

**MINUTES**  
**Departmental Meeting**  
Wednesday, January 9, 2013, 9:00 a.m.  
129 AGLS

1. 9:00 – 9:20      Welcome/Announcements/Bus Recognition      Elliot

Dr. Elliot congratulated those who received awards/recognition at the 2013 Texas A&M University AgriLife conference. **(SEE ATTACHMENT A)**. Texas Tech received the Partnership Award for work with the Doc At A Distance program.

Ambrya Baldwin was introduced. She started on Monday and is the new Program Coordinator for Alumni Relations and Development Initiatives.

Congratulations to Kirk Edney for being elected Vice-President of Association for Instructional Materials, ACTE.

APR Conversation. Attachment A includes details for preparation of APR's. Dr. Elliot won't run data until Monday, January 14, so you will have the weekend for final input. All edits must be completed by January 18. Dr. Elliot reminded faculty that it is essential that documentation of funds is recorded. It is also important that income streams and funds received through other methods be documented. Faculty were reminded that productivity does not equal excellence. Update last year's or send at least one new impact statement for inclusion in this APR. Extension is known for writing really great impact statements. Contact one of them for assistance. Dates are available now to schedule your APR. Contact Debbie.

Julie Svetlik with Corporate Relations has lobbied on our behalf – especially in communications and leadership to apply for NIFA Fellows Program. **(See ATTACHMENT B for RFA)**. Somewhat out of our comfort zone.

Dr. Elliot explained the bus concept. Busses are awarded to those who are in the right seat at the right time going the right direction. Busses were awarded as follows: Odom to Boggus, Black and Specht to Cochran, Support Staff to Baldwin, M. Elliot to Associate Heads.

Dr. Elliot reminded everyone that all space issues must go through Debbie. This includes something as simple as shuffling people in offices.

There will be a space reallocation within the next couple of weeks. The plans are very fluid at this point so Dr. Elliot will share this information as soon as it becomes concrete. It will involve the department acquiring additional space.
2. 9:20 – 9:30      Web Committee      Cochran/Redwine

Bill Cochran reported that it had been a real exciting year with lots of changes to the web site. Many more coming this year, with an overall change of look to follow college guidelines. Samantha Alvis will have a percentage of her assistantship devoted to working with the committee and social media.
3. 9:30 – 9:35      AGSS      Andrews/Pannone

4. 9:35 – 9:40 NCAC-24 report Murphy  
Tim Murphy attended the NCAC-24 Meeting at Mississippi State for Dr. Elliot. This is a national research meeting for department heads in agricultural education. There was a really good turnout. As soon as minutes become available he will share them with the faculty. Focus of this group is multi-state research efforts. They meet three times a year. There are currently three active projects – Ag Communications, Agricultural Literacy, and Agricultural Education. Focal points of discussion were on providing supporting structure to research in profession, and on developing strategies to better inform decision- and policy-makers of the nature of their research capabilities.
5. 9:40 – 9:45 High Impact Experience Update Rutherford  
Dr. Rutherford reported that we were funded again. At the end of each semester we will review internship portfolios, directed studies projects and research projects as ongoing assessment of HIE and to provide artifacts for WEAVEonline reporting. A ½ time graduate assistant (Orry Pratt) was hired to promote, evaluate, and support the HIE programs in the department.
- Please remind students of deadline (February 1, 2013) for Study Abroad Applications. Four Study Abroad trips are in the works. Greece and Brazil are may mesters. Guatamala is first summer session and Namibia is second summer session.
- Dr. McKim is planning a study away trip to California. The class is 9 hours (full course load) Approximately six weeks on campus and four weeks on the road. Class will cover research and technical writing.
- Dr. Elliot commented that the blogs coming from the Costa Rica trip have been amazing. Drs. Harlin and Strong along with Samantha Alvis will return from this trip this weekend. In country contacts are extremely important for a successful study abroad.
- Plans are being discussed for a 2014 or 2015 study abroad to Poland – led by Dr. Jimmy Mazurkiewicz.
- Dr. Wash Jones from Prairie View A&M University has expressed interest in some of his students taking our study abroad trips.
- Dr. Rutherford reminded all faculty that class syllabi are required to be posted on Howdy by the first day of classes. She suggested posting a minimum rather than detailed syllabi to protect content. CV's are also to be posted. This is for undergraduate classes only at this time.
- Leadership minor has been approved. Will be on the books for Fall.
6. 9:45 – 10:00 Strengths Odom/Norgaard  
Great team building exercise. See Attachment C.
7. 10:00 – 10:30 Faculty Meeting

- APR Elliot
- Annual Department Review Elliot
- P&T guideline review process Elliot and P&T leaders
- Quadrennial Review King and Elliot

### **Travel Request Form Deadlines**

Domestic (30 days prior to trip): e.g., travel February 1, 2013 due by January 1, 2013  
International (60 days prior to trip): e.g., travel March 1, 2013 due by January 1, 2013

### **Upcoming Events**

Martin Luther King Day, January 21<sup>st</sup> (University Holiday)  
ALEC 2013 Department Review, Monday, January 28<sup>th</sup>  
SRAAAE, Orlando, February 3-5  
Spring Break, Friday, March 15<sup>th</sup>  
Awards Reception, AgriLife Center, Friday, April 12 (2-4)

### **Future Departmental Meetings**

February 12, Tuesday, 2:00 pm  
March 7, Thursday, 9:00 am  
April 2, Tuesday, 2:00 pm  
May 6, Monday, 9:00 am

ALEC: January 9, 2013

1. Congratulations, Thank You, and Welcome:
  - a. 2013 Texas A&M AgriLife Conference Award winners and recognitions: **ALEC Doc@ Distance program, Dr. Williams, Dr. Dunsford, Horace McQueen, Jimmy Cheek, Roscoe Dooley, Donald Kelm, Dr. Ripley, Dr. Rutherford, and Dr. Vestal**
  - b. **Ambrya Baldwin** - Program Coordinator for Alumni Relations and Development Initiatives position
  - c. **Dr. Edney** was elected vice-president of Association for Instructional Materials, ACTE and he also ran for the position of division VP, New & Related Services, ACTE.
2. Announcements:
  - a. **APR - 2012**
    - i. **Input completed by January 11** (ok, a little secret - I won't run the data until Monday [January 14] morning)
    - ii. **Edits completed by January 18** (sorry, this deadline is solid as our Department information is due on the 22nd).
    - iii. Before January 18:
      - (1) Please complete the 3 "Significant" sections in AIMS as we submit these items to the provost office each year.
      - (2) Verify the accuracy of your AIMS data by using the discrepancy form at the bottom of the AIMS entry page.
      - (3) If your grant(s) are not managed by ALEC, please **provide documentation** that clearly identifies the percentage (and dollar amount/year) of your responsibility to that project.
    - iv. Three days prior to your 2012 APR (yes, you may schedule your APR today):
      - (1) Send Debbie and me your vitae (or just the pertinent 2012 parts [highlight them] of your vitae especially if you have a very large vitae), position description (obtain from Kenny), and your plan of work or goals for 2013 and beyond.
      - (2) For early career personnel please provide me with the name of your mentor and bring your updated professional growth time line/goals (for those who did that last year, simply update your document).
      - (3) Update last year's or send at a minimum one new impact statement that is related to at least one of our posted public value statements (on our website). We will be updating the impact statements on our website. **Note: this trend of documenting our impact/outcomes was encouraged continually during the past year by our administrators and reinforced during the 2013 AgriLife Conference. Remember, productivity does not equal excellence.**
    - v. During your APR:
      - (1) We will look at your research agenda/framework (be ready to share how you use this in your work with graduate students, research, teaching, and engagement), CV, impact statement(s), research skill set, and research topical areas on your faculty page on our web site.
      - (2) We will review your position description.
      - (3) We will create a draft of your APR letter after we review the AIMS. Please bring refereed documents and/or web locations.
  - b. From Julie Svetlik, Corporate Relations: NIFA National Program Leaders encouraged us to have ALEC students apply for the NIFA Fellows Program (RFA will be included in the minutes and link below). With NIFA's increased focus on "Social Science and Economics" (not "Socioeconomics" anymore), they feel that having fellows with social science/leadership/entrepreneurial-type backgrounds in this program would be extremely valuable. If you can identify some candidates, I am happy to assist with proposal prep.

[http://www.nifa.usda.gov/funding/rfas/pdfs/13\\_afri\\_fellowships\\_modified\\_12\\_19.pdf](http://www.nifa.usda.gov/funding/rfas/pdfs/13_afri_fellowships_modified_12_19.pdf)

3. Publications/Presentations:

- a. NACTA Journal 56(4)
    - i. **Leggette, H. R., McKim, B. R., & Dunsford, D.** (Accepted). A case study of using electronic self-assessment rubrics in a core curriculum writing course.
    - ii. Edgar, L., Edgar, D., McGuire, A.\*, **Rutherford, T.**, Doerfert, D., & Murphrey, T. (2012). Crisis Communication Needs Assessment: A Delphi Study to Enhance Instruction for Agricultural Communicators and Other Stakeholders. NACTA Journal 56(4), 52-62.
    - iii. Settle, Q., Doerfert, D. L., Irlbeck, E., Akers, C., Burris, S., Wingenbach, G. W., & Rutherford, T. (2012). The effects of an agricultural communications workshop on self-efficacy and career interest: A comparison between agriculture and non-agriculture students., NACTA Journal 56(4) 71-77.
  - b. Rutherford, T. (2012). Perception meets reality: A case study of faculty and student reflections of participation in the 2011 World (AIAEE) Conference and related activities. Journal of International Agriculture and Extension Education 19(3).
  - c. White, J. & Rutherford, T. (2012). Impact of newspaper characteristics on reporters' agricultural crisis stories: Productivity, story length, and source selection. Journal of Applied Communications 96(3), 88-104.
  - d. Journal of Agricultural Education. Volume 53(4) - Table of Contents
    - i. An Assessment of Students' Perceptions Toward Factors Influencing Supervised Agricultural Experience Participation. **Lauren J. Lewis, John Rayfield, & Lori L. Moore.**
    - ii. Supervised Agricultural Experience: An Examination of Student Knowledge and Participation. **Lauren J. Lewis, John Rayfield, & Lori L. Moore .**
    - iii. Program Evaluation Competencies of Extension Professionals: Implications for Continuing Professional Development. **Megan M. McClure,** Nicholas E. Fuhrman, & A. Christian Morgan.
  - e. Using YouTube to Record Microteaching Lessons in Preservice Teacher Preparation. 2013 Southern Region AAEE Poster. **Erynne Treptow** and **Tim Murphy.**
  - f. **Andrews, K. & Payne, T.:** Using Data Visualization Tools to Demonstrate Extension's Impact. Share Fair Session presented at National Association of Extension Program and Staff Development Professionals 2012 Annual Conference in Denver, CO.
4. Grant Management 101 (should provide 3 out of 4 of these to the Department - meaning faculty become managers or facilitators of the grants).
    - a. Salary Savings (100% to Department [50% - department] and PIs [50%] - restricted discretionary)
    - b. Indirect (40% to be split 60/40 between Department and PIs - discretionary)
    - c. Personnel (project director, support staff, GTAs, etc.)
    - d. Operations (e.g., travel, supplies, copying, printing, etc.)
    - e. Funded:
  5. Dutch treat lunch with Dr. E. -
    - a. Contact Debbie King to schedule and leave a contact number (for rescheduling): January 11, 14, 18, 22, 23, 24, 25, 29, 30, & 31

# Agriculture and Food Research Initiative Competitive Grants Program

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Modifications: Pages 2, 13, 14, 20, 29, 33, & 34.

## NIFA Fellowships Grant Program

*FY 2013 Request for Applications*

*Letter of Intent Deadline: January 17, 2013*

*Application Deadline: March 14, 2013*



United States  
Department of  
Agriculture

National Institute  
of Food and  
Agriculture

**NATIONAL INSTITUTE OF FOOD AND AGRICULTURE  
U.S. DEPARTMENT OF AGRICULTURE**

**AGRICULTURE AND FOOD RESEARCH INITIATIVE COMPETITIVE  
GRANTS PROGRAM  
NIFA FELLOWSHIPS GRANT PROGRAM**

**INITIAL ANNOUNCEMENT**

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE:** This program is listed in the Catalog of Federal Domestic Assistance (CFDA) under 10.310.

**DATES:** A Letter of Intent (LOI) must be submitted by 5:00 p.m. Eastern Time (ET) on **January 17, 2013**. A LOI is a prerequisite to submission of an application. Applications must be submitted via Grants.gov by **5:00 p.m. ET on March 14, 2013**. LOIs or applications received after the deadline will normally not be considered for funding. Comments regarding this request for applications (RFA) are requested within six months from the issuance of this notice. Comments received after this date will be considered to the extent practicable.

**STAKEHOLDER INPUT:** The National Institute of Food and Agriculture (NIFA) is requesting comments regarding this RFA from any interested party. These comments will be considered in the development of the next RFA for the program, if applicable, and will be used to meet the requirements of section 103(c)(2) of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7613(c)(2)). This section requires the Secretary to solicit and consider input on a current RFA from persons who conduct or use agricultural research, education, and extension for use in formulating future RFAs for competitive programs. Written stakeholder comments directed toward this RFA should be submitted in accordance with the deadline set forth in the DATES portion of this notice.

Written stakeholder comments should be submitted by mail to: Policy and Oversight Division; Office of Grants and Financial Management; National Institute of Food and Agriculture; USDA; STOP 2299; 1400 Independence Avenue, SW; Washington, DC 20250-2299; or via e-mail to: [Policy@nifa.usda.gov](mailto:Policy@nifa.usda.gov). (This e-mail address is intended only for receiving comments regarding this RFA and not for requesting information or forms.) In your comments, please state that you are responding to the Agriculture and Food Research Initiative NIFA Fellowships Grant Program RFA.

