and knowledge and recommended to the Scientific Quality Review Officer (OSQR). I am personally very impressed with the thoroughness and quality of the reviews provided by these reviewers to help the investigators improve on the quality of their research plans. Overall, the research plans under subobjectives were well organized based on the plan objectives identified and given to them by ARS. The approaches used to develop subobjectives were not as detailed and specific as would be found/or expected of a competitive NIFA grant. The panel reviewers expected more details on methodologies. Some of the subobjectives have little relevance to the main objectives and the investigators, in some case, failed to relate their plans properly to the main objective.

The reviewers were well prepared and did excellent job in presenting their reviews for discussions. The written reviews and panel recommendations were meant to improve the quality and flow of the individual project plans. The reviewers and the panel chair learned a lot from this process. We learned not to expect the same approach and rigor to proposal development as in competitive grant applications by academicians. Providing a little more details to the experimental design and methods will help the reviewers assess the adequacy of the procedures. Research plans should be written to have expected outcomes and also explain how that relates to the main objective set by ARS. The subobjectives can also be developed in such a way that there is a logical progression from one subobjective to the other with the overall main objective in mind.

ARS should emphasize to the peer reviewers during panel training and during the review process that ARS project plans are more wide ranging and less detailed than competitive grant applications and that some subobjectives may seem unrelated to the main objective. The work proposed in the current research plans will help solve agricultural problems in the long-term.

Sincerely,

Casimir C. Akoh

Casimir C. Akoh, PhD

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April 6, 2015

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

Dear Dr. Grusak:

As panel chair of NP 306 Panel 11: Dairy I wish to provide insight into the operation of the panel. This was the first USDA panel in which I had participated therefore the process was new to me. After agreeing to chair the panel information that I needed was sent promptly to me and followed with a phone call. A training session was held and all of my questions were answered. I was then asked to nominate two panel members. I am pleased to say that both of the people suggested agreed to serve on this review panel.

I do believe the key to a useful review is the quality of the scientists asked to be on the review team. My experience includes dairy processing and packaging, but the other panelists brought a wealth of knowledge in dairy chemistry and utilization of dairy byproducts. I do not believe you could have had more knowledgeable reviewers that those that served on this panel.

The other reviewers also attended a training session and were fully aware of the review process. At our conference call to discuss the proposals, the reviewers had detailed items to discuss on the two projects that were reviewed. There was good agreement by all reviewers on the comments made and the suggestions for improving the proposals. We as a review panel quickly came to consensus on the projects and elements that could be improved. A second review of the proposals was not needed.

In conclusion, I found the process worked well with helpful comments forwarded to the research teams.

Best regards,

Joseph E. Marcy

College of Engineering
Department of Biological & Agricultural Engineering

January 29, 2015

To: Dr. Michael A. Grusak
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142

Dear Dr. Grusak,

It was my pleasure to serve as a Panel Chair for the Quality and Utilization of Agricultural crops National Program. Four plans were evaluated by our four-people panel (plus the chair).

I have to commend USDA ARS Office of Scientific Quality Review for directing a very transparent and well-organized review process. The timeline and tasks were communicated well in advance to the chair and panel, the information was made available electronically and in a nicely organized folder.

The researchers contacted to serve on the panel unanimously and enthusiastically joined the group. They provided valuable input on the assigned plans. The discussion was amicable and it was obvious that all reviewers spent due time on reviewing the plans in detail. They all agreed that the conference call format was the preferred method of review and were happy that no travel was involved.

In terms of the plans themselves, the panel was in close agreement on three out of the four reviewed plans. Only one plan required more extensive discussion due to an apparent disjoint presentation of the objectives by the group; the panelists were divided in their ranking on this plan. Otherwise, no specific trends were noted and it seemed that the panel accepted the structure and components of the plans and no changes were requested in the format or content of the submission plans.

Again, thank you for the opportunity to serve on the panel. I'm looking forward to working closely with USDA ARS in the future.

Cristina M. Sabliov, Professor
Biological and Agricultural Engineering Department
Louisiana State University and LSU AgCenter

School of Food and Agriculture

THE UNIVERSITY OF MAINE

April 13, 2015

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

Dear Dr. Grusak:

It is a pleasure to serve as the panel chair and provide the feedback on ARS' National Program 306 Panel 14: Functional Foods (2015).

The panel consisted of experts in the areas of function foods, food processing, products, carbohydrates, starch, resistant starch, lactic acid bacteria, microbiology, genomics, flavor, food chemistry and analysis, gas chromatography, mass spectrometry, cancer biology, immunology and infectious disease, nanotechnology, pharmacology, drug metabolism, and toxicology. The panel was qualified to give sound and credible review of five plans. The panel members functioned as both individual reviewers and as a team (primary and secondary) during the web-based meeting on February 24. Although the panel's ability to provide input on ideas, creative thinking and alternative approaches to improve the quality of research was constrained by the prohibition against considering objectives, the panel had excellent discussion on the plans with respect to content, relevance and gave reviews to improve each of the plans.

