Report NP104 – July 2015

NP 104 Veterinary, Medical, and Urban Entomology 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 2014 National Program (NP) 104 Veterinary, Medical, and Urban Entomology Panel Review. The project plans reviewed by these panels were applicable to the mission of the National Program to *"solve scientific problems and develop new products to American livestock, poultry, military personnel, civilians, structures, and households from damage caused by Arthropods."*

Candidates to chair each panel were recommended by the National Program Leader (NPL), Dr. Daniel Strickman, vetted by the Office of Scientific Quality Review (OSQR) and approved by Dr. Michael A. Grusak, Scientific Quality Review Officer (SQRO).

Table 1. Veterinary, Medical, and Urban Entomology 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: Diptera Veterinary Pests & Vectors	Dr. Nancy Hinkle, Professor, Dept Entomology, Univ Georgia, Athens, GA	July 24, 2014	5	5
Panel 2: Human Pests & Vectors	Dr. Edward Walker, Professor, Dept Microbiology & Molecular Genetics, Michigan State Univ, East Lansing, MI	June 16, 2014	2	2
Panel 3: Tick Veterinary Vectors	Dr. Joseph Corn, Senior Public Service Associate, Dept Population Health, Univ Georgia, Athens, GA	June 10, 2014	3	3
Panel 4: Ants	Dr. Walter Tschinkel, Robert O. Lawton Distinguished Professor, Dept Biological Science, Florida State Univ, Tallahassee, FL	July 3, 2014	2	2

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 Equivalent 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 expertises 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

comments 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 NPL and Area leadership.

NP 104 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 panelists often knew the researchers before and liked that this process showed what they were thinking.

Table 2 shows the initial and final scores for the third cycle expressed as percentages for the NP 104 Veterinary, Medical, and Urban Entomology Panel. Three out of the 12 plans received a low score (major and not feasible) on initial review. One of those plans was terminated without further review. The other two passed re-review and were certified. The average initial score for the third cycle was 5.01 (equivalent to a Minor Revision Action Class rating), which was slightly higher than the second cycle (4.99, Moderate Revision) and the first cycle (4.76, Moderate Revision).

When comparing panel size versus initial review score for the third cycle (Figure 1), it appears that the larger the panel size the higher the initial review score. This, however, may be biased by the small number of plans reviewed. Figure 2 includes the first two cycles of the Veterinary, Medical, and Urban Entomology review and based on the correlation value of .062 there does not appear to be a significant correlation. This is more obvious in Figure 3, which is similar to Figures 1 and 2 but for all plans reviewed by panels thus far in the current 5-year review cycle, and where the R^2 value is an order of magnitude lower.

There is no apparent influence of overall scientific effort (scientific year, SY) on initial review for the plans in the current NP 104 Veterinary, Medical, and Urban Entomology Panel Review (Figure 4) and Figure 5 confirms that.

While it does appear that plans with a larger number of scientists on a plan does have an influence on initial review score (Figure 6), this may well be biased by the low number of plans reviewed. In fact, when all third cycle plans reviewed to date are examined the apparent correlation disappears (Figure 7).

When comparing the initial review scores for the first, second, and third cycles of NP 104 Veterinary, Medical, and Urban Entomology the first cycle had the higher amount of plans receiving a major revision score (4) compared to the second cycle (2) and the third cycle which had two major revision plans and one not feasible plan. The third cycle had a higher number of

No Revision plans compared to the first and second cycles which both had two plans (Figure 8). All cycles had plans that did not pass review in all three cycles. Figure 9 shows the percentage distribution of final review scores for all cycles of the NP 104 Veterinary, Medical and Urban Entomology Panels.

Table 2. Proportion of initial and final scores for the third (2014) cycle expressed as percentage of all reviewed and the average initial numerical score for the NP 104 Veterinary, Medical and Urban Entomology 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. Number of projects in parentheses.

Third Cycle, 2014	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: Diptera Veterinary Pests & Vectors (5)	80.0%	20.0%	0.0%	0.0%	0.0%	7.29	80.0%	20.0%	0.0%	0.0%	0.0%	7.29
Panel 2: Human Pests & Vectors (2)	0.0%	0.0%	50.0%	50.0%	0.0%	3.67	50.0%	0.0%	50.0%	0.0%	0.0%	6.34
Panel 3: Tick Veterinary Vectors (3)	0.0%	0.0%	66.7%	33.3%	0.0%	3.67	33.3%	0.0%	66.7%	0.0%	0.0%	5
Panel 4: Ants (2)	0.0%	50.0%	0.0%	0.0%	50.0%	2.67	0.0%	50.0%	0.0%	0.0%	50.0%	2.67
NP 104, All	20.0%	17.5%	29.2%	20.8%	12.5%	5.01	40.8%	17.5%	29.2%	0.0%	12.5%	5.79