**EXECUTIVE SUMMARY:** The Department of Agriculture established the Agriculture and Food Research Initiative (AFRI) under which the Secretary of Agriculture may make competitive grants for fundamental and applied research, extension, and education to address food and agricultural sciences (as defined under section 1404 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) (7 U.S.C. 3103)), as amended, in six priority areas. The six priority areas include: 1) plant health and production and plant products; 2) animal health and production and animal products; 3) food safety, nutrition, and health; 4) renewable energy, natural resources, and environment; 5) agriculture systems and technology; and 6) agriculture economics and rural communities.

NOTE: This RFA is being released prior to the passage of an Appropriations Act for fiscal year (FY) 2013. Enactment of Continuing Resolutions or an Appropriations Act may affect the overall level of funding for the AFRI program. Therefore, NIFA reserves the right to amend, delete, or alter any programs outlined in this RFA.

In fiscal year (FY) 2013, it is anticipated that approximately \$264 million will be available to support the AFRI program. Of this amount, no less than 30 percent will be made available to fund integrated research, education, and extension projects.

In FY 2013, it is anticipated that approximately \$6 million will be available to support the NIFA Fellowships Grant Program within AFRI to provide fellowships to outstanding pre- and postdoctoral students in the agricultural sciences. **The program goal is to develop the next generation of research, education, and extension professionals in the food and agricultural sciences.** The AFRI NIFA Fellowships Grant Program is focused on developing technical and functional competence for predoctoral students and the research independence and teaching credentials of postdoctoral students in the agriculture, forestry, and food sciences that are within NIFA's challenge and foundational program areas through well-developed and highly interactive mentoring and training activities.

This notice identifies the objectives for the AFRI NIFA Fellowships Grant Program, the eligibility criteria for projects and applicants, and the application forms and associated instructions needed to apply for the AFRI NIFA Fellowships Grant Program.



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## **PART I – FUNDING OPPORTUNITY DESCRIPTION**

### **A. Legislative Authority and Background**

Section 7406 of the Food, Conservation, and Energy Act of 2008 (FCEA) (Pub. L. 110-246) amends section 2(b) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i(b)) to authorize the Secretary of Agriculture to establish the Agriculture and Food Research Initiative (AFRI); a competitive grant program to provide funding for fundamental and applied research, extension, and education to address food and agricultural sciences. Grants shall be awarded to address priorities in United States agriculture in the following areas:

1. Plant health and production and plant products;
2. Animal health and production and animal products;
3. Food safety, nutrition, and health;
4. Renewable energy, natural resources, and environment;
5. Agriculture systems and technology; and
6. Agriculture economics and rural communities.

To the maximum extent practicable, the National Institute of Food and Agriculture (NIFA), in coordination with the Under Secretary for Research, Education, and Economics (REE), will make grants for high priority research, education, and extension, taking into consideration, when available, the determinations made by the National Agricultural Research, Extension, Education, and Economics Advisory Board (NAREEEAB) pursuant to section 2(b)(10) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i(b)(10)), as amended. The authority to carry out this program has been delegated to NIFA through the Under Secretary for REE.

### **B. Purpose and Priorities**

The purpose of AFRI is to support research, education, and extension work by awarding grants that address key problems of national, regional, and multi-state importance in sustaining all components of agriculture, including farm efficiency and profitability, ranching, renewable energy, forestry (both urban and agroforestry), aquaculture, rural communities and entrepreneurship, human nutrition, food safety, biotechnology, and conventional breeding. Through this support, AFRI advances knowledge in both fundamental and applied sciences important to agriculture. It also allows AFRI to support education and extension activities that deliver science-based knowledge to people, allowing them to make informed practical decisions, and develop the next generation workforce for agriculture, forestry, and food sciences. This AFRI RFA is announcing anticipated funding opportunities for fundamental Research, applied Research, Education, Extension, and Integrated Research, Education, and/or Extension Projects.

Supporting the many components of agriculture under the constraints of a growing population, pressure on natural resources, and the challenges of climate variability and change, requires research, education, extension, and integrated programs that increase agricultural and natural resource sustainability. The term "sustainable agriculture" (NARETPA, 7 U.S.C. 3103) means an integrated system of plant and animal production practices having a site-specific application that

will over the long-term achieve the following goals: 1) Satisfy human food and fiber needs; 2) Enhance environmental quality and the natural resource base upon which the agriculture economy depends; 3) Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls; 4) Sustain the economic viability of farm operations; and 5) Enhance the quality of life for farmers and society as a whole.

The National Research Council Committee on Twenty-First Century Systems Agriculture recently updated and simplified this definition as a four-part goal: satisfy human food, feed, and fiber needs and contribute to biofuel needs; enhance environmental quality and the resource base; sustain the economic viability of agriculture; and enhance the quality of life for farmers, farm workers, and society as a whole. The Committee states that progress toward these goals will require robust systems which adapt to and continue to function in the face of stresses, are productive, use resources efficiently, and balance all four goals across all scales of farms and enterprises. They further state that if the U.S. is to maintain adequate resources to meet food, feed, fiber, and biofuel needs, progress toward meeting the four goals must be accelerated. This acceleration must be based on research that determines ways to reduce tradeoffs and enhance synergies among the four goals while managing risks associated with their pursuit. The Committee's 2010 report, *Toward Sustainable Agricultural Systems in the 21<sup>st</sup> Century*, provides a review of the contributions of farming practices and systems and fields of science that elaborates on these general goals with respect to many of the specific priorities within AFRI programs.

AFRI is intended to promote advances in U.S. agriculture and forestry. Agriculture, however, is increasingly worldwide in scope and reach. To attain AFRI's goals for U.S. agriculture, applicants to Foundational or Challenge Area RFAs may include international partnerships or engagement in proposals as appropriate. Applicants are asked to keep in mind that while international activities supported by AFRI may contribute to Food Security as described in the U.S. Government's Feed the Future Food Security initiative ([www.feedthefuture.gov](http://www.feedthefuture.gov)), **any international activity proposed under AFRI such as partnerships, exchanges, training, trips, etc., must first and foremost support AFRI's domestic program goals.** Applicants must clearly describe and demonstrate how international activities proposed in applications submitted to AFRI will contribute to and support advances in American agriculture.

If international activities (*e.g.*, partnerships, exchanges, travel) are proposed, then applicants shall describe indicators that will be used to assess those activities. Appropriate indicators include but are not limited to those posted at the U.S. Government's Feed the Future Food Security initiative Web site ([www.feedthefuture.gov/progress](http://www.feedthefuture.gov/progress)).

### **AFRI Stakeholder Input**

The programs described herein were developed within the context of the authorized purposes of USDA research, extension, and education projects and activities. In addition, AFRI obtains input from Congress, the NAREEEAB, as well as many university, scientific, and agricultural committees and organizations. NIFA developed a stakeholder's Web page ([www.nifa.usda.gov/business/reporting/stakeholder.html](http://www.nifa.usda.gov/business/reporting/stakeholder.html)) to document stakeholder input that is considered when developing and updating Program Area Descriptions and Priorities each year.

The AFRI program was significantly restructured and refocused in FY 2010 to more effectively address societal challenges while continuing to support foundational agricultural science. A public meeting was held on June 2, 2010, to seek stakeholder comment on the FY 2010 AFRI RFAs prior to revising them for FY 2011. NIFA has once again solicited stakeholder input via a public meeting and 12 program-specific webinars. The public meeting was held on February 22, 2012 and the webinars were held during the months of March and April 2012. NIFA received more than 145 comments from stakeholders, including a wide range of scientific societies, producer associations, universities and other research organizations, policy and advocacy groups, non-profit organizations, and leading scientists in the field of agriculture and food sciences. Collectively, the non-governmental organizations represent over 300,000 stakeholders of interest. A comprehensive analysis was conducted of the written and oral stakeholder input comments received. Categorically, these comments can be clustered into the following: Production Agriculture; Food Safety; Energy, Environment, Natural Resources, and Rural Communities; Bioengineering, Biochemistry, and Plant Health; Health and Obesity; Grantmaking; and Animal Agriculture and Aquaculture.

In general, the broad range of AFRI stakeholders provided overwhelming support for NIFA and the AFRI program. During the in-person stakeholder listening session, 100 percent of the speakers expressed their appreciation for the event and the opportunity to participate. It should be noted that hundreds of e-mails were received from stakeholders indicating their regrets of not being able to attend due to other commitments, the short notification, and lack of financial resources. Overall, stakeholders applauded NIFA for expending the time, effort, and resources to facilitate sessions designed to obtain their feedback, comments, and being responsive to stakeholder input. In addition, almost ten percent of the stakeholders specifically expressed their gratitude for the Administration, USDA, and NIFA's request for an increase in funding for the AFRI program in the FY 2013 budget. Moreover, many supported full funding of the AFRI program to the level indicated in the 2008 Farm Bill. Stakeholders with current and past AFRI projects expressed their appreciation of the goals and mission of the AFRI program. The stakeholders applauded NIFA for its courage and leadership in taking on the diverse, global agricultural and food science issues. In addition, a significant proportion of the stakeholders, 40 percent, expressed in great detail the level of their gratitude of AFRI as a funding source, the competitive grants process, efforts to ensure that AFRI Challenge Area RFAs include basic research and relevant scientific disciplines. Lastly, stakeholders articulated their support for NIFA's partnership initiatives including inter-agency and public-private.

Stakeholders concern exists regarding NIFA's compliance with AFRI authorizing language, the scientifically confining aspects of the RFAs, the funding amount and allocations between the foundational and challenge areas, the benefit and efficacy of Coordinated Agricultural Project (CAP) grants, and the overall AFRI program/project types that are under/not funded. Stakeholders expressed specific trepidation regarding the eligibility criteria for integrated projects that excludes entities beyond colleges and universities as primary recipients. Also, Stakeholders felt that the funding level of the Foundational Program was inadequate and indicated support of an allocation level of up to 50 percent of the AFRI appropriation for that part of the program. Other stakeholders provided input regarding specific AFRI set-aside amounts for program/projects, e.g. organic, classical breeding, water, and bio-technology.

Overall, 30 percent of stakeholders expressed concern that CAP grants are too large. While many of the stakeholders expressed an understanding of the concept and benefit of CAP grants to long-term, interdisciplinary, scientific research, stakeholders encouraged NIFA to reconsider and balance the portfolio and funds attributed to these types of projects. Additionally, stakeholders expressed concerns regarding the overall AFRI program as it pertains to decisions that eliminate and/or suppress investigator, hypothesis-driven scientific discovery, junior faculty award success rates, qualified and diverse panel reviewers, and a disconnect between industry and higher education scientific research.

Stakeholders provided an abundance of recommendations that are proactive and designed to have immediate, beneficial outcomes. The recommendations included the need for NIFA to define its agricultural identity among the federal agencies, improvements to the AFRI Program, current and future investments, and the development of RFAs. Some stakeholders indicated that NIFA was duplicative and/or undistinguishable in its research efforts associated with other federal agencies. However, they were supportive of the need and benefit of leveraging limited resources through inter-agency partnerships. Stakeholders expressed the need for more, smaller innovative awards in the amount of \$1 million dollars and restricting the range of CAP awards to \$10-20 million. Lastly, the recommendations regarding RFAs included expanding and/or clarifying the restrictive language, allowing adequate time to prepare a responsive, comprehensive proposal, systematic and consistent publishing, and associating the request for information to match the size of the award.

In response to the comments received, NIFA will take several actions. The AFRI program will undergo a rigorous external evaluation during the next 24 months to examine a number of issues around NIFA's administration of the program and to assess the quality of the work being supported. Based on the recommendations of the evaluation, as well as comments from stakeholders, NIFA will make changes to program offerings, make adjustments to award sizes, and reconsider the distribution of funds between Challenge Areas and the Foundational Program. The rate at which these changes will occur will depend, in part, on available funding.

NIFA understands that some stakeholders are concerned about priority limitations identified in the AFRI RFAs. NIFA has focused on making critical but essential decisions regarding the scientific reach and impact for each RFA that is published. These decisions included the identification of five Challenge Areas that are relevant and consistent with the priority areas identified in the AFRI legislation. Moreover, these decisions are guided by the NAREEEAB, USDA Strategic Plan, Research, Education, and Economics Action Plan, NIFA Strategic Plan, pertinent industry-related scientific reports, and stakeholder input. In the end, the RFAs reflect a comprehensive, consultative document to address the collective needs of specific scientific issues that notably impact America's agricultural and food system.

Within the stakeholder community, there is a fair amount of concern regarding NIFA's agricultural identity among the federal agencies, specifically as it applies to addressing childhood obesity prevention. NIFA emphasizes the role of foods and whole diets in the prevention of chronic degenerative diseases, while the National Institute of Health, in general, addresses therapeutic aspects. Successful applications to AFRI must align with USDA and NIFA mission, Strategic Plans, and goals. Moreover, the existing REE Action Plan encourages the formal and

informal collaboration with other USDA and Federal agencies, as well as public and private partners. The focus of these partnerships is on a national and international level to ensure our research, education, and extension activities that are representative of current priorities and take advantage of existing knowledge.

