USDA Agricultural Research Service
Office of Scientific Quality Review
Panelist Orientation
2018

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Today

- USDA – ARS in context
- ARS – About us
- ARS Research Priorities
  - How we set them
  - How these lead to project plan objectives
- ARS Peer Review
  - Not a grant decision!
  - Why OSQR?
- Panelist Responsibilities
- OSQR Resources
This organization chart displays the names of USDA offices, agencies, and mission areas. Each office, agency, and mission area is placed within a cell connected by lines to show the structure and hierarchy (Under Secretary, Deputy Secretary, or Secretary) for which they fall under. An HTML version that lists USDA Agencies and Offices and USDA Mission Areas is also available on usda.gov.
ARS Profile

- In-house science research arm of USDA
- Farm-to-table research scope
- Information and technology transfer
- Administration and stakeholder priority setting process
- National Programs in Plants, Animals, Nutrition, Natural Resources
- 690 projects
- 2,000 scientists and post docs
- 6,000 + other employees
- 90+ laboratories
- ~$1.1 billion annual budget
- Partnerships with universities and industry
- International collaborations
ARS Regions

Pacific West Area

Northeast Area

Midwest Area

Southeast Area

Plains Area
ARS National Programs

**Animal Production**
- Food Animal Production (101)
- Animal Health (103)
- Veterinary, Medical, and Urban Entomology (104)
- Aquaculture (106)

**Natural Resources**
- Water Availability & Watershed Management (211)
- Soil and Air (212)
- Biorefining (213)
- Grass, Forage, and Rangeland Agroecosystems (215)
- Sustainable Agricultural Systems (216)

**Crop Production**
- Plant Genetic Resources, Genomics and Genetic Improvement (301)
- Plant Diseases (303)
- Crop Protection & Quarantine (304)
- Crop Production (305)

**Nutrition, Food Safety/Quality**
- Human Nutrition (107)
- Food Safety (animal & plant products) (108)
- Product Quality & New Uses (306)
ARS Mission

✓ Solve high priority agricultural problems (farm to plate) through research
✓ Transfer those solutions to the public
ARS Current Research Priorities

- Ensure high-quality, safe food, and other agricultural products;
- Assess the nutritional needs of Americans;
- Sustain a competitive agricultural economy;
- Enhance the natural resource base and the environment;
- Provide economic opportunities for rural citizens, communities, and society as a whole
ARS Research
Scientific Quality and Review
National Program 5 - Year Cycle

1. **Relevance** - Stakeholder input – Informs the Action Plan/Objectives

2. **Quality** - Peer Review of every project – Cycle Start, Peer Review

3. **Performance** - 5-year cycle, annual objectives/accomplishments

4. **Quality** - Cycle End, National Program Retrospective Outside Review
ARS Customers and Stakeholders

- Administration
- Congress
- Action and Regulatory Agencies
- Producers—Farmers and Ranchers
- Industry
- State and Local Governments
- Non-governmental Organizations (NGOs)
- Advisory Boards
- Consumers

Relevance
Relevance Planning and Priority Setting: Sources of Input

Executive Branch (OMB, OSTP, USDA, other Federal agencies)

Scientific Community

Customers, Partners, Stakeholders, & Advisory Boards

ARS Program & Budgeting Priorities

Congress

Agency Scientists & Managers
NP 216 Accomplishment Report

• Accomplishments reported annually by each project

• Program Leader compiled selected Accomplishments for National Program (NP) report

• Provides summary of prior cycle Action Plan, coupled with retrospective integration of accomplishments and how they addressed goals for each NP component

• Foundational document provided to the external retrospective NP review panel, and publically available

Performance
ARS National Program Retrospective Review

• External Review Panel for ENTIRE National Program
• Primary/Secondary per Program Component
• Feedback on (may vary, not all inclusive):
  – Relationship to Program’s Action Plan
  – Relevance to identified stakeholder needs
  – Technology transfer and adoption
  – Impact on advancing science and the research community, producers, consumers, and/or regulatory agencies
  – Recommendation to continue/discontinue, or add components
• Informs Strategic Planning and Gathering input for the next Five-Year Action Plan
NP 216 Action Plan

MISSION: Build a science-based foundation for farming systems using an unbiased, systems approach. Provide multiple, actionable genetic and management options to achieve:

- Desired yield quantity, quality
- Economic viability and competitiveness
- Environmental enhancement
- Quality of life for rural populations, and society as a whole