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 104 Veterinary, Medical, and Urban Entomology Panels. See note above regarding No, Minor, and Moderate initial scores. Number of projects 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 (15)	13.3%	33.3%	26.7%	26.7%	0.0%	4.76	26.7%	40.0%	26.7%	6.7%	0.0%	5.82
Second Cycle (14)	14.3%	35.7%	35.7%	14.3%	0.0%	4.99	14.3%	35.7%	42.9%	7.1%	0.0%	5.13
Third Cycle (12)	33.3%	16.7%	25.0%	16.7%	8.3%	5.01	50.0%	16.7%	25.0%	0.0%	8.3%	5.79

Figure. 1. Influence of the number of reviewers (Panel Size) on the averaged numerical outcome (Score) received on the first review for the 12 plans in the current NP 104 Veterinary, Medical, and Urban Entomology review.

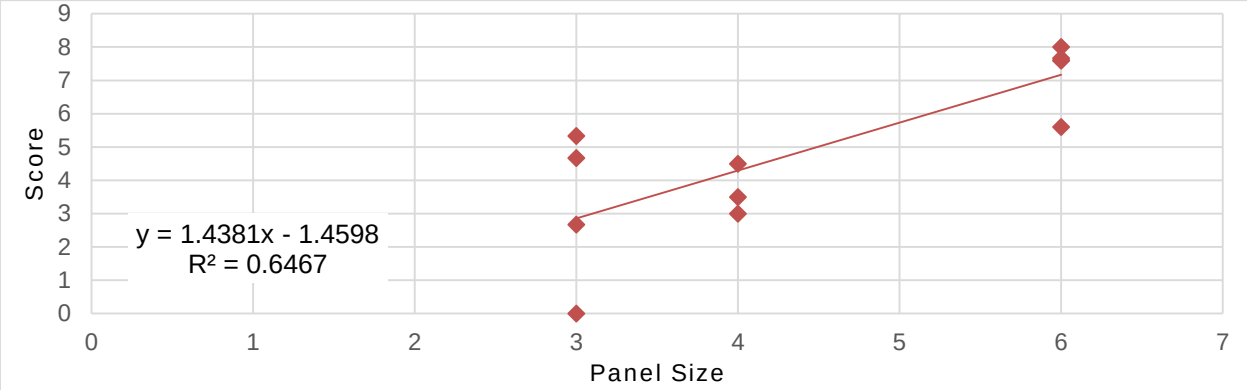


Figure 2. Inclusion of review scores for plans reviewed in the first (2004) and second (2009) with the data in Figure 1 (41 plans total) for NP 104 Veterinary, Medical, and Urban Entomology Panels.

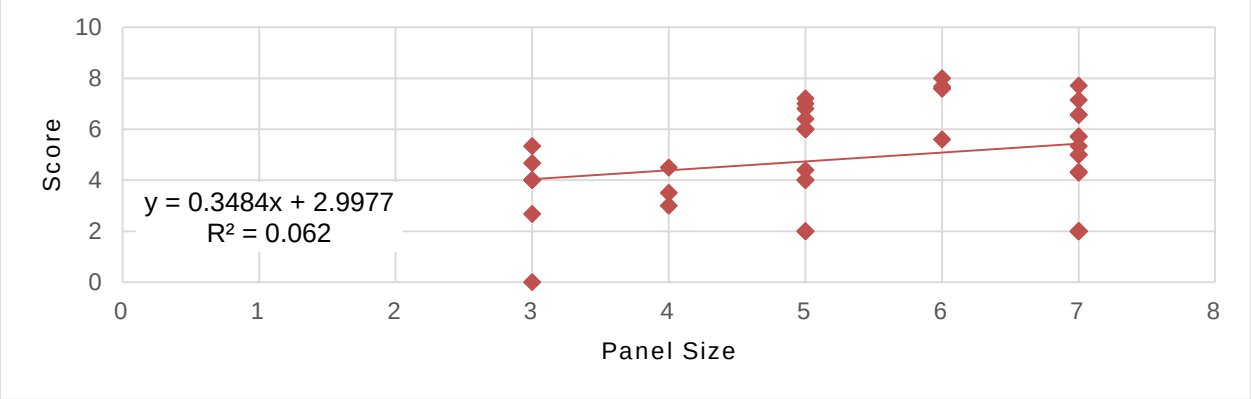


Figure 3. Similar presentation to Figures 1 and 2 but for all plans reviewed by panels in the current 5-year review cycle.

