Fiscal Year 2021
Panel Outcome Report
Crop Protection and Quarantine (NP 304)
Panel Outcome Report FY 2021
Crop Protection and Quarantine (NP 304)

This Panel Outcome Report is a summary of the Crop Protection and Quarantine, National Program (304) Office of Scientific Quality Review (OSQR) Project Plan Peer Review (PPPR) process held from July – November 2020.

The project plans reviewed by these panels were applicable to the mission of National Program (304) Crop Protection and Quarantine, to provide technology to manage pest populations below economic damage thresholds by the integration of environmentally compatible strategies that are based on increased understanding of the biology and ecology of insect, mite, and weed pests.

This panel outcome report is intended to inform the Office of National Programs (ONP) and each Area of research (research scientist or SY) progress as it relates to the NP 304. Data tables display outcomes of scoring by Areas, Panels, and overall program.

Selected chairs (Table 1) were in part, recommended by National Program Leaders (NPLs) from NP 304 and/or previous OSQR service; others were sought based on their nationally recognized expertise by the OSQR Director. They were examined for suitability to lead a panel review, screened for conflicts of interest (COI) and finally concurred upon by the current Scientific Quality Review Officer (SQRO), Dr. Todd Ward.

Table 1. Panels reviewed for the Crop Protection and Quarantine, National Program (304)

<table>
<thead>
<tr>
<th>Panel</th>
<th>Panel Chair</th>
<th>Panel Meeting (Re-Review)</th>
<th>Number of Panelists</th>
<th>Number of Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP 304 Panel 1*. BC-Classical, Overseas Labs 1</td>
<td>N/A</td>
<td>Ad hoc</td>
<td>4</td>
<td>2</td>
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<tr>
<td>NP 304 Panel 2. Post Harvest 1</td>
<td>Anuradha Prakash</td>
<td>October 7, 2020 (February 18, 2020)</td>
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<tr>
<td>NP 304 Panel 3. Post Harvest 2</td>
<td>Paul G. Fields</td>
<td>September 30, 2020</td>
<td>5</td>
<td>3</td>
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<tr>
<td>NP 304 Panel 4. Systems Weed Management</td>
<td>n/a</td>
<td>Ad hoc</td>
<td>3</td>
<td>2</td>
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<tr>
<td>NP 304 Panel 5. Weed Biocontrol</td>
<td>Dean E. Pearson (also panelist)</td>
<td>November 12, 2020 (March 17, 2021)</td>
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<tr>
<td>NP 304 Panel 7*. Weed Physiology, Biochemistry, Genomics</td>
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<td>Ad hoc</td>
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<td>2</td>
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<tr>
<td>NP 304 Panel 8. Insect-IPM</td>
<td>Kris Giles</td>
<td>October 13, 2020</td>
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<tr>
<td>NP 304 Panel 9. BC-Classical</td>
<td>Norman Leppla (also panelist)</td>
<td>September 22, 2020</td>
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<td>NP 304 Panel 10. BC-Classical, Overseas Labs 2</td>
<td>Kaushalya Amarasekare</td>
<td>August 18, 2020 (November 19, 2020)</td>
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<tr>
<td>NP 304 Panel 11. Cotton Pest Management</td>
<td>Gregory A. Sword</td>
<td>August 13, 2020 (November 9, 2020)</td>
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<tr>
<td>NP 304 Panel 13. IPM-Other 1</td>
<td>Martin O. Bohn</td>
<td>July 29, 2020 (November 19, 2020)</td>
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<tr>
<td>NP 304 Panel 15. Systematics of Pest Arthropods</td>
<td>Andrew V. Brower (also panelist)</td>
<td>August 25, 2020</td>
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<tr>
<td>NP 304 Panel 16*. Insect Genomics and Physiology</td>
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<td>2</td>
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<tr>
<td>NP 304 Panel 17. IPM-Fruits and Nuts (Peach and Coffee Pecan)</td>
<td>Nicolas Desneux</td>
<td>July 30, 2020</td>
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<td>2</td>
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<tr>
<td>NP 304 Panel 18. IPM-Fruits and Potatoes</td>
<td>Geoff M. Gurr</td>
<td>November 19, 2020</td>
<td>6</td>
<td>3</td>
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<tr>
<td>NP 304 Panel 20. IPM-Other 2</td>
<td>John Ruberson</td>
<td>August 11, 2020</td>
<td>4</td>
<td>3</td>
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</table>
*Reviews are conducted by no less than two (or greater) expert panel reviewers providing independent written reviews and scores without group panel deliberation. Scores reflect the average of no less than two expert reviewers and written reviews are compiled and screened by OSQR Director.

**Review Process**

Following panel review for each plan, OSQR Director, with SQRO concurrence, sends each Area Director a panel consensus recommendation document. 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 accordance with guidelines as detailed in the OSQR Handbook (see [www.ars.usda.gov/osqr](http://www.ars.usda.gov/osqr)).

In addition, as part of the panel deliberation, a scoring of the overall quality of the plan is judged based on the degree of revision the panel deems is required. This scoring is termed an “Action Class.” Each reviewer is asked to anonymously 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.

Action Class is defined as follows:

- **No Revision Required.** An excellent plan; no revision is required, but minor changes to the project plan may be suggested.\(^1\)

- **Minor Revision Required.** The project plan is feasible as written, requires only minor clarification or revision to increase quality to a higher level.

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

**Passed Review:**

For plans receiving one of the above three Action Class scores (No Revision, Minor Revision, or Moderate Revision), scientists are required to respond, in writing, to address all panel comments in the consensus recommendation document; revise their project plan as appropriate; and submit the revised plan and responses to the OSQR through their Area Office. Both the updated plan and the recommendations’ form are reviewed by the SQRO and, once they are satisfied that all review concerns have been satisfactorily addressed, the project plan is certified, the Area Office is notified, and the project plan may be implemented.

**Certification:**

_Certification is contingent upon making a good faith effort to satisfactorily address panel comments and recommendations._ A plan has not “passed” the OSQR PPPR process until the SQRO’s certification is delivered to the Area.

- **Major Revision Required.** There are significant flaws in the experimental design and/or approach or lack of clarity which hampers understanding. Significant revision is needed.