Each reviewer gave extensive detail in his/her review and the discussion by all the reviewers followed. The amount of time spent on each project was appropriate. The smooth of the review process was also due to great facilitation by instructions, web-orientation conference, and support assistance provided to the panel members by the OSOR. While it may have achieved that, this process would be more likely to contribute to significant improvements in the quality of ARS research if the plan objectives were also evaluated.

In conclusion, this is an effective peer review panel. On the behalf of the panel, we appreciate the opportunity to review the project plans.

Sincerely yours,

Vivian Chi-Hua Wu, Ph.D.
Professor in Microbiology, Food Safety, and Functional Foods
Laboratory Director, The Pathogenic Microbiology Laboratory
School of Food and Agriculture
The University of Maine,
Orono, ME, 04469-5735

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April 7, 2015

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

Dear Mike,

Thank you for the opportunity to serve as the NP 306 Panel chair. It was an interesting challenge to find qualified reviewers for the plans. Although all of the plans were related to postharvest problems, they were quite disparate in terms of discipline. As science has become more stratified and specialized, it is becoming more difficult to find generalists who can capably provide in depth reviews across disciplines. Therefore, there was a trade-off between excellence in disciplinary review and interactions among panel members. The trade-off was especially problematic for one plan in which the lead ARS scientist had collaborated with most other scientists in his research area, and the most highly-qualified researcher to review the plan is in Europe. Therefore, some panels may be better organized by discipline instead of objective area. For example, engineers may be more interested in engineering projects related to food safety, food quality, and biofuels, although individual engineers may want to learn more about biology. This suggestion may not work for all disciplines.

Despite odd working hours for some of the reviewers, due to wide time zone differences, all reviewers were willing to participate in the conference call. In order to respect the time of panelists who had to participate beyond normal working hours, I tried to limit their participation to plans in their specific areas of expertise. I thank ARS for its willingness to accommodate the panelists who needed to limit their participation on the conference call.

In general, the reviewers were well-qualified and prepared for discussion of the plans in their areas of interest. One reviewer was unable to provide timely or substantive review (reasons for this were neither sought or provided), and ARS may want to remove this person from the list of potential reviewers. The main concern of this reviewer was that there was overlap between the proposed work by ARS researchers and research performed at universities. He suggested that a system for sharing ARS research topics be instituted. ARS researchers are required to search the CRIS database for research related to

their proposed work, but the panelist was unsure whether ARS research plans are included in the CRIS database. Overlap in ARS and university research topics may arise because although state Experiment Stations may be asked to concentrate on local or regional problems, faculty at universities are promoted based on national and international recognition. Therefore, faculty members choose research topics relevant to national and international concerns, especially if deemed as good subjects for national grants, thus competing with ARS scientists. Competition may strengthen science and increase creativity, however, although at the risk of weakening scientific morale.

Panelists appreciated that they were freed from monetary concerns in judging plans, allowing reviewers to concentrate on suggestions for scientific improvement. In general, plans were well-written and organized. Only one plan failed, partly because the scientists involved in the project could not revise the plan. Perhaps ARS scientists planning to retire should not be required to participate in planning future research.

Panelists were also glad that ARS estimates of time required to review and comment on plans were generous. Overall, we all felt that ARS personnel did a great job organizing and explaining the review process, and were cordial, competent, patient, and professional.

Sincerely yours,

Cindy Tong
Professor and Extension Postharvest Horticulturist

Projects Reviewed by the Quality and Utilization of Agricultural Products Panels (listed by Lead Scientist)

Mid West Area

Byung-Kee Baik
Genetic and Biochemical Basis of Soft Winter Wheat End-Use Quality

Mark Berhow
Evaluation of the Chemical and Physical Properties of Low-Value Agricultural Crops and Products to Enhance their Use and Value

Girma Biresaw
Value-Added Bio-Oil Products and Processes

Atanu Biswas
Conversion of Polysaccharides and Other Bio-Based Materials to High-Value, Commercial Products

Steven Cermak
Replacement of Petroleum Products Utilizing Off-Season Rotational Crops

David Compton
Technologies for Producing Biobased Chemicals

Kenneth Doll
Industrial Monomers and Polymers from Plant Oils

Frederick Felker
Improved Utilization of Low-Value Oilseed Press Cakes and Pulses for Health-Promoting Food Ingredients and Biobased Products

George Inglett
Innovating Processing Technologies for Creating Functional Food Ingredients with Health Benefits from Food Grains, their Processing Products and By-Products

Lei Jong
Renewable Biobased Particles

Renfu Lu
Nondestructive Quality Assessment and Grading of Fruits and Vegetables

Jill Moser
Improving Quality, Stability, and Functionality of Oils and Bioactive Lipids

