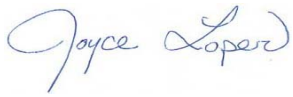
NP 303 Plant Diseases Panel Report

Christina Woods, Program Analyst
Office of Scientific Quality Review

Donald P. Knowles, Scientific Quality Review Officer
(October 2011-April 2012)

3/30/2013
Date



Joyce Loper, Scientific Quality Review Officer
(January 2012-December 2013)

4/11/2013
Date

Michael S. Strauss, Peer Review Program Coordinator

3/7/2013
Date

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

Introduction

This Panel Report provides the background on the 2012 National Program (NP) 303 Plant Diseases Panel Review. The project plans reviewed by these panels were applicable to the mission of the National Program to *"develop control strategies to reduce losses caused by plant diseases that are effective and affordable while maintaining environmental quality."*

In collaboration with the Office of Scientific Quality Review (OSQR) and the Plant Diseases National Program Leaders, Drs. Deb Fravel and Gail Wisler divided 57 projects into 16 panels. After considering several candidates, Drs. Joyce Loper and Donald Knowles, Scientific Quality Review Officers (SQRO), appointed a chair for each of the sixteen panels.

Table 1. Plant Diseases Panels

Panel	Panel Chair	Panel Meeting Date	Number of Panelists	Number of Projects Reviewed
Panel 1 – Methods	Dr. Tom Creswell, Director, Plant & Pest Diagnostics Lab, Purdue University, West Lafayette, IN	January 20, 2012	4	3
Panel 2 – Molecular Approaches	Dr. Jeffrey Jones, Professor, Plant Pathology Dept, Univ Florida, Gainesville, FL	January 26, 2012	5	4
Panel 3 – Emerging Diseases	Dr. Jacqueline Fletcher, Regents Professor, Dept Entomol & Plant Pathol, Oklahoma State Univ, Stillwater, OK	January 27, 2012	5	4
Panel 4 - Systematics	Dr. Marc Cubeta, Professor, Dept Plant Pathol, North Carolina State Univ, Raleigh, NC	January 12, 2012	5	4
Panel 5 – Genetics & Biology	Dr. George Bruening, Professor Emeritus, Plant Pathol Dept, Univ California, Davis, CA	January 30, 2012	5	4
Panel 6 – Root Crops	Dr. Dean Malvick, Assoc Professor, Dept Plant Pathol, Univ Minnesota, St. Paul, MN	February 27, 2012	4	3
Panel 7 – Fungal Disease	Dr. David Van Sanford, Professor, Dept Agronomy, Univ Kentucky, Lexington, KY	February 13, 2012	5	4
Panel 8 – Novel Control Strategies	Dr. Krishna Subbarao, Professor, Dept Plant Pathol, Univ California, Salinas, CA	January 19, 2012	3	3
Panel 9 – Biology, Epidemiology and Control	Dr. Katherine Stevenson, Professor, The Univ Georgia, Tifton, GA	February 7, 2012	5	4
Panel 10 - Sugarcane	Dr. Jerry Bennett, Professor, Agronomy Dept, Univ Florida, Gainesville, FL	December 16, 2011	3	2
Panel 11 – Soybean and Cotton	Dr. Nevin Young, Distinguished McKnight Professor, Dept Plant Pathol, Univ Minnesota, St. Paul, MN	January 10, 2012	4	3
Panel 12 – Disease Management	Dr. Barry Jacobsen, Professor, Dept Plant Sci, Montana State Univ, Bozeman, MT	March 1, 2012	6	5
Panel 13 - Mycotoxins	Dr. Themis Michailides, Plant Pathologist & Lecturer, Kearney Agr Res & Ext Ctr, Parlier, CA	January 31, 2012	3	2
Panel 14 – Vegetable Crops	Dr. George Bruening, Professor Emeritus, Plant Pathol Dept, Univ California, Davis, CA	February 16, 2012	4	3
Panel 15 - Nematodes	Dr. Ernest Bernard, Professor, Entomology & Plant Pathol Dept, The Univ Tennessee, Knoxville, TN	February 23, 2012	6	5
Panel 16 - Resistance	Dr. Frances Trail, Professor, Dept Plant Biology, Michigan State Univ, East Lansing, MI	January 23, 2012	5	4

Dr. Michael Strauss, Peer Review Program Coordinator, and Drs. Knowles and Loper presented an orientation to the Panel Chairs. Drs. Knowles and Loper subsequently approved the candidate panelists selected by each Chair. The approvals took into account conflicts of interest and followed guidelines for diversifying panel composition geographically, institutionally, and according to gender and ethnicity. Panelists demonstrated a recognizable level of knowledge of recent research within their respective fields of plant diseases. The panels received a telephone/ web-based orientation. The Office of National Programs (ONP) provided an overview of the NP 303 Plant Diseases Panels. All panels convened online.

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.

If the action class is:

> **No Revision Required (score: 8).** An excellent plan; no revision is required, but minor changes to the project plan may be suggested.
>
> **Minor Revision Required (score: 6).** The project plan is feasible as written, and 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 on 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 plans and responses to OSQR through their Area Office. These are reviewed by the SQR Officer at OSQR and, once they are 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 original review panel that provide a second set of narrative comments and Action Class based on the revised plan. If the re-review action class is No Revision, Minor or Moderate Revision the project plan may be implemented after receipt of satisfactory response and SQRO certification, as described above. Plans receiving Major Revision or Not Feasible scores on re-review are deemed to have failed. The action class and consensus comments are provided to the Area but there is no further option for revision of such plans. Low scoring or failed plans may be terminated, reassigned, or restructured at the discretion of the Area and Office of National Programs.

NP 303 Program Overview

The following is a summary of the comments made at the panel debriefings in the third cycle. The panelists felt that through the review process they were given a good education about ARS and increased their respect for ARS projects now that they saw the depth of the plans. They felt it was good to see problems addressed that would not be funded competitively and were glad that ARS can tackle the more difficult and high risk projects Panelists that were on panels in the previous cycles thought the quality of the plans are improving but that very large projects can be challenging to review. In regards to collaboration, they felt that scientists should seek to collaborate across regions rather than just the regions in which they are located. They also noted the importance of collaboration for those scientists isolated from universities or other research centers.

Table 2 shows the initial and final scores for the third cycle expressed as a percentage of the plans reviewed, as well as the calculated average Action Class Score for each panel and for the program overall. Three out of the 57 plans reviewed received a major revision score. Two of those plans were not certified. The average initial score was 5.39 (Minor Revision range) which is higher than the first two cycles (4.71, 4.46, Moderate Revision range; respectively). The average final scores were similar across the three cycles, with the first cycle average final score slightly higher (5.78) than for the second (5.54) or third cycle (5.42) (Table 3). However there were no scores of Not Feasible in the current cycle (Table 3).

The question of whether the number of reviewers on a panel influences score was investigated (Figures 1, 2). For the third cycle reviews, all of which were conducted online, there does not

appear to be a significant influence (Figure 1). When scores from all three cycles are considered (Figure 2), there appears to be slightly lower scores with larger panels but it is unclear that this is statistically significant. It should further be noted that panels larger than six or seven reviewers are typically traveling and those with four or fewer are typically online (with a mix of traveling and online panels between these). The overall conclusion is that panel size, particularly with present online panels, does not seem to influence review outcomes.

Comparing the review outcome to the number of scientists (SYs) on a plan shows a very slight tendency to lower scores for very large plans. However, the paucity of data for larger plans makes it difficult to conclude any real impact (Figure 3).

Figures 4 and 5 compare the distribution of initial and final scores for the three cycles. The third cycle had a higher average initial score (5.39) than was seen in the first (4.72) or second (4.46) cycles. The first and second cycles had a greater number of plans receiving a major revision score on initial review. In final review, as noted above, the average scores were similar across the three cycles.

Table 2. Initial and Final Scores for the Third (2012) Cycle Expressed as Percentages for the NP 303 Plant Diseases Panels

	Initial Review						Final Review					
Panel (No. of plans)	% 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
Panel 1 – Methods (3)	0.0%	100.0%	0.0%	0.0%	0.0%	5.83	0.0%	100.0%	0.0%	0.0%	0.0%	5.83
Panel 2 - Molecular Approaches (4)	50.0%	25.0%	25.0%	0.0%	0.0%	6.5	50.0%	25.0%	25.0%	0.0%	0.0%	6.5
Panel 3 - Emerging Diseases (4)	25.0%	25.0%	50.0%	0.0%	0.0%	5.75	25.0%	25.0%	50.0%	0.0%	0.0%	5.75
Panel 4 – Systematics (4)	25.0%	25.0%	50.0%	0.0%	0.0%	5.85	25.0%	25.0%	50.0%	0.0%	0.0%	5.85
Panel 5 - Genetics & Biology (4)	0.0%	50.0%	25.0%	25.0%	0.0%	4.7	0.0%	50.0%	25.0%	25.0%	0.0%	4.7
Panel 6 - Root Crops (3)	0.0%	66.7%	0.0%	33.3%	0.0%	5	0.0%	66.7%	0.0%	33.3%	0.0%	4.5
Panel 7 - Fungal Disease (4)	0.0%	75.0%	25.0%	0.0%	0.0%	5.2	0.0%	75.0%	25.0%	0.0%	0.0%	5.2
Panel 8 - Novel Control Strategies (3)	33.3%	33.3%	33.3%	0.0%	0.0%	5.83	33.3%	33.3%	33.3%	0.0%	0.0%	5.83
Panel 9 - Biology, Epidemiology & Control (4)	0.0%	50.0%	50.0%	0.0%	0.0%	4.7	0.0%	50.0%	50.0%	0.0%	0.0%	4.7
Panel 10 – Sugarcane (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
Panel 11 - Soybean & Cotton (3)	0.0%	0.0%	66.7%	33.3%	0.0%	4	0.0%	33.3%	66.7%	0.0%	0.0%	5.11
Panel 12 - Disease Management (5)	0.0%	80.0%	20.0%	0.0%	0.0%	5.52	0.0%	80.0%	20.0%	0.0%	0.0%	5.52
Panel 13 – Mycotoxins (2)	0.0%	100.0%	0.0%	0.0%	0.0%	5.67	0.0%	100.0%	0.0%	0.0%	0.0%	5.67
Panel 14 - Vegetable Crops (3)	0.0%	100.0%	0.0%	0.0%	0.0%	6	0.0%	100.0%	0.0%	0.0%	0.0%	6
Panel 15 – Nematodes (5)	0.0%	80.0%	20.0%	0.0%	0.0%	5.53	0.0%	80.0%	20.0%	0.0%	0.0%	5.53
Panel 16 – Resistance (4)	0.0%	50.0%	50.0%	0.0%	0.0%	5.1	0.0%	50.0%	50.0%	0.0%	0.0%	5.1
NP 303 (57)	8.8%	56.1%	29.8%	5.3%	0.0%	5.39	8.8%	57.9%	29.8%	3.5%	0.0%	5.42

