

Coffee with the Pros: USDA NIFA

February 1, 2017

University of Georgia

Panelists:

Dr. Harald Scherm, Department Head, Plant Pathology; Interim Assistant Dean for Research, CAES

Dr. Chung-jui Tsai, GRA Eminent Scholar; Director, The Plant Center

Dr. Ashfaq Ahmad Sial, Assistant Professor, Entomology

Organized by the Office for Proposal Enhancement, Office of Research

AFRI Foundational Program

Up to \$500K, for up to 4 or 5 years

- Plant health and production and plant products, \$33M
- Animal health and production and animal products, \$31M
- Food safety, nutrition, and health, \$19M
- Bioenergy, natural resources, and environment, \$15M
- Agriculture systems and technology, \$11M
- Agriculture economics and rural communities, \$17M
- Critical Agricultural Research and Extension (CARE), \$3M
- Exploratory Research Program (\$100K, 2 years), \$2M
- Education and Literacy Initiative (predoc, postdoc, REU), 19M

Funding rate varied by program, ~10% to 30%

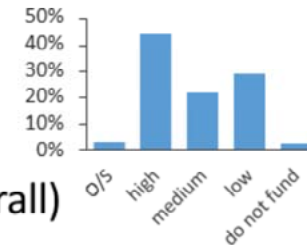
AFRI Foundational Program

Review

- Fit for “Program Area Priorities”
 - Agricultural relevance (significant justification for model systems)
- 3 panelists per proposal, *ad hoc* reviews as needed
- Panel ranking → funding probability
 - Outstanding, high priority, medium priority | low priority, do not fund
 - Less influence from National Program Leaders/Panel Managers

Resubmission (one-third of proposals)

- Must address “Panel Summary” comments
- Slightly higher funding rate (*e.g.*, 16% vs. 13% overall)



Novelty and excitement, besides solid science

- Justifying your project’s agricultural relevance is key
- Unlike NSF, panel ranking > funding probability, and program manager/leader doesn’t have same authority as NSF, other than that they assign reviews
 - Outstanding, high priority, medium priority are fundable; low priority means not fundable
 - In recent year, 40% of proposals were high priority - good is not enough, need to be outstanding
- Novelty and excitement are important, as well as having solid science
- So many proposals are high priority, to really stand out you need to convey excitement to the 3 panelists (primary, secondary, tertiary) who will speak for you

Organic Agriculture Research and Extension Initiative (OREI)

The OREI seeks to solve critical organic agricultural issues, priorities, or problems through the integration of research, education and extension activities. The purpose of this program is to fund high priority research, education and extension projects that will enhance the ability of producers and processors who have already adopted organic standards to grow and market high quality organic agricultural products. Priority concerns include biological, physical, and social sciences, including economics.

(Requires access to certified organic facilities to do research)

- Must work with applied system, must be something recognized by stakeholders (farmers)
- UGA has certified organic research farms in certain areas; the percentage of successful applicants for OREI is relatively high because a lot of people don't have access to such farms
- Marketing and policy is a key issue currently facing the specialty crop world - saturated markets, i.e. GA blueberries - this difficulty is why government and farmers themselves are willing to invest in this area

Organic Agriculture Research and Extension Initiative (OREI)

The OREI has eight [legislatively-defined goals](#) (.... the Farm Bill):

1. Facilitating the [development and improvement](#) of organic agriculture production, breeding, and processing methods.
2. Evaluating the [potential economic benefits](#) of organic agricultural production and methods to producers, processors and rural communities.
3. Exploring [international trade opportunities](#) for organically grown and processed agricultural commodities.
4. Determining [desirable traits](#) for organic commodities.
5. Identifying [marketing and policy constraints](#) on the expansion of organic agriculture.
6. Conducting advanced [on-farm research and development](#) that emphasizes observation of, experimentation with, and innovation for working organic farms, including research relating to production, marketing, food safety, socioeconomic conditions, and farm business management.
7. Examining optimal [conservation and environmental outcomes](#) relating to organically produced agricultural products.
8. Developing [new and improved seed varieties](#) that are particularly suited for organic agriculture.