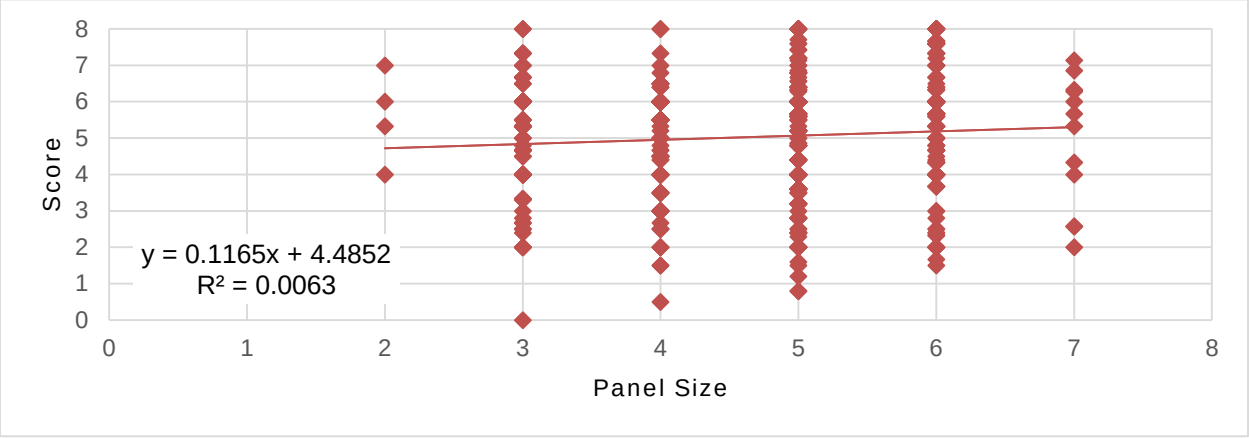


Figure 4. Influence of the overall scientific effort (in terms of Scientific Years, SY) assigned to a plan on the score received on initial review for the 12 plans in the current NP 104 Veterinary, Medical, and Urban Entomology review.

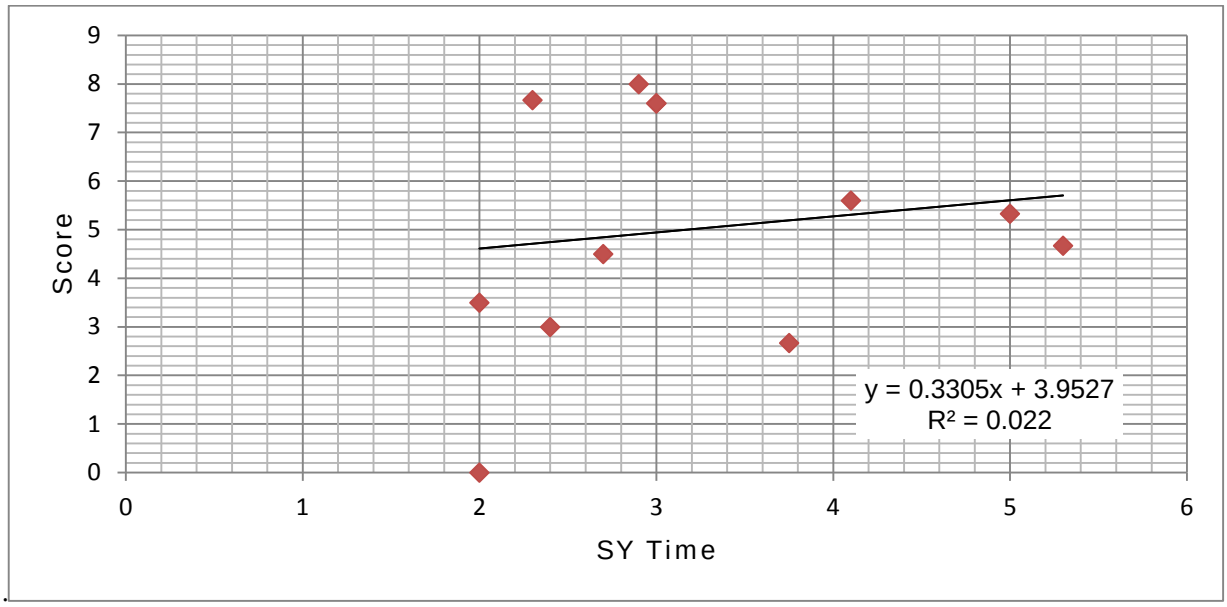


Figure 5. Same as Figure 4 but for all plans reviewed by panels in the current 5-year review cycle.