Gordon Selling
Improved Utilization of Proteinaceous Crop Co-Products

Christopher Skory
Technologies for Producing Renewable Bioproducts

North East Area

Stephen Delwiche
Rapid Methods for Quality and Safety Inspection of Small Grain Cereals

Rafael Garcia
Commercial Flocculants from Low-Value Animal Protein

Arland Hotchkiss
Bioactive Food Ingredients for Safe and Health-Promoting Functional Foods

Cheng Kung Liu
Improving the Quality of Animal Hides, Reducing Environmental Impacts of Hide Production, and Developing Value-Added Products from Wool

Daniel Solaiman
Commercial Products from Microbial Lipids

Peggy Tomasula
Improving the Sustainability and Quality of Food and Dairy Products from Manufacturing to Consumption via Process Modeling and Edible Packaging

Diane Van Hekken
Effect of Processing of Milk on Bioactive Compounds in Fresh High-Moisture Cheeses

Pacific West Area

Andrew Breksa and Bruce Whitaker
Harnessing the Biosynthesis of Naturally Occurring Antioxidants to Enhance the Quality and Shelf Life of Fruits and Vegetables

Gregory Glenn
Bioproducts from Agricultural Feedstocks

Ronald Haff

Defining, Measuring and Mitigating Attributes that Adversely Impact the Quality and Marketability of Foods

James Mattheis

Developmental Genomics and Metabolomics Influencing Temperate Tree Fruit Quality

Tara McHugh

New Sustainable Processing Technologies to Produce Healthy, Value-Added Foods from Specialty Crops

Colleen McMahan

Domestic Production of Natural Rubber and Industrial Seed Oils

Craig Morris

Wheat Quality, Functionality and Marketability in the Western U.S.

Chang-Lin Xiao

Integrate Pre- and Postharvest Approaches to Enhance Fresh Fruit Quality and Control Postharvest Diseases

Wallace Yokoyama

Adding Value to Plant-Based Waste Materials through Development of Novel, Healthy Ingredients and Functional Foods

Plains Area

Paul Armstrong

Impacting Quality through Preservation, Enhancement, and Measurement of Grain and Plant Traits

Scott Bean

Impact of the Environment on Sorghum Grain Composition and Quality Traits

Gregory Holt

Enhancing the Profitability and Sustainability of Upland Cotton, Cottonseed, and Agricultural Byproducts through Improvements in Pre- and Post-Harvest Processing

Jae-Bom Ohm

Enhancement of Hard Spring Wheat, Durum and Oat Quality

Jeffrey Suttle

Improving Potato Nutritional and Market Quality by Identifying and Manipulating Physiological and Molecular Processes Controlling Tuber Wound-Healing and Sprout Growth

Derek Whitelock

Enhancing the Quality, Utility, Sustainability and Environmental Impact of Western and Cotton through Improvements in Harvesting, Processing, and Utilization

Jeff Wilson and Bradford Seabourn

Impact of Environmental Variation on Genetic Expression (phenotype) of Hard Winter Wheat Quality Traits

South East Area

Peter Bechtel

Postharvest Sensory, Processing, and Packaging of Catfish

Brian Bowker

Assessment and Improvement of Poultry Meat, Egg, and Feed Quality

Stephen Boue

Nutritional and Sensory Properties of Rice and Rice Value-Added Products

Christopher Butts

Postharvest Systems to Assess and Preserve Peanut Quality and Safety

Richard Byler

Cotton Ginning Research to Improve Processing Efficiency and Product Quality in the Saw-Ginning of Picker-Harvested Cotton

Randall Cameron

Enhancing Utilization of Citrus Processing Co-Products

Lisa Dean

Improvement and Maintenance of Flavor, Shelf-Life, Functional Characteristics, and Biochemical/Bioactive Components in Peanuts, Peanut Products and Related Commodities through Improved Handling, Processing and Use of Genetic/ Genomic Resources

Michael Dowd

Increasing the Value of Cottonseed

Stephen Duke

Discovery and Development of Natural Products for Pharmaceutical and Agrochemical Applications II

J. Vincent Edwards

Chemical Modification of Cotton for Value-Added Applications

Doug Hinchliffe

Cotton-Based Nonwovens

Soheila Maleki

Reducing Peanut and Tree Nut Allergy

Anne Plotto

Quality, Shelf-Life and Health Benefits for Fresh, Fresh-Cut and Processed Products for Citrus and Other Tropical/Subtropical-Grown Fruits and Vegetables

Agnes Rimando

Health-Promoting Bioactives and Biobased Pesticides from Medicinal and Herbal Crops

James Rodgers

Improved Quality Assessments of Cotton from Fiber to Final Products

Samir Trabelsi

Rapid Assessment of Grain, Seed, and Nut Quality Attributes with Microwave Sensors

Van Den Truong

Improved Processes for the Preservation and Utilization of Vegetables, Including Cucumber, Sweet Potato, Cabbage, and Peppers to Produce Safe, High Quality Products with Reduced Energy Use and Waste

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

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