NIFA acknowledges the level of concern that exists within a portion of the stakeholder community regarding entities eligible to submit applications for integrated projects. Eligibility for all NIFA programs is established in authorizing legislation. Eligibility to apply to the AFRI program was established in the 2008 Farm and NIFA has adhered to that requirement. Applicants not eligible to directly apply are encouraged to partner with eligible institutions. In addition, NIFA remains committed to engaging small, mid-sized and minority-serving institutions and young scientists in all of its programs. To ensure their participation in AFRI we offer Food and Agriculture Science Enhancement (FASE) grants within all program areas. FASE gives special funding consideration to applications from qualifying schools for even the largest grants, and sets aside 10 percent of AFRI funding for this purpose. FASE-eligible schools are those with enrollments of fewer than 17,500 students, minority-serving institutions, and those in USDA Experimental Program for Stimulating Competitive Research (EPSCoR) states. In addition, AFRI gives special consideration to new faculty with fewer than five years of experience, and offers pre- and post-doctoral fellowships to encourage young scientists to engage in agricultural science.

More detailed comments relevant to each Challenge Area RFA will be published in those RFAs, along with NIFA's responses to those comments.

In FY 2012, NIFA received approximately eight stakeholder comments relevant to the NIFA AFRI Fellowship RFA. Three of the comments centered on eligibility for the predoctoral fellows. The requirements were kept the same as per the guidelines set forth in the Code of Federal Regulations (7 CFR 3430.303). Another comment requested that the program allow international opportunities. The program already allows international opportunities, as long as the proposed project promotes advances in U.S. agriculture and forestry.

Several of the comments were observational; there was not a specific recommendation for the program associated with the feedback. Specifically, two comments addressed the need to fund training grants that are targeted to prepare individuals for careers and funded at an adequate level. This is the purpose of the Fellowship program. A final stakeholder comment pointed out that the shortage of researchers in the food and agriculture sciences is not independent of the lack of knowledge among the generational population about food production. Again, the purpose of the Fellowship program is to strengthen science capabilities in research.

## **Background**

AFRI is one of NIFA's major programs through which to address critical societal issues such as those laid out in the *New Biology for the 21<sup>st</sup> Century: Ensuring the United States Leads the Coming Biology Revolution* report. USDA leadership has integrated the six AFRI priority areas (outlined in Part I, A) with a focus on grand societal challenges broadly identified by the scientific community in reports such as the "New Biology for the 21<sup>st</sup> Century". Leadership in the scientific community has been calling on multidisciplinary efforts, which integrate biological and social science work to help solve grand societal challenges. NIFA work brings the unique

capacity to integrate research, education, and extension in order to enhance the impact of scientific work. USDA science will support the following challenges:

1. Keep American agriculture competitive while ending world hunger;
2. Improve nutrition and end child obesity;
3. Improve food safety for all Americans;
4. Secure America's energy future; and
5. Mitigate and adapt to climate variability and change.

In FY 2010, NIFA released several AFRI RFAs to address these challenges at a meaningful scale and to achieve outcomes of relevance to the societal challenges. These RFAs addressed each of the five challenges, enabled transition and refocusing of grants made previously under AFRI, and provided pre- and postdoctoral fellowship opportunities. These RFAs solicited applications for larger awards for longer periods of time to enable greater collaboration among institutions and organizations and integration of basic and applied research with deliberate education and extension programs.

In FY 2013, AFRI is soliciting projects addressing the above challenges through five separate challenge area RFAs, each addressing one of the challenges. AFRI is also supporting Research and Integrated Project grants in the six AFRI priority areas to continue building a foundation of knowledge in fundamental and applied food and agricultural sciences critical for solving current and future societal challenges. These six foundational programs were announced in a single, separate RFA. In addition, funding opportunities for pre- and postdoctoral fellowship grants are being offered in this single, separate RFA.

#### **NIFA Fellowships Grant Program:**

The FY 2013 AFRI NIFA Fellowship RFA focuses on developing the next generation of research, education, and extension professionals in the food and agricultural sciences who will lead agriculture into the future by solving current and future challenges facing our society. The AFRI NIFA Fellowships Grant Program targets talented, highly-motivated doctoral candidates and postdoctoral trainees that demonstrate remarkable promise and the potential to become gifted education, extension, and research professionals in the United States. The NIFA Fellows are individuals who have the potential for remarkable accomplishments in agricultural science. The Program seeks to develop the technical and academic competence of doctoral candidates and the research independence and teaching competencies of postdoctoral students in the food, forestry and agricultural sciences, which are within NIFA's challenge areas, through well-developed and highly interactive mentoring and training activities. Project types supported by AFRI within this RFA include single-function Research, Education, and Extension Projects and multi-function Integrated Research, Education, and/or Extension Projects.

In addition to AFRI, another source of NIFA funding for fellowships is:

- *Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Grants Program*

Total Program Funds: Approximately \$3.24 million

Information is available at [www.nifa.usda.gov/funding/nnf/nnf.html](http://www.nifa.usda.gov/funding/nnf/nnf.html)



## C. Program Area Description

### Background

The NIFA Fellowships Grant Program responds to the need for expanding the intellectual capital of the STEM (Science, Technology, Engineering, and Mathematics) workforce in areas relevant to USDA priorities identified by the Secretary: (i) Promotion of a safe, sufficient, and nutritious food supply for all Americans and for people around the world; (ii) Sustainable agricultural policies that foster economic viability for small and mid-sized farms and rural businesses, protect natural resources, and promote value-added agriculture; (iii) National leadership in climate change mitigation and adaptation; (iv) Building a modern workplace with a modern workforce; and (v) Support for 21st century rural communities. For more information see <http://www.usda.gov/documents/VilsackLetter.pdf>.

The goal of the AFRI NIFA Fellowships Grant Program is to strongly support the intellectual talent needed to meet the challenges facing the nation's agriculture and food systems. Meeting these challenges will require innovative approaches that foster multi-disciplinary projects. This means that scientists must be educated and prepared to work effectively across disciplines in order to work to solve agricultural and educational challenges. **The goal of this program is to develop the next generation of leaders who will be actively engaged in agriculture, forestry, and food related research, education, and extension careers. NIFA will provide federal assistance through fellowships to emerging pre-and postdoctoral candidates to accomplish this goal.**

The AFRI NIFA Fellowships Grant Program addresses the following AFRI Priority Areas within the 2008 Farm Bill: Plant health and production and plant products; Animal health and production and animal products; Food Safety, nutrition, and health; Renewable energy, natural resources, and environment; Agriculture systems and technology; and Agriculture economics and rural communities.

The NIFA Fellowships Grant Program directly aligns with the USDA Research, Education, and Economics Action Plan ([http://www.ree.usda.gov/ree/news/USDA\\_REE\\_Action\\_Plan\\_02-2012\\_2.pdf](http://www.ree.usda.gov/ree/news/USDA_REE_Action_Plan_02-2012_2.pdf)), and specifically addresses Goal 6 – Education and Science Literacy, by recruiting, cultivating, and developing the next generation of scientists, leaders, and a highly-skilled workforce for food, agriculture, natural resources, forestry, environmental systems, and life sciences to out-educate our global competitors.

Projects are expected to address one of the stated Program Area Priorities which collectively contribute to the achievement of the following objectives:

1. Strengthen the ability of the nation's research, education, and extension community to meet the current and future challenges facing agriculture, forestry and food systems.
2. Develop the technical and academic competence of doctoral candidates.
3. Develop the research independence and teaching credentials of postdoctoral scientists.

In order to achieve these program objectives, the AFRI NIFA Fellowships Grant Program will award fellowships to applicants with:

- a) focused research, education, and/or extension objectives aligned with NIFA's Challenge and/or Foundational Program areas,
- b) well-developed academic experiences,
- c) productive and interactive mentoring, and
- d) appropriate and applicable training activities, so they will be prepared to join the professional workforce.

**Program Areas (Fellowship Categories):**

**1. NIFA Predoctoral Fellowships**

**Program Code – A7101**

**Program Code Name** - AFRI NIFA Fellowships Grant Program: Predoctoral Fellowships

**Letter of Intent Deadline** – **January 17, 2013** (5:00 p.m., ET); see Part IV, A for instructions. Required for all applications.

**Application Deadline** – **March 14, 2013** (5:00 p.m., ET)

**Proposed Budget Requests –**

- Predoctoral Fellowship applications must not exceed \$79,000 total (including institutional allowance) for project periods of up to 2 years. Predoctoral Fellowship Grants are not renewable and are limited to a total of \$39,500 per year, for:
  - stipend support (up to \$20,000 per year);
  - tuition, fees, and fringe benefits (up to \$12,000 per year);
  - supplies needed to complete the project (up to \$5,000 per year);
  - travel (up to \$2,500 per year); and an
  - institutional allowance, in lieu of indirect costs, not to exceed \$2,400 per year, may be requested within the \$79,000 per award maximum limit. Indirect costs are not permitted on Predoctoral Fellowship Grant awards.
- Applications with budget requests exceeding the budgetary guidelines will not be reviewed.

**Requested Project Type** – Research, Education, Extension, or Integrated Projects

**Program Area Contact** – Dr. Ray Ali (202-720-2727; [nifafellows@nifa.usda.gov](mailto:nifafellows@nifa.usda.gov))

**Program Area Priority** – NIFA Predoctoral Fellowships will support Research, Education, Extension, or Integrated Projects that address one or more of the following issues:

- a. Projects aligned with one of the five AFRI Challenge Areas:
  - 1) Agricultural and Natural Resources Science for Climate Variability and Change;
  - 2) Childhood Obesity Prevention;
  - 3) Food Safety;
  - 4) Food Security; and
  - 5) Sustainable Bioenergy.
- b. Projects aligned with one of the six AFRI Foundational areas (see the priorities identified in Part I A.).

**Other Program Area Requirements:**

- **Letters of Intent must be submitted by the predoctoral student.**
- All applications must adhere to the requirements beginning in Part IV.

- The applicant must determine the functional focus of the fellowship (Research, Education, Extension, or Integrated) leading to a doctoral degree.
- The selection of which disciplines to combine to address an issue is to be determined by the prospective applicant in consultation with appropriate mentors.
- Evidence of scholastic achievement (e.g., current doctoral transcript, Graduate Record Exam scores, and other academic successes) must be demonstrated.
- Priority will be given to applications that show a novel and innovative approach that will advance knowledge in targeted discipline(s). Multidisciplinary and interdisciplinary approaches to address NIFA Challenge Areas are encouraged.

## 2. *NIFA Postdoctoral Fellowships*

### **Program Code – A7201**

**Program Code Name** - Post Doctoral Fellowships

**Letter of Intent Deadline** – **January 17, 2013** (5:00 p.m., ET); see Part IV, A for instructions. Required for all applications.

**Application Deadline** – **March 14, 2013** (5:00 p.m., ET)

### **Proposed Budget Requests –**

- Postdoctoral Fellowship applications must not exceed \$150,000 total (including institutional allowance) for project periods of up to 2 years.
- Applications with budget requests exceeding the budgetary guidelines will not be reviewed.
- Postdoctoral Fellowship Grants are limited to a total award of \$150,000 for two-year duration and are not renewable. Funds should be requested primarily for salary support, although other expenditures (e.g., fringe benefits, supplies, travel, workshops, and publication) are allowable costs. Expenditures other than salary support may not exceed \$30,000 per year and must be itemized and properly justified. Institutional allowance, in lieu of indirect costs, not to exceed \$2,400 per year, may be requested within the \$150,000 maximum award limit. Indirect costs are not permitted on Postdoctoral Fellowship Grant awards.

**Requested Project Type** – Research, Education, Extension, or Integrated Projects

**Program Area Contact** – Dr. Ray Ali (202-720-2727; [nifafellows@nifa.usda.gov](mailto:nifafellows@nifa.usda.gov))

**Program Area Priority** – NIFA Postdoctoral Fellowships will support the same projects and issues as the NIFA Predoctoral Fellowships (see section 1. above). Note that the Other Program Area Requirements identified in section 1. apply to NIFA Postdoctoral Fellowships as well.

Although a proposed project may fit in the context of the mentor's existing scientific area, the Postdoctoral Fellowship Grant should initiate an independent scientific program, rather than serve as an extension of ongoing projects in the mentor's laboratory.

## **PART II – Award Information**

### **A. Available Funding**

There is no commitment by USDA to fund any particular application or to make a specific number of awards. In FY 2013, it is anticipated that approximately \$264 million will be available for support of the AFRI Program. Of this amount, no less than 30 percent will be made available to fund integrated research, education, and extension projects. Of the AFRI funds allocated to research activities, section 7406 of the FCEA directs 60 percent toward grants for fundamental (or basic) research and 40 percent toward grants for applied research. Of the AFRI funds allocated to fundamental research, not less than 30 percent will be directed toward research by multidisciplinary teams. It is anticipated that no less than 10 percent of the FY 2013 funds will be made available for Food and Agricultural Science Enhancement (FASE) Grants, and no more than two percent of the funds available for fundamental research will be made available for Equipment Grants.

NOTE: This RFA is being released prior to the passage of an Appropriations Act for FY 2013. Enactment of a Continuing Resolution or an Appropriations Act may affect the overall level of funding for the AFRI program. Therefore, NIFA reserves the right to amend, delete, or alter any programs outlined in this RFA.

In FY 2013, NIFA anticipates that approximately \$6 million will be available for support of the NIFA Fellowships Grant Program.

Awards issued as a result of this RFA will have designated the Automated Standard Applications for Payment System (ASAP), operated by the Department of Treasury's Financial Management Service, as the payment system for funds. For more information see [http://www.nifa.usda.gov/business/method\\_of\\_payment.html](http://www.nifa.usda.gov/business/method_of_payment.html).