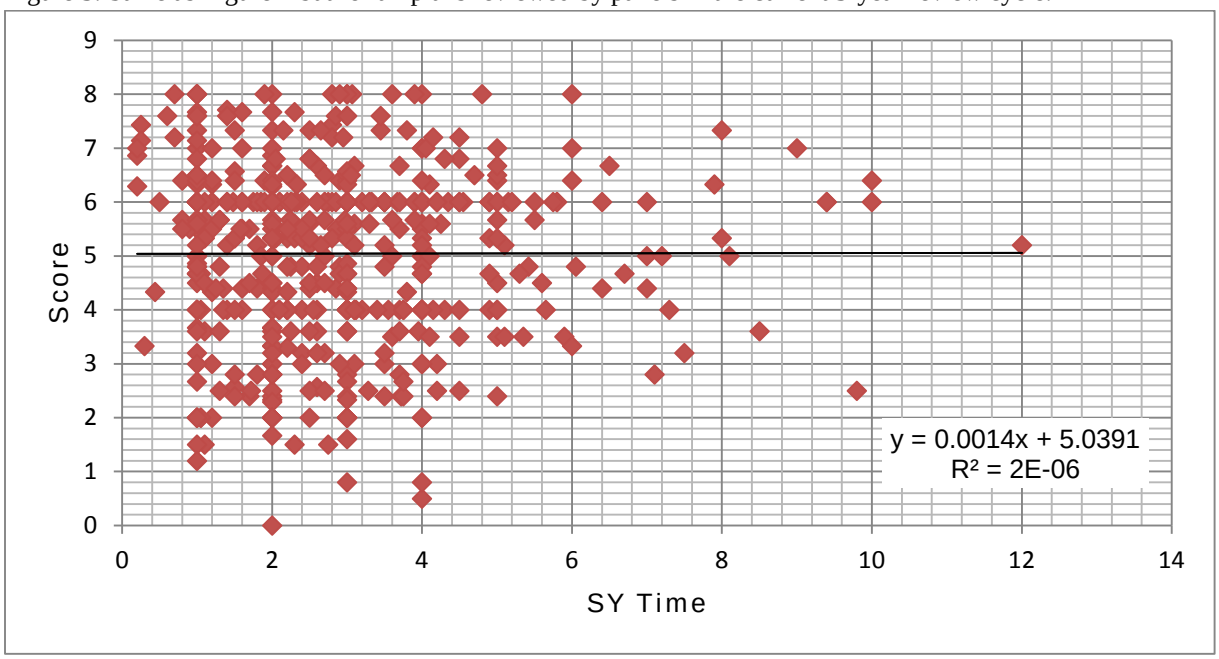


Figure 6. Influence of the number of scientists on a plan (independent of the proportion of their time) on the score received on initial review with the current NP 104 Veterinary, Medical, and Urban Entomology review.

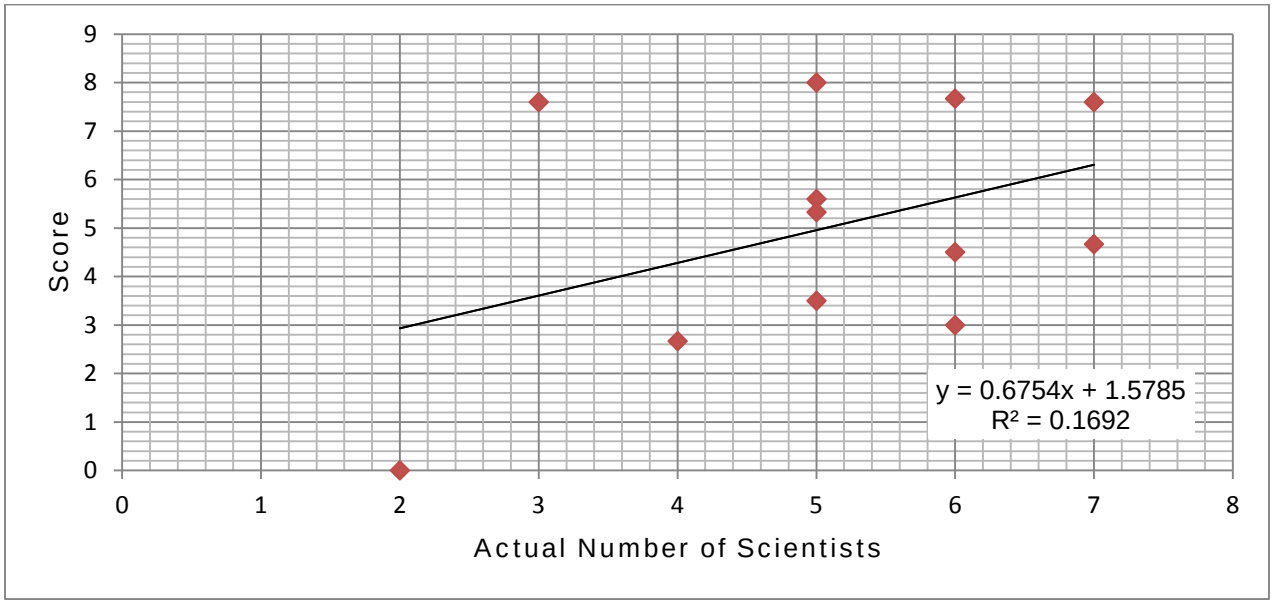


Figure 7. Same as Figure 5 but for all plans reviewed in the current 5-year review cycle.