- **Not Feasible.** The project plan, as presented, has major scientific or technical flaws. Deficiencies exist in experimental design, methods, presentation, or expertise which make it unlikely to succeed.

\(^1\) While a No Revision Action Class would imply that change to the plan is not required, where the panel requests specific additions to the plan, if accepted, should be incorporated into the updated plan.
**Failed Review:**
For plans receiving an Action Class score of Major Revision or Not Feasible, scientists are required to address, in writing, all panel comments in the consensus recommendation document; revise their project plan as appropriate; and submit the revised plan and responses to the OSQR through their Area Office. The plan **MUST** then undergo a Re-Review by the initial deliberating panel, at which time a second set of consensus recommendations and second Action Class score are obtained.

Per the Re-Review, if the plan receives an Action Class score of a No Revision, Minor Revision, or Moderate Revision, the project plan may be implemented after following the **Passed Review** section above. Plans receiving a second Major Revision, or Not Feasible score are considered failed reviews. The Action Class and Consensus Recommendations from the Re-Review are provided to the Area with NO further option for revision or review on that particular project plan as it has been submitted.

Such plans may be terminated, reassigned, or restructured at the discretion of the Area Office and ONP. For plans receiving Major Revision, it may be elected not to further revise them and to end review with the plan not receiving certification (plan fails review). For those receiving a score of Not Feasible, Area and National Program Leader (NPL) approval are needed for the plan to be revised for re-review. Otherwise the plan will be considered to have failed review. Subsequent action with regard to the research and researchers is left to Area and ONP-NPL leadership.

At the conclusion of each PPPR deliberation, the chair and panel reviewers are asked to provide general statements or recommendations on the overall process as well as the general quality of the plans which underwent review. The Chair is specifically asked to provide a Panel Chair Statement which they feel focuses on the overall conduct of the review or any broad areas with regard to the research they feel would benefit future researchers or the Agency as a whole. Copies of such statements for (NP 304) can be found following this report.

**Review Outcomes**
Reviews can vary, but ultimately, depends on a combination of the panelists selected and the scientific writing capabilities of the team who wrote the project plan. The OSQR is responsible for assuring that each panel contains subject matter experts who provide knowledgeable, clear, rigorous, and fair assessments. Therefore, PPPR panels vary in their overall outcomes.

Uniquely, the ability of an ARS research team to respond to panel recommendations/comments in order to **revise and improve project plans is, perhaps, the greatest strength of the ARS PPPR process.**

ARS uses the National Program Panel Outcome Report as a measure of scientific progress and as a demonstration of overall program quality, how well researchers understand and address the needs of the expert panel reviewers. Initial review scores that are moderate or higher are recorded as such and will not be certified as having completed the PPPR until the SQRO has deemed that all reviewer concerns have been satisfactorily addressed. For lower scores/failed reviews, the panel provides a re-review score, which is considered along with the initial review score.
Table 2.
Initial and Re-review Scores for Crop Protection and Quarantine, National Program (304)

<table>
<thead>
<tr>
<th>Panel</th>
<th>No revision</th>
<th>Minor</th>
<th>Moderate</th>
<th>Major</th>
<th>Not Feasible</th>
<th>Re-Review</th>
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<tr>
<td>NP 304 Panel 1. BC-Classical, Overseas Labs 1</td>
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<td>1</td>
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<td></td>
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<tr>
<td>NP 304 Panel 2. Post Harvest 1</td>
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<td>2</td>
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<td></td>
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<td>NP 304 Panel 5. Weed Biocontrol</td>
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<td>2</td>
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<td>1 No Revision 1 Minor</td>
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<td>1 No Revision</td>
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<td>1 major</td>
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<td></td>
<td></td>
<td>1 No Revision 1 Moderate</td>
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</table>

*Review conducted by no less than two (or greater) expert panel reviewers providing independent written reviews and scores without group panel deliberation. Scores reflect the average of no less than two expert reviewers and written reviews are compiled and screened by OSQR Director.
Table 3.
Area Scores for Crop Protection and Quarantine, National Program (304)

<table>
<thead>
<tr>
<th>Area</th>
<th>No revision</th>
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<th>Major</th>
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<td>4</td>
<td>0</td>
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<td>3</td>
<td>3</td>
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Table 4.
Overall Scores for Crop Protection and Quarantine, National Program (304)

<table>
<thead>
<tr>
<th># Plans with each score</th>
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<td>10</td>
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</table>

Overall Panel Characteristics:
Panel Characteristics
The OSQR PPPR relies heavily on expert panel member selection by the OSQR Director and SQRO selected Panel Chairs. ARS scientists, research leaders, and ONP are encouraged to recommend panelists they understand to be free of any COIs. While the selected/seated Panel Chair is under no obligation to use Agency recommended panelists, the SQRO must review and approve the Chair’s panelist selections and may ask for substitutions or provide additional experts for consideration.

Factors and qualifications considered in PPPR panel selection (chair and panelist) such as being a qualified expert overall in the field being reviewed, research tenure, publication record, award history, geographic location, overall diversity, and availability to participate fully in the process, all play an integral role in who is invited to serve an ARS/OSQR PPPR panel. Many of the reviews are composed with a balance of nationally and internationally recognized experts. Tables 5-6 display various characteristics of the panel composition; all affiliations were accurate at the time of the panel review.

