

# **Forest Products Research Grants Program**

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## ***FY 2013 Request for Applications***

**APPLICATION DEADLINE: July 31, 2013**



**U.S. Department of Agriculture**

**National Institute of Food and Agriculture**

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

**FOREST PRODUCTS RESEARCH (FPR) GRANTS PROGRAM**

**INITIAL ANNOUNCEMENT**

**CATALOG OF FEDERAL DOMESTIC ASSISTANCE:** This program is listed in the Catalog of Federal Domestic Assistance under **10.200**.

**DATES:** Applications must be received by close of business (COB) on **July 31, 2013 (5:00 p.m. Eastern Time)**. Applications received after this 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 that 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 on 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 requesting information or forms.) In your comments, please state that you are responding to the **Forest Products Research Grants Program RFA**.

**EXECUTIVE SUMMARY:** NIFA announces the availability of grant funds and requests applications for the **Forest Products Research (FPR) Grants Program** for fiscal year (FY) **2013 to create new and improved value-added products and renewable energy from U.S. wood in support of the forest products sector**. The amount available for support of this program in FY **2013** is approximately **\$1,411,000**.

This notice identifies the objectives for **FPR** projects, the eligibility criteria for projects and applicants, and the application forms and associated instructions needed to apply for a **FPR** grant. NIFA additionally requests stakeholder input from any interested party for use in the development of the next RFA for this program.

## Table of Contents

<b>PART I—FUNDING OPPORTUNITY DESCRIPTION .....</b>	<b>4</b>
<b>A. Legislative Authority and Background .....</b>	<b>4</b>
<b>B. Purpose and Priorities .....</b>	<b>4</b>
<b>C. Program Area Description.....</b>	<b>5</b>
<b>PART II—AWARD INFORMATION .....</b>	<b>8</b>
<b>A. Available Funding.....</b>	<b>8</b>
<b>B. Types of Applications .....</b>	<b>8</b>
<b>C. Project Types.....</b>	<b>8</b>
<b>D. Responsible and Ethical Conduct of Research .....</b>	<b>8</b>
<b>PART III—ELIGIBILITY INFORMATION.....</b>	<b>10</b>
<b>A. Eligible Applicants.....</b>	<b>10</b>
<b>B. Cost Sharing or Matching.....</b>	<b>10</b>
<b>PART IV—APPLICATION AND SUBMISSION INFORMATION.....</b>	<b>11</b>
<b>A. Electronic Application Package.....</b>	<b>11</b>
<b>B. Content and Form of Application Submission.....</b>	<b>12</b>
<b>C. Submission Dates and Times .....</b>	<b>15</b>
<b>D. Funding Restrictions .....</b>	<b>15</b>
<b>E. Other Submission Requirements.....</b>	<b>15</b>
<b>PART V—APPLICATION REVIEW REQUIREMENTS .....</b>	<b>16</b>
<b>A. General.....</b>	<b>16</b>
<b>B. Evaluation Criteria .....</b>	<b>16</b>
<b>C. Conflicts of Interest and Confidentiality .....</b>	<b>16</b>
<b>D. Organizational Management Information .....</b>	<b>17</b>
<b>PART VI—AWARD ADMINISTRATION .....</b>	<b>18</b>
<b>A. General.....</b>	<b>18</b>
<b>B. Award Notice.....</b>	<b>18</b>
<b>C. Administrative and National Policy Requirements.....</b>	<b>19</b>
<b>D. Expected Program Outputs and Reporting Requirements .....</b>	<b>20</b>
<b>PART VII—AGENCY CONTACTS .....</b>	<b>21</b>
<b>PART VIII—OTHER INFORMATION.....</b>	<b>22</b>
<b>A. Access to Review Information .....</b>	<b>22</b>
<b>B. Use of Funds; Changes .....</b>	<b>22</b>
<b>C. Confidential Aspects of Applications and Awards .....</b>	<b>23</b>
<b>D. Regulatory Information .....</b>	<b>23</b>
<b>E. Definitions.....</b>	<b>23</b>

## **PART I—FUNDING OPPORTUNITY DESCRIPTION**

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

Forest Products Research (FPR) Grants Program is authorized under subsection 2 (c) (1) (B) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450 (i)).