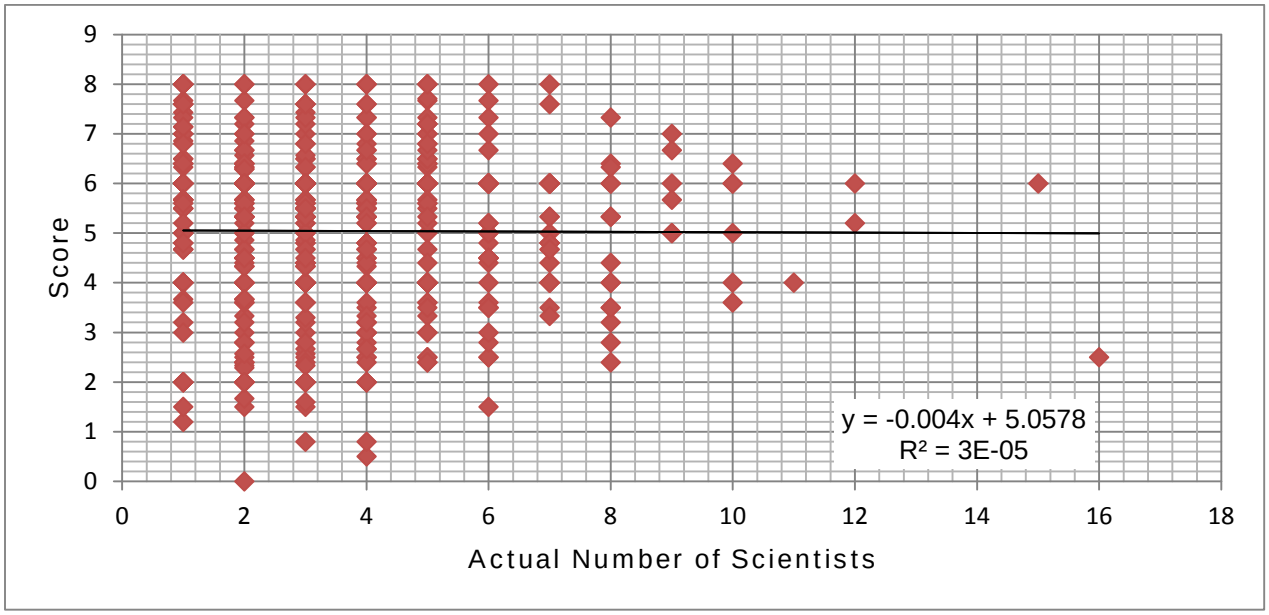


Figure 8. Percentage distribution of initial review scores for the first (2004), second (2009) and third (2014) cycles for the NP 104 Veterinary, Medical, and Urban Entomology Panels (4.76; 4.99; 5.01, average composite scores, respectively). The number of plans reviewed by each cycle is in parentheses. Number over columns is the number of plans receiving that score.