Table 3. Initial and Final Scores for All Cycles Expressed as Percentages for the NP 303 Plant Diseases 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 (2003, 2004)	19.0%	23.8%	30.2%	22.2%	4.8%	4.71	33.3%	30.2%	33.3%	1.6%	1.6%	5.78
Second cycle (2007)	3.2%	41.9%	30.6%	21.0%	3.2%	4.46	11.3%	53.2%	35.5%	0.0%	0.0%	5.54
Third cycle (2012)	8.8%	56.1%	29.8%	5.3%	0.0%	5.39	8.8%	57.9%	29.8%	3.5%	0.0%	5.42

Table 4. In Person vs. Online Scores for the NP 303 Plant Diseases Panels Over All Three Cycles

	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
In Person	11.2%	32.8%	30.4%	21.6%	4.0%	4.59	22.4%	41.6%	34.4%	0.8%	0.8%	5.66
Online	8.8%	56.1%	29.8%	5.3%	0.0%	5.39	8.8%	57.9%	29.8%	3.5%	0.0%	5.42

Figure 1. Panel Size vs. Score for the Third Cycle NP 303 Plant Diseases Panels

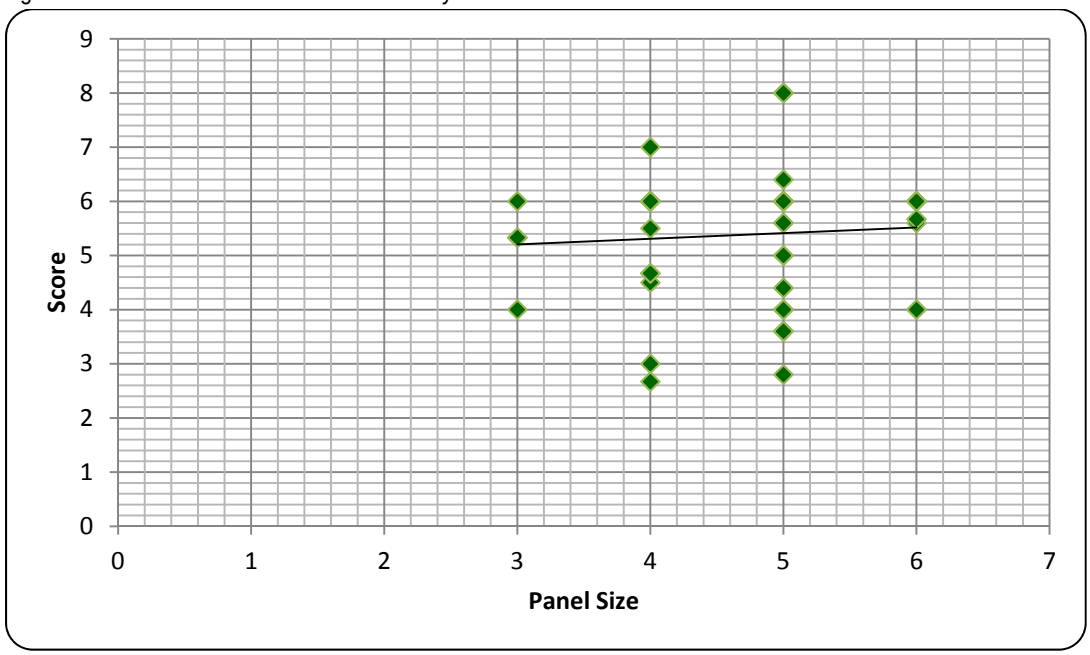


Figure 2. Panel Size vs. Score for All Three Cycles of the NP 303 Plant Diseases Panels

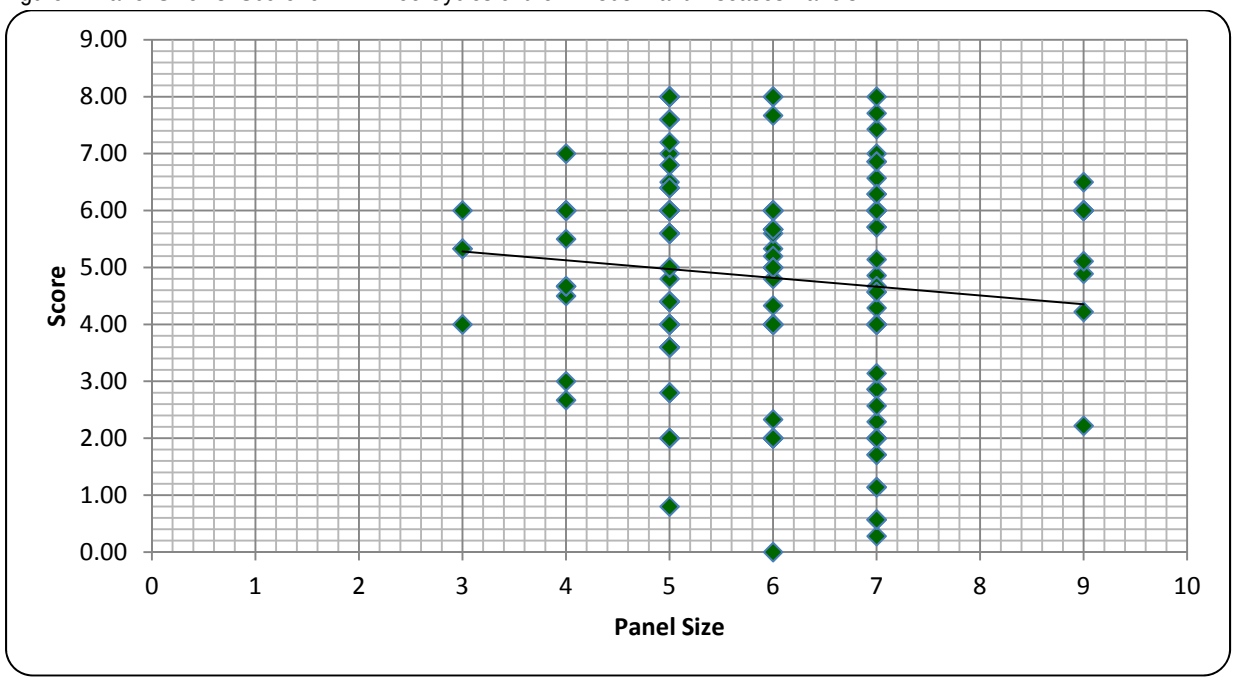


Figure 3. Number of Scientists vs. Score for the Third Cycle of the NP 303 Plant Diseases Panels