The FPR Grants Program was first funded by Congress in the FY 2012. The intent is to stimulate the generation of new knowledge and to transfer technologies that are necessary to balance the sustainable use of U.S. forest resources to maintain a vigorous, globally competitive domestic forest products industry. The FPR is uniquely designed to address the varying needs and opportunities of the different regions of the country but within a national needs framework. It is specifically designed to respond to current and emerging wood utilization issues, create new and improved value-added products, and provide technical information for the production of cross laminated timber from our Nation's wood supply which is critical to the sustainability of the national economy.

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

Overall the FPR Grants Program provides creative and innovative science and technology and advanced business practices that enhance the domestic and global competitiveness of the U.S. wood products industry. Specifically, it addresses utilization needs of hardwood and conifer forest resources. Because of the limited amount of funding, this year's offering focuses on creating new and improved wood uses and value-added products.

This fiscal year, the FPR program expects to fund at least four standard research projects for not more than \$300,000 each over a maximum period of three years. Applications are being solicited for the FY 2013 appropriation under the following special areas:

1. Innovative solutions to develop new industries/technologies that can optimally process/utilize large quantities of pest-damaged or -killed trees;
2. Developing grade and size models for conifers;
3. Promoting use of low value hardwoods for prime bio-products/value-added utilization of underutilized hardwoods;
4. Developing structural composites, such as, Cross Laminated Timbers (CLT) and others using softwoods;
5. Thermal modification of hardwood and softwood lumber; and
6. Adhesion mechanics in wood and wood composites.

## C. Program Area Description

**1. Innovative solutions to develop new industries/technologies that can optimally process/utilize large quantities of pest-damaged or -killed trees:** There is a critical need for innovative solutions to the current threat facing forest management efforts in the northern, southern and western U.S. that affects forest health, wildfire suppression costs, and rural economic development. According to the USDA Forest Service, mountain pine beetles alone have adversely impacted more than 40 million acres of Western forests in recent years. The current outbreak is reported to be 10 times larger than previous outbreaks, and may be the largest forest insect blight ever seen in North America. Unusually hot, dry summers and mild winters have led to this unprecedented epidemic. Other insects such as the emerald ash borer and long-horned beetle are also having significant impacts on forests.

Though the wood from beetle-affected trees retains its commercial value for 8 to 12 years after the tree has died, the risk of crown fires that move through the forest canopy increases shortly after the trees die. After four or five years, as the dead trees fall to the ground, the threat of catastrophic fire is most severe.

Innovative solutions are needed to develop new industries that can process large quantities of pest-killed timber. While opportunities may exist for significant bio-fuel production from this material, process optimization and product quality improvement can identify and encourage the highest value potential for specific locations throughout the U.S.

**2. Developing grade and size models for conifers:** Softwood structural lumber is valued based on its engineering properties. These engineering properties are mainly assigned via visual grading and to a lesser extent via machine grading. Major investigations into these lumber properties occur on the order of once every 20-25 years. In particular, for southern pine the last reviews occurred in 1966 and 1987 respectively. In the 1987 published review, lumber was tested during approximately 1980 and 1985.

In 2010 an additional round of testing was commenced. This testing has led to revised values for southern pine lumber which will be adopted in the first half of calendar year 2013. The testing follows a relatively standardized protocol. This protocol is detailed in ASTM D1990. The statistical assumptions associated with this process assume that the lumber is drawn from a single population.

There are a variety of wood quality related factors that can influence lumber strength and stiffness. Some of these factors have only limited or vague information regarding their actual influence. These include combination knots, rings per inch at relatively wide ring spacing, the density rule, lumber/log source, and the size model particularly as it pertains to like lumber sizes from different parent populations.

Information is needed regarding these factors such that timberland owners and managers can make the most appropriate silvicultural management decisions.

As a means of generating information, pine lumber should be tested to determine the influence of these factors on strength properties. In that manner, timberland owners can amend silvicultural

practice (such as tree spacing, genetic selection, pruning treatments, thinning schedules, fertilization) to maximize timberland value and grading associations can make well-informed decisions on the ways and means these factors influence engineering properties.