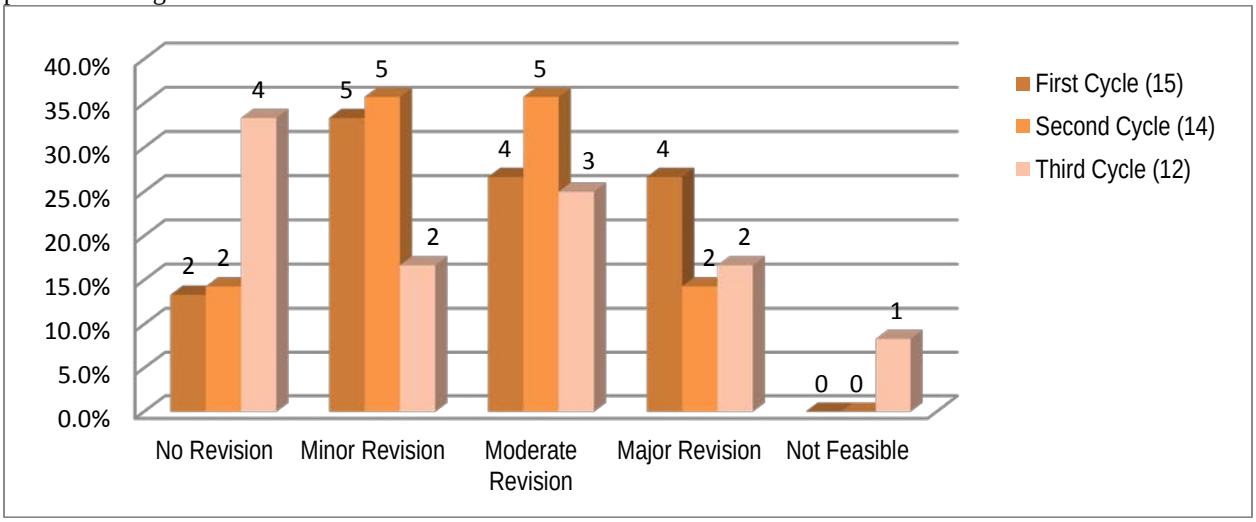
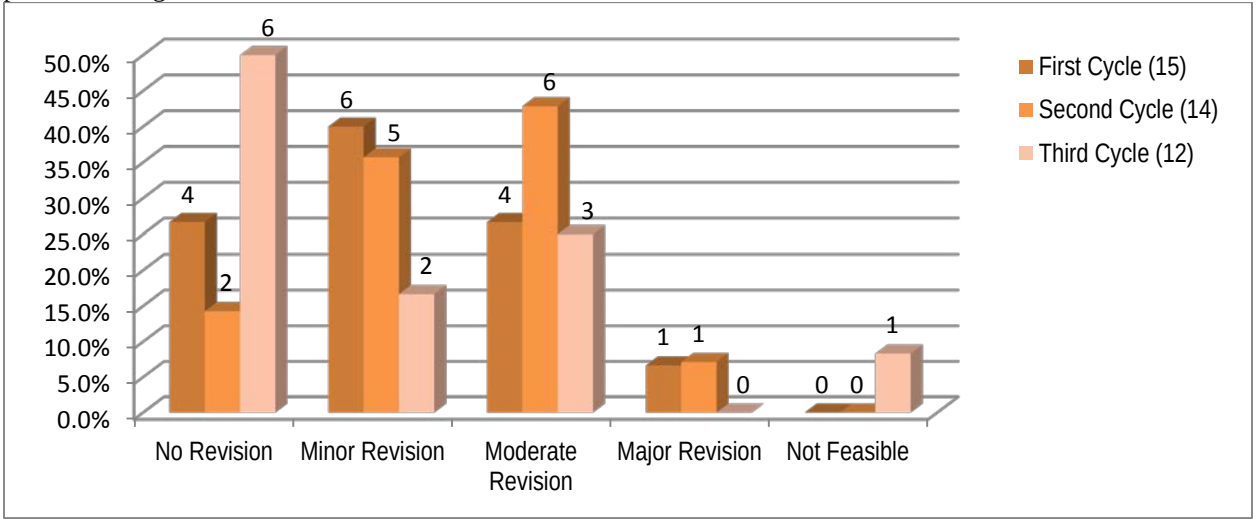


Figure 9. Percentage distribution of final review scores for the first (2004), second (2009) and third (2014) cycles for the NP 104 Veterinary, Medical, and Urban Entomology Panels (5.82; 5.13; 5.79, average composite scores, respectively). The number of plans reviewed by each cycle is in parentheses. 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 four panels were composed of nationally and internationally recognized experts to review 12 projects primarily coded to the Veterinary, Medical and Urban Entomology Program (see Table 1, page 2). The information and charts below provide key characteristics of the Veterinary, Medical and Urban Entomology 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 Veterinary, Medical and Urban Entomology Panel members were affiliated 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: Diptera Veterinary Pests & Vectors (6)	4	1		1		
Panel 2: Human Pests & Vectors (3)	2	1				
Panel 3: Tick Veterinary Vectors (4)	1	2				1
Panel 4: Ants (3)	2	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 5 describes their characteristics in the Veterinary, Medical and Urban Entomology Panels.

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

Panel	Recently Published Articles	Received Recent Professional Awards	Having Review Experience	Currently Performing Research
Panel 1: Diptera Veterinary Pests & Vectors (6)	6	4	6	6
Panel 2: Human Pests & Vectors (3)	3	3	3	3
Panel 3: Tick Veterinary Vectors (4)	4	2	4	4
Panel 4: Ants (3)	3	3	3	3

Current and Previous ARS Employment

The Research Title of the 1995 Farm Bill, 105-585, mandated ARS's requirements for the peer review of ARS research projects, such that: 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. As can be seen from Table 6, none of the peer reviewers were 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: Diptera Veterinary Pests & Vectors (6)	0	0
Panel 2: Human Pests & Vectors (3)	0	0
Panel 3: Tick Veterinary Vectors (4)	0	0
Panel 4: Ants (3)	0	0

Veterinary, Medical and Urban Entomology Panel Chairs

Nancy C. Hinkle, Ph.D.