### **B. Types of Applications**

#### **1. New Application**

A new application is an application that has not been previously submitted to AFRI. New applications will be reviewed competitively using the evaluation criteria specified in Part V, B.

#### **2. Resubmitted Application**

A resubmitted application is an application that has previously been submitted to AFRI, but was not funded. Project Directors (PD) must respond to the previous panel review summary; see Response to Previous Review, Part IV, B. 3. C. 24. Resubmitted applications must be received by the relevant due dates, will be evaluated in competition with other pending applications in the appropriate area to which they are assigned, and will be reviewed according to the same evaluation criteria (Part V, B) as New Applications. Applications which appear to be resubmissions (regardless of the designation) are regarded as such by the program and the panel and compete on the same basis with all other applications submitted to the Program Area at the same time.

Unfunded applicants from the FY 2012 AFRI NIFA Fellowships RFA may resubmit applications to the appropriate Fellowship Category within this RFA.

## C. Project Types

### 1. Research Projects

Single-function Research Projects support fundamental or applied research conducted by the individual applicant who acts as the Project Director works with a mentor within the same discipline or as part of a multidisciplinary team.

**Fundamental research** means research that (i) increases knowledge or understanding of the fundamental aspects of phenomena and has the potential for broad application and (ii) has an effect on agriculture, food, nutrition, or the environment.

**Applied research** means research that includes expansion of the findings of fundamental research to uncover practical ways in which new knowledge can be advanced to benefit individuals and society.

**Multidisciplinary** projects are those in which investigators from two or more disciplines collaborate closely to address a common problem. These collaborations, where appropriate, may integrate the biological, physical, chemical, or social sciences.

### 2. Education Projects

Single-function Education Projects develop human capital relevant to overall program goals for U.S. agriculture, forestry, and food science. An education activity or teaching activity is formal classroom instruction, laboratory instruction, and practicum experience in the food, forestry, and agricultural sciences and other related matters such as faculty development, student recruitment and services, curriculum development, instructional materials and equipment, and innovative teaching methodologies.

The applications for Education Projects may include any of the following activities: conducting classroom and laboratory instruction and practicum experience; development of cutting-edge agricultural science and technology curriculum; creation of practices for innovative teaching methodologies; development of innovative instructional materials; development of novel education delivery systems; development of advanced student experiential learning methodologies or processes (student led-research; internships; externships; clinics) that include student learning styles and student-centered instruction; development of unique student recruitment and retention efforts and strategies; career planning materials and counseling; development of faculty development programs; development of modules for on-the-job training; providing knowledge and skills for professionals creating policy or transitioning to the agriculture workforce; creative faculty and student exchanges strategies; and student study abroad and/or international research opportunities relevant to overall program goals for U.S. agriculture. The activities for Education Projects must show direct alignment with increasing technical and academic

competencies in AFRI Priority Area(s) to ensure that the U.S. remains globally competitive in the knowledge age.

Education Projects should address one or both of the following key strategic actions:

- 1) Training students for Associate, Baccalaureate, Master's or Doctoral degrees; and/or
- 2) Preparing K-12 teachers and higher education faculty to enhance their understanding and, therefore, the teaching of agriculture, forestry, and food sciences.

These projects should lead to measurable, documented changes in learning, actions, or conditions in an identified audience or stakeholder group. These projects should synthesize and incorporate a wide range of the latest relevant research results.

### **3. Extension Projects**

Single-function Extension Projects conduct programs and activities that deliver science-based knowledge and informal educational programs to people, enabling them to make practical decisions. Program delivery may range from community-based to national and from face-to-face to electronic or combinations thereof. Extension Projects may also include related matters such as certification programs, in-service training, client recruitment and services, curriculum development, instructional materials and equipment, and innovative instructional methodologies appropriate to informal educational programs.

- Extension Projects should involve a series of connected learning activities that engage the public in practical problem solving. Programming should be more than a one-time event, a single publication, a one-dimensional activity, or a general public awareness campaign. Together, informal learning activities should be elements in a curriculum-based program that has learning goals and objectives.
- Extension Projects should be connected to both 1) scientific-research based information and 2) science-based teaching techniques and informal education principles.
- AFRI encourages “community-based” Extension Projects. Community-based programming ranges from a single town to a county, collection of counties, state, or region. Applications with leadership from campus-based faculty specialists that incorporate programming/work of local agents are highly desirable.
- AFRI encourages Extension Projects that develop content suitable for delivery through eXtension. This content is for “end users” as opposed to staff development and must follow the eXtension Guiding Principles and guidelines for including eXtension in a proposal presented at [http://about.extension.org/wiki/NIFA\\_RFA\\_Information](http://about.extension.org/wiki/NIFA_RFA_Information). Funds may be used to 1) enhance an existing Community of Practice or 2) to establish a new Community of Practice, as appropriate.

Extension Projects address one or more of the following key strategic actions:

- 1) Support informal education to increase food and agricultural literacy of youth and adults;
- 2) Promote science-based agricultural literacy by increasing understanding and use of food and agricultural science data, information, and programs;
- 3) Build science-based capability in people to engage audiences and enable informed decision making;

- 4) Develop new applications of instructional tools and curriculum structures that increase technical competency and ensure global competitiveness;
- 5) Offer non-formal learning programs that increase accessibility to new audiences at the rate at which new ideas and technologies are tested and/or developed at the community-scale; and
- 6) Develop programs that increase public knowledge and citizen engagement leading to actions that protect or enhance the nations' food supply, agricultural productivity, environmental quality, community vitality, and/or public health and well-being.

These projects should lead to measurable, documented changes in learning, actions, or conditions in an identified audience or stakeholder group. These projects should synthesize and incorporate a wide range of the latest relevant research results.

#### **4. Integrated Research, Education, and/or Extension Projects**

An Integrated Project includes at least two of the three functions of the agricultural knowledge system (*i.e.*, research, education, and extension) within a project, focused around a problem or issue. The functions addressed in the project should be interwoven throughout the life of the project and act to complement and reinforce one another. The functions should be interdependent and necessary for the success of the project and no more than two-thirds of the project's budget may be focused on a single component.

- 1) The proposed **research** component of an integrated project should address knowledge gaps that are critical to the development of practices and programs to address the stated problem.
  - 2) The proposed **education** (teaching and teaching-related) component of an Integrated Project should follow the same scope and principles as Education Projects.
  - 3) The proposed **extension** component of an Integrated Project should follow the same scope and principles as Extension Projects.
- Integrated Projects aim to resolve today's problems through the application of science-based knowledge and address needs identified by stakeholders. Integrated Projects clearly identify anticipated outcomes and have a plan for evaluating and documenting the success of the project

Integrated Project applicants are encouraged to review [www.nifa.usda.gov/funding/integrated/integrated.html](http://www.nifa.usda.gov/funding/integrated/integrated.html) for additional information on integrated programs, including tips for writing Integrated Project applications and an example of an integrated application.

#### **D. Responsible and Ethical Conduct of Research**

The responsible and ethical conduct of research (RCR) is critical for excellence, as well as public trust, in science and engineering. Consequently, education in RCR is considered essential in the preparation of future scientists. In accordance with sections 2, 3, and 8 of 7 CFR Part 3022, institutions that conduct extramural research funded by USDA must foster an atmosphere

conducive to research integrity, bear primary responsibility for prevention and detection of research misconduct and are to maintain and effectively communicate and train their staff regarding policies and procedures. In the event an application to NIFA results in an award, the AOR assures, through acceptance of the award that the institution will comply with the above requirements. Per award terms and conditions, grant recipients shall, upon request, make available to NIFA the policies and procedures as well as documentation to support the conduct of the training.

Note that the training referred to herein shall be either on-campus or the Collaborative Institutional Training Initiative (CITI) program for RCR (<https://www.citiprogram.org/rcrpage.asp>). The general content of the ethics training, at a minimum, will emphasize three key areas of research ethics: authorship and plagiarism, data and research integration and reporting misconduct. Each institution will be responsible for developing its own training system, as schools will need flexibility to develop training tailored to their specific student needs. Typically RCR education addresses the topics of: Data Acquisition and Management - collection, accuracy, security, access; Authorship and Publication; Peer Review; Mentor/Trainee Responsibilities; Collaboration; Conflict of Interest; Research Misconduct; Human Subject Research; and Use of Animals in Research.



## **PART III – ELIGIBILITY INFORMATION**

### **A. Eligible Applicants**

**It is highly encouraged that applications be submitted through the mentor's institution with the mentor institution listed as the applicant (see Part IV, B.1.).** Eligible mentor institutions include: (1) State Agricultural Experiment Stations; (2) colleges and universities (including junior colleges offering associate degrees or higher); (3) university research foundations; (4) other research institutions and organizations; (5) Federal agencies, (6) national laboratories; (7) private organizations or corporations; (8) any group consisting of two or more entities identified in (1) through (7). Eligible institutions do not include foreign and international organizations.

The student applying for the fellowship may opt to submit the application on his/her own behalf. If such an application results in an award, the student, in accepting the grant award will be certifying that he/she will ensure stewardship of Federal funds, will manage all aspects of the project in accordance with sound practices, and will comply with all applicable laws and regulations and the terms and conditions of the grant award.

The individual (i.e., student) seeking support via the application (whether as the applicant or through the mentor institution) must be a citizen, national, or permanent resident of the United States as defined in Part VIII (note that this does not preclude the individual from doing all or part of the proposed work at a non-United States organization). In addition, the following requirements apply as noted:

**Predoctoral Student:** The individual must have advanced to candidacy, as per institutional requirements, by **March 14, 2013**, and provide documentation from the graduate advisor or the institution by the application deadline. **The intent of the NIFA Pre-doctoral Fellowship Program is to support current doctoral students who are at the stage of conducting dissertation research, ultimately leading to completion of the dissertation and respective terminal degree.** Predoctoral students, inclusive of those with Baccalaureate and/or Masters degrees, who meet the aforementioned criteria, may apply.

**Postdoctoral Student:** All doctoral degree requirements must be satisfied no earlier than January 1, 2010 and no later than **December 14, 2013**, and provide documentation from the graduate advisor/graduate committee or the institution by the application deadline.

### **B. Cost Sharing or Matching**

**If a funded project** is commodity-specific and not of national scope, the grant recipient is required to match the USDA funds awarded on a dollar-for-dollar basis from non-Federal sources with cash and/or in-kind contributions.

## **PART IV – APPLICATION AND SUBMISSION INFORMATION**

### **A. Letter of Intent Instructions**

A Letter of Intent is required and is a prerequisite for submission of an application. The Letter of Intent must be submitted by the student and adhere to the following guidelines:

1. Font size must be at least 12 point;
2. Margins must be at least one inch in all directions;
3. Line spacing must not exceed six lines of text per vertical inch;
4. Limited to **two pages** in length;
5. Include only the following information:
  - a. Name, professional title, department, institution and e-mail address of the applicant;
  - b. Name, professional title, department, and institution of one primary mentor (more than one if Integrated project only);
  - c. As applicable, name, professional title, department, and institution of collaborating mentors (non-primary);
  - d. Indicate if this is a pre- or postdoctoral application;
  - e. Applicant's goals and objectives of career development;
  - f. Brief description of the potential impacts and expected outcomes on the applicant's development into a productive independent leader in an agriculture-related field;
  - g. Indicate the project type (*i.e.*, Research, Education, Extension, or Integrated Project);
  - h. A descriptive title;
  - i. A list of key words;
  - j. Project rationale – briefly, but specifically, explain how the proposed project is linked to at least one of the NIFA Challenge Areas and/or Foundational Programs; and
  - k. Objectives of the proposed project.
6. **NIFA requires the letter of intent to be in portable document format (PDF).**

### **B. Electronic Application Package and Content and Form of Application Submission**

Only electronic applications may be submitted via Grants.gov to NIFA in response to this RFA. Prior to preparing an application, it is suggested that the PD first contact an Authorized Representative (AR) to determine if the organization is prepared to submit electronic applications through Grants.gov. If the organization is not prepared, the AR should see [http://www.grants.gov/applicants/get\\_registered.jsp](http://www.grants.gov/applicants/get_registered.jsp) for steps for preparing to submit applications through Grants.gov.

The steps to access application materials are as follows:

1. In order to access, complete and submit applications, applicants must download and install a version of Adobe Reader compatible with Grants.gov. This software is essential to apply for NIFA Federal assistance awards. For basic system requirements and

download instructions, please see [http://www.grants.gov/help/download\\_software.jsp](http://www.grants.gov/help/download_software.jsp). To verify that you have a compatible version of Adobe Reader, Grants.gov established a test package that will assist you in making that determination. Grants.gov Adobe Versioning Test Package: <http://www.grants.gov/applicants/AdobeVersioningTestOnly.jsp>.

2. The application package must be obtained via Grants.gov. Go to <http://www.grants.gov>, click on “Apply for Grants” on the left navigation menu, click on “**Step 1: Download a Grant Application Package and Instructions**,” enter the Funding Opportunity Number **USDA-NIFA-AFRI-004031** in the appropriate box, and click “Download Package.” From the search results, click “Download” to access the application package.

Contained within the application package is the “NIFA Grants.gov Application Guide: A Guide for Preparation and Submission of NIFA Applications via Grants.gov.” This Guide contains an introduction and general Grants.gov instructions, information about how to use a Grant Application Package in Grants.gov, and instructions on how to complete the application forms.

If assistance is needed to access the application package (e.g., downloading or navigating Adobe forms), refer to resources available on the Grants.gov Web site first. Grants.gov assistance is also available as follows:

Grants.gov customer support

Toll Free: 1-800-518-4726

Business Hours: 24 hours a day, 7 days a week. Closed on [Federal Holidays](#)

Email: [support@grants.gov](mailto:support@grants.gov)

See <http://www.nifa.usda.gov/funding/electronic.html> for additional resources for applying electronically.