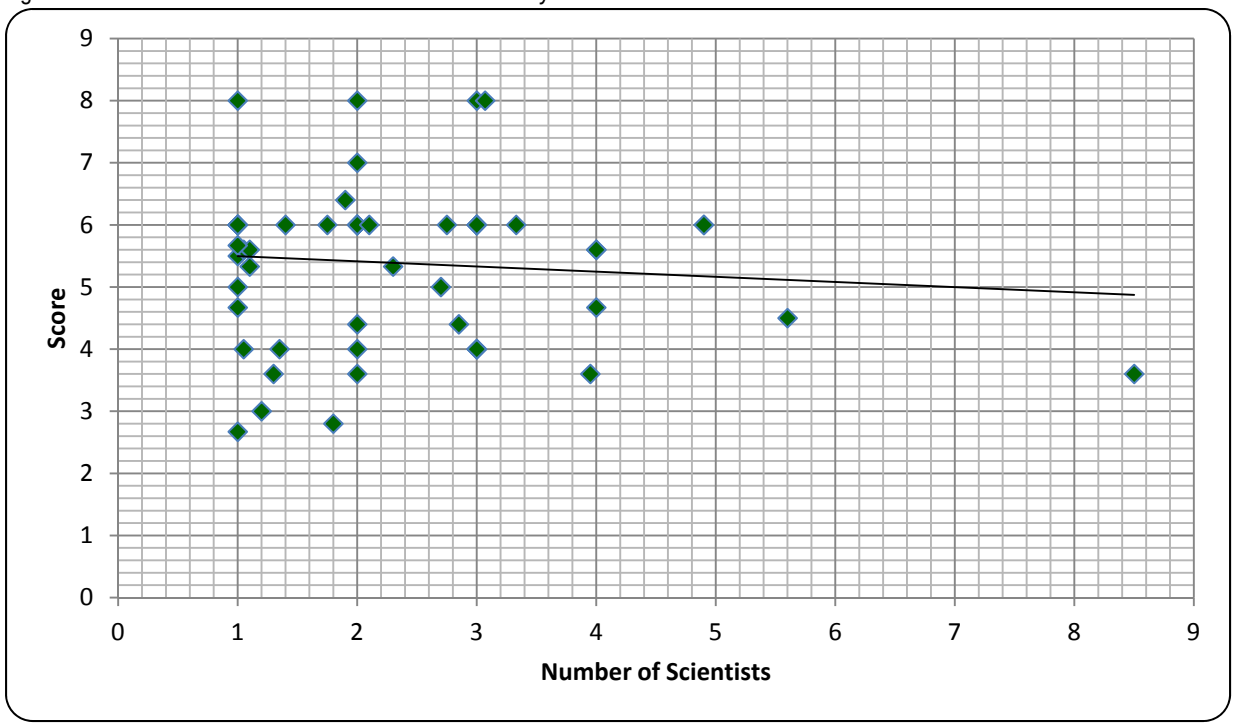


Figure 4. Initial Review Scores for the First (2003, 2004), Second (2007) and Third (2012) Cycle Distribution for the NP 303 Plant Diseases Panels (average score 4.71; 4.46; 5.39, respectively). The number of plans reviewed by each cycle is in parentheses. Number over columns are the actual number of plans receiving that score.

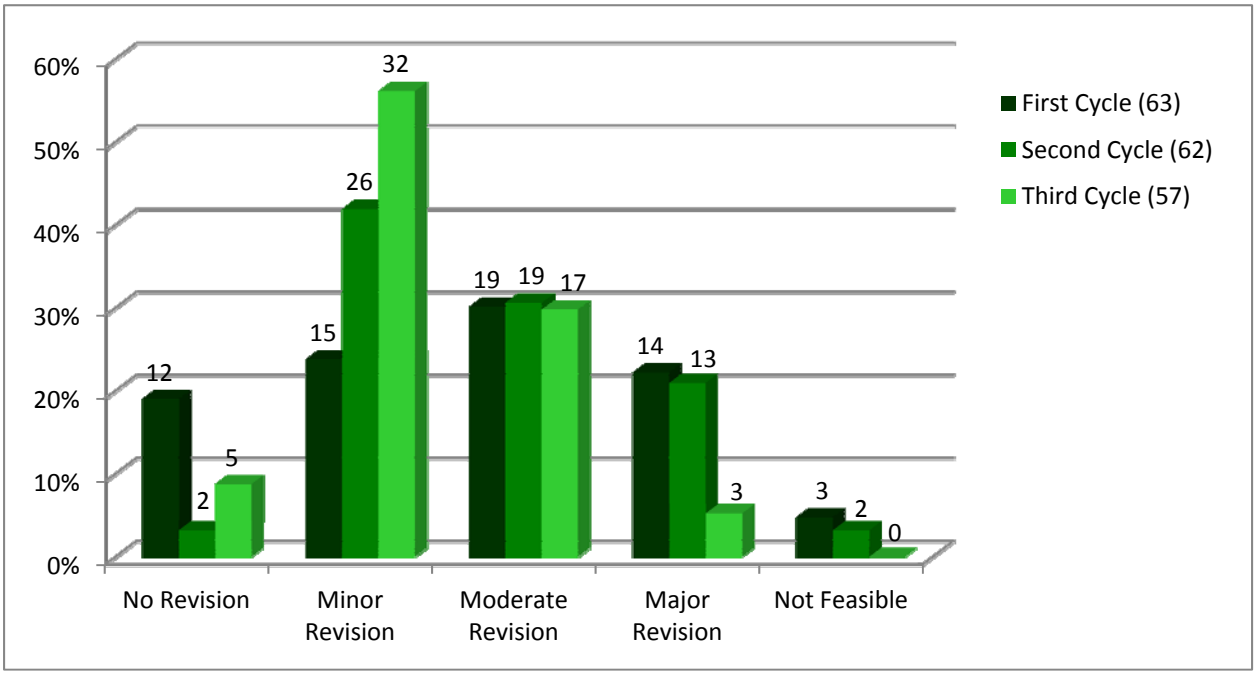
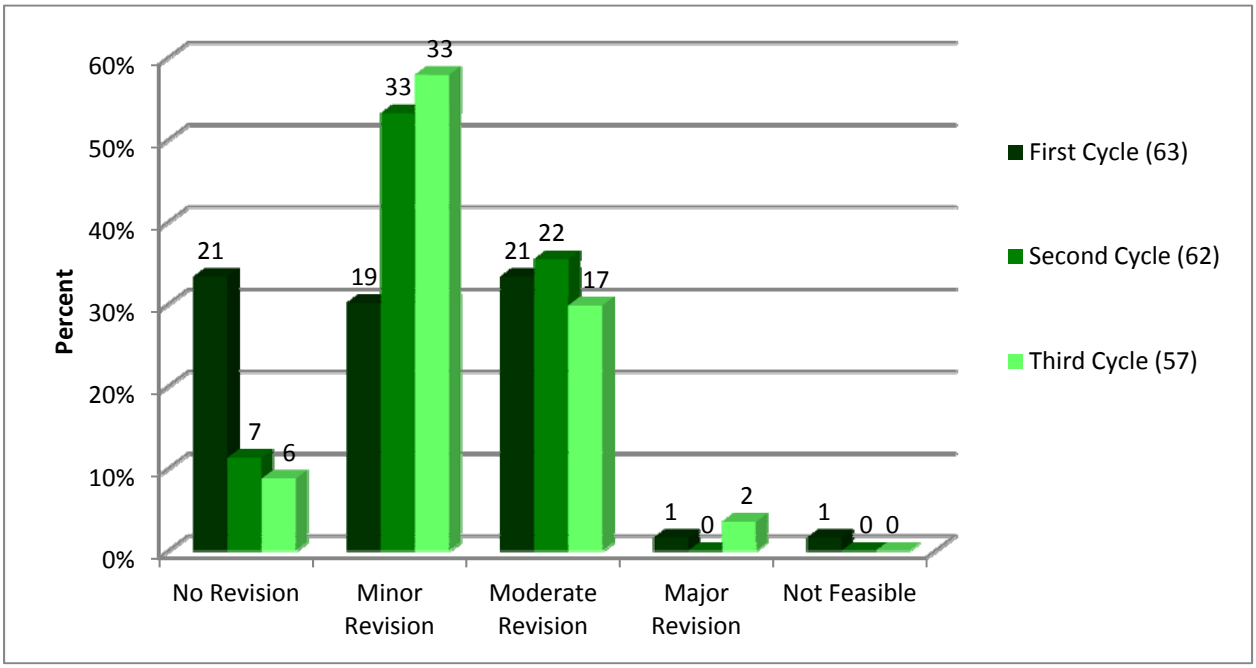


Figure 5. Final Review Scores for the First (2003,2004), Second (2007) and Third (2012) Cycle Distribution for the NP 303 Plant Diseases Panels (average score 5.78; 5.54; 5.42, respectively). The number of plans reviewed by each cycle is in parentheses. Number over columns are the actual number of plans 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 16 panels were composed of nationally and internationally recognized experts to review 57 projects primarily coded to the Plant Diseases Program (See Table 1, page 2). The information and charts below provide key characteristics of the Plant Diseases 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, several government-employed panelists are recognized for both their government affiliation and faculty ranking. Tables 5 and 6 show the type of institutions with which the Plant Diseases Panel members were affiliated with at the time of review.

Table 5. Faculty Rank of Panelists Affiliated with Universities

Panel	Professor	Associate Professor	Assistant Professor
Panel 1 – Methods (4)	3	1	
Panel 2 – Molecular Approaches (5)	3	2	
Panel 3 – Emerging Diseases (5)	4	1	
Panel 4 – Systematics (5)	1	1	3
Panel 5 – Genetics and Biology (5)	4		1
Panel 6 – Root Crops (4)	1	3	
Panel 7 – Fungal Disease (5)	4		1
Panel 8 – Novel Control Strategies (4)	4		
Panel 9 – Biology, Epidemiology and Control (5)	5		
Panel 10 – Sugarcane (3)	3		
Panel 11 – Soybean and Cotton (4)	1	2	1
Panel 12 – Disease Management (6)	4		2
Panel 13 – Mycotoxins (3)	1	1	
Panel 14 – Vegetable Crops (4)	4		
Panel 15 – Nematodes (6)	3	1	
Panel 16 – Resistance (5)	2	1	1

Table 6. Other Affiliations Represented on the Panels

Panel	Government	Industry & Industry Organizations	Other
Panel 1 – Methods (4)			
Panel 2 – Molecular Approaches (5)			
Panel 3 – Emerging Diseases (5)			
Panel 4 – Systematics (5)			
Panel 5 – Genetics and Biology (5)			
Panel 6 – Root Crops (4)			
Panel 7 – Fungal Disease (5)			
Panel 8 – Novel Control Strategies (4)			
Panel 9 – Biology, Epidemiology and Control (5)			
Panel 10 – Sugarcane (3)			
Panel 11 – Soybean and Cotton (4)			
Panel 12 – Disease Management (6)			
Panel 13 – Mycotoxins (3)			1
Panel 14 – Vegetable Crops (4)			
Panel 15 – Nematodes (6)	2		
Panel 16 – Resistance (5)	1		

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 7 describes their characteristics in the Plant Diseases Panels.