➤ 8 legislatively defined goals for OREI - applicants need to touch at least one of them, but can address more than one

Organic Agriculture Research and Extension Initiative (OREI)

Project Types		Project Periods	Anticipated Grant Types	Maximum Award Amount
Integrated Project Proposal	Multi-Regional	2 to 4 years	Standard* or continuation**	\$2,000,000
	Regional	2 to 4 years	Standard or continuation	\$1,000,000
	Targeted	2 to 3 years	Standard or continuation	\$500,000
Curriculum Development Proposal		1 to 2 years	Standard or continuation	\$250,000
Conference Proposal		1 year	Standard	\$50,000
Planning Proposal		1 year	Standard	\$50,000

OREI Success Rates: 18-20% (Closed for 2017)

ORG Success Rates: 20-25% (Open till March 19, 2017)

- Planning grants involve planning for larger project - connecting with colleagues, farmers to determine future work
 - Meeting of interested parties, everyone interested can give feedback, and gives a wide perspective (not everyone involved at this stage has to be involved in the future project)

Specialty Crop Research Initiative (SCRI)

The purpose of the SCRI program is to address the [critical needs of the specialty crop industry](#) (as defined in Part VIII, E) by awarding grants to support research and extension that address key challenges of national, regional, and multi-state importance in sustaining all components of food and agriculture, including conventional and organic food production systems. **Except for Research and Extension Planning Projects, the SCRI program only considers projects that integrate research *and* extension activities.**

Applicants are strongly encouraged to propose a [unique approach to solving problems facing the specialty crop industry](#) using a systems approach:

“A [systems approach](#) is any process of estimating or inferring how local policies, actions, or changes influence the state of the neighboring universe. It is a framework that is based on the belief that the component parts of a system can best be understood in the context of relationships with each other and with other systems, rather than in isolation. The only way to fully understand why a problem or element occurs and persists is to understand the part in relation to the whole.

- Specialty crops are those designated as such by USDA – check your eligibility

Specialty Crop Research Initiative (SCRI)

It is anticipated that successful applications will:

1. Engage stakeholders in collaborative ways to identify those priorities of greatest need;
2. Bring together multi-state, multi-institutional teams of biological, physical, and social scientists to develop strategies and actions emphasizing systems-based, trans- disciplinary approaches for meeting the identified priorities;
3. Address priorities through research and extension;
4. Present plans for documenting the impacts of funded applications that include stakeholder involvement; and
5. Include explicit mechanisms to communicate results to producers and the public.

- In general, try to use as much language as you can from RFA - structure title using 'systems-based' term, for example
- Engage stakeholders (farmers) – you have little chance of success if you do not do this
 - Highly recommended to get support letters from farmers from all states involved, as many as possible - try to get them from growers' association, commission leaders - signifies that this is a real problem that growers care about
- Systems-based, trans-disciplinary - if you're dealing with pest management, get entomologists; get as many people from different disciplines as possible that you can justify in the grant
- What's really key is agricultural economics - either co-PI or established direct connection with someone who can put a dollar value on what you do - even if it's a 'small' dollar amount proposal
 - On UGA campus there are many agricultural economists and faculty in related areas who you could contact for collaboration

Specialty Crop Research Initiative (SCRI)

The SCRI program has five [legislatively mandated focus areas](#), which are:

1. Research in plant breeding, genetics, genomics, and other [methods to improve crop](#) characteristics, such as:
 - a. product, taste, quality, and appearance;
 - b. environmental responses and tolerances;
 - c. nutrient management, including plant nutrient uptake efficiency;
 - d. pest and disease management, including resistance to pests and diseases resulting in reduced application management strategies; and
 - e. enhanced phytonutrient content.
2. Efforts to identify and [address threats from pests and diseases](#), including threats to specialty crop pollinators;
3. Efforts to [improve production efficiency](#), handling and processing, productivity, and profitability over the long term (including specialty crop policy and marketing);
4. [New innovations and technology](#), including improved mechanization and technologies that delay or inhibit ripening; and
5. Methods to prevent, detect, monitor, control, and respond to potential [food safety](#) hazards in the production efficiency, handling and processing of specialty crops, including fresh produce.