### **Content and Form of Application Submission**

Electronic applications must be prepared following Parts V and VI of the document entitled “A Guide for Preparation and Submission of NIFA Applications via Grants.gov.” This guide is part of the corresponding application package (see section B. of this Part). The following is **additional information** needed in order to prepare an application in response to this RFA. If there is discrepancy between the two documents, **the information contained in this RFA is overriding**.

All application information provided herein is general for all Project and Grant Types. However, some types require different information. These differences are noted by a ☼ symbol. Proper preparation of an application will assist reviewers in evaluating the merits of each application in a systematic, consistent fashion.

### **Attachment Requirements**

**Note the attachment requirements (e.g., portable document format) in Part III section 3. of the Guide. ANY PROPOSALS THAT ARE NON-COMPLIANT WITH THE REQUIREMENTS (i.e., content format, pdf file format, file name restrictions, and no password protected files) WILL BE AT RISK OF BEING EXCLUDED FROM NIFA**

**REVIEW. Partial applications will be excluded from NIFA review. With documented prior approval, subsequent submissions of an application will be accepted until close of business on the closing date in the RFA.**

In addition to the formatting requirements noted in Part III section 3. of the Guide, submitted PDF documents must adhere to the following formatting guidelines:

- Line spacing must not exceed six lines of text per vertical inch
- Follow the page limitations for each attachment
- Title each attachment in the document header and save each file with the referenced name

**If you do not own PDF-generating software, Grants.gov provides online tools to assist applicants. Users will find a link to “Convert Documents to PDF” on [http://grants.gov/help/download\\_software.jsp#pdf\\_conversion\\_programs](http://grants.gov/help/download_software.jsp#pdf_conversion_programs).**

**For any questions related to the preparation of an application** please review the NIFA Grants.gov Application Guide and the applicable [request](#) for applications. If assistance is still needed for preparing application forms content, contact:

- Email: [electronic@nifa.usda.gov](mailto:electronic@nifa.usda.gov)
- Phone: 202-401-5048

Business hours: Monday through Friday, 7:00 am – 5:00 pm Eastern Time, excluding Federal holidays.

### **1. SF 424 R&R Cover Sheet**

Instructions related to this form are explained in detail in Part V, 2. of the NIFA Grants.gov Application Guide.

- Field 5. Enter Applicant Information** – The applicant may be the mentor institution or an individual (see Part III, A.).
- Field 12. Proposed Project** – For the start date of the project, select a date at least six months after the submission deadline date for the program. Choose the end date to correspond to the correct duration of the project.
- Field 14. Enter Project Director/Principal Investigator Contact Information** – The student is to be listed as the Project Director/Principal Investigator.
- Field 17. Complete Certification** – **If the application is submitted through an institution, the application must be endorsed by the AR who possesses the necessary authority to commit the applicant's time and other relevant resources. If the application is submitted by the individual, the individual must endorse the application.**
- Field 20. Pre-application** – Do not fill out this portion of the form.

### **2. SF 424 R&R Project/Performance Site Location(s)**

Instructions related to this form are explained in detail in Part V, 3. of the NIFA Grants.gov Application Guide.

### **3. R&R Other Project Information**

Instructions related to this form are explained in detail in Part V, 4. of the NIFA Grants.gov Application Guide.

**a. Field 1 and 2. Are Human Subjects Involved? and Are Vertebrate Animals Used?**

Applicants whose research requires use of human subjects or vertebrate animals must have their project reviewed by the appropriate committee(s) at the institution where the research will be conducted.

**b. Field 7. Project Summary/Abstract – PDF Attachment.** The following are instructions are in addition to those included in section 4.7 of Part V of the NIFA Grants.gov Application Guide. Title the attachment as ‘Project Summary’ in the document header and save file as ‘ProjectSummary’.

The Project Summary **must** indicate the following:

- a) the names and institutions of the PD and Primary Mentor (more than one if Integrated project only);
- b) predoctoral or postdoctoral application;
- c) project type (education, extension, research, or integrated), and
- d) the specific FY 2013 Challenge Area and/or Foundational Program Area the proposed project addresses.

The Project Summary should be a short, concise description of the research, education, and/or extension project to be pursued in the applicant's proposed doctoral problem to be studied or postdoctoral training. The summary should also include the relevance of the project to the goals of AFRI NIFA Fellowships Grant Program.

**c. Field 8. Project Narrative – PDF Attachment. 6-10-Page Limit. Title the attachment as ‘Project Narrative’ in the document header and save file as ‘ProjectNarrative’.**

For Predoctoral Grant applications, the Project Narrative section may not exceed a total of **six** pages, including all figures and tables. For Postdoctoral Grant applications, the Project Narrative section may not exceed a total of **ten** pages, including all figures and tables. All applications must have 12-point font and line spacing not exceeding six lines of text per vertical inch.

To ensure fair and equitable competition, applications exceeding the applicable page limitation will not be reviewed.

**Project Narrative must include all of the following:**

- 1) Response to Previous Review (if applicable)  
This requirement only applies to Resubmitted Applications as described in Part II, B and is to include two components: 1) a one-page response to the previous review panel summary titled “Response to Previous Review” included as the first page of the Project Narrative attachment and 2) the six- or ten-page Project Narrative.

2) Training/Career Development Plan

The Training/Career Development Plan is a description of all activities that applicant plans to perform and participate in that will enhance the pre- or postdoctoral training during the fellowship award period.

- a) For Predoctoral Fellowship applicants, a Training/Career Development Plan should include their personal statement addressing future career directions or preparation for entering the workforce, overall career goals and objectives, as well as how, if awarded, the fellowship will allow them to accomplish their professional goals and objectives. Any other training objectives should be included. Predoctoral students may also include any extension and educational activities (e.g., teaching in formal or informal settings) to enhance their career development that will be undertaken during their doctoral training.
- b) For Postdoctoral Fellowship applicants, a Training/Career Development Plan includes plans for transition to career independence by development of professional skills that include teaching competencies; what those career and training goals are; and results of the postdoctoral fellow's previous and current research and scholarships that include publications, presentations, etc.

3) Mentoring Plan

The applicants are expected to engage their mentors and/or advisors in the development of their application. Thus, prior to submission of the application, prospective fellows should already identify a Primary mentor who will be willing to help them in their projects as well as professional development (note: more than one Primary Mentor is acceptable for Integrated Projects Only). If there are other collaborating mentors, their role and responsibilities to the project and development of the applicant's skills should be clearly described. For predoctoral applications, if the primary mentor is not the student's graduate advisor or laboratory sponsor, the relationship between advisor's work and the primary mentor's research should be clearly defined, and the contribution of each individual in the student's project as well as degree completion should be included. Because this is a very important component of the project, the commitment of the mentor(s) is included in the evaluation criteria as it pertains to project personnel. In describing the role of the mentor, the proposal should:

- a) Briefly indicate how the mentoring and educational training will add to the skill sets of the NIFA Fellow.
- b) Briefly explain the commitment of the primary mentor.
- c) Briefly describe the role of collaborating mentors (if applicable).
- d) With respect to the Primary Mentor, provide a list of former mentees and their current positions.

**NOTE: The Primary Mentor shall submit a letter of commitment (as an attachment to Field 12, Other Attachments, of the Other Project Information form-see section g. below) explicitly indicating their respective responsibilities throughout the proposed project in relation to the Project Director.**

- e) Briefly list and explain the role of other non-primary mentors.

4) Project Plan

Predoectoral Applicants: It is expected that pre-doctoral students will be working with a primary mentor or advisor who has funded research and that the fellow may work

on another aspect of this research. Moreover, the mentor/advisor will already have the facilities, equipment, technologies and methodologies for the projects developed with the fellow. Experimental methods, especially if these are routinely or generally used, do not need detailed description. However, sufficient details on the experimental approach or strategy as well as pitfalls must be provided to allow assessment of feasibility of study. The Project scope should be within the 2-year timeframe of the fellowship.

Postdoctoral Applicants: The research should be totally independent of the mentor's. Proven techniques and technologies as part of the experimental approach, especially if these are routinely employed, don't have to be provided in detail. Experimental approaches or strategies including possible pitfalls and alternatives must be provided in order to assess the overall feasibility of the proposed study. Avoid open-ended screens or undefined outcomes. The scope of the project should be within the 2-year timeframe.

a) Introduction. The introduction should include a well-defined problem, a clear statement of the long-term goal(s), and supporting objectives of the proposed project. Summarize the body of knowledge or other past activities that substantiate the need for the proposed project. Describe ongoing or recently completed activities related to the proposed project including the work of key project personnel. Include preliminary data/information pertinent to the proposed work. All works cited should be referenced (see Bibliography & References Cited-.3-see section d. below).

b) Rationale and Significance

- Concisely present the rationale behind the proposed project and how it will advance the current knowledge in the field;
- Clearly describe the specific relationship of the project's objectives to one of the Program Area Priorities. The Program Area Priority(ies) must be specifically identified ; and
- Describe how the proposed curricular activities (predoctoral) will support educational goals and project activities.

c) Approach

Provide a concise description of the proposed project and the problem(s) to be addressed. Clearly describe the approaches to be used. Specifically, this section must include:

- A description of the project details proposed and the sequence in which the activities are to be performed;
- Methods to be used in carrying out the proposed project and feasibility of the methods (detail only if a new and unproven method is to be used; if employing commonly used methods provide information on the expertise available);
- Expected outcomes and outcome measures;
- Means by which results will be analyzed, assessed, or interpreted;
- How results or products will be used;
- Pitfalls that may be encountered, and possible alternatives;
- Limitations to proposed procedures;

- A full explanation of any materials, procedures, situations, or activities related to the project that may be hazardous to personnel, along with an outline or precautions to be exercised to avoid or mitigate the effects of such hazards;
- A timeline for attainment of objectives and for production of deliverables that includes annual milestones with specific, measurable outcomes; and
- Establishment of a profile on an established professional social networking site to document career progress during and beyond the term of the Fellowship.

5) Evaluation Plan

- a) A plan for evaluating progress toward achieving project objectives. The plan must include milestones, which signify the completion of a major deliverable, events, or accomplishment and serve to verify that the project is on schedule and on track for successful conclusion. The plan should also include descriptions of indicators that will be measured to evaluate whether the education activities are successful in achieving project goals and contribute to the achievement of the stated program goals and outcomes; and a dissemination plan describing the methods that will be used to communicate findings and project accomplishments.

☼ For Education Project Applications – In addition to the Project Narrative requirements above, the proposed Education Project should clearly articulate:

- The potential for advancing the quality of education by addressing a specific problem or opportunity; and
- The target audience and the level of education addressed.

☼ For Extension Project Applications –

- In addition to the Project Narrative requirements above, the proposed Extension Project should give emphasis to scholarly principles of engagement and outreach that clearly articulate:
  - The importance of informal education to address a specific local problem or issue;
  - The theoretical basis of informal outreach methods used;
  - Development and/or implementation of a curriculum-based series of connected learning activities (including educational materials) that engage the public in practical problem solving;
  - A plan for evaluating progress toward achieving project objectives. The plan must include milestones, which signify the completion of a major deliverable, event, or accomplishment and serve to verify that the project is on schedule and on track for successful conclusion;
  - The plan should also include descriptions of indicators that you will measure to evaluate whether the extension activities are successful in achieving project goals and in contributing to achievement of the stated program goals and outcomes; and
  - A dissemination plan describing the methods that will be used to communicate findings and project accomplishments.

☼ For Integrated Project Applications –

- In addition to the Project Narrative requirements above, the proposed Integrated Project should clearly articulate:



- Stakeholder involvement in project development, implementation, and evaluation, where appropriate;
- Objectives for each function included in the project (note that extension and education activities are expected to differ and to be described in separate project objectives; see enumerated descriptions in Part II, C (page 7); and
- A dissemination plan describing the methods that will be used to communicate findings and project accomplishments.
- A plan for evaluating progress toward achieving project objectives must be included. The plan must include milestones, which signify the completion of a major deliverable, event, or accomplishment and serve to verify that the project is on schedule and on track for successful conclusion. The plan should also include descriptions of indicators that you will measure to evaluate whether the research, education, and/or extension activities are successful in achieving project goals and in contributing to achievement of the stated program goals and outcomes.

**d. *Field 9. Bibliography & References Cited – PDF Attachment. No Page Limit.*** Title the attachment as ‘Bibliography & References Cited’ in the document header and save file as ‘BibliographyReferencesCited’.

All work cited in the text should be referenced in this section of the application. All references must be complete; include titles and all co-authors; conform to an acceptable journal format; and be listed in alphabetical order using the last name of the first author or listed by number in the order of citation.

**e. *Field 10. Facilities & Other Resources – PDF Attachment. No Page Limit.*** Title the attachment as ‘Facilities & Other Resources’ in the document header and save file as ‘FacilitiesOtherResources’.

**f. *Field 11. Equipment – PDF Attachment. No Page Limit.*** Title the attachment as ‘Equipment’ in the document header and save file as ‘Equipment’.

Provide documentation that arrangements have been made for the necessary equipment for conduct of the research. Items of nonexpendable equipment necessary to conduct and successfully complete the proposed project for which funds are requested to purchase should be listed in Field C. of the R&R Budget and described in the Budget Justification (see section 6. below).

**g. *Field 12. Other Attachments***

The following instructions are in addition to those noted in Part V 4.12 of the NIFA Grants.gov Application Guide

- 1) ***Key Personnel Roles – PDF Attachment. 2-Page Limit.*** Title the attachment as ‘Key Personnel’ and save file as ‘KeyPersonnel’.