Table 7. The Panels' Recent Accomplishments

Panel	Published Articles Recently	Received Recent Professional Awards	Having Review Experience	Currently Performing Research
Panel 1 – Methods (4)	4	3	4	2
Panel 2 – Molecular Approaches (5)	5	4	5	5
Panel 3 – Emerging Diseases (5)	5	3	5	4
Panel 4 – Systematics (5)*	5	3	4	5
Panel 5 – Genetics and Biology (5)	5	1	5	5
Panel 6 – Root Crops (4)	4	1	4	4
Panel 7 – Fungal Disease (5)	5	5	5	5
Panel 8 – Novel Control Strategies (4)	4	4	4	4
Panel 9 – Biology, Epidemiology and Control (5)	5	4	5	5
Panel 10 – Sugarcane (3)	2	1	3	2
Panel 11 – Soybean and Cotton (4)	4	2	4	4
Panel 12 – Disease Management (6)	6	4	6	5
Panel 13 – Mycotoxins (3)	3	2	3	3
Panel 14 – Vegetable Crops (4)	4	2	4	4
Panel 15 – Nematodes (6)	6	5	6	6
Panel 16 – Resistance (5)	5	2	5	5

*Data not available.

Current and Previous ARS Employment

The Research Title of the 1998 Farm Bill 105-185, 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 8 shows how many panelists were formerly employed by ARS.

Table 8. Affiliations with ARS

Panel	Formerly Employed by ARS
Panel 1 – Methods (4)	0
Panel 2 – Molecular Approaches (5)	0
Panel 3 – Emerging Diseases (5)	1
Panel 4 – Systematics (5)	0
Panel 5 – Genetics and Biology (5)	0
Panel 6 – Root Crops (4)	2
Panel 7 – Fungal Disease (5)	1
Panel 8 – Novel Control Strategies (4)	1
Panel 9 – Biology, Epidemiology and Control (5)	1
Panel 10 – Sugarcane (3)	1
Panel 11 – Soybean and Cotton (4)	0
Panel 12 – Disease Management (6)	2
Panel 13 – Mycotoxins (3)	0
Panel 14 – Vegetable Crops (4)	0
Panel 15 – Nematodes (6)	1
Panel 16 – Resistance (5)	1

Plant Diseases Panel Chairs

Dr. Tom Creswell, Ph.D., ARS Panel Chair

NP 303 Panel 1 – Methods

Director, Plant and Pest Diagnostic Laboratory; Professor, Department of Botany and Plant Pathology, Purdue University, West Lafayette, IN

Education: B.S. & M.S. Auburn University; Ph.D. North Carolina State University

Since 2008, Dr. Creswell has been the Director of the Plant and Pest Diagnostic Laboratory at Purdue University. His research interests are plant pathology, mycology, disease diagnosis and ornamentals.

Dr. Jeffrey Jones, Ph.D., ARS Panel Chair

Panel 2 – Molecular Approaches

Professor, Plant Pathology Department, University of Florida, Gainesville, FL

Education: B.S. University of Massachusetts; M.S. and Ph.D. Virginia Polytechnic Institute and State University

Dr. Jones' research centers on ecology and host-parasite interaction of bacterial plant pathogens and plant pathogen variation as measured by phenotypic and genotypic analyses. He has been the Professor in the Plant Pathology Department of the University of Florida since 1998.

Dr. Jacqueline Fletcher, Ph.D., ARS Panel Chair

Panel 3 – Emerging Diseases

Regents Professor & Sarkeys Distinguished Professor, Department of Entomology and Plant Pathology, Oklahoma State University, Stillwater, OK

Education: B.S. Emory University; M.S. University of Montana; Ph.D. Texas A&M University

Currently appointed as Regents Professor of the Department of Entomology and Plant Pathology and as Director of the National Institute for Microbial Forensics and Food and Agricultural Biosecurity at Oklahoma State University, Dr. Fletcher's research interests include microbial forensics, food safety, plant biosecurity, and phytopathogenic bacteria.

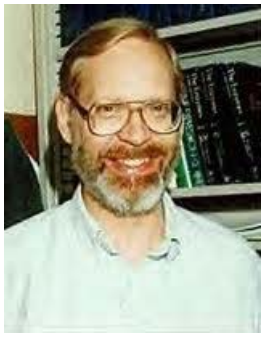
Dr. Marc Cubeta, Ph.D., ARS Panel Chair

Panel 4 – Systematics

Professor, Department of Plant Pathology, North Carolina State University. Raleigh, NC

Education: B.S. University of Delaware; M.S. University of Illinois; Ph.D. North Carolina State University

Dr. Cubeta has been a Professor of Plant Pathology at the University of North Carolina since 2009. Dr. Cubeta's research interests are mycology, soil fungal ecology, population genetics and systematics.



Dr. George Bruening, Ph.D., ARS Panel Chair

Panel 5 – Genetics & Biology and Panel 14 – Vegetable Crops

Professor Emeritus, Plant Pathology Department
University of California, Davis, CA

Education: B.S. Carroll College; M.S. & Ph.D. University of Wisconsin

Dr. Bruening's research interests include plant virology and plant resistance to disease. Since 2008, he has served as Professor Emeritus of the Plant Pathology Department at the University of California. In 2010, he was appointed Chair of the Scientific Advisory Panel, Citrus Research and Development Foundation.

Dr. Dean Malvick, Ph.D., ARS Panel Chair

Panel 6 – Root Crops

Associate Professor, Department of Plant Pathology,
University of Minnesota, St. Paul, MN

Education: B.S. Bemidjii State University; M.S. Oregon State University; Ph.D. University of Minnesota

In 2009, Dr. Malvick was appointed Associate Professor of the Department of Plant Pathology, University of Minnesota. His research interests are plant pathology, fungi and oomycetes.

Dr. David Van Sanford, Ph.D., ARS Panel Chair

Panel 7 – Fungal Disease

Professor, Department of Agronomy, University of Kentucky, Lexington, KY

Education: B.S. Oregon State University; M.S. Colorado State University; Ph.D. North Carolina State University

Since 1993, Dr. Van Sanford has been Professor of Agronomy at the University of Kentucky. Dr. Van Sanford's research interests include wheat, plant breeding, disease resistance and head scab.

Dr. Krishna Subbarao, Ph.D., ARS Panel Chair

Panel 8 – Novel Control Strategies

Professor, Department of Plant Pathology, University of California, Salinas, CA

Education: B.S. & M.S. Mysore University, India; Ph.D. Louisiana State University

Dr. Subbarao's research interests include mycology, epidemiology and population genetics.

Dr. Katherine Stevenson, Ph.D., ARS Panel Chair

Panel 9 – Biology, Epidemiology and Control

Professor, The University of Georgia, College of Agriculture and Environmental Sciences

Education: B.S.; M.S. & Ph.D. Cornell University

Dr. Stevenson's research interests include epidemiology and disease management; and monitoring, management and mechanisms of fungicide resistance in fungal plant pathogens of pecan, peanut and watermelon.

Dr. Jerry Bennett, Ph.D., ARS Panel Chair

Panel 10 – Sugarcane

Professor, Agronomy Department, University of Florida, Gainesville, FL

Education: B.S. & M.S. Texas Tech University; Ph.D. University of Nebraska

Dr. Bennett's area of expertise is environmental stress physiology of agronomic crop plants; effects of water deficits on the physiology, growth, development and yield of agronomic crops; adaptation of crops to environmental stresses; genetic, morphological and physiological characteristics relating to crop avoidance or tolerance of water deficits; crop water relations; nitrogen fixation; photosynthate accumulation and partitioning; evapotranspiration; stomatal activity; techniques for measuring plant water status. He has been a Professor in the Agronomy Department at the University of Florida since 1990.

Dr. Nevin Young, Ph.D., ARS Panel Chair

Panel 11 – Soybean and Cotton

Distinguished McKnight Professor, Department of Plant Pathology, University of Minnesota, St. Paul, MN

Education: B.S. Indiana University; M.S. & Ph.D. Yale University

Dr. Young is a Distinguished McKnight Professor in the Department of Plant Pathology at the University of Minnesota. He has been a Full Professor since 1998. Dr. Young's research interests include plant genomics, genome sequencing, disease resistance genes, genome evolution, and evolution of symbiosis.

Dr. Barry Jacobsen, Ph.D., ARS Panel Chair

Panel 12 – Disease Management

Professor, Department of Plant Sciences, Montana State University, Bozeman, MT

Education: B.S. & M.S. University of Wisconsin – Madison; Ph.D. University of Minnesota

Since 1994, Dr. Jacobsen has been a Professor in the Department of Plant Sciences at Montana State University. His research interests are IPM, vegetable, sugar beet, potato, field crop diseases, disease control, mycotoxins, and postharvest pathology.

Dr. Themis Michailides, Ph.D., ARS Panel Chair

Panel 13 – Mycotoxins

Plant Pathologist and Lecturer, Department of Plant Pathology, Kearney Agriculture Research and Extension Center, University of California

Education: M.S. Agricultural University of Athens, M.S. & Ph.D. University of California

Dr. Michailides research interests are fungal diseases, mycotoxins, fruit and nut trees, Aspergillus flavus, epidemiology and disease management. He has been a Plant Pathologist and Lecturer at the University of California since 1997.