Relevance
ARS Peer Review vs. Granting Agencies

Chavonda Jacobs - Young
Acting Deputy Under Secretary

Vacant
Under-Secretary

NIFA… for example

Chavonda Jacobs - Young
Administrator

ARS

Sonny Ramaswamy
Director

NIFA

Mary Bohman
Administrator

ERS

Huber Hamer
Administrator

NASS
ARS and NIFA do RESEARCH, and BOTH do PEER REVIEW…

**ARS**

Chavonda Jacobs - Young Administrator

**NIFA**

Sonny Ramaswamy Director

You may have participated in NIFA or other research grant agency Peer Review. *It’s pretty much the same deal, right???
ARS and NIFA do RESEARCH, and they do PEER REVIEW…

You may have participated in NIFA or other research grant agency Peer Review. *It’s pretty much the same deal, right???

ARS

Chavonda Jacobs - Young Administrator

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NIFA

Sonny Ramaswamy Director

Nope.
ARS Peer Review vs. Granting Agencies

**ARS**

- ASSIGNED Objectives
- NO FUNDING review/decision
- NO RANKING of plans
- FIVE-YEAR cycle
- PLAN Review
- Like a Manuscript Peer Review
- Reviewer Feedback
  - ARS Response Required by Law
  - Plans often changed based on Panel comments, as a manuscript
- Scientist Responses Available to Review Panel

**NIFA**

- DESIGNED Objectives
- Decide to Fund, or not to
- Rank Proposals for funds
- Cycles vary, often 1-3 years
- PROPOSAL Review
- Traditional Grant Peer Review
- Reviewer Feedback
  - May be seen by researchers
  - Proposals may not change based on Panel comments - unclear
- Scientist responses may not be available to Review Panel
ARS Cares… and It’s the Law!

• 1998 Farm Bill Requires
  – ARS Research Peer Reviewed every 5 years
  – External reviewers, unless expertise is not available outside of ARS (exceedingly rare)
  – EVERY PLAN submitted must pass review
    • Failing plans may be revised and re-reviewed
    • Plans failing initial, and re-review will not proceed
    • Funding for a twice failing plan must be redirected
      Based on appropriations/authorities governing its use
ARS Project Review Criteria

Adequacy of Approach
• Plan and procedures appropriate?
• Sufficient information provided for understanding and review?
• Researcher understanding of methodology, technology demonstrated?
• Researcher/collaborator roles clear?
• Plan conveys a clear, logical experimental design; well-written?

Probability of Success
• Plan likely to lead to success, or produce significant new knowledge? If the risks are significant, are they worth the potential payoffs?

Merit and Significance
• Will the plan lead to new information, findings, or understandings?
• What is the potential impact to stakeholders? Society? Agriculture?
ARS Project Review Scores

Passing Scores

- **NO REVISION**: Excellent, no changes or additions, suggestions welcomed/responded to
- **MINOR REVISION**: Sound, feasible, minor changes needed
- **MODERATE REVISION**: Some change to approach needed, but feasible

What Happens Next?

- Lead Scientist will respond to reviewers’ comments
- Science Quality Review Officer certifies compliance with the recommendations, much like a science journal editor
- Plans are NOT certified until the review comments are fully addressed
ARS Project Review Scores

Failing Scores

- **MAJOR REVISION**: Sound and Feasible IF significantly revised, major gaps in plan
- **NOT FEASIBLE**: Major flaws, omissions, or deficiencies in resources, plan is unclear so as to be impossible to review

What Happens Next?

- Lead Scientist responds to comments and revises the plan
- The plan is re-reviewed by the SAME panel, and a second on-line panel discussion is held
- The plan receives a second score at re-review
- Re-reviewed plans scoring Major or Not Feasible a second time
  - Have “Failed Review”
  - The plan will not be implemented
So you’ve agreed to be a Panelist … now what?
Panelist Responsibilities

Reviewing your Assigned Plans

• You will be assigned two plans
  – One plan as the primary reviewer
  – The second plan as the secondary reviewer
  – You will provide a written review for each plan assignment

• Double check for any Conflict of Interest you may have
  – No collaboration with PI in last 4 years
  – 8 years since serving supervisory/advisory role
  – No institutional or individual consulting affiliation
  – No financial gain from the research reviewed

• Inform your Panel Chair/OSQR immediately
  – Of any COI you have that may have been missed
  – Of any difficulty in completing your Panelist Review Forms
Panelist Responsibilities

Getting Ready for the Panel Discussion

- Provide review feedback in the context of the ARS peer review, i.e. taking into account differences from traditional grant programs is helpful here.
- TIMELINESS – late review comments bottleneck the entire process, and could impact the review discussion.
  - Reviews are due ONE WEEK PRIOR TO PANEL DISCUSSION.
  - OSQR will combine them, and send them to the full panel in advance of the discussion for reviewers’ review/concurrence.
Panelist Responsibilities – Preparing the Written Review Form

Adequacy of Approach and Procedures covers the plan objectives.