Affiliations
Peer reviewers are affiliated with several types of institutions, primarily those in academia, but also special interest groups and industry. In some cases, peer reviewers have recently retired but are still active as consultants, scientific editorial board members, and members of professional societies.
Table 5.
Panelist Faculty Rank and Affiliations for Crop Protection and Quarantine, National Program (304)

<table>
<thead>
<tr>
<th>Panel</th>
<th>Professor</th>
<th>Associate Professor</th>
<th>Assistant Professor</th>
<th>Government (Agency)</th>
<th>Industry &amp; Industry Organizations</th>
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<tbody>
<tr>
<td>NP 304 Panel 1</td>
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<td>NP 304 Panel 2</td>
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<td>3 Research Scientists</td>
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<td>1 Weed Science Diagnostician</td>
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<td>1 Research Ecologist 1 Research Entomologist</td>
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<td>1 Assistant Research Professor</td>
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<td>1 Ecologist</td>
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<td>1 Research Director</td>
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<tr>
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<td>1 Research Entomologist 1 Applied Ecologist</td>
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<td>1 Senior Lecturer</td>
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<tr>
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<td>1 State Integrated Pest Management Specialist</td>
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<td></td>
<td>1 Cooperative Extension Specialist</td>
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</table>

Research Impact and Ethnicity/Gender
The OSQR PPPR process is lauded as a rigorous and objective ARS function striving for the highest possible scientific credibility. In general, panelists shall hold a doctoral degree unless the discipline in question is one which does not subscribe to a 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 being researched in the National Program under review are preferred.
### Table 6. Panel Additional Information Crop Protection and Quarantine, National Program (304)

<table>
<thead>
<tr>
<th>Panel</th>
<th>H-Index Average</th>
<th>Gender</th>
<th>Geographic Locations</th>
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</thead>
<tbody>
<tr>
<td>NP 304 Panel 1</td>
<td>11</td>
<td>2 Male, 2 Female</td>
<td>2 South East Area, 1 Midwest Area, 1 South Africa</td>
</tr>
<tr>
<td>NP 304 Panel 2</td>
<td>20</td>
<td>3 Male, 1 Female</td>
<td>1 South East Area, 1 Canada, 2 Pacific West Area</td>
</tr>
<tr>
<td>NP 304 Panel 3</td>
<td>25</td>
<td>5 Male</td>
<td>2 Canada, 3 Australia</td>
</tr>
<tr>
<td>NP 304 Panel 4</td>
<td>10</td>
<td>2 Female, 1 Male</td>
<td>2 Midwest Area, 1 North East Area</td>
</tr>
<tr>
<td>NP 304 Panel 5</td>
<td>18</td>
<td>3 Male, 1 Female</td>
<td>1 South East Area, 2 Plains Area, 1 Canada</td>
</tr>
<tr>
<td>NP 304 Panel 6</td>
<td>18</td>
<td>2 Female, 3 Male</td>
<td>1 Midwest Area, 3 Pacific West Area, 1 Plains Area</td>
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<td>NP 304 Panel 7</td>
<td>15</td>
<td>1 Female, 2 males</td>
<td>2 Plains Area, 1 Midwest Area</td>
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<td>NP 304 Panel 8</td>
<td>14</td>
<td>3 Male, 1 Female</td>
<td>4 Plains Area</td>
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<td>9</td>
<td>2 Male, 1 Female</td>
<td>2 South East Area, 1 Plains Area</td>
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<tr>
<td>NP 304 Panel 10</td>
<td>15</td>
<td>4 Male</td>
<td>1 Plains Area, 3 South East Area</td>
</tr>
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<td>NP 304 Panel 11</td>
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<td>1 South East Area, 1 Pacific West Area, 1 Plains Area</td>
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<td>4 Male</td>
<td>4 South East Area</td>
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**List of Panel Chairs**

<table>
<thead>
<tr>
<th>NP 304 Panel 2</th>
<th>NP 304 Panel 8</th>
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<tr>
<td>Anuradha Prakash, PhD</td>
<td>Kristopher Giles, PhD</td>
<td>David G. Riley, PhD</td>
<td>Nicolas Desneux, PhD</td>
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<tr>
<td>Professor</td>
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<td>University of Georgia</td>
<td>INRAE</td>
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<td>Norman C. Leppa, PhD</td>
<td>Martin O. Bohn, PhD</td>
<td>Geoff M. Gurr, PhD</td>
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<td>Kaushalya Amarasekare, PhD</td>
<td>Shaun Winterton, PhD</td>
<td>Henry Y. Fadamiro, PhD</td>
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<td>USDA Forest Service</td>
<td>Tennessee State</td>
<td>California Department of</td>
<td>Auburn University</td>
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<tr>
<td>Research Ecologist</td>
<td>University Assistant Professor</td>
<td>Food &amp; Agriculture Senior Insect</td>
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<td>Richard A. Gill, PhD</td>
<td>Gregory A. Sword, PhD</td>
<td>Andrew Brower, PhD</td>
<td>John Ruberson, PhD</td>
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<tr>
<td>Brigham Young University Professor</td>
<td>Texas A&amp;M University Professor</td>
<td>USDA Animal and Plant Health Inspection Service (APHIS) Assistant Director</td>
<td>University of Nebraska Professor</td>
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**NP 304 Crop Protection and Quarantine, National Program Panel Chair Statements**

Panel Chair responsibilities include providing the OSQR with a statement that describes their overall panel experience, how the panel was conducted, and general quality of the plans reviewed, it does not lend itself to discussing details of specific research project plan reviews nor attribution to individual panelists. Panel Chairs are given a format to follow for writing their statements, however, are free to discuss what they believe is important for broader audiences.

(Note: NP 304 Panel 13. Chair Statement Not Received)
March 2, 2021

Todd Ward, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Dear Dr. Ward,

It was a privilege to serve as NP 304 Panel Chair this past year. Now that the review process is complete, I would like to offer my assessment of the review panel and process.

As Chair of the panel, one of first tasks was to find reviewers to serve on the panel. This was probably the most challenging aspect, even with assistance from your staff. It took two months and many e-mails to find three reviewers who agreed to serve. Many e-mails were not answered by potential reviewers, even by those who initially indicated that they were willing to serve. The three reviewers who finally participated provided detailed and thoughtful reviews of the project plans.

The orientation sessions were helpful and provided the necessary overview of the review process and guidelines needed to complete the reviews.