Revised grading and testing protocols indicate that re-tests will occur by the grading agencies on a regular basis, on the order of every few years, as a means of quality assurance. It is anticipated that this information will be useful during the planning process for future quality assurance testing. In this manner, safe and conservative design values can be produced while also protecting jobs in the USA and maintaining the best possible timberland value throughout the southern pine region.

**3. Promoting use of low value hardwoods for prime bio-products/value-added utilization of underutilized hardwoods:** One of the greatest challenges the wood industry in the Northern and Appalachian region faces today is the high volume of low value hardwoods in the forests associated with poor markets. It is estimated that about 40 to 50% of the timber volume is of low value. A 3% improvement in quality would roughly translate to a \$3-4B increase in value. Innovative ways to improve the timber quality in the Northern and Appalachian regions need to be developed. Promoting utilization of low quality hardwoods for value-added bioproducts such as hybrid nanocomposites and carbon nanotubes through thermal conversions can be very rewarding. New and innovative strategies are needed to address this issue. Developing new product (engineered) or uses or even new ways of utilization can contribute to value improvement. Increasing yield through process optimization or even through silvicultural intervention should be examined for its potential to generate profits.

**4. Developing structural composites, specifically Cross Laminated Timbers (CLT) and others using softwoods:** CLT provides a promising wood alternative to concrete assemblies. It provides alternative wood-based products and systems which will expand the use of wood-based products to non-residential and multi-story to meet client demands and enable an efficient use of wood fiber to maximize use of the resource and reduce environmental footprints.

Recently published ANSI standards for performance rated CLT panel production provides for the use of visually graded, machine stress rated, and structural composite lumber (SCL). The increased prevalence of plantation forests throughout the United States along with large volumes of introduced species (e.g. Norway Spruce in the northeastern US with over 1.5 billion square feet of material currently non-structurally rated) provides a need for evaluation of their performance relative to panel mechanical and physical properties. Additional technology elements include the production of wood/SCL hybrid panels, evaluation of connection systems (including reinforcements), and durability of adhesive joints with wood/SCL hybrids.

There is a growing interest in the development of Cross Laminated Timbers in the US. Thus far, research work is minimal but Europe and Canada are in the advanced stage where commercial production has already been taking place. There is a need for the US to accelerate its research to capture the significant potential for this product.

**5. Thermal modification of hardwood and softwood lumber:** Thermal modification has been used for decades as a method to protect wood products from the natural environment of physical and biological attack that affects its durability. However, in the early 1990's thermal

modification industrial processes using heat in an oxygen free environment were developed. Industry analysts note that there are currently about five primary industrial methods of thermal modification with twenty manufacturers of industrial scale thermal modification equipment. The technology provides a method where locally grown wood resources can be converted into a “new material” using thermal modification methods. These methods greatly improved the exterior durability of the wood product without adding chemicals. All the embodied freight cost can be used to convert local material as opposed to shipping in from other producing region. The life cycle analysis of environmental product declarations should support the sustainable nature of this development work.

Since tracking began in 2003, there has been consistent 20-30% annual growth in thermal wood production in Europe. In the past three years, there has been increased implementation and production in the U.S. Over 115,000 cubic meters were produced worldwide in 2011, as reported by the International Thermowood Association. It is projected to continue to grow at a double-digit percentage in the next decade.

It is critical to understand the effect of thermal treatment on wood properties. Density is known to be reduced and therefore affects the physical and mechanical properties. Along this line, it will be desirable to define and create a design tool that provides a baseline database for product designers and specifying engineers to apply thermally modified methods to new product development and process improvement.

This focus area should also include development of value-added products from hardwood and softwood species. Background research, product development, demonstration and commercialization of products from this material would offer new opportunities for using underutilized species, beetle-killed trees and logs and other resources.