A common format style (circled) makes it easier to combine and discuss your review points accurately and efficiently!
Panelist Responsibilities – Preparing the Written Review Form

Probability of success in meeting the objectives in your view, considering the team, the collaborators, and resources.
Panelist Responsibilities – Preparing the Written Review Form

Merit and significance has likely been covered by the stakeholder input reflected in the Action Plan.

Does the plan as written make it possible to realize this importance?
Panelist Responsibilities – Preparing the Written Review Form

Any final thoughts, questions, or ideas to share with the researchers? Add them here!
Panelist Responsibilities

On Review Panel On-line Discussion Day

• An agenda, and combined reviews will be sent before
• I will introduce the Science Quality Review Officer, David Shapiro-Ilan, who will make a brief statement
• I will follow up with a short overview/reminder briefing of the OSQR process – some of the material covered today
• I will turn the discussion over to the Panel Chair to lead for each plan individually.
• I will edit each combined review comment document on screen during the discussion, so at the end of each plan discussion, the final panel recommendation form is essentially complete
Panelist Responsibilities

Advice for the Panelists

• Generally a well focused discussion takes ~25-30 minutes overall for each plan.
  – Read the documents provided ahead of time
  – Work with other panelists to maintain balance in discussion
    • To identify concerns that *researchers can address or respond to*, and
    • The need for clarifying discussion for all to agree on plan strengths, issues, and reviewer recommendations
    • Remember, it is ultimately up to researchers to respond to, solve, or clarify issues or questions you and the panelists may have
    • Facilitating this balance may ensure adequate time to discuss each plan fully
  – If you have a question or idea, don’t hesitate to ask or share
Panel Chair-led Discussion Format for Each Plan

• Overview (5 min): Primary, then Secondary
• For each Objective:
  – Primary, then Secondary, then others
  – (Ideally, it should take about 20 min total for all objectives.)
• Probability of Success (2-3 min) Primary, then Secondary, then others
• Merit and Significance (2-3 min) Primary, then Secondary, then others
• Turn it back to me to score EACH plan as we go
Panelist Responsibilities

Scoring the Plans – this is ANONYMOUS

• Following EACH plan discussion, I will instruct the panel how to submit scores anonymously; the chair is required to vote as well

• Once all are submitted, I will share the scores, and average for the plan – this is the tentative score

• I will turn it back to the Chair for the next plan discussion
Panelist Responsibilities

Finishing up the Panel Discussion

• Once all plans are scored, I will review all tentative scores for final acceptance or individual revote – until the panel is in agreement – then the review panel will be complete.

• I will provide information on next steps, and request feedback on the review process.

• I will turn it over to the Scientific Quality Review Officer, David Shapiro-Ilan, for his closing statement.

• He will turn it back to the Panel Chair to make a final statement to the panel.
Panelist Responsibilities

After the Panel Discussion

• The Panel Chair will provide a written statement/summary
  – If you feel something should be included, contact the Panel Chair
  – Reviewers remain anonymous, and are not named
  – No specifics or identifying information on the plan discussions

• Continue working with OSQR, and other Panel members for any plans needing re-review
  – Generally re-review panels are scheduled ~12 weeks after the initial review
  – The review will focus only on researcher responses to issues raised in the initial panel discussion of the plan
NEXT! …if you haven’t already…

• Finalize and Submit any Paperwork –
  – Panelist information form
  – Panelist additional information form
  – Confidentiality Agreement
  – Banking information for Honorarium

• Let your Panel Chair or OSQR know IMMEDIATELY
  – If you have a conflict of interest with your assigned plans
  – If you have any concerns over your ability to review your assigned plans
  – If you have any questions on anything!

• OSQR will work with you and the rest of the panel to provide and collect documents, and to set a date for the on-line Panel Discussion
Thank you!
Seriously, we can’t do it without you!!

Resources

Next Slide
OSQR Resources

• OSQR:
  – www.ars.usda.gov/OSQR
  – OSQR@ars.usda.gov

• Office of National Programs:
  – www.ars.usda.gov/research/programs

• OSQR Staff:
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