Even though it was made clear to us that the objectives and sub-objectives are not investigator-generated, the lack of coherency between multiple objectives in each of the proposal came as a surprisetoe the review panel. In at least two project plans, the methodology was cursory and incomplete and showed a lack of knowledge or experience. The three reviewers who participated submitted detailed reviews of the project plans and were clearly frustrated with some aspects of all three project plans that were not adequately justified. All three reviewers were new to the NP 304 process but have participated in USDA-NIFA panels as reviewers. USDA-NIFA proposals are highly competitive and generally only the top 10-15% are funded. The successful proposals are therefore very well crafted. In comparison, the NP-304 project plans we reviewed fell short, and this led to aggravation among the reviewers. We were made aware of this challenge ahead of time, but the source of aggravation was more than the lack of details, it was the lack of justification. The multiple sub-objectives were not well linked and appeared to be a hodge-podge of ideas. In some instances, the reviewers were not satisfied that the scientists had the necessary expertise to complete the work they had proposed. Hence, the review sessions were quite long, and after the initial review, two of three project plans were not recommended by the reviewers.

It would be helpful if the Center Directors would provide an overview of the prompts provided to the authors of the project plans. The reviewers questioned whether the Center Directors had discussed the proposals and the reviews with their scientists, and had reviewed the revised plans before they were
sent to the NP-304 panel. While the re-submissions were better-quality, in some cases the improvements were marginal. It would also help if the scientists could submit smaller project plans, each with 2-3 objectives that are clearly related, instead of one large project plan with multiple unrelated objectives.

Thank you for the opportunity to serve as panel chair.

Sincerely,

Anuradha Prakash
Professor and Director,
Food Science Program
Schmid College of Science and Technology
Chapman University
16 October 2020

Todd Ward, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Dear Dr. Ward,

The USDA offers a masterclass in how to guide the review of their programs; what is the goal of the review and what comments they are soliciting from the reviewers. The mentoring of process and the milestones for the review were clear.

People are getting better at meeting online. I have done in-person reviews for grants in the past for the USDA and other organizations, and I feel that in-person reviews are better than the ones done by meeting online. In-person communication is just a lot better than online communication venues. That said, the cost in time and resources for meeting in person is huge, and I doubt that the increase in quality in the reviews is worth the associated costs of in-person reviews.

During the online meeting, the USDA staff gave a good overview of the process of the meeting, and this was also given to us before the meeting.

The reviewers gave a good quality reviews and provided useful suggestions to the USDAscientists. The reviewers are very familiar with the subject areas and they are some of leading researchers in the various fields of study.

I wish the USDA staff and researchers good success with the described research projects.

Sincerely,

Paul Fields
Research Scientist
Agriculture & Agri-Food
Canada
Winnipeg, Manitoba
Telephone: 204-295-4533, paul.fields@canada.ca
Dear Dr. Todd Ward,

Overall, ARS personnel were responsive and helpful throughout the panel review process. The below feedback focuses on issues that can be improved upon rather than aspects that are working well not in an effort to be critical but rather to succinctly help facilitate more effective and efficient panel reviews going forward.

The search effort to obtain qualified reviewers for this panel was long and this delayed panel reviews. This issue was partly attributable to the COVID-19 situation, but it was also attributable to several issues which could be addressed by ARS going forward. The initial pre-approved list of prospective reviewers emphasized management expertise rather than technical scientific expertise. Most listed personnel were program leaders or other managers with minimal publication records, with only one person listed with high-level scientific expertise. Given the nature of the panel review process, high level scientific technical expertise is the most important attribute for good reviews – as was demonstrated by this specific panel review. This situation forced the Panel Chair into the position of seeking out reviewers somewhat blindly. As a result, several of prospective reviewers who accepted offers by the Panel Chair were rejected by the ARS staff as lacking sufficient qualifications. This was fine, but ironic given the original list provided. Additionally, one of the early prospective reviewers who accepted was rejected as the person was an ARS scientist. These problems could have been averted in part by 1) ensuring the initial list of prospective reviewers had appropriate scientific expertise in the given project proposal subject areas, 2) ensuring the initial list was long enough to allow for low acceptance rates, and 3) informing the chair a priori that ARS personnel or any other pre-excluded personnel are not appropriate. Having a longer and more appropriate pre-approved reviewer list would greatly expedite the panel assembly process and also avoid the problem of wasting the time of the chair and prospective reviewers who are ultimately rejected by ARS.

The above point regarding the importance of appropriate scientific expertise among the reviewers was clearly indicated in the panel review processes. Reviewers did an excellent job of identifying critical shortfalls of the methods being proposed and were able to offer excellent feedback to improve the work for all proposed projects. This was particularly evident in the two proposals that were re-reviewed as each went from being very problematic to very strong proposals. This type of feedback will greatly improve the quality, innovation, and applicability of the science generated by ARS. This is the purpose of the panel review process and should be fully exploited.
The video of the National Program was helpful background. In the scoring process, the distinction between no revision and minor revision needs to be made clearer. This was a point of confusion in voting.

Reviewer comments were sometimes extensive, and the space provided on the review worksheets seemed to hinder this feedback. Having some additional means of readily providing feedback on such extensive five-year plans seems warranted. Additionally, having line numbers in the plans would help the reviewers to link comments directly to specific parts of the proposal for better communication between reviewers and project leaders.

Finally, I did not feel that the process was sufficiently respectful of the time of the scientists on the panel. The panelists here were rather high-level scientists who are very busy and volunteering their time for this effort. Yet, they were expected to make time for meetings on rather short intervals at the same time that meetings were rescheduled at the last minute by ARS. This happened throughout the process, from my first meeting that I tried to make happen in the field to the very last panel meeting.

Overall, the process was productive for the endpoint and the panel members did an excellent job and put in a good deal of time in seriously reviewing and ultimately improving the projects.

Respectfully,

Dean Pearson, PhD
Research Ecologist
Rocky Mountain Research Station
USDA Forest Service
800 E. Beckwith Ave
Missoula MT, USA 59801
January 28, 2021

Todd Ward, Ph.D.
Scientific Quality Review Officer Office of
Scientific Quality Review Agricultural
Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705 RE:

RE: Panel Chair Review

Dear Dr. Ward:

This letter serves as a panel chair statement for the NP303 Panel 6 Weed Ecology (2020). In overview, the panel worked very well together with each panelist providing detailed thoughtful written reviews prior to our meeting and then having a constructive discussion of each project in both the initial project and in the re-review.