Clearly describe the roles and responsibilities of the PD, collaborator(s), mentor(s) *etc.* (biographical sketches for key personnel including mentor(s) should not be included here). If it will be necessary to enter into formal consulting or collaborative arrangements with others, such arrangements should be fully explained and justified. Evidence (letters of support) for this type of collaboration should be provided in the ‘Documentation of Collaboration’ attachment (see item 2) below).

- 2) *Mentor Letter, Reference Letters, and Documentation of Collaboration* – **PDF Attachment. No Page Limit.** Title the attachment as ‘Documentation of Collaboration’ in the document header and save file as ‘Collaboration’.

Primary Mentor Letter of Commitment – One Primary Mentor letter is required. If there is more than one Primary Mentor (Integrated Projects Only), a Primary mentor letter should be provided for each. The mentor letter(s) should indicate:

- a) the quality of the applicant in regards to their ability to develop into a leader in agriculture;
- b) the applicant’s oral and written communication skills and critical and analytical skills;
- c) the applicant’s level of intellectual independence;
- d) the role of the student and mentor in the development of the application;
- e) **their respective committed responsibilities throughout the proposed project in relation to the Project Director;**
- f) a statement that the research by the applicant is independent and not an extension of the mentor’s research (for postdoctoral applicants only); and
- g) any other pertinent and relevant information to indicate the applicant is deserving of being awarded a prestigious NIFA Fellowship.

Collaborating Mentor Letters – As applicable, the other mentor letter(s) should generally comment on items a) through d), f), and g) of the Primary Mentor Letter of Commitment noted above. .

Reference Letter(s) – No more than 3 reference letters are required. Letters should not come from identified mentors, but must be obtained from other individuals who know the applicant well and can substantially speak towards the candidate’s academic and research accomplishments and ability to complete the doctoral degree program, or undertake an independent postdoctoral research, education, extension, or integrated project. Reference letters should be no longer than 1 page.

Academic Standing – For predoctoral applications, documentation from the graduate advisor/graduate committee or the institution indicating that the applicant has advanced to candidacy, as per institutional requirements, by **March 14, 2013**. For postdoctoral applications, documentation from the graduate advisor/graduate committee or the institution that all doctoral degree requirements were satisfied no earlier than January 1, 2010 or will be satisfied no later than **December 14, 2013**;

Evidence, *e.g.*, letter(s) of support, should be provided that the collaborators involved have agreed to render services. The applicant also will be required to provide additional information on consultants and collaborators in the budget portion of the application.

- 3) *Preprints* – **PDF Attachment. Limited to 2 preprints.** Title the attachment as ‘Preprints’ in the document header and save file as ‘Preprints’.

Preprints related to the Project Narrative are allowed if they are directly germane to the proposed project. Information may not be appended to an application to circumvent page limitations prescribed for the Project Narrative. To ensure fair and equitable competition, applications exceeding the applicable page limitation will not be reviewed. Only manuscripts in press for a peer-reviewed journal will be accepted and must be accompanied by letters of acceptance from the publishing journals). Preprints attached in support of the application should be **single-spaced**. Each preprint must be identified with the name of the submitting organization, the name of the PD, and the title of the application.

#### 4. **R&R Senior/Key Person Profile**

Instructions related to this form are explained in detail in Part V, 5. of the NIFA Grants.gov Application Guide.

- a. ***Project Role Field*** – Complete appropriately.

☼ For Predoctoral Fellowship Grant Applications – **The predoctoral student must be the sole PD listed on the application. The mentor should not be listed as a co-PD.** Select “Graduate Student” for the Predoctoral Fellowship applicant. Select “Other (Specify)” for the corresponding scientific mentor(s).

☼ For Postdoctoral Fellowship Grant Applications – **The postdoctoral student must be the sole PD listed on the application. The mentor should not be listed as a co-PD.** Select “Post Doctoral” for the Postdoctoral Fellowship applicant. Select “Other (Specify)” for the corresponding scientific mentor(s).

- b. ***Other Project Role Category Field*** – Complete appropriately, if applicable.

Enter “Mentor” for corresponding scientific mentor(s).

- c. ***Attach Biographical Sketch Field*** – **PDF Attachment. 2-Page Limit** (excluding publications listings). Title the attachment as ‘Biographical Sketch’ in the document header and save file as ‘BiographicalSketch’.

The Biographical sketch of the applicant must include the following information:

- a) Activities that demonstrate scholastic achievement and excellence. These may include but are not limited to academic indicators, awards, honors, publications,

- presentations, professional society membership, etc. and other metrics that demonstrate scholastic achievement and excellence.
- b) Predoctoral applicants must include Grade Point Average (GPA) and Graduate Record Exam (GRE) scores.
  - c) Postdoctoral applicants must include date of completion of the terminal degree.

The Biographical sketch of the Primary mentor (more than one Primary Mentor if integrated project only) should include the number of mentees mentored at least for the last 5 years.

**d. *Attach Current and Pending Support Field – PDF Attachment. No Page Limit.*** Title the attachment as ‘Current and Pending Support’ in the document header and save file as ‘CurrentPendingSupport’.

Current and Pending Support for both the pre- or postdoctoral applicant and the scientific mentor(s) (as documentation of on-going work in the mentor's laboratory) must be completed.

Current and Pending Support information is only required for the PD (i.e., the student) and the primary mentor. **It is expected that at the time of the award, Fellows are required to carry out their projects and training on a full-time basis, normally defined as 40 hours per week or as specified by the sponsoring institution in accordance with its own policies.**

**As an addendum to the Current and Pending Support, provide a brief summary for any completed, current, or pending projects that appear similar to the current application.**

## **5. R&R Personal Data**

Instructions related to this form are explained in detail in Part V, 6. of the NIFA Grants.gov Application Guide.

## **6. R&R Budget**

Instructions related to this form are explained in detail in Part V, 7. of the NIFA Grants.gov Application Guide.

**a. Budget Periods.** Applications must contain a budget for each budget period; a cumulative budget will automatically be generated.

If a Pre- or Postdoctoral Fellowship Grant application is funded, the Project Director (Fellow) will be required to attend one AFRI NIFA Fellows Project Directors’ meeting in Washington, DC during the performance period of the award. Reasonable travel expenses should be included as part of the project budget. As part of the fellows’ professional development, attendance to other scientific or professional meetings is encouraged, but the fellows must attend at least one Project Directors’ meeting during the time of support. Reasonable travel expenses should be included as part of the project budget.

**See Part I C. for limitation of budget amounts, use of funds, and budget periods.**

☼ For Extension Project Applications – Projects that include partnering with eXtension must include financial support for the Community of Practice core functions as well as project-specific activities.

☼ For Integrated Project Applications – Projects that include partnering with eXtension must include financial support for the Community of Practice core functions as well as project-specific activities.

**b. Subcontract Arrangements.** If it will be necessary to enter into a formal subcontract agreement with another institution, financial arrangements must be detailed in the “R&R Subaward Budget Attachment(s) Form.” Annual and cumulative budgets and a budget justification are required for each subcontract agreement. Refer to Part V, 8. of the NIFA Grants.gov Application Guide for instructions on completing this form.

**c. Field H. Indirect Costs** – Indirect costs are not allowed on NIFA Pre- and Postdoctoral Fellowship Grants.

**d. Field K. Budget Justification – PDF Attachment. No Page Limit. Title the attachment as ‘Budget Justification’** in the document header and save file as ‘BudgetJustification’.

If consulting, collaborative, or subcontractual arrangements are included in the application, these arrangements should be fully explained and justified. The rate of pay for any consultant must be included, if known at the time of application. Please include a cost breakdown for the consultant, including the number of days in service, travel, and per diem, as well as the rate of pay. Letters of consent or collaboration and other evidence should be provided in the Documentation of Collaboration (see Part IV, C.4.g.2) to show that collaborators have agreed to participate. A proposed statement of work, biographical sketch, and a budget for each arrangement involving the transfer of substantive programmatic work or the provision of financial assistance to a third party must be supplied. Allowable expenditures must be appropriately discussed in the budget justification. In multi-institutional applications, a budget and budget narrative must be included for each institution involved. The lead institution and each participating institution must be identified.

**e. Matching**

See Part III, C. for the matching requirements.

The sources and the amount of all matching support from outside the applicant organization should be summarized on a separate page and placed in the application immediately following the Budget Justification. All pledge agreements must be placed in the application immediately following the summary of matching support.

The value of applicant contributions to the project shall be established in accordance with applicable cost principles. Applicants should refer to OMB Circular A-21 (2 CFR Part 220), Cost Principles for Educational Institutions, for further guidance and other requirements relating to matching and allowable costs.

## 7. Supplemental Information Form

Instructions related to this form are explained in detail in Part VI, 1. of the NIFA Grants.gov Application Guide.

**a. Field 2. Program to which you are applying** – Enter the Program Code Name and the Program Code for the Program Area to which you are applying from the information provided in the Program Area Descriptions (see Part I, C). An application can only be submitted to one program. **It is extremely important that the Program Code Name and Program Code are spelled correctly and match this RFA.**

**b. Field 8. Conflict of Interest List – PDF Attachment. No Page Limit.** Title the attachment as ‘Conflict of Interest’ in the document header and save file as ‘Conflict of Interest’.

**Collate all individual Conflict of Interest lists into a single document file.** The lists can only be submitted as a single PDF attachment.

## C. Submission Dates and Time

### 1. Letter of Intent

- a. Deadline – **January 17, 2013 (5:00 p.m., ET).**
- b. Attach the PDF Letter of Intent (LOI) to an email addressed to [nifafellows@nifa.usda.gov](mailto:nifafellows@nifa.usda.gov). In the email subject line write: *Letter of Intent [Program Area Code] [PDs Last Name]*.
- c. An acknowledgement receipt will be sent by replying to the sender within five business days.
- d. Letters of Intent will be reviewed by scientific program staff in order to plan for appropriate expertise for the peer review panel and ensure that the proposed project fits appropriately within the Program Area Priorities.
- e. Within four weeks after the LOI deadline, the PD will receive a response from the Program Area Contact. The response will indicate whether or not NIFA accepted the Letter of Intent. Note that a LOI will not be accepted if:
  - i. It was not submitted by the established deadline;
  - ii. It did not meet the guidelines noted in Part IV A.; and
  - iii. The proposed project was not appropriate for the Program Area Priorities.

Applicants must notify the appropriate Program Area Contact of any changes to project key personnel, title, or objectives from the Letter of Intent to the submission of a full application.

### 2. Full Application

A Letter of Intent is a prerequisite to submission of an application. Any application submitted without an accepted Letter of Intent will not be reviewed.

**Instructions for submitting an application are included in Part IV, Section 1.9 of the NIFA Grants.gov Application Guide.**

Electronic applications must be submitted via Grants.gov by 5:00 p.m. ET on **March 14, 2013**. **Applications received after the applicable deadline will not be reviewed unless extenuating circumstances exist (Part III, Section 6.1 of the NIFA Grants.gov Application Guide).**

Correspondence regarding submitted applications will be sent using e-mail. Therefore, applicants are strongly encouraged to provide accurate e-mail addresses, where designated, on the SF-424 R&R Application for Federal Assistance.

If an applicant has not received an e-mail within 30 days of the submission deadline either providing a NIFA application number or indicating the application was not accepted for review, the applicant must contact the agency contact (see Part VII) immediately and ask for the status of the application. Failure to do so may result in the application not being considered for funding by the peer review panel.

#### **D. Funding Restrictions**

Indirect costs for AFRI NIFA Fellowships Grant applications are **not allowed**.

Funds made available for grants under the AFRI program shall not be used for the construction of a new building or facility or the acquisition, expansion, remodeling, or alteration of an existing building or facility (including site grading and improvement, and architect fees).

#### **E. Other Submission Requirements**

##### **1. Successful Application Submission**

The applicant must follow the submission requirements noted in Part IV., section 1.9 in the NIFA Grants.gov Application Guide.

##### **2. Application Status**

For information about the **status of a submitted application**, see Part III., section 6. of the NIFA Grants.gov Application Guide.

##### **3. Multiple Submissions**

In accordance with Part III, section 5 of the NIFA Grants.gov Application Guide, duplicate, essentially duplicate or predominantly overlapping applications submitted to one or more program areas within the AFRI (including FASE projects) in any one fiscal year will not be reviewed. In addition, applicants may not submit to AFRI an application that is considered duplicate, essentially duplicate, or predominantly overlapping with an application submitted to another NIFA program in the same fiscal year.

## **PART V – APPLICATION REVIEW REQUIREMENTS**

### **A. General**

Each application will be evaluated in a two-part process. First, each application will be screened to ensure that it meets the administrative requirements as set forth in this RFA. Applications that do not fall within the guidelines, as stated in the RFA, will not be considered for funding. Second, a review panel will technically evaluate applications that meet the RFA requirements. In addition to the review panel, written comments will be solicited from *ad hoc* reviewers when necessary. Prior to recommending an application for funding, the peer review panel and *ad hoc* reviewer comments will be presented and discussed by the panel.

Reviewers will be selected based upon their training and experience in relevant scientific, extension, or education fields, taking into account the following factors: (a) the level of relevant formal scientific, technical education, or extension experience of the individual, as well as the extent to which an individual is engaged in relevant research, education, or extension projects; (b) the need to include experts from various areas of specialization within relevant scientific, education, or extension fields; (c) the need to include other experts (*e.g.*, producers, range or forest managers/operators, and consumers) who can assess relevance of the applications to targeted audiences and to program needs; (d) the need to include experts from a variety of organizational types (*e.g.*, colleges, universities, industry, state and Federal agencies, private profit, and non-profit organizations) and geographic locations; (e) the need to maintain a balanced composition of reviewers with regard to minority and female representation and an equitable distribution of professional rank; and (f) the need to include reviewers who can judge the effective usefulness to producers and the general public of each application.