Dr. Ernest Bernard, Ph.D., ARS Panel Chair

Panel 15 – Nematodes

Professor, Entomology and Plant Pathology Department, The University of Tennessee, Knoxville, TN

Education: B.S. & M.S. Michigan State University; Ph.D. University of Georgia

Dr. Bernard has been a Professor in the Department of Entomology and Plant Pathology Department since 1986. Dr. Bernard's research interests include nematology, soil ecology, population dynamics and taxonomy.

Dr. Frances Trail, Ph.D., ARS Panel Chair

Panel 16 – Resistance

Professor, Department of Plant Biology, Michigan State University, East Lansing, MI

Education: B.A. University of North Carolina; M.S. Oregon State University; Ph.D. Cornell University

Dr. Trail's research interests include mycology, genetics, and plant-microbe interactions.

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 peer reviews. Panel Chairs are given some guidelines for writing their statements, but are nevertheless free to discuss what they believe is most important for broad audiences.

PURDUE
UNIVERSITY

PLANT AND PEST DIAGNOSTIC LABORATORY

January 23, 2012

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 for the opportunity to participate in the OSQR review process as chair of the review session: NP 303 Panel 1 - Methods (2012). Our panel carefully reviewed each of the assigned project plans and provided a competent assessment of strengths, weaknesses and likelihood of success. Specific suggestions for improvement were included for most of the objectives, including tactics to potentially improve research efficiency and ideas to make the project plans clearer to those outside ARS and to those who may not be intimately familiar with some of the highly specific areas of research described.

The review process:
The webinars led by Dr. Strauss provided good preparation for the review process both for me as a first time panel chair and for the reviewers. Each reviewer seemed to understand the review goals and requirements quite well. A consensus decision was reached for each of the 3 plans within a reasonable time and with open and honest discussion during the conference call. Each reviewer was well prepared for the discussion time. One peer reviewer who had participated in prior in-person reviews commented that the on-line experience afforded slightly less discussion time for each topic but all agreed that the process was thorough and effective. Being able to avoid unnecessary travel was appreciated. The scoring procedure worked well, with the exception that one reviewer had to leave the conference call and reconnect to make the polling process work. Linda Daly-Lucas was efficient in keeping us organized throughout the process and was readily available to help with any questions or problems. The suggested format and time schedule sent in advance of the final on-line conference worked well and helped keep us focused and the discussion relevant.

Suggestions for improvement:

- The three project plans included in this review included 2 from "service" labs and each was quite different from the others. This made assembling a panel with experience in multiple areas a bit more challenging than if all 3 projects had been somewhat related. Grouping similar projects could make the selection of reviewers somewhat easier, although we recognize that there may be no easy grouping available for some projects.

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- A one or two page executive summary of each project, if available to the panel chair at the outset of the process, would have been very helpful in recruiting appropriate reviewers.
- While online conferencing and webinars usually present some technical problems it seems the AT&T conferencing system chosen for this process has more than it's share. It has several features that appear to simply not work for Macintosh users. Other conferencing systems such as GoToMeeting, Adobe Connect and Eluminate are more platform independent and would make it much easier and less confusing for Mac users (and would likely require less advanced preparation for PC users).

I feel our panel was effective in providing a thorough review of the projects assigned to us. It was a good experience that allowed me to learn much more about the diversity of ongoing ARS projects.

Sincerely,

Tom C. Creswell

Tom Creswell, PhD
Director, Plant and Pest Diagnostic Lab
Department of Botany and Plant Pathology

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January 30, 2012

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 Joyce:

Thank you for the opportunity to participate in the panel review relating to USDA NP 303 Panel 2 - Molecular Approaches (2012). I found the whole process very interesting and informative and I believe that the panel members were objective and focused on the process. I do hope that the written comments from the reviewers will be useful to the research scientists.

The project plans for the most part were very well prepared and as the review panel noted in very good shape in terms of needing minimal changes. I am not sure if the length of time spent discussing each project was sufficient. There did not seem to be much concern about three of the proposals and thus most of the discussion dealt with the final proposal. We did not have any problems with having to exclude peer reviewers from the process for particular project plans. I think that the review team understood the criteria and roles as primary and secondary reviewers. We also were fine with the criteria for scoring the proposals. I did have a concern regarding the logistical arrangements. We basically received some of the reviews on the day of the review. That created problems in terms of the review process and perhaps more feedback from everyone involved. It would have been much easier to assess the reviewer comments if we had received each other's comments a week earlier. In the future my one major suggestion would be to have the proposals due at least a week earlier than the meeting. This could be done by providing reminders 3 weeks prior to the panel meeting.

Again I found the process and the depth of the project plans to be excellent.

Sincerely,

Jeffrey B. Jones

Jeffrey B. Jones
Professor

Division of Agricultural Sciences and Natural Resources

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January 30, 2012

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:

The following comments pertain to the review of four ARS research plans by USDA ARS NP 303, Panel 3: Emerging Diseases. Our panel, which consisted of four highly qualified academic plant pathologists and me, discussed and rated them in an online-and-telephone panel on Friday, January 27, 2012.

This was the first time that any of the panelists had participated in a "virtual" review panel, and I had minor concerns, prior to the panel meeting, since we would not have the opportunity to see each other or spend time together outside of the panel discussions, as has typically been possible on other review panels. However, my concerns were allayed very quickly as the call progressed. I am pleased to report that the panel conducted a sound and credible scientific peer review of each of the research plans. Although all four of the plans were already sound and well-developed by their authors, I believe that the panel generated ideas, creative thinking, and alternative approaches to improve the quality of research, which may not otherwise have been considered by Agency scientists and staff.

Among the most notable elements of the panel was the panelists' thorough preparation for the discussion, which was evident by their familiarity with the assigned plans and their thoughtful comments about positive aspects of the plans as well as possible pitfalls and their resolution. We kept fairly close to the hoped-for 30 minutes/plan, probably due to the outstanding timeframe suggestions of ARS staff.

I want to compliment ARS staff on the exceedingly professional and efficient manner in which I and the panelists were oriented to our task. The phone orientation sessions, supplemented with previously mailed information folders and thumb drives, were outstanding. We all understood the difference between our assigned task and service on other types of panels, such as grant proposal reviews. The manner in which our panel's single conflict of interest (I had worked with one of the ARS scientists and recused myself from that discussion) was handled was appropriate and problem-free. The scoring and critique writing procedures were streamlined; by performing these tasks as the discussions progressed they were available to support our rating activity in real time.

Fletcher
January 30, 2012

One minor suggestion I would make, as Panel Chair, is to number the pages in the information folders. I had several questions about the information, and it was slightly inconvenient to have to describe to ARS staff where, in the folder, the text in question was located.

Overall, this was one of the most effective review panels on which I have ever served. While I wish that I could take credit for that, the truth is that my only brilliant move was to select four outstanding panelists and convince them to serve. The rest of the credit to a fine process goes to Mike Strauss and to you for the well-designed system and thoughtful guidance through the process. For these things, I thank you sincerely.

Sincerely yours,

Jacqueline Fletcher

Jacqueline Fletcher
Regents' Professor
Director, National Institute for Microbial Forensics & Food and Agricultural Biosecurity

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January 21, 2012

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. Marshall:

On 12 January I served as the chair for the NP 303 Systematics 2012 Panel with four of my colleagues who reviewed four USDA programs in systematics via telephone and computer teleconferencing with the aid of two USDA/ARS program managers. During this review, the panel reviewed each of these four programs by discussing their inherent strengths and weaknesses and provided constructive criticism and suggestions for improving the quality of the proposed research. The primary reviewer provided a synthesis review of the proposed project for approximately five minutes and was followed by comments from the secondary reviewer, other panel members, and myself. The discussion and review of each project required approximately 20-30 minutes. After the discussion, each panel member scored the project and submitted their ranking anonymously to the program manger. The level of preparedness of each panel member impressed me, as it was very evident that they spent a considerable amount of time reviewing and developing synthesis comments for their assigned projects in advance of the meeting. One of the panel members had a conflict with two of the projects and was excluded for the discussion and scoring of them.

I was thoroughly impressed with the cohesiveness and efficiency of the review process that proceeded with no apparent computer or telephone technology issues. Therefore, I have no comments or suggestions for improving this review process. I also feel that there was great chemistry and positive interaction among the panel members and program officers. I was extremely fortunate to have a panel consisting of enthusiastic scientists with diverse but complementary expertise that were knowledgeable of the proposed research presented in each project. The panel members also possessed the most important characteristic of being able to function as a collective group that could reach consensus in a timely manner with excellent reviews. Thank you for allowing me the opportunity to serve as the panel chair for this important review process.

Sincerely,

Marc A. Cubeta

Marc A. Cubeta, Ph.D.
Professor

UNIVERSITY OF CALIFORNIA, DAVIS

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18 February 2012

RE: **OSQR NP 303 Panel 5**

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

Dear Dr. Loper:
I served as the Chair of Project Peer Review Panel 5 for National Program 303, Plant Diseases. I believe that the panel members showed themselves to be both well informed and well prepared for the analyses they generated, as evidenced by the text provided by the primary and secondary reviewers, as modified during the teleconference. Panel members provided not only general commentary about the significance and feasibility of each plan and the probability of achieving the timetable but also suggestions about how and whether sampling procedures could work and references that should have been, but were not, cited.

For all but one of the programs reviewed, the panel found that only minor revision was required. However, for one program, the panel concluded that the approaches proposed were dated and suggested completely different, contemporary methods for solving the research problems described in the program plan. I believe that if these suggestions are followed in revising the plan and in carrying out the research, the research group will be able to make more and more convincing progress that if the submitted plan is followed.