The four panelists each came to the panel meeting well prepared, having reviewed their primary and secondary assignments. The USDA staff had prepared well for the panel discussion by integrating the two reviews for each project which streamlined the discussions. The preparation for the discussion was excellent, with the explanation of the process and the national program video providing orienting information about the scope of the review and the purpose of the review. Discussions were completely professional and addressed strengths and shortcomings of project plans. The structure of the discussion, with alternating between primary and secondary reviews as we worked through the specific elements of the proposals, went well. The panel was comprised of individuals who all had expertise in the general project areas but were not necessarily biome experts. The proposals were generally well-prepared making review of project aims and objectives straightforward. There were concerns raised by the panel with most projects, but they were always within the context of identified priorities and were more about implementation than the specific priority areas for research.

There were no systematic issues or challenges common to all or most proposals. Most were well written and followed a structure that aligned well with the review process. Occasionally there were issues with authors presuming knowledge of the ecological system or specific invasion issues to a region. Our panel had excellent reviewers that all had expertise in weed ecology/invasion biology but occasionally there were mismatches in region or aquatic/terrestrial questions. One area that would help would be for the authors to consider the reviewer audience as a more generally trained population.

The process ran smoothly after we had found appropriate panelists. The process of identifying panelists was somewhat challenging as all the panelists that I identified were not cleared as reviewers. All panelists ultimately came from USDA recommendations and required three rounds of invitations. It could be made more efficient if there was better chair training or if...
there was a list of pre-approved panelists from which we could choose. The ultimate panel was well balanced in terms of geography and academic rank.

Sincerely,

Richard A. Gill
Chair, Department of Biology
David I. Shapiro-Ilan, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltville, MD 20705

Dr. Shapiro-Ilan,

The following summary serves as the Panel Chair Statement for the NP 304 Panel 8: Insect-IPM project reviews. The review of three proposed projects took place virtually via Zoom on October 13, 2020, with myself as chair and three peer panel members, under the guidance of USDA ARS Office of Scientific Quality Review staff.

OSQR staff initiated an invitation to serve as panel chair and from the beginning clearly articulated the purpose and general logistics of the process including a realistic time-frame for completion based on current limitations associated with the pandemic. OSQR staff scheduled chair training which was thorough at describing expectations and ensured no unforeseen issues as the rest of the process unfolded. Staff also provided assistance with identification and invitation of qualified reviewers who represented expertise in the subject areas being reviewed, but also with basic to applied experiences related to the science of IPM. The entire process prior to the October 13 meeting was transparent and I was informed of scheduled training for reviewers and upcoming panel logistics.

Enough time was provided for comprehensive reviews of each project and reviewers submitted very well prepared critical but constructive written comments. The three proposed projects varied significantly in scope from more critical baseline studies to applied demonstrations and included IPM goals with short-term to long-term potential outcomes. The reviewer comments addressed justification and plausibility of completing stated objectives, but also outlined negative aspects of each proposal with suggestions to improve the scientific merit of planned studies. Oral discussions by the primary reviewer, secondary
reviewer and collective panel helped to clarify positive and negative aspects of proposals and suggestions for improvement. Scoring for each proposal was remarkably consistent which indicates that the chair and reviewers identified similar strengths and weaknesses.

Although the entire process resulted in critical but fair reviews of each proposed project, required consistency in some aspects of proposal format would allow reviewers to more effectively recommend essential changes. Fixed objectives are not problematic, but all plans would benefit from efforts to clearly justify and state hypotheses for each objective. This requirement would allow reviewers to make meaningful suggestions for revisions and for investigators to respond to the review. Inconsistencies in describing experimental designs and statistical analyses made portions of the review challenging.

Sincerely,

Kristopher Giles, Regents Professor.
Dept. of Entomology and Plant Pathology
127 Noble Research Center
Oklahoma State University,
Stillwater, OK 74078-3033
October 9, 2020

Todd Ward, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Dear Dr. Ward:

This letter is an overview and assessment of the review process for “NP 304 Panel 9 BC Classical”. I served as chair of the panel and it had two additional reviewers. The panel met virtually for about three hours on September 22, 2020. We followed the panel procedures in the “USDA Agricultural Research Service Office of Scientific Quality Review Panelist Orientation” document.

I initially suggested eight possible reviewers and forwarded the names and contact information to the USDA, Agricultural Research Service, Office of Scientific Quality to determine their eligibility. Eventually, two highly-qualified candidates were deemed acceptable. Thus, including me, the panel had three members.

Preparation for the review was handled very professionally by the Office of Scientific Quality Review. This office provided a webinar on the established process for the review and sent the required materials, including the “National Program 304, Crop Protection and Quarantine, Action Plan 2020-2025” and “Peer Review Guidelines for ARS Panel Chairs and Reviewers” that describes the review process and reviewer responsibilities. The three research project plans to be reviewed and associated review forms were sent to the panel members on August 21, about four weeks before the panel meeting, and an orientation webinar was conducted on August 25.

Reviewer preparation included training on the review process and reviewer responsibilities. An independent and thorough review of the plans was completed by all three highly-qualified members of the panel. Each reviewer then completed and submitted a review form and the written reviews were combined by the Office of Scientific Quality Review and sent to the panel members on September 21.
At the virtual review meeting, guidance was provided by the Scientific Quality Review Officer, and the Director of the Office of Scientific Quality Review facilitated. The objectives and subobjectives of each research plan were discussed in detail to determine the adequacy of approach and procedures, probability of success in achieving the objectives, and merit and significance. All of the reviewers continuously engaged in the discussion. After each plan was discussed, it was scored independently by every panel member and all of the research plans received a score of minor revision.

The review process was well-designed and conducted diligently. The reviewers were able to efficiently provide high quality, detailed reviews. However, it would have helped to label subsections or add clear topic sentences to paragraphs in long sections of the plans. In several cases, it was not possible to determine an individual scientist’s activities. The projects involve state-of-the-art science conducted by experts and are a continuation of highly productive research. Some of the proposed work is peripheral to mission of the biological control laboratory.

The other reviewers and I were pleased with the guidance provided by the Office of Scientific Quality Review, the well-prepared materials, and the overall review process. We appreciated the opportunity to learn about the high quality and much needed biological control projects being conducted by the USDA, ARS scientists.