Panel 1: Diptera Veterinary Pests and Vectors (2014)

Professor, Department of Entomology, University of Georgia, Athens, Georgia

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

Dr. Hinkle's research interests are veterinary entomology, hematophagous, diptera, coleopteran, acari, flies, ticks, chicks, cows, horses, animal agriculture, dogs, cats, pets, and fleas.

Edward D. (Ned) Walker, Ph.D.

Panel 2: Human Pests and Vectors (2014)

Professor, Department of Microbiology and Molecular Genetics, Michigan State University, East Lansing, Michigan

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

Dr. Walker's research interests are biology and control of arthropod vectors of human and animal diseases, vector-borne diseases, and arthropod-microbe relationships.

Photo Not Available

Joseph L. Corn, Ph.D.

Panel 3: Tick Veterinary Vectors (2014)

Senior Public Service Associate, Department of Population Health, University of Georgia College of Veterinary Medicine, Athens, Georgia

Education: B.S. Bates College; M.S. Texas Tech University; Ph.D. The University of Georgia

Dr. Corn's research interests include wildlife disease and tick ecology.

Walter R. Tschinkel, Ph.D.

Panel 4: Ants (2014)

Robert O. Lawton Distinguished Professor, Department of Biological Science, Florida State University, Tallahassee, Florida

Education: B.A. Wesleyan University; M.A. & Ph.D. University of California

Dr. Tschinkel's research interests include ant biology, ant ecology, social biology and insect biology.

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.

The University of Georgia
College of Agricultural and Environmental Sciences
Department of Entomology

July 28, 2014

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:

Again, thank you for your assistance in reviewing NP 104: Diptera Veterinary Pests and Vectors proposals and aiding our committee as we considered these projects.

The panel concurred that their discussions exhibited high standards of sound and credible scientific peer review. The reviewers thoughtfully considered the proposals and contributed recommendations for their enhancement both in the discussion and through written evaluations. All panel members (except those who recused themselves from specific reviews) fully engaged in the discussion and consideration.

The panel noted several recurring themes: investigation of plant oils (and other naturally occurring substances) as arthropod behavior-modifying agents, potential impact of climate change on research project, arthropod-microbe interactions (beneficial and detrimental), employing genomics to investigate population questions, arthropod effects on host behavior, etc.

Several panelists commented on the efforts made by Lead Scientists to assemble teams reflecting diverse skills to address the proposed problems. We also applaud their working with universities, especially to incorporate Extension personnel, both to provide outreach opportunities for disseminating useful applications and also to keep their fingers on the pulse of real-life problems related to their research areas.

It was apparent that members of the panel had devoted considerable time and effort to reviewing the proposals, that all members took the responsibility seriously, and that they genuinely cared about the proposed research. While some problems were identified, panelists invariably proposed ancillary approaches or other means of rectifying the problems, providing a very positive aspect to the reviews. While differing opinions were aired, there was no overt animosity and it was apparent that panelists genuinely wanted to provide feedback to benefit the lead scientists. Overall the panel was impressed with the written proposals and strongly supportive of the projects we reviewed.

413 Biological Sciences Building • Athens, Georgia 30602-2603 • Telephone 706-542-2816 • Fax 706-542-2279

Because the primary and secondary reviewers had completed their reviews and made them available to the rest of the panel prior to the teleconference, everyone was prepared for the discussion and it proceeded with alacrity. The OSQR Peer Review Program Coordinator's office had organized everything effectively, so the process went without a hiccup.

I greatly appreciate the members of the panel being willing to devote the time and effort to thoughtfully review the proposals, and I am grateful to the Office of Scientific Quality Review for making the process straightforward. Based on the proposals we saw, it is apparent that the USDA has some of the brightest researchers in the world and that they are producing some outstanding science.