I found that some of the summaries of plans that were provided at the time of panel selection were inadequate. That is, they were not specific enough to allow me to decide on panel members best suited to the reviews. Perhaps, as a general policy, the panel chair could be provided with access to the full proposals at the time of panel member selection.

I believe that Panel 5 provided an effective review overall.

Sincerely,

George Bruening

George Bruening
Professor Emeritus
Formerly Professor in Plant Pathology and
Biochemist in the Agricultural Experiment Station

University of Minnesota

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April 11, 2012

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:

This panel chair statement is being written regarding USDA NP 303 Panel 6 - Root Crops, for which the full panel review was completed in February 2012.

The USDA NP 303 Panel 6 - Root Crops review panel had excellent and constructive discussions on the three assigned projects. This panel included the necessary and complementary expertise to conduct thorough, sound, and credible reviews, and this is reflected in the summary statements written for all three projects. All panel members took their review responsibilities seriously and used balanced and constructive approaches in developing their review comments. The panel recognized and acknowledged that there is rarely only one right or wrong approach to addressing scientific research questions and objectives, and this was reflected in the discussions and final comments. The goal of all panelists was to assist in improving the projects and the quality of research by offering constructive and creative comments and ideas from different points of view and different sets of background and experience. I believe the panel was successful in achieving this goal.

The panel discussions were efficient, evenhanded, and fair as directed by all involved. All panel members had spent considerable time and effort reading and reviewing the projects, and thus were well prepared for the discussions. An appropriate amount of time was spent discussing each project, which was well balanced among the three projects. Before the panel review discussions, I questioned whether the logistical arrangements of using a combination of phone lines and web-based communication would work well to accomplish thorough reviews of these complex projects in a short time period. In the end I was pleased at how well the review process proceeded, consensus was obtained, and it culminated into a solid set of reviews.

A challenge with reviewing these projects was their complexity and breadth with regard to different pathogens, plants, diseases, complex laboratory procedures, whole plant and molecular work, and field and laboratory-based research projects. Thus, it was a challenge to identify a review panel with expertise in all of the areas covered in the proposals, and hence some areas of the research plans and approaches were reviewed with a broader and deeper set of knowledge and experience than others. Regardless, we were fortunate in this review panel to have

assembled a group with a broad base of expertise. Other potential panelists were considered during development of the panel and excluded due to conflicts of interest or unavailability during the key time period, but the final panel was excellent and it effectively reviewed and provided constructive comments as deemed appropriate on all parts of all the project plans. All members of the panel seemed to clearly understand the review criteria, their roles as peer reviewers, and the procedures for writing critiques and for scoring of the assigned project plans. This understanding was due in no small part to the excellent orientation sessions, information, and guidelines provided to the panel. Nothing critical seems to have been overlooked in preparation or in the final panel comments, and the panel hopes that the comments are helpful and lead to improved projects where potential improvements could be made.

I have only two ideas to potentially improve the peer review process. Although in the end an excellent and balanced review panel was assembled, this was more difficult than anticipated due primarily to unavailability at that time of the year. It seemed that there were many major grant proposals and conferences occurring during that time period that resulted in unavailability. If there were options to move the panel review period to other times, that could possibly make the reviews more readily accomplished in some cases. Although, I recognize it would be difficult to pick a time that minimizes potential conflicts. In addition, and somewhat contradictory, is that given the complexity and breadth of some of these projects, another panel member with additional expertise could be potentially be valuable to broaden the reviews. This would be more important for some projects and review panels than others.

Overall, this root disease review panel was effective in completing a set of thorough, considerate, and fair reviews of the three projects. We hope that our comments and suggestions will be valuable in improving and strengthening each of the excellent projects that we had the opportunity to review.

Sincerely,

Dean Malvick

Dean Malvick, Associate Professor

UK UNIVERSITY OF KENTUCKY
College of Agriculture

Department of Plant and Soil Sciences

David A. Van Sanford dvs@uky.edu
Wheat Breeding & Genetics 859.338.2409
February 14, 2012

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:

I was pleased to serve as Chair of the NP 303 Panel 7 on Fungal Diseases, which met in an online conference on February 13, 2012. The panel engaged in serious and substantive discussions of the four Project Plans that were reviewed. The discussions were anchored in sound and credible scientific peer review. The discussions were undertaken in the spirit of generating ideas, creative thinking and alternative approaches that may not have been considered by Agency scientists and staff.

Some of the most notable characteristics of the discussion process included the level of preparation for the discussion: it was quite clear that the reviewers took the task seriously and spent the time required to have an informed discussion. The logistical arrangements for the online conference were handled smoothly; all reviewers were able to participate fully in the discussion. It was not a problem to exclude peer reviewers who had a conflict with the project; the OSQR office did a thorough and efficient job of it. The OSQR staff did a clear job explaining the review criteria and articulating our roles as peer reviewers so that the matter of scoring the Plans was straightforward and without conflict.

Suggestions for improving the peer review process have to do primarily with those situations when ARS has mandated that a scientist or group of scientists will work on a particular part of a large research problem, even when the group seems to lack the necessary expertise to do so effectively. I realize that these situations may be dictated by forces well beyond the purview of the Review Panel. Nonetheless, it would be helpful to the panel to be apprised of these circumstances from the outset. Related to this, it was noted that ARS may perceive all of the interconnections between scientists working on different aspects of a large problem, but they do not go out of their way to share this information with the Review Panel. It would be helpful to the panel for the research group that is working on a tiny piece of a very big puzzle to list their collaborators and at least demonstrate their awareness of potential research connections within ARS.

In spite of these concerns, I believe that overall, this was an effective peer review panel because the scientists comprising the panel were eminently qualified to review the

research, and their only motivation was to make suggestions that would, in their view, enhance the quality of the proposed research. Please feel free to contact me if you wish to discuss this in more detail.

Sincerely,

David A. Van Sanford
Professor
Co-Chair, US Wheat and Barley Scab Initiative

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February 17, 2012

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

I served as the Chair of the Novel Control Strategies Panel that evaluated three proposals in the Plant Disease National Program. This was my first opportunity to participate in the evaluation of prospective intramural research by USDA-ARS scientists. In addition to the Chair, the panel included three accomplished scientists that evaluated the proposals. The panelists came thoroughly prepared for panel deliberations and offered their unbiased, professional opinion on each proposal they were assigned. Proposals that were well prepared were appreciated for the clarity of thought, innovative research proposed and the scientific integrity and ability of the participating scientists. Proposals that were less well defined were offered constructive criticisms for their improvement. Areas of work that are generally considered risky for funding by the extramural program can only be undertaken by researcher in intramurally funded agencies such as the ARS. At least with one project evaluated this was noted as such and appreciated by the panel. I am convinced that the suggestions offered by the panel significantly improve the quality of proposed research and benefit the stakeholders immensely.

As stated above, this was the first time that I participated in the evaluation of the intramural research proposals from ARS groups. I must admit that I have developed a very healthy respect for the rigor with which each proposal was evaluated and the seriousness with which the agency incorporates suggestions for their improvement. Furthermore, I am also highly appreciative of the process of selecting the panel, the metrics employed in scoring the proposals, panel meeting arrangement on the web, and finally, the clear instructions for the panel meeting and discussions. The agency has outstanding individuals that oversee this entire process and I am in debt for their professionalism.

I strongly believe that the current peer review strengthens the research enterprise of the agency and the outcome benefits the clientele each project attempts to serve. The only suggestion that I have is to make the web login seamless across the variety of platforms that the reviewers use. It was a little cumbersome to follow the contents of the proposals on the screen and listen to the deliberations on a dial-up phone. Perhaps this requires to agency to elicit information on the computer platforms that different reviewers use prior to the panel meetings and troubleshoot audio and video access prior to the actual panel meeting. Please do not hesitate to contact me if you need additional information.

Very truly yours,

K. V. Subbarao

Krishna V. Subbarao, Ph.D.
Professor

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

February 17, 2012

Dear Dr. Loper,

I am pleased to report that the review panel NP 303 Panel 9 – Biology, Epidemiology and Control (2012) met online on February 7, 2012 and completed our review of the four assigned project plans. Discussion of the project plans reflected sound, credible scientific peer review and creative thinking. In many cases, panel members offered alternative approaches or suggested other effective collaborations, or indicated the need for additional information to improve the quality of the proposed research that may not have been considered by Agency scientists and staff.

The online discussion process was initially delayed by 15-20 minutes, due to a scheduling problem, but once all panel members and Agency staff came online, we were able to proceed with the discussion of project plans without further delay. All panel members were well qualified and prepared for the discussion and had provided their reviews to the entire panel and Agency staff between 1 and 5 days prior to the online meeting. We were provided with a summary (unedited) of the primary and secondary reviews of each project plan during the online meeting to facilitate discussion. In general, the project plans were quite ambitious, complex and contained an unusually large number of objectives and sub-objectives. Thorough, point-by-point discussion of the objectives and sub-objectives required approximately 40-50 minutes per plan. There were no conflicts, so exclusion of panel members was not necessary. Based on the discussion, all panel members appeared to have a good understanding of the review criteria and the scoring of the project plans was consistent with the discussion and written reviews.

Overall, I believe that the review, assessment and scoring of these individual project plans were conducted in a fair and scientifically constructive manner and that the review panel was effective in providing meaningful, constructive criticism and helpful suggestions for improvement of the project plans. I am confident that the outcome of this review process will result in significantly improved project plans and improved quality of these USDA research programs. Thank you for the opportunity to participate in this very worthwhile process.