Sincerely,

[Signature]

Dr. Norman C. Leppla, BCE
Fellow & Honorary Member, ESA
Professor & Program Director, IPM
October 28, 2020

Todd Ward, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Re: Assessment of the review process and panel

Dear Dr. Ward,

It was a privilege to serve as the panel chair for the NP 304 Panel 10, BC Classical Overseas Lab 2 of the USDA, ARS 304 Crop Protection and Quarantine National Program. The focus of our review panel was on the management of invasive arthropods and weeds that cause adverse impacts on US agriculture, natural ecosystems, and human and animal health.

The panel review meeting was held on August 18, 2020, via a Zoom conference. The panel reviewers were selected according to their experience in Biological Control. We reviewed three projects that were focused on invasive arthropod pests and weeds. The communication and training provided by the OSQR for the review process were timely and extremely helpful. The initial paperwork that everybody had to go through was a quick process. Overall, the OSQR did an excellent job in providing support throughout the review process to make this panel successful. The reviewers and I appreciate their service very much. All panel members agreed that we were given sufficient time to evaluate the projects.

With regards to projects, the panel agreed that the project directors need to select well-qualified Co-directors in the area of Biological Control for each objective and sub-objectives. It is also important to provide the qualifications and experience of each Co-PI. We felt that some of the PIs and Co-PI didn’t have the needed expertise in biological control to handle long-term projects of this nature. Out of the three projects we have evaluated, the first had minor revisions, the second with major revisions, and the third needed a re-review. All panel members provided constructive comments. All reviewers were well-prepared with questions, comments, and suggestions regarding each proposal. The panel also addressed the strengths and weaknesses of all proposed objectives and sub-objectives. The detailed discussions made the review process lengthy. Therefore, the panel members suggested that at least 45 minutes is needed to discuss each project. Overall, the review process went smoothly.
I would like to thank you, Marquea King, Michele Shaw and other OSQR staff, and the three anonymous reviewers for contributing their time and effort towards the success of this review.

Thank you,

Best regards,

Kaushalya Amorosekare, Ph.D. Assistant Professor (Entomology), Tennessee State University, Dept. of Agricultural and Environmental Sciences, Room 202 P, Farrell Westbrook Holl, 3500 John A. Merritt Blvd, Nashville, TN 37209

Phone: 615 963 5001 (office)
Email:kamorase@tnstate.edu
November 18, 2020

Todd Ward, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Subject: NP304 Panel 11 Cotton Pest Management, Panel Chair Statement

NP304 Panel 11 Cotton Pest Management was convened in mid-June 2020 and consisted of three members, inclusive of the Chair. All panel members had knowledge of or direct prior experience in the conduct of the types of research to be evaluated in the two assigned project plans. The panel met twice, first on August 13, 2020 and again to re-review both project plans on November 9, 2020. In advance of both meetings, the panel members had ample time to review the project plans and written comments from all panel members were submitted on time. The written comments provided by all panel members were detailed and indicative of the investment of quality time and attention to the review process. Panel discussions about the relative merits of the project plans focused on providing constructive criticisms and making sure that the panel statements provided to the researchers adequately encapsulated the viewpoints of the reviewers and panel as a whole. My overall assessment of the process as a whole is that it functioned as intended, with the review panel providing substantial formative feedback that can be used to improve the respective project plans and advance USDA-ARS’s commitment to conducting quality scientific research.

With respect to specific recommendations for improvement of the review process, the panel members noted that they would like the researchers to see all of their individual review comments, as opposed to a single document in which the panel members’ comments were combined and in some cases summarized. A useful model for this could be similar to review outcomes provided by USDA-NIFA grant proposal panels in which the investigators are provided a Panel Summary document highlighting the most important conclusions of the panel, along with specific comments from individual proposal reviewers. Lastly, a common theme across both of the project plans reviewed was the lack of sufficient experimental design detail for the panel to gauge the potential for success of several objectives. A common rebuttal from the investigators was that they were limited by the imposed page limits. This is undoubtedly true, but it may be useful to stress to the investigators when preparing their plans that this is the type of information is critical to provide to reviewers.
Thank you for the opportunity to serve as Panel Chair. I hope our contributions to the Office of Scientific Quality Review have been worthwhile. Feel free to contact me if there are any questions or needs for more information about the process.

Sincerely,

Gregory A. Sword, Panel Chair
Professor and Charles R. Parencia Endowed Chair in Entomology
Department of Entomology
Interdisciplinary Program in Ecology & Evolutionary Biology
Texas A&M University
College Station, Texas, USA 77843-2475
Phone: 979-862-1602
Email: gasword@tamu.edu
Web: swordlab.tamu.edu
Date: February 26, 2021

From: David G. Riley, Prof.  
Department of Entomology  
University of Georgia Tifton Campus  
110 Research Way, ARB Building 4603  
Tifton, GA 31794 USA

To: Todd Ward, Ph.D.  
Scientific Quality Review Officer  
Office of Scientific Quality Review  
Agricultural Research Service, USDA  
5601 Sunnyside Avenue, MS 5142  
Beltsville, MD 20705

Dear Dr. Ward,

It is my pleasure to highlight some of the general issues noted across the plans for NP 304 Panel 12 IPM-Cotton (2020) with regard to their organization, approaches, or direction. The first proposal was exceptionally good in its summary of previous and on-going research, impact on grower clientele, and vision for the future of the project. The review panel seemed to agree and it was easy to approve the project. The second proposal was generally well received by the review panel, with just a few clarifications on research and future goals. The final one had some proposal issues that led to a second review, resulting in adjustments by the PI and a final acceptance of the plan by the review panel. Linda DalyLucas was excellent in the coordination of the review panel and made the process as smooth as possible. You and your colleague’s (Dr. Marquea King) guidance also made the review process clear and productive for the panel which was most appreciated.