Specialty Crop Research Initiative (SCRI)

Project Type	Project Period	Funding Amount
Standard Research and Extension Projects	Up to four years	Up to \$1 million/year
Coordinated Agricultural Projects	Up to four years	Up to \$2 million/year
Research and Extension Planning Projects	One Year	Up to \$50,000

There are two stages of the application process:

- 1) Pre-application containing stakeholder relevance statement
 - Reviewed by panel of industry reps for **relevance and impact**
 - Success rate: **Approx. 50%**
- 2) Full applications invited with a separate RFA
 - Reviewed by panel of experts
 - **Success rate: Approx. 25%** of the full proposal (**SCRI full proposal submission deadline: March 1, 2017**)

➤ SCRI has no funding cap

Tips for successful OREI and SCRI Proposals

- ✓ Read the RFA
- ✓ Talk to the National Program Leader
- ✓ Identify an economically important problem
- ✓ Put together a good team of researchers from multiple institutions/states/regions/disciplines (SCRI and OREI Programs strongly encourage participation from 1890 and 1994 land-grant institutions)
- ✓ Get stakeholders involved
- ✓ Planning grants are very helpful
- ✓ Plan ahead of time!

- Pick good team members because you will be the one reporting on grant activities – need team members who will stay in contact and be conscientious participants

Some USDA-NIFA Peculiarities

- Submission deadlines quite variable year to year
- Priorities can shift significantly from year to year (e.g. inclusion of “commodity board priorities”)
- Logic Model requirement for most programs
- Center of Excellence provision in most programs
 - FY15: *“NIFA successfully implemented Centers of Excellence (CoE) and Commodity Board provisions, and has awarded more than \$41.8 million to 33 projects that were determined to meet the criteria of CoE. Only 8 percent (156 of 1860) of applicants requested that their application be considered for CoE designation.”*

- To some degree NIFA RFAs are a little bit less predictable (as compared to NSF or NIH)
- Priorities can shift significantly year to year (not so much for 5-year Farm Bill programs), same with submission deadlines
- Logic Model is a pictorial showing the inputs and outcomes of a project - there are resources, templates, and videos online on how to do these
 - See <http://fyi.uwex.edu/programdevelopment/logic-models/>
- CoE provision – generally doesn’t earn you extra review ‘points’, may be to your advantage if it’s down to you and one other application
 - CAES office developed a document on the kind of arguments you can provide/justify to become a CoE – this justification can be as condensed as half a page

Recent USDA-NIFA Trends

- More smaller, oligo-PI grants (~\$500k) following scathing NRC review of Challenge Area program
- Scientific society and presidential priorities reflected in RFAs (e.g. microbiome, antimicrobial resistance, pollinator health)
- More interagency programs with NSF, DOE, etc.
 - INFEWS
 - National Robotics Initiative (NRI)
 - Cyber-Physical Systems
 - Ecology and Evolution of Infectious Disease
 - Biomass Research and Development Initiative (BRDI)

- Used to put large amounts of money into challenge grants, left little money for smaller grants (~500K)
- Scientific society and presidential priorities reflected in RFAs, even where you might not expect - e.g. antimicrobial resistance, presidential initiative on pollinator health
- Now, tend to have more interagency programs with NSF, DOE, etc.
- Office for Proposal Enhancement can help form collaborations
- Seed grant program at UGA for trans-disciplinary teams trying to develop programs for larger grants