Sincerely,

Katherine L. Stevenson
Professor and Chair, NP 303 Panel 9 (2012)

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December 19, 2011

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

Dear Dr. Marshall:

NP 303 Panel 10 – Sugarcane (2012) completed its work with a conference call on Friday, December 16, 2012. The panel was excellent and certainly provided a sound and credible scientific peer review of the two research projects that had been assigned.

As a result of the review, a number of questions were posed by the review panel for consideration by the authors of two research project proposals. I conclude that the questions posed to the PI's and the panel's suggestions for clarification of parts of the two proposals should be helpful and will serve to improve the research plan. Several suggestions for improvement were made.

The review process and the discussions during the panel review conference call progressed well with no particular problems except for some technical problems associated with the computer interface (software issues) during the teleconference on December 16. However those technical issues, while bothersome, did not interfere with the production of an excellent review document.

The assistance from ARS staff (Linda Daly-Lucas and Michael Strauss) was outstanding in organizing all panel telecom meetings, even as one member of the panel was traveling internationally. All panel members performed the reviews with excellence and were well prepared for the excellent discussions that occurred during the final review conference. Training of the panel relative to the process and expectations were excellent.

The only minor revision to the process that I might offer would be to have the full proposals (not just the title and objectives) available to the panel chair before other panel members are selected.

To conclude, the review process worked very well and was quite effective.

If you have any questions about the above comments, or anything else, please feel free to contact me.

Sincerely yours,

Jerry M. Bennett
Professor, Agronomy Department
University of Florida

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April 10, 2012

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 Joyce:

Thanks for the opportunity to provide comments about the recent Soybean and Cotton NP303 Review Panel (11).

This was my first ARS panel, so I came into the process unsure what to expect. Now that it's complete, I can say that the review, including one re-review, was both substantive and thoughtful. It was also quite educational. The proposals were well-written and the corresponding panel reviews successfully identified both key strengths and weaknesses. The resulting on-line panel discussion was especially engaging, as panel members contributed significant expertise about different aspects of the proposals. This was notable because it meant that in cases where weaknesses were identified, one or more panel members could offer relevant suggestions and genuinely helpful advice. There were multiple occasions where the panel proposed alternative approaches or strategies for interpretation that are highly likely to enhance the outcomes of the research.

It is also worth noting that on-line panel discussions were successful because of seamless coordination by ARS staff, something that is especially appreciated by the panel chairman. In summary, the logistics of the on-line meeting process went smoothly, and in cases where communication became difficult, it seemed to be the result of difficulties with the software, not the staff managing the meeting.

The only area where I would recommend possible changes would be in the area of identifying panel members. Though our panel turned out to be very effective, it was far from obvious how to choose members or to create the best mix of participants. A lists of names was circulated to me (as chair) at one point, but it was only marginally helpful (and much of the information was out of date). Instead, a list of individuals who had previously self-identified as being willing and interested in serving on an ARS panel together with their areas of expertise would have been very useful.

In any case, the experience was positive and the ARS can be very happy with the review process and the advice forwarded to its staff.

Sincerely,

Nevin Dale Young

Nevin Dale Young, Ph.D.
McKnight Distinguished University Professor

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Plant Pathology

Plant Genetics
Plant Biology
Crop Science
Horticulture

April 18, 2012

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

1. The NP 303 panel 12-Disease Management conducted a thorough scientific review of the following projects: Improved Strategies for Management of Soilborne Diseases of Horticultural Crops, Biologically –based Integrated management of Fire Blight of Apple and Pear, Biocontrol Agent Production and Deployment Technologies for the Integrated Management of Plant Pathogens, Biology and Biological Control of Root Diseases of Wheat, Barley and Biofuel Brassicas, and Development of Biological Systems for Controlling Fruit Decay. Each project was assigned to two principle reviewers who lead the discussion of each project during a 3 hr. conference call. Reviewers were assigned as having particular expertise relative to the particular proposal. Other panel members who also read the proposal as secondary reviewers also made comments following the primary reviewer presentation. Each proposal was rated and ideas, creative thinking, and alternative approaches to improve the quality of research were recorded by ARS staff that monitored the conference call.

Below are my responses to questions:
What were the most notable (positive or negative) characteristics of the discussion process and why:

-level of preparation for the discussion: Each project received outstanding and detailed reviews from each of the primary reviewers and from other panelists.

-time spent discussing each project: Each project received a minimum of 20 minutes of reviewer and some up to 40 minutes

-logistical arrangements : I proposed the panelists and each was reviewed for conflict of interest by ARS staff. Panelists were given 2 weeks for review and the conference call was arranged by ARS staff. I lead the discussion.

-exclusion of peer reviewers who had a conflict with the project- two proposed panelists were excluded because of conflict of interest. There were no conflict of interest amongst the panelists and all made comments on each proposal.

-understanding of the review criteria and roles as peer reviewers: this was made clear to each panelist

-scoring and critique writing procedures: this was made clear to each panelist and scoring was facilitated by an interactive website managed by ARS

What suggestions do you have to improve the peer review process? None, the process went very well. One comment is that we had a conflict of interest with one grant where the conflict was not revealed in the grant but was brought forth by the panelist. Proposal authors

Overall, was this an effective peer review panel? This was a very effective panel. At the end of the review we all discussed the process and everyone thought this was a very effective way to do these reviews. We had excellent support from ARS staff.

Sincerely,

Barry J. Jacobsen

Barry J. Jacobsen
Professor of Plant Pathology

UNIVERSITY OF CALIFORNIA

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31 January 2012

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 Joyce,

It was nice talking with you briefly before starting the official review panel.

I thank you for the opportunity to chair the NP 303 Panel 13 - Mycotoxins (2012) from 9:00 a.m. to 10:20 a.m. on January 31, 2012. In attendance were three individuals from ARS/USDA and two anonymous reviewers from two well-known universities.

I believe we had a sound, credible and productive discussion on reviewing these two project plans. Both reviewers provided excellent and very constructive comments.

The reviewers were well prepared to discuss each project and we spent about 35-40 minutes in discussing each project plan with nonequivalent time divided among the objectives we discussed. A negative characteristic of the discussion was that one of the reviewers had a softer voice and it was hard to hear the end of some his statements. However, positive features, such as good discussion, agreement in some of the criticisms, and consensus in evaluating the two project plans dominated the review and helped the review process to flow smoothly. Certainly, the peer review coordinator Dr. Strauss and yourself contributed greatly to the smooth and timely process of the review.

I cannot think of any ways or suggestions for improving the review process. In fact, I view this process as very efficient, less costly, and timely since financial resources are very limited.

Overall, I found that this was a very effective peer review panel and I would not hesitate in participating in future similar panel reviews.

I thank you for the opportunity to participate and chair this panel.

Sincerely,

Themis J. Michailides

Themis J. Michailides
Plant Pathologist

UNIVERSITY OF CALIFORNIA, DAVIS

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18 February 2012

RE: **OSQR NP 303 Panel 14**

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

Dear Dr. Loper:

I served as the Chair of Project Peer Review Panel 14 for National Program 303, Plant Diseases. I believe that our panel provided effective peer review as evidenced by the text provided by the primary and secondary reviewers. The reviews provided not only general commentary about the proposal but specific suggestions, e.g., the number and types of samples needed to be able to draw reliable conclusions and the types of analyses that should be performed to achieve reliable results. Where the proposed approaches seem to be on track, this also was noted. During the panel conference call, additional suggestions for improvement were incorporated.

I believe that Panel 14 had the good fortune of being able to review program plans that were thoughtfully prepared. Nevertheless, the panel was able to provide constructive and useful advice consistent with the "Minor Revision" rating provided for each of the plans under review.

Although all members of Panel 14 clearly had read and provided input on the plans to which they had been assigned as primary or secondary reviewer, one member seemed not to have thought through the role of presenter of the primary review plan and apparently was not prepared to do so when first called upon. Accordingly, I suggest that the "**Items to Remember**" sheet be revised to include a new section, to be placed after the "**Review Forms**" section and with text along the following lines:

"**Teleconference**
"Although the plan review resembles the review of a manuscript in many ways, the teleconference should proceed along the lines of a grant panel review. That is, the primary reviewer will summarize the main points of the plan, including the overall goal and approaches, strengths, weaknesses, and suggestions for improvement. The secondary reviewer should not repeat the points presented by the primary reviewer but should provide other information and any differences with the primary reviewer's interpretations. General input from other panel members and a vote on the plan rating will follow. Please formulate your presentation so that about 30 min will be required for the review of each plan."

I believe that Panel 14 provided an effective review overall.

Sincerely,

George Bruening

George Bruening
Professor Emeritus
Formerly Professor in Plant Pathology and
Biochemist in the Agricultural Experiment Station

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April 17, 2012

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:

I am pleased to provide a Chair Statement on behalf of the USDA NP 303 Panel 15 - Nematodes (2012) Panel. This was an interesting and challenging process for the panel; I trust that we did our jobs adequately and that the scientists programs being evaluated were treated fairly.

1. Did USDA NP 303 Panel 15 panel have discussions that reflected:
   -sound and credible scientific peer review
   - ideas, creative thinking, and alternative approaches to improve the quality of research that may not have been considered by Agency scientists and staff.

In my opinion the peer reviews of the five research plans were well done and accurately reflected the current state of knowledge in nematology. The panel contained enough diversity in research expertise to provide sound evaluations of the proposed research. Another advantage was that with nematology being a smaller, specialized science, most U.S. nematologists know all their colleagues and have heard them speak and present papers many times. This familiarity allowed panel members to have a better feel for the proposed research plan and the likelihood of achieving the stated objectives.