I believe the quality of the review was high, given the strong professionalism and qualifications of the reviewers. All three reviewers were highly prepared for each of the discussions, as evidenced by their knowledge of the projects during our conversations and their written reviews. I believe the review panel gave careful consideration to the research proposed in each project and truly wanted to encourage the project leaders
to have the greatest impact for their areas of investigation. The recommendations for enhancements typically related to whether or not a project was robust enough to be published in peer review journals. In general, issues discussed with regard to each area of research were more related to feasibility of obtaining significant results rather than the specific merits of the concept proposed for investigation. In general, the research concepts for all three projects were acceptable to the panel. Experimental design probably received the most scrutiny, and whether or not the proposed research would specifically address the hypotheses presented. The question of proper experimental replication only came up in landscape level or large-scale research, which can be difficult to accommodate. As always, organizing research objectives around specific testable hypotheses makes the kind of critique easier to describe; thus, this is recommended.

Thank you for the opportunity to serve as panel chair.

Cordially,

David G. Riley
August 28, 2020

Todd Ward, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Re.: Panel chair statement; NP 304.

Dear Dr. Ward,

I am pleased to report on the process and outcomes of the recent NP 304 review panel, Systematics of Insect Pests & Beneficials (2020). My overall impression was that in each case the proposed research was well considered, resourced and staffed, and thus likely to result in both substantial and substantive outcomes.

I was impressed by the quality and robustness of the review. Three scientists with world-renowned and proven expertise in the field of insect systematics each assessed two proposals as primary and secondary reviewers. As panel chair I also provided feedback and my individual assessment of all proposals. For each proposal objective the primary and secondary reviewers provided detailed evaluations of the strengths and weaknesses related specifically to (1) the adequacy of the approach and procedures, (2) probability of success and, (3) merit and significance. These written responses were prepared prior to the panel convening and served the basis for discussions and the subsequent report for each proposal. The reviews provided were well considered and discussions during the panel were balanced and reflected a reasonable and objectively critical assessment of the merits of each proposal evaluated; this was reflected in discussions going longer than anticipated but remaining constructive and providing useful feedback to investigators in each case. The high quality of the reviews provided was, in my opinion, due to the expertise of the reviewers aligning well with all three proposals, and thus providing useful suggestions for improvement, particularly when it came to the use of novel technologies. It was generally considered by the reviewers that all proposals were ambitious, analytical approaches appropriate, and products likely to be of significant merit. Most proposals contained some element of cutting-edge genome-scale analysis of DNA sequences to aid in reconstructing evolutionary relationships, which is important for modern systematic investigations. In addition, the majority of proposals contained some element of type specimen imaging and database entry, which is very important capacity building for scientific collections for the future. The panel did appreciate that the investigators included as much detail as possible in their proposals, and yet
tried to remain concise and avoid the use of unnecessary jargon.
I was very pleased with the support provided by OSQR staff. All panelists were new to the process, so the orientation session and the prompt email responses from OSQR staff were greatly appreciated by all involved. Their support during the panel session was also invaluable.

Overall, I thought the proposals were strong and the review process rigorous. Indeed, the panel suggested relatively minor changes and improvements for each. I look forward to seeing the scientific products of each project come to fruition.

Sincerely,

Dr. Shaun L. Winterton
Todd Ward, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705

Panel Chair Statement, ARS Review, NP 304 Panel 15.

Dear Dr. Ward,

Our panel, composed of two reviewers and me, met in August, 2020, to review three group proposals from the ARS Systematic Entomology Lab. The reviewers were well-prepared and provided thorough and insightful comments on the proposals, both in writing and in the Zoom discussion. There was good discussion and consensus on our recommendations.

All three proposals were found to be acceptable without revision.

The review process was handled professionally, efficiently and effectively, and I have no criticisms.

Do not hesitate to contact me if I can provide additional information.

Andrew Brower, Ph.D.
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To

Todd Ward, Ph.D.  
Scientific Quality Review Officer  
Office of Scientific Quality Review  
Agricultural Research Service, USDA  
5601 Sunnyside Avenue, MS 5142  
Beltsville, MD 20705

March 28th, 2021

RE: USDA NP 304 Panel 17 IPM-Fruits and Nuts (2020)

Dr. Ward,

It was a pleasure to serve as chair of the review committee referenced above. The review team was well-qualified and invested precious time and effort in preparing their reviews so that they would be valuable to the project directors. The reviews from experts were provided to the panel meeting (held on Thursday, July 30, 2020) with sufficient time to allow everyone to carefully review the various comments. The panel group(s) leading discussions were well-prepared and organized, and this greatly facilitated the discussion. The trainings provided prior to the panel reviews and meeting by the program officers were quite helpful, and the individual who supported the panel meeting from USDA was very helpful in consolidating and condensing feedback, as well as directing the panel review meeting. In overall, the logistic was impressively quite efficient and so it was a very positive experience for me.

The panelists provided comprehensive and constructive reviews for each research plan, including specific comments and suggestions for fine improvements. The Office of Scientific Quality Review team facilitated the process by taking notes during the discussions and clarifying the notes with panel members. In overall the project plans were well written and of high quality. The research teams looked very qualified and showed the experience to undertake the proposed projects. No major issues were detected during the review process.

The whole process was quite effective and smooth, and I was pleased and impressed with the staff who supported the process. The panelists took the process seriously and committed themselves to a high-quality process and outcomes. I enjoyed serving in this capacity. Please don’t hesitate to contact me (nicolas.desneux@univ-cotedazur.fr) if you have questions.

Best regards

Dr. Nicolas Desneux
8 March 2021

Todd Ward, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142
Beltsville, MD 20705, USA

Dear Dr Ward,

Panel Chair Statement: USDA NP 304 Panel 18 IPM-Fruits and Potatoes

This review covered three projects and was conducted by three independent reviewers (two from Australia and one from the UK) with myself as Chair.

The panellists and I were provided with ample background material and ad hoc information to conduct our task. The USDA staff conducting the process were helpful and professional. The online meeting process was flexible enough to allow real-time participation across multiple time zones with no significant technical issues.

The level of detail provided by researchers in the project documents was felt to be extremely comprehensive. If anything, it erred on the side of being too long, leading to some reader fatigue. It may be useful to consider applying some tighter word limits to sections and reducing the number of sections in order to reduce the overall length of documents.