USDA-NIFA Grant Programs

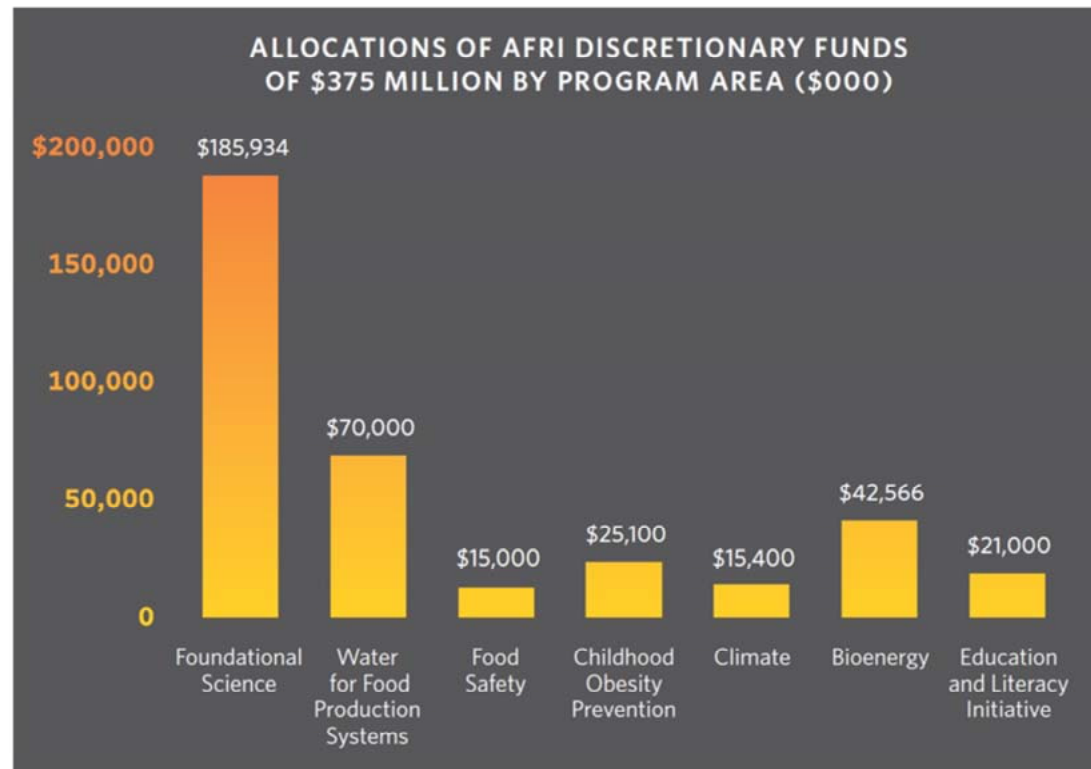
- Over 50 NIFA funding lines, most of which are grants programs
- About 5-15 of these are of interest to ag/life scientists like you and me
- Most are mission-oriented
- Largest among those (FY16 appropriations):
 - Agriculture & Food Research Initiative (\$350m)
 - Specialty Crop Research Initiative (\$51.3m)
 - Sustainable Agric. Research & Education (\$24.7m)
 - Emergency Citrus Research & Extension (\$23.3)
 - Clemson and Iowa State funded last year!
 - Organic Agric. Research & Extension (\$18.6)
 - Crop Protection and Pest Management (\$17.2)

President's FY17 NIFA Budget (for illustrative purposes only)

- Overall NIFA increase of 26% requested
- Doubling of AFRI to \$700 million proposed
 - Goal is to increase low funding rates
- Foundational and Challenge Areas to support presidential initiatives
- Merge Water for Agriculture and Food Security Challenge Areas to “Water for Food Production Systems” and fund at \$70 million (!)
- New training grant opportunities in the food and agricultural sciences

- Reflects NIFA Director's priorities (and POTUS)
- Water will be big funding priority for NIFA in future, no matter what

President's FY17 NIFA Budget (for illustrative purposes only)



USDA-NIFA Critical Research and Extension (CARE)

- Established in 2014
- Part of AFRI Foundational Program
- Much more mission and application-oriented than the rest of AFRI, which is mostly basic research
- Goal: Develop and implement solutions to critical producer problems associated with animal and crop production, protection, or product quality. Emphasis will be placed on achieving results that can be applied by the producer as quickly as possible following project completion.
- Must integrate research and extension
- FY16: \$3 million total available
- Individual projects: up to 3 years, max. \$300,000 total