For more information on the peer review process, see [http://www.nifa.usda.gov/business/competitive\\_peer\\_review.html](http://www.nifa.usda.gov/business/competitive_peer_review.html).

### **B. Evaluation Criteria**

Projects supported under this program shall be designed, among other things, to accomplish one or more of the purposes of agriculture research, education, and extension, subject to the varying conditions and needs of States. Therefore, in carrying out its review, the peer review panel will take into account the following factors for the review of all Pre- and Postdoctoral Fellowship Grant applications.

- 1. Scientific Merit of the Application for Research, Education, and/or Extension**
  - a. Novelty, multidisciplinary innovation, uniqueness, originality, and advancing current knowledge;
  - b. Conceptual adequacy of the research, education, and/or extension, as applicable;
  - c. Project objectives and outcomes are clearly described and measurable, adequate, and appropriate;
  - d. Proposed approach, procedures, or methodologies are appropriate, clearly described, suitable, and feasible;



- e. Fellow has documented achievement of high educational quality and excellence (*e.g.*, Graduate Record Exam score, Grade Point Average, list of scholarly activities, honors, professional society membership, *etc.*); and
- f. Appropriate educational opportunities and curriculum plan for proposed area of study.
- g. Novelty and innovation in the training and career development plans supports the career trajectory of the applicant and provides sufficient time to obtain teaching credentials or competencies in preparation for entering the professional workforce.

## **2. Qualifications of Project Personnel, Adequacy of Facilities, and Project Management**

- a. Roles of the Fellow, mentor(s), and other key personnel are clearly defined;
- b. Assessment of applicants' critical thinking and analytical skills based on organization and details provided in the application, applicants' ability to develop into a researcher and leader in the food and agricultural sciences, applicants' level of maturity of thought, alignment between career goals and objectives and appropriate activities and opportunities presented to achieve those goals, documented achievement of high educational quality and excellence (*e.g.*, GPA, GRE, publications, presentations, awards), appropriate educational opportunities, mentoring, and curriculum plan for proposed area of study;
- c. Applicants, along with mentor and other key personnel, have sufficient preparation/expertise to ensure successful completion of the proposed project, and where appropriate, partnerships with other relevant disciplines (*e.g.*, food safety and psychology, nanotechnology and economics, animal science and mathematics) and institutions are established;
- d. Evidence provided that the proposed work is original and developed by the applicant in consultation with the mentor(s);
- e. Evidence that the identified institution has capacity and competence in the proposed area of work and support personnel, facilities, and instrumentation are sufficient;
- f. A clear plan is articulated for project management, including time allocated for attainment of objectives, responsibilities for deliverables, and delivery of products; and
- g. Appropriate mentor engagement and training in research, education, and/or extension is described.

## **3. Project Relevance**

- a. Documentation that the proposed research, education, and/or extension activity is directed toward specific Program Area Priorities identified in this RFA;
- b. Plan and methods for evaluating success of project activities and documenting potential impact against measurable short and mid-term outcomes are suitable and feasible;
- c. Science-based knowledge, skills, and capabilities gained are related to the NIFA challenge areas and will enhance and sustain human capital in NIFA challenge areas beyond the life of the project; and
- d. Potential of the proposed project and training in serving as a good foundation for the applicant fellow to complete PhD degrees or provide the requisite, individualized and mentored experiences that will develop his/her research skills that help them become independent and productive scientists.

## **C. Conflicts of Interest and Confidentiality**

During the peer evaluation process, extreme care will be taken to prevent any actual or perceived conflicts of interest that may impact review or evaluation. For the purpose of determining conflicts of interest, the academic and administrative autonomy of an institution shall be determined by reference to the current Higher Education Directory, published by Higher Education Publications, Inc., 1801 Robert Fulton Drive, Suite 340, Reston, VA 20191. Phone: (888) 349-7715. Web site: <http://www.hepinc.com>.

Names of submitting institutions and individuals, as well as application content and peer evaluations, will be kept confidential, except to those involved in the review process, to the extent permitted by law. In addition, the identities of peer reviewers will remain confidential throughout the entire review process. Therefore, the names of the reviewers will not be released to applicants.

#### **D. Organizational Management Information**

Specific management information relating to an applicant shall be submitted on a one-time basis as part of the responsibility determination prior to the award of a grant identified under this RFA, if such information has not been provided previously under this or another NIFA program. NIFA will provide copies of forms recommended for use in fulfilling these requirements as part of the pre-award process. Although an applicant may be eligible based on its status as one of these entities, there are factors that may exclude an applicant from receiving Federal financial and nonfinancial assistance and benefits under this program (*e.g.*, debarment or suspension of an individual involved or a determination that an applicant is not responsible based on submitted organizational management information). **Individuals submitting applications directly rather than through a host institution will be required to provide supplemental information to demonstrate the capacity for financial management in order to meet specific fiduciary responsibilities associated with the fellowship.**

## **PART VI – AWARD ADMINISTRATION**

### **A. General**

Within the limit of funds available for such purpose, the awarding official of NIFA shall make grants to those responsible, eligible applicants whose applications are judged most meritorious under the procedures set forth in this RFA. Note that the project need not be initiated on the grant effective date, but as soon thereafter as practical so that project goals may be attained within the funded project period. All funds granted by NIFA under this RFA shall be expended solely for the purpose for which the funds are granted in accordance with the approved application and budget, the regulations, the terms and conditions of the award, the applicable Federal cost principles, and the applicable Department's assistance regulations (*e.g.*, parts 3015 and 3019 of 7 CFR and the NIFA General Awards Administration Provisions at 7 CFR part 3430, subparts A through E).

### **B. Award Notice**

The award document will provide pertinent instructions and information shall include at a minimum the following:

1. Legal name and address of performing organization or institution to which the Director has awarded a grant under the terms of this RFA;
2. Title of project;
3. Name(s) and institution(s) of PDs chosen to direct and control approved projects;
4. Identifying grant number assigned by the Department;
5. Project period, specifying the amount of time the Department intends to support the project without requiring re-competition for funds;
6. Total amount of Departmental financial assistance approved by the Director during the project period;
7. Legal authority(ies) under which the grant is awarded;
8. Appropriate Catalog of Federal Domestic Assistance (CFDA) number;
9. Applicable award terms and conditions (see <http://www.nifa.usda.gov/business/awards/awardterms.html> to view NIFA award terms and conditions);
10. Approved budget plan for categorizing allocable project funds to accomplish the stated purpose of the grant award; and
11. Other information or provisions deemed necessary by NIFA to carry out its respective granting activities or to accomplish the purpose of a particular grant.

### **C. Administrative and National Policy Requirements**

Several Federal statutes and regulations apply to grant applications considered for review and to project grants awarded under this program. These include, but are not limited to:

2 CFR Part 215 – Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110).

2 CFR Part 220 – Cost Principles for Educational Institutions (OMB Circular A-21).

2 CFR Part 230 – Cost Principles for Non-Profit Organizations (OMB Circular A-122).

7 CFR Part 1, subpart A – USDA implementation of the Freedom of Information Act.

7 CFR Part 3 – USDA implementation of OMB Circular No. A-129 regarding debt collection.

7 CFR Part 15, subpart A – USDA implementation of Title VI of the Civil Rights Act of 1964, as amended.

7 CFR Part 331 and 9 CFR Part 121 – USDA implementation of the Agricultural Bioterrorism Protection Act of 2002.

7 CFR Part 3015 – USDA Uniform Federal Assistance Regulations, implementing OMB directives (*i.e.*, OMB Circular Nos. A-21 and A-122, now codified at 2 CFR Parts 220 and 230) and incorporating provisions of 31 U.S.C. 6301-6308 (formerly the Federal Grant and Cooperative Agreement Act of 1977, Pub. L. No. 95-224), as well as general policy requirements applicable to recipients of Departmental financial assistance.

7 CFR Part 3016 – USDA Implementation of Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

7 CFR Part 3017 – USDA implementation of Governmentwide Debarment and Suspension (Nonprocurement) and 7 CFR Part 3021—Governmentwide Requirements for Drug Free Workplace (Grants).

7 CFR Part 3018 – USDA implementation of Restrictions on Lobbying. Imposes prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans.

7 CFR Part 3019 – USDA implementation of OMB Circular A-110, Uniform Administrative Requirements for Grants and Other Agreements With Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations.

7 CFR Part 3021—Governmentwide Requirements for Drug Free Workplace (Grants).

7 CFR Part 3022 —Research Institutions Conducting USDA-Funded Extramural Research; Research Misconduct.

7 CFR Part 3052 – USDA implementation of OMB Circular No. A-133, Audits of States, Local Governments, and Nonprofit Organizations.

7 CFR Part 3407 – NIFA procedures to implement the National Environmental Policy Act of 1969, as amended.

7 CFR Part 3430 – NIFA Competitive and Noncompetitive Nonformula Federal Assistance Programs—General Award Administrative Provisions.

29 U.S.C. 794 (section 504, Rehabilitation Act of 1973) and 7 CFR Part 15b (USDA implementation of statute) – prohibiting discrimination based upon physical or mental handicap in Federally assisted programs.

35 U.S.C. 200 et seq. – Bayh Dole Act, controlling allocation of rights to inventions made by employees of small business firms and domestic nonprofit organizations, including universities, in Federally assisted programs (implementing regulations are contained in 37 CFR Part 401).

## **D. Expected Program Outputs and Reporting Requirements**

### Reporting on Individual Student Beneficiaries

(i) Student Appointment - Project Directors are required to complete and submit, to the NIFA Fellows Program Office ([nifafellows@nifa.usda.gov](mailto:nifafellows@nifa.usda.gov)), a Fellowships/Scholarships Entry Form (OMB No. 0524-0039), [Page 1 of Form NIFA-2010, [http://www.nifa.usda.gov/funding/all\\_forms.html](http://www.nifa.usda.gov/funding/all_forms.html)] when students are appointed and approved as NIFA Fellows under an award.

(ii) Annual Student Progress in Training Program - Project Directors are required to complete and submit, to the NIFA Fellows Program Office ([nifafellows@nifa.usda.gov](mailto:nifafellows@nifa.usda.gov)), an Annual Update Form (OMB No. 0524-0039), [Page 2 of Form NIFA-2010, [http://www.nifa.usda.gov/funding/all\\_forms.html](http://www.nifa.usda.gov/funding/all_forms.html)] that provides information about academic accomplishments including products, recognitions, service learning, and professional mentoring outcomes, for each Fellow supported. This information is treated as confidential. The Annual Update is used to assess the continuing progress of Fellows through their program to meet the objectives of the funded training project.

(iii) Exit and/or Termination - Project Directors are required to complete and submit, to the NIFA Fellows Program Office, a Fellowships/Scholarships Exit Form (OMB No. 0524-0039), [Page 3 of Form NIFA-2010, [http://www.nifa.usda.gov/funding/all\\_forms.html](http://www.nifa.usda.gov/funding/all_forms.html)] as soon as the Fellow either (1) graduates; (2) terminates from the Fellowship or the academic program due to academic or disciplinary action; (3) voluntarily withdraws from the Fellowship or academic program; or (4) obtains employment.

Grantees are required to submit annual and summary evaluation reports via the NIFA's Web-based inventory system that facilitates both grantee submissions of project outcomes and public access to information on Federally-funded projects. The details of these reporting requirements are included in the award terms and conditions. Details of annual and final technical reporting requirements also are included in the award terms and conditions.

If a Pre- or Postdoctoral Fellowship Grant application is funded, the Project Director (Fellow) will be required to attend one AFRI NIFA Fellows Project Directors' meeting in Washington, DC during the performance period of the award. Reasonable travel expenses should be included as part of the project budget.

Project Directors are required to establish a LinkedIn account ([www.linkedin.com](http://www.linkedin.com)) and connect to the “NIFA Fellows” LinkedIn site ([http://www.linkedin.com/profile/view?id=110801460&locale=en\\_US&trk=tyah](http://www.linkedin.com/profile/view?id=110801460&locale=en_US&trk=tyah)). This will provide the Project Director with a streamlined way to communicate with other Project Directors, and also allow the PD to access additional program information (e.g., Project Director conference updates).

For informational purposes, the “Federal Financial Report,” Form SF-425, consolidates into a single report the former Financial Status Report (SF-269 and SF-269A) and the Federal Cash Transactions Report (SF-272 and SF-272A). The [NIFA Agency-specific Terms and Conditions](#) include the requirement that Form SF-425 is due on an **annual basis no later than 90 days following the award’s anniversary date (i.e., one year following the month and day of which the project period begins and each year thereafter up until a final report is required)**. A final “Federal Financial Report,” Form SF-425, is due 90 days after the expiration date of this award.

## **PART VII – AGENCY CONTACTS**

For general questions related to the AFRI Programs, applicants and other interested parties are encouraged to contact AFRI:

AFRI Program Office:

Dr. Franklin E. Boteler, Assistant Director, Institute of Bioenergy, Climate, and Environment

Dr. Muquarrab Qureshi, Assistant Director, Institute of Youth, Family, and Community

Dr. Robert E. Holland, Assistant Director, Institute of Food Safety and Nutrition

Dr. Deborah Sheely, Assistant Director, Institute of Food Production and Sustainability

Telephone: (202) 401-5022

Fax: (202) 401-6488

E-mail: [AFRI@nifa.usda.gov](mailto:AFRI@nifa.usda.gov)

Specific questions pertaining to technical matters may be directed to the Program Area Contacts:

Dr. Ray Ali, National Program Leader, Institute of Youth, Family, and Community

Dr. Joanne Brosh, Education Program Specialist, Institute of Youth, Family, and Community

Telephone: (202) 720-3842

E-mail: [nifafellows@nifa.usda.gov](mailto:nifafellows@nifa.usda.gov).