The strategy of having one panel member lead the review of each proposal, another assigned as a secondary reviewer of each proposal, was a useful way of dividing the burden of work and gave the Chair some scope to assign projects to the most suitable panellist. The facility to obtain technical comment from an additional expert to cover a specialist area (of molecular biology) was valuable.

There may be value in producing a very brief document that can be sent to potential Chairs and panellists at the time of recruitment. This could set out in a concise manner some key issues such as timeline, responsibilities and payment. The current email invitation sent to me as Chair was a little lacking in detail. This required me to have some email exchanges to properly understand the Chair’s role and key details I needed to line-up panellist.
The panel overall felt that the whole process was exemplary in terms of ensuring high quality science is conducted with public money.

The honoraria paid to panellists and the Chair was very modest in terms of the hours of work involved in reading and but we all felt that the process had been a positive one in terms of professional enrichment, exposing us to current thinking from leading researchers.

No video of the National Program was provided but the members of the panel we given plenty of background and briefing material including PowerPoint slides.

Yours truly,

Geoff Gurr

Professor of Applied Ecology
August 27, 2020

Todd Ward, Ph.D.
Scientific Quality Review Officer
Office of Scientific Quality Review
Agricultural Research Service, USDA
5601 Sunnyside Avenue, MS 5142, Beltsville, MD 20705

Panel Chair Statement

Review Date: Thursday, August 20, 2020
Panel Chair: Henry Fadairo

It was a pleasure to serve as Panel Chair for NP 304 Panel 19 IPM-Horticulture, Small Fruits and Veggies (2020). I would like to commend the USDA-ARS Office of Scientific Quality Review (OSQR) team for facilitating and making the process easy to have a successful panel. Below, I offer my comments on the process and quality of the reviews.

Overview and Assessment of the Review Process
Three project plans were assigned to the panel for review. The panelists included three expert reviewers (PhD degree holders in Entomology or Integrated Pest Management) whose research interests matched well with the topics of the project plans. The OSQR team provided necessary information and guidance for the review process. The panelists and chair participated in a virtual orientation session where panelists were informed about the review process and questions were addressed. The orientation also included a PowerPoint presentation that provided additional information and insights about USDA-ARS and the peer review process. Each proposal was assigned to two panelists (Primary and Secondary reviewers) for review. The panelists were given sufficient time (~2 months) to complete the reviews and to submit their evaluations and comments. The panel meeting was held on August 20, 2020, coordinated by the OSQR team. The team provided helpful guidance on the panel discussion format and the process for scoring the plans. The panel chair led/moderated the discussion of each plan making sure that each plan was fairly and fully discussed.

Quality of the Reviews
The panelists offered comprehensive and constructive reviews for each plan, including specific comments or suggestions for improvement. The OSQR team facilitated the process by taking notes during the discussion and clarifying the notes with the panel. In general, the project plans were well written and of high quality. The research teams are very qualified and have the experience to undertake the proposed projects. In certain cases, some project objectives appeared very broad in scope and covered too many insect taxa or commodities. The panel felt that some project objectives could be more focused and better integrated. In general,
the project plans could benefit from a detailed description of stakeholder’s involvement and participation in research.

In conclusion, the review process was smooth, and the project plans were of high quality. All three project plans were recommended for only minor revisions, and the panel did not identify any major issues with the process.

On behalf of the panel, I would like to commend the OSQR team for coordinating a smooth and successful review process. We enjoyed serving on this panel.

Sincerely,

Henry Fadamiro, PhD
Professor & Associate Dean for Research
14 August 2020

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

RE: NP304 Panel 20 IPM-Other 2 (2020)

Dr. Ward,

It was a pleasure to serve as chair of the review committee referenced above. The review team was well-qualified and invested considerable time and effort in preparing their reviews so that they would be valuable to the project directors. The reviews by all reviewers were provided in advance of the panel meeting (which was held on Tuesday, August 11th) with sufficient time to allow everyone to carefully review comments. The panelists leading discussions were well-prepared and organized, and this greatly facilitated the discussion. The trainings provided prior to the panel reviews and meeting by the program officers were very helpful, and the individual who supported the panel meeting from USDA was very helpful in consolidating and condensing feedback, as well as directing the panel review meeting. Overall it was a very positive experience logistically.

The proposals themselves were generally good and clear. There were some cases where details were insufficient to adequately evaluate whether the plans would truly address the hypotheses presented. Certainly having multiple entities involved in writing the plans will lead to unevenness in the plan presentation (some elements of the plans were overly detailed), but some additional proofing would be valuable to make sure the details needed are there. The lack of detail can be quite problematic in assessing. In one case, a subobjective listed in the table of contents was missing in the plan itself; although this is more of a minor oversight than an absence of key detail.

The panelists were all well qualified to address most of the material in the plans. We did have some challenges, however, with plans that were very diverse, including very diverse disciplines. Although such diversity is meritorious for the projects, it can present serious challenges for only three reviewers to adequately address all facets of the plans. In some cases, the panel was compelled to lean in on the apparent reputations of the plan
scientists because we lacked expertise to adequately address pieces of project plans. Although these pieces where we lacked expertise were in the minority, it does raise a bit of a concern about the overall quality of the reviews. I don’t know the answer to this, unless it involves separating out disciplinary elements for review. But that may be more effort than is justified by the process outcomes.

Overall, I felt that the process was effective and functioned smoothly. I was pleased and impressed with the staff who supported the process and felt that the panelists took the process seriously and committed themselves to a high-quality process and outcomes. I enjoyed serving in this capacity. Please don’t hesitate to contact me (jruberson2@unl.edu) if you have questions.

Best regards,

John R. Ruberson
Professor and Department Head
Office of Scientific Quality Review
The Office of Scientific Quality Review manages and implements the ARS project plan peer review (PPPR) functions for all intramural research projects including administering the peer review policies, processes and procedures. OSQR centrally coordinates and conducts the PPPR for project plans within the Office of National Programs during a 5-year cycle.

The OSQR staff is responsible for:
- setting the schedule of Project Plan Peer Review sessions
- 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 to Areas, ONP, and other interested parties
- Notification to panelists of the Agency response to review recommendations
- Ad hoc or re-review of project plans
- Final certification of each Area project plan

Contact
Send all questions or comments about this Report to:
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