Sincerely,

Nancy C. Hinkle

Nancy C. Hinkle, Ph.D.
Professor

MICHIGAN STATE
UNIVERSITY

23 November 2014

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,

I am writing to thank you and Dr. Michael Strauss for the opportunity to serve as chair of the *NP 104 Panel 2: Human Pests and Vectors of the USDA, ARS Veterinary, Medical & Urban Entomology National Program*. The group met in June and October. Our charge was to evaluate the technical and scientific merit of the research. The two projects we reviewed were well written, robust, and highly professional. Clearly the scientific officers and researchers involved in their preparation had invested considerable thought into them. Overall, the review process met those high standards, rising to the level of rigor sufficient to acknowledge and in some instances challenge the research programs that were presented. Reviews were detailed, sound, and definitive. I can report to you that the high standard of credible scientific peer review was met in the process. From this point of view, the peer review panel was quite effective. We provided some detailed suggestions for improvement, particularly with one of the two projects under consideration, and all three panel members were pleased to read the responses which incorporated or acknowledged well those ideas and suggestions. I can also report to you that process and organization provided for a working system, and that communication channels were clear.

Probably we could have improved our review by assigning a primary and secondary reviewer to each of the proposals merely to allow one person to take the lead on discussion, as this system seems to work well in other review settings with which I am familiar (mainly, NIH). In this way, the primary reviewer does not make definitive decisions that might preempt those of the others on the panel, but does provide guidance on where the discussion goes and what the major points of critique might be. The secondary and other reviewers then respond but also provide their own perspective. It just creates a means for dialogue.

I hope these few comments are useful to you as a summary with some suggestions.

Sincerely yours,

Edward D. (Ned) Walker, PhD
Professor

Department of Microbiology & Molecular Genetics

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June 10, 2014

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. Gruzak:

This letter is to serve as the Panel Chair Statement for NP 104 Panel 3: Tick Veterinary Vectors (2014). Panel members have completed their reviews, and a teleconference was held June 10 to discuss the projects and make recommendations. Each of the three reviewers did an excellent job and provided a sound and credible scientific peer review. The reviewers were well prepared for the review, and each review included both compliments on the proposals and thoughtful criticisms.

The only difficulties with the discussion were the problems with the phone connection for one reviewer, and the computer connection for a second reviewer. These problems took up over one hour of our time, and did not help the discussion. I will say that the hosts made every effort to fix these problems, and the participants were very patient with the delay. I don't see how this could have been avoided, unless the hosts in the future require participants to test the system a day or more before the discussion is held.

In summary, I think this panel provided a clear and effective review of the proposals. I hope our comments will be of value to the authors as they complete their proposals.

Sincerely,

Joseph L. Corn, PhD
Senior Public Service Associate

-

Walter R. Tschinkel
R. O. Lawton Distinguished Professor
Department of Biological Science
Florida State University
Tallahassee, FL 32306-4370
tschinkel@bio.fsu.edu

Jan. 29, 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 Michael,

Panel NP 104-4 discussed the merits of two project plans. We considered the ideas, creativity and range of approaches in judging the quality of the proposed research and the probability of success. In my opinion, our discussions were even-handed and fair, and there was very little disagreement among the panel members. We recorded our suggestions for improvement of the proposal to be shared with the PIs.

The members of the panel represented a range of research experience that allowed us to judge the level of preparation, expected logistics and expertise of the PIs and the proposals. Discussion was not hurried, and provided adequate time for each panel member to consider and reflect before coming to a conclusion. In my opinion, the process was very fair, and the assigned score reflected the panel's true opinion. All members seemed to understand the scoring criteria, and provided constructive critiques.

There were no suggestions for improving the peer review process, as we all seemed to agree that the review had been effective.

Sincerely,

Walter R. Tschinkel

Walter R. Tschinkel
R.O. Lawton Distinguished Professor

Projects Reviewed by the Veterinary, Medical and Urban Entomology Panels (listed by Lead Scientist)

Beltsville Area

Mark Feldlaufer
Prevention of Arthropod Bites

Northern Plains Area

Lee Cohnstaedt
Ecology and Control of Insect Vectors

David Taylor
Integrated Management of Stable Flies

Mid South Area

Jian Chen
Products for Invasive Ant Control

South Atlantic Area

Ulrich Bernier
Biting Arthropod Surveillance and Control

Jerome Hogsette
Management of Filth Flies

Steven Valles
Invasive Ant Biology and Control

Southern Plains Area

John Goolsby
Innovative Technologies to Control Invasive Species that Impact Livestock

Felix Guerrero
Genomics of Livestock Pests

Adalberto Perez de Leon
Cattle Fever Tick Eradication

Steven Skoda
Area-Wide Screwworm Eradication

Kevin Temeyer
Flies Associated with Livestock Production Systems

Office of Scientific Quality Review

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

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

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

Contact

Send all questions or comments about this Report to:
Christina Woods, Program Analyst
USDA, ARS, OSQR
5601 Sunnyside Avenue
Beltsville, Maryland 20705-5142
osqr@ars.usda.gov
301-504-3282 (voice); 301-504-1251 (fax)