- Have to convince panel that you are proposing a critical agricultural issue (e.g., new pest emerging) and show stakeholder engagement

Sustainable Ag. Res. & Education Program (SARE)

- Goal: study integrated farming systems, soil and water conservation, agricultural marketing, and rural quality of life
- Multi-state, multidisciplinary projects with farmer involvement, strong social science and outreach components
- Four regions, 7 grant types (incl. Research & Education, Large Systems, On-Farm Research, Professional Development, Graduate Student grants)
- *Res. & Educ. Grants* up to \$300,000 over 3 years
- *Large Systems*: \$100k/yr for 3 yrs + up to 3 yr extension
- <http://www.southernsare.org/Grants>

- Most extreme in terms of systems approach in NIFA programs – they want you to study whole system (e.g. cropping, farming system)
- Stronger farmer involvement, social science (how do farmers respond to XYZ), and outreach components

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February 2017 - IFSN Seminar


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IN TIT

FOOD SAFETY AND NUTRITION

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE



February 23, 2017

Best practices for National Institute of Food and Agriculture funding success: A twenty-year perspective

Dr. Lee-Ann Jaykus, North Carolina State University, will present "Best practices for National Institute of Food and Agriculture funding success: A twenty year perspective" from 3-4PM Eastern on February 23, 2017. The seminar can be viewed via Adobe Connect as well as in Room 3310 of the Waterfront Building, Washington, DC. This seminar has been approved by the Commission on Dietetic Registration for 1.0 Continuing Professional Education Unit (CEU).*



This seminar is part of the [Institute of Food Safety and Nutrition \(IFSN\) Seminar Series](#). These monthly seminars aim to disseminate new knowledge, engage with partners and stakeholders, and inspire the next generation of food safety and nutrition experts. For full information on the series, visit the [seminar webpage](#).

- Webinar coming up February 23rd

Audience Q&A Session Highlights

Audience member: I'm new faculty - how do I start making these connections you are talking about? Is there some place I can go to connect into these networks?

Panelists:

- USDA has working groups
- Also think about connections you already have who have been around for awhile - PhD advisor, people you have met at professional conferences - people who already have tenure will be happy to talk to you because they assume you will take lead on a grant.
- Southern Region IPM Center offers up to \$40K for bringing together a group of people to come to a meeting and discuss future research - as long as you can relate your research to IPM in some way, you could use that platform as a baseline to put people's thoughts together, take idea/project to next level for a proposal

Audience member: I'm having a preliminary data issue - was rejected because no preliminary data, but it's a grant to get preliminary data. I have applied to exploratory program grants, and reviews ask 'where is your preliminary data' – what do I do?

Panelists:

- Although exploratory grants are supposed to fund preliminary data, internal funding beforehand may be necessary
- Community group funding also (but that's harder to do if fundamental research)

Audience Q&A Session Highlights (continued)

Audience member: What separates an 'outstanding' from a 'high priority' application?

Panelists:

- At a recent panel, 2 out of 3 outstanding applications were resubmissions
- Excitement factor - idea and impact are very clear (and relationship between them)
- Have to offer something unique and utilize language of RFA – e.g., this \$20 million ag industry is hungry and needs a solution
- Primary reviewer on panel has to be excited about it - secondary and tertiary may change score depending on primary
- Have to learn how to think/express ideas in 'USDA' way - Extension is key

Audience member: How are reviewers determined and how do they make judgments on applications?

Panelists:

- Program leaders decide - national program leaders really know the field and will try to pick appropriate reviewers
- Need for balance in terms of geography, gender, and other factors
- There is some institutional memory - panel reviewers that stay on 1-2 years, remember proposals from last year
- Reviewers likely to be people who are funded already, asked to 'give back'
- Panelists have to use criteria on RFA, panel manager has to intervene if reviewer strays too far from what RFA is asking
- Be persistent in contacting program manager (it's their job, it is OK, call with follow-up questions too - program manager wants to have good proposals in their portfolio)