The panel enjoyed the interaction with USDA staff and found this a good approach to peer review of projects. I have not received any negative comments about the process.

2. What were the most notable (positive or negative) characteristics of the discussion process and why:
   -level of preparation for the discussion
   -time spent discussing each project
   -logistical arrangements
   -exclusion of peer reviewers who had a conflict with the project
   -understanding of the review criteria and roles as peer reviewers
   -scoring and critique writing procedures

Preparation and discussion **--I do not believe there were any notable negative characteristics. All of the panel members seemed to have read their proposals**

seriously and provided good input. It also seemed that they had read more than just the two assigned to them and were able to give useful input on all the proposals. The panel spent much more time on discussion of the five proposals than the USDA staff had indicated would be necessary, but I felt this extra time was valuable and provided a better airing of proposal strengths and weaknesses. This extra time may have been due to my decision to start with the proposal I felt would need the most discussion.
***Logistical arrangements* – The panel found the teleconference approach to be far preferable to physical travel for a meeting...much more time-efficient and stripped of the extraneous requirements of travel, lodging, restaurants, etc., plus time saved on the part of hosts in organization.**
***Exclusion of peer reviewers with a conflict* – This may be a future problem in nematology, a science with a relatively large proportion of practitioners who are USDA employees. For this panel review the field of qualified potential reviewers was rather small, once USDA scientists, many extension nematologists, traditional nematode control scientists, and many nematode ecologists and taxonomists were eliminated. Exclusion of scientists who had two conflicts of interest did eliminate one or two potential reviewers who had good in-depth knowledge of one or more proposals. However, I would not advocate changing that rule yet. The panel had enough redundancy in it to provide good insight into each of the five proposals.**
***Review criteria, scoring, and critiques* – With the excellent explanations provided by the USDA staff, there were no problems with understanding the rating criteria or what we were voting on.**

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

I have none, as this was the most efficient approach I have ever been involved in for a research panel discussion.

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

In my opinion we performed the reviews in a conscientious and neutral manner. I was particularly pleased that all reviewers came to the teleconference prepared and familiar with their assigned proposals.

Sincerely,

Ernest C. Bernard
Professor
Director of Graduate Studies
ebernard@utk.edu

MICHIGAN STATE
UNIVERSITY

January 24, 2012

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 my pleasure to chair the panel on plant disease USDA NP 303 Panel 16-Resistance. The reviewers did a thorough job going over the documents of Edwards, Prom, Scofield and Goodwin, making many helpful suggestions for improvement of the proposed work. The review documents reflect our discussion. The panel had the breadth of knowledge to thoroughly examine the submissions and to suggest alternative approaches for improving the research.

The panel was well prepared to discuss all four plans and each of the primary and secondary reviewers did a thorough job presenting the strengths and weaknesses of the plans. None of the reviewers had a conflict with any of the projects. In all cases, there was ample time for discussion, although on average only 30 minutes was taken to complete the discussion of each proposal. Scoring proposals was done anonymously, but the scoring was consistent among all 5 panel members.

This process gave an effective means of reviewing the proposals, and the reviewers commented on the ease of the process. Due to my schedule, the timeline was a bit short, which the panel members also commented on, but they were all well-prepared.

Thanks for the opportunity to contribute to this process.

Sincerely,

Frances Trail
Professor

College of
Natural Science

Department of
Plant Biology

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Projects Reviewed by the NP 303 Plant Diseases Panel

Beltsville Area

Bryan Bailey

Genomic Characterization and Management of Fungal Diseases of Cacao

C. Jacyn Baker

Physiological and Molecular Signaling in Viroid and Bacterial Disease

Gary Bauchan

Electron and Confocal Microscopy Applications to Pests and Plant Processes Impacting Agricultural Productivity

Lynn Carta

Morphological and Molecular Identification and Systematics of Agriculturally Important Nematodes

Lisa Castlebury

Systematics and Diagnostics of Emerging and Quarantine-Significant Plant Pathogenic Fungi

Robert Davis

Genome Sequence-Based Strategies for Detection and Identification of Plant Pathogenic Phytoplasmas and Spiroplasmas, and Vascular Walled Bacteria

Rosemarie Hammond

Novel Disease Control Strategies for Cellular and Sub-Cellular Pathogens

John Hartung

Invasive Pathogens of Citrus

Richard Jones

Potato and Tomato Disease Management through Understanding of Host Resistance and Pathogen Variability

Ramon Jordan

New and Emerging Viral and Bacterial Diseases of Ornamental Plants: Detection, Identification and Characterization

Wayne Jurick, II

Molecular Characterization of Host and Pathogen Factors Affecting Fungal Virulence During Postharvest Decay of Pome Fruits

Gary Kinard

Characterizing, Detecting, and Eliminating Pathogens to Enable the Safe Introduction of Plant Genetic Resources

Edward Masler

Management Strategies for Plant-Parasitic Nematodes: Cover Crops, Amendments, and Internal Molecular Targets

Stephen Rehner

Systematics of Biological Control Microfungi for Management of Plant Diseases and Insect Pests

Mid South Area

Hamed Abbas

Biocontrol of Aflatoxin and Other Mycotoxins in Maize Using Non-Toxigenic Strains of Aspergillus flavus

Prakesh Arelli

Genetics and Management of Soybean Cyst Nematodes and Diseases for Sustainable Production

Michael Grisham

Effective Disease Management through Enhancement of Resistant Sugarcane

Salliana Stetina

Management of Reniform Nematode in Cotton

Midwest Area

Leslie Domier

Improved Resistance to Soybean Pathogens and Pests

Steve Goodwin

Molecular Mechanisms of Plant Pathogen Interactions in Cereal

Teresa Hughes

Population Dynamics and Disease Management of Soybean Root Pathogens

H. Corby Kistler

Fusarium Head Blight of Cereals: Pathogen Biology and Host Resistance

Margaret Redinbaugh

Control of Virus Diseases in Corn and Soybean

David Schisler

Biocontrol Agent Production and Deployment Technologies for the Integrated Management of Plant Pathogens

Steve Scofield

Molecular Mechanisms of Resistance to Wheat Fungal Pathogens

Les Szabo

Cereal Rust Fungi: Genetics, Population Biology, and Host-Pathogen Interactions

David Willis

Genetics of the Pathogen-Host-Vector Interaction in Selected Vegetable Crops

North Atlantic Area

Samuel Cartinhour

Pseudomonas Systems Biology

Reid Frederick

Emerging Foreign Fungal Plant Pathogens: Detection, Biology, and Interactions with Host Plants

Stewart Gray

Management and Biology of Virus and Nematode Diseases of Potato and Small Grains

David Schneider

Frameworks for Infectious Disease Dynamics

William Schneider

Identification, Characterization, and Biology of Foreign and Emerging Viral and Bacterial Plant Pathogens

Paul Tooley

Biology, Pathology, and Epidemiology of Emerging Oomycete Pathogens

Michael Wisniewski

Development of Biological Systems for Controlling Fruit Decay

Northern Plains Area

Melvin Bolton

Improving Crop Protection in Sugarbeet Using Molecular Technology

Michael Edwards

Host-Pathogen Interactions in Barley and Wheat

Roy French

Wheat Virus Interactions with Host and Vector

Pacific West Area

Barbara Baker

Manipulation of Plant Disease Resistance Genes for Improved Crop Protection

Xian Ming Chen

Improved Control of Stripe Rust in Cereal Crops

David Kluepfel

Integrated Strategies for Advanced Management of Fruit, Nut, and Oak Tree Diseases

Joyce Loper

Improved Strategies for Management of Soilborne Diseases of Horticultural Crops

Walter Mahaffee

Exotic and Emerging Plant Diseases of Horticultural Crops

William Pfender

Disease Modeling and Genetic Approaches to Enhance Wheat and Grass Seed Crop Biosecurity

Paul Pusey

Biologically-Based Integrated Management of Fire Blight of Apple and Pear

Drake Stenger

Epidemiology and Management of Pierce's Disease and Other Maladies of Grape

David Weller

Biology and Biological Control of Root Diseases of Wheat, Barley and Biofuel Brassicas

William Wintermantel

Biology, Epidemiology and Management of Vector-borne Viruses of Sugarbeet and Vegetable Crops

Raymond Yokomi

Characterization, Epidemiology and Management Strategies of Citrus Tristeza Virus and Spiroplasma citri on Citrus in California

South Atlantic Area

Scott Adkins

Emerging Diseases of Citrus, Vegetables, and Ornamentals

Jack Comstock

Management of Diseases of Saccharum Hybrids through Development and Evaluation of Resistant Germplasm

Bruce Horn

Genetics, Population Dynamics, and Mycotoxin Prevention in Peanut

Kai-Shu Ling

Characterization, Etiology, and Disease Management for Vegetable Crops

Andrew Nyczepir

Nematode and Disease Management of Deciduous Fruits

Judy Thies

Development of Disease and Nematode Resistance in Vegetable Crops

Patricia Timper

Host Plant Resistance and Other Management Strategies for Nematodes in Cotton and Peanut

Southern Plains Area

Louis Prom

Characterization and Identification of Resistance in Sorghum to Fungal Pathogens

Robert Stipanovic

Cotton Disease Management Strategies for Sustainable Cotton Production

Office of Scientific Quality Review

The Office of Scientific Quality Review (OSQR) 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 within 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:

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