## **PART VIII – OTHER INFORMATION**

### **A. Access to Review Information**

Copies of reviews, excluding the identity of reviewers, and a summary of the panel comments will be sent to the applicant after the review process has been completed.

### **B. Use of Funds; Changes**

#### **1. Delegation of Fiscal Responsibility**

Unless the terms and conditions of the grant state otherwise, the grantee may not, in whole or in part, delegate or transfer to another person, institution, or organization the responsibility for use or expenditure of grant funds.

#### **2. Changes in Project Plans**

(a) The permissible changes by the grantee, PD(s), or other key project personnel in the approved project grant shall be limited to changes in methodology, techniques, or other similar aspects of the project to expedite achievement of the project's approved goals. If the grantee or the PD(s) is uncertain as to whether a change complies with this provision, the question must be referred to the Authorized Departmental Officer (ADO) for a final determination. The ADO is the signatory of the award document, not the program contact.

(b) Changes in approved goals or objectives shall be requested by the grantee and approved in writing by the ADO prior to effecting such changes. In no event shall requests for such changes be approved which are outside the scope of the original approved project.

(c) Changes in approved project leadership or the replacement or reassignment of other key project personnel shall be requested by the grantee and approved in writing by the ADO prior to effecting such changes.

(d) Transfers of actual performance of the substantive programmatic work in whole or in part and provisions for payment of funds, whether or not Federal funds are involved, shall be requested by the grantee and approved in writing by the ADO prior to effecting such transfers, unless prescribed otherwise in the terms and conditions of the grant.

(e) Changes in Project Period: The project period may be extended by NIFA without additional financial support, for such additional period(s) as the ADO determines may be necessary to complete or fulfill the purposes of an approved project, but in no case shall the total project period exceed ten years. Any extension of time shall be conditioned upon prior request by the grantee and approval in writing by the ADO, unless prescribed otherwise in the terms and conditions of a grant.

(f) Changes in Approved Budget: Changes in an approved budget must be requested by the grantee and approved in writing by the ADO prior to instituting such changes if the revision will involve transfers or expenditures of amounts requiring prior approval as set forth in the applicable Federal cost principles, Departmental regulations, or grant award.



### **C. Confidential Aspects of Applications and Awards**

When an application results in a grant, it becomes a part of the record of NIFA transactions, available to the public upon specific request. Information that the Secretary determines to be of a confidential, privileged, or proprietary nature will be held in confidence to the extent permitted by law. Therefore, any information that the applicant wishes to have considered as confidential, privileged, or proprietary should be clearly marked within the application. Such an application will be released only with the consent of the applicant or to the extent required by law. The original electronic application that does not result in a grant will be retained by the Agency for a period of three years. An application may be withdrawn at any time prior to the final action thereon.

### **D. Regulatory Information**

For the reasons set forth in the final Rule-related Notice to 7 CFR part 3015, subpart V (48 FR 29114, June 24, 1983), this program is excluded from the scope of the Executive Order 12372 which requires intergovernmental consultation with State and local officials. Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35), the collections of information requirements contained in this Notice have been approved under OMB Document No. 0524-0039.

### **E. Application Disposition**

When each peer review panel has completed its deliberations, the responsible program staff of AFRI will recommend that the project: (a) be approved for support from currently available funds or (b) be declined due to insufficient funds or unfavorable review.

AFRI reserves the right to negotiate with the PD and/or with the submitting organization or institution regarding project revisions (*e.g.*, reductions in the scope of work, funding level, period, or method of support) prior to recommending any project for funding.

An application may be withdrawn at any time before a final funding decision is made regarding the application. One copy of each application that is not selected for funding, including those that are withdrawn, will be retained by AFRI for a period of three years.

### **F. Materials Available on the Internet**

AFRI program information will be made available on the NIFA Web site: <http://www.nifa.usda.gov/funding/afri/afri.html>. The following are among the materials available on the AFRI More Information Page:

1. AFRI 2013 Requests for Applications
2. AFRI Abstracts of Funded Projects
3. AFRI Annual Reports

### **G. Electronic Subscription to AFRI Announcements**

If you would like to receive notifications of all new announcements pertaining to AFRI RFA, you can register via Grants.gov at <http://www.grants.gov/search/subscribeAdvanced.do>.

- Enter the e-mail address at which you would like to receive the announcements
- Enter “10.310” for *CFDA Number*
- Select “Subscribe to Mailing List”

Other criteria may be selected; however, your e-mail address and the CFDA number are the only data required to receive AFRI announcements. You do not need to be a registered user of Grants.gov to use this service. You may modify your subscriptions or unsubscribe at any time.

## **H. Definitions**

Please refer to [7 CFR 3430, Competitive and Noncompetitive Non-formula Federal Assistance Programs--General Award Administrative Provisions](#) for the applicable definitions for this NIFA Grant Program

For the purpose of this program, the following additional definitions are applicable:

Director means the Director of the National Institute of Food and Agriculture (NIFA) and any other officer or employee of NIFA to whom the authority involved is delegated.

Food and Agricultural Science Enhancement (FASE) Grants means funding awarded to eligible applicants to strengthen science capabilities of Project Directors, to help institutions develop competitive scientific programs, and to attract new scientists into careers in high-priority areas of National need in agriculture, food, and environmental sciences. FASE awards may apply to any of the three agricultural knowledge components (*i.e.*, research, education, and extension). FASE awards include Pre- and Postdoctoral Fellowships, New Investigator grants, and Strengthening grants.

Integrated project means a project incorporating two or three functions of the agricultural knowledge system (research, education, and extension) around a problem or activity.

Multidisciplinary project means a project on which investigators from two or more disciplines collaborate to address a common problem. These collaborations, where appropriate, may integrate the biological, physical, chemical, or social sciences.

## Facilitation Notes: Supplemental Activity 2.J: Group Dynamics and Talent Themes II

### Learning Outcome:

- Compare and contrast themes of talent, including those other than their own.

⊕ Approximately 25 minutes

### Activity Description:

Break students into small groups, ask them to first individually, then as a group, rank what they believe to be the order, in importance, of each of the salvaged items. Allow the students 15 minutes to complete this activity.

As groups finish this activity, ask them to consider how they came to the final group ranking, in light of their Signature Themes of talent.

Before presenting the actual results, debrief this activity by facilitating a brief discussion about the small group dynamic and how they came to the group ranking. To facilitate this discussion, you may want to ask the following questions:

- How did your themes influence your work in the group?
- How did you see others' talents displayed?
- Were there themes of talent you wish you had represented in the group?

Present correct answers and rationale.

## Group Dynamics and Talent Themes II

You and your companions have just survived the crash of a small plane. Both the pilot and copilot were killed in the crash. It is mid-January, and you are in Northern Canada. The daily temperature is 25 below zero, and the nighttime temperature is 40 below zero. There is snow on the ground, and the countryside is wooded with several creeks in the area. The nearest town is 20 miles away. You are all dressed in city clothes appropriate for a business meeting. Your group of survivors managed to salvage some items from the wreckage. First individually, then as a group, rank the following item in order of importance to your survival.

ITEM	INDIVIDUAL	GROUP
A ball of steel wool		
A small ax		
A loaded .45-caliber pistol		
Can of Crisco shortening		
Newspapers (one per person)		
Cigarette lighter (without fluid)		
Extra shirt and pants for each survivor		
20 x 20 foot piece of heavy-duty canvas		
A sectional air map made of plastic		
One quart of 100-proof whiskey		
A compass		
Family-size chocolate bars (one per person)		

*Supplemental Activity 2.J: Group Dynamics and Talent Themes II*

## Group Dynamics and Talent Themes II — Correct Answers and Rationale:

Mid-January is the coldest time of year in Northern Canada. The first problem the survivors face is the preservation of body heat and the protection against its loss. This problem can be solved by building a fire, minimizing movement and exertion, using as much insulation as possible, and constructing a shelter.

Before taking off, a pilot has to file a flight plan, which contains vital information such as the course, speed, estimated time of arrival, type of aircraft, and number of passengers. Search-and-rescue operations begin shortly after the failure of a plane to appear at its destination at the estimated time of arrival.

The 20 miles to the nearest town is a long walk under even ideal conditions, particularly if one is not used to walking such distances. In this situation, the walk is even more difficult due to shock, snow, dress, and water barriers. It would mean almost certain death from freezing and exhaustion. At temperatures of minus 25 to minus 40, the loss of body heat through exertion is a very serious matter.

Once the survivors have found ways to keep warm, their next task is to attract the attention of search planes. Thus, all the items the group has salvaged must be assessed for their value in signaling the group's whereabouts.

The following ranking of the items was made by a former Army instructor in survival training.

1. Cigarette lighter (without fluid)  
The gravest danger facing the group is exposure to cold. The greatest need is for a source of warmth, and the second greatest need is for signaling devices. This makes building a fire the first order of business. Without matches, something is needed to produce sparks, and even without fluid, a cigarette lighter can do that.
2. Ball of steel wool  
In order to make a fire, the survivors need a means of catching the sparks made by the cigarette lighter. This is the best substance for catching a spark and supporting a flame, even if the steel wool is a little wet.
3. Extra shirt and pants for each survivor  
Besides adding warmth to the body, clothes can also be used for shelter, signaling, bedding, bandages, string (when unraveled), and fuel for the fire.
4. Can of Crisco shortening  
A can of shortening has many uses. A mirror-like signaling device can be made from the lid. After shining the lid with steel wool, it will reflect sunlight and generate 5 to 7 million candlepower. This is bright enough to be seen beyond the horizon. While this could be limited somewhat by the trees, a member of the group could climb a tree and use the mirrored lid to signal search planes. If they had no other means of signaling than this, they would have a better than 80% chance of being rescued within the first day. There are other uses for this item. It can be rubbed on exposed skin for protection against the cold. When melted into oil, the shortening is helpful as fuel. When soaked into a piece of cloth, melted shortening will act like a candle. The empty can is useful in melting snow for drinking water. It is much safer to drink warmed water than to eat snow, since warm water will help retain body heat. Water is important because dehydration will affect decision making. The can is also useful as a cup.

### *Supplemental Activity 2.J: Group Dynamics and Talent Themes II*

## Group Dynamics and Talent Themes II — Correct Answers and Rationale:

(Continued)

5. 20 x 20 foot piece of canvas  
The cold makes shelter necessary, and canvas would protect against wind and snow. (Canvas is used in making tent.) Spread on a frame made of trees; it could be used as a tent or a wind screen. It might also be used as a ground cover to keep the survivors dry. Its shape, when contrasted with the surrounding terrain, makes it a signaling device.
6. Small ax  
Survivors needs a constant supply of wood in order to maintain the fire. The ax could be used for this as well as for clearing a sheltered campsite, cutting tree branches for ground insulation, and constructing a frame for the canvas tent.
7. Family size chocolate bars (one per person)  
Chocolate will provide some food energy. Since it contains mostly carbohydrates, it supplies the energy without making digestive demands on the body.
8. Newspapers (one per person)  
These are useful in starting a fire. They can also be used as insulation under clothing when rolled up and placed around a person's arms and legs. A newspaper can also be used as a verbal signaling device when rolled up in a megaphone shape. It could also provide reading material for recreation.
9. Loaded .45-caliber pistol  
The pistol provides a sound-signaling device. (The international distress signal is 3 shots fired in rapid succession.) There have been numerous cases of survivors going undetected because they were too weak to make a loud enough noise to attract attention. The butt of the pistol could be used as a hammer, and the powder from the shells will assist in fire building. By placing a small bit of cloth in a cartridge emptied of its bullet, one can start a fire by firing the gun at dry wood on the ground. The pistol also has some serious disadvantages. Anger, frustration, impatience, irritability, and lapses of rationality may increase as the group awaits rescue. The availability of a lethal weapon is a danger to the group under these conditions. Although a pistol could be used in hunting, it would take an expert marksman to kill an animal with it. Then the animal would have to be transported to the crash site, which could prove difficult to impossible depending on its size.
10. Quart of 100 proof whiskey  
The only uses of whiskey are as an aid in fire building and as a fuel for a torch (made by soaking a piece of clothing in the whiskey and attaching it to a tree branch). The empty bottle could be used for storing water. The danger of whiskey is that someone might drink it, thinking it would bring warmth. Alcohol takes on the temperature it is exposed to, and a drink of minus 30 degrees Fahrenheit whiskey would freeze a person's esophagus and stomach. Alcohol also dilates the blood vessels in the skin, resulting in chilled blood being carried back to the heart, resulting in a rapid loss of body heat. Thus, a person who is drunk is more likely to get hypothermia than a sober person is.

*Supplemental Activity 2.J: Group Dynamics and Talent Themes II*

**Group Dynamics and Talent Themes II — Correct Answers and Rationale:**

(Continued)

## 11. Compass

A compass might encourage someone to try to walk to the nearest town; it is a dangerous item. Its only redeeming feature is that it could be used as a reflector of sunlight (due to its glass top).

## 12. Sectional air map made of plastic

This is also among the least desirable of the items because it will encourage individuals to try to walk to the nearest town. Its only useful feature is as a ground cover to keep someone dry.