**6. Adhesion mechanics in wood and wood composites:** The Forest Products industry has developed adhesives for use in the production of a wide range of products. More recently, developments have been in response to a move away from petroleum based toward bio-based adhesives and compliance with formaldehyde emission regulations. Much of this development work has been directed toward producing formulations that are economically and environmentally acceptable. However, as the demand for new adhesives continues, there is a need for a more complete understanding of adhesion mechanics in wood and wood composites. Research is required that can provide information on the specific processes that occur during bond formation in wood, resulting strength, and failure. This research requires analytical techniques that can provide data obtained at the micro-level. The complexity of the internal structure of wood presents some real challenges to obtaining data adhesion mechanics. However, developments are being made in advanced imaging techniques that can be coupled with numerical modeling methods. These approaches can provide the basis for rapid prototyping of new products based upon bio-based and low formaldehyde adhesives, using new manufacturing processes.

## **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. Approximately **\$1,411,000** is available to fund applications in FY 2013.

On March 26, 2013, the Consolidated and Further Continuing Appropriations Act, 2013 (Public Law 113-6) was signed into law. Title I of this bill provides appropriations for the majority of NIFA's discretionary grant programs, including this one, and continues Agency operations for the remainder of FY 2013.

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**

In FY 2013, applications may be submitted to the **FPR** Program as one of the following types of requests:

**(1) New application.** This is a project application that has not been previously submitted to the **FPR** Program. All new applications will be reviewed competitively using the selection process and evaluation criteria described in Part V—Application Review Requirements.

**(2) Resubmitted application.** This is an application that had previously been submitted to the **FPR** Program but not funded. Project Directors (PDs) must respond to the previous review panel summary (see Response to Previous Review, Part IV). Resubmitted applications must be received by the relevant due dates, will be evaluated in competition with other pending applications in appropriate area to which they are assigned, and will be reviewed according to the same evaluation criteria as new applications.

### **C. Project Types**

All applications are standard research projects. The maximum funding for a project is \$300,000 for a maximum duration of three years. Thus, the Program expects to fund at least four projects. Priorities for funding are given to applications addressing any of the six special research areas described earlier (See Part I. C. Program Area Description).

### **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 off-campus training. 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. Grantees should consider the Collaborative Institutional Training Initiative (CITI) program for RCR (<https://www.citiprogram.org/rcrpage.asp>). Typically this 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**

Applications may be submitted by State agricultural experiment stations, land-grant colleges and universities, research foundations established by land-grant colleges and universities, colleges and universities receiving funds under the Act of October 10, 1962 (16 U.S.C. 582a et seq.), and accredited schools and colleges of veterinary medicine. An institution can submit a maximum of two applications.

Award recipients may subcontract to organizations not eligible to apply provided such organizations are necessary for the conduct of the project. An applicant's failure to meet an eligibility criterion by the time of an application deadline may result in the application being excluded from consideration or, even though an application may be reviewed, will preclude NIFA from making an award.

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

Cost sharing or matching is not required.

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

### **A. Electronic Application Package**

Only electronic applications may be submitted via Grants.gov to NIFA in response to this RFA. **Applicants are advised to submit early to the Grants.gov system.**

#### **New Users of Grants.gov**

Prior to preparing an application, it is suggested that the PD/PI first contact an Authorized Representative (AR; also referred to as Authorized Organizational Representative or AOR) to determine if the organization is prepared to submit electronic applications through Grants.gov. If the organization is not prepared (e.g., the institution/organization is new to the electronic grant application process through Grants.gov), then the one-time registration process must be completed PRIOR to submitting an application. It can take as much as two weeks to complete the registration process so it is critical to begin as soon as possible. In such situations the AR should go to **“Get Registered” on the Grants.gov left navigation bar (or go to [http://www.grants.gov/applicants/get\\_registered.jsp](http://www.grants.gov/applicants/get_registered.jsp)) for information on registering the institution/organization with Grants.gov. A quick reference guide listing the steps is available as a 4-page PDF document at the following website: <http://www.grants.gov/assets/Grants.govRegistrationBrochure.pdf>.** Item 2. below mentions the “NIFA Grants.gov Application Guide.” Part II.1. of the NIFA Grants.gov Application Guide contains additional explanatory language regarding the registration process.

#### **Steps to Obtain Application Package Materials**

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” in the left-hand column, click on **“Step 1: Download a Grant Application Package and Instructions,”** enter the funding opportunity number **USDA-NIFA-SRGP-004333** 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), **or submitting the application** then refer to resources available on the Grants.gov Web site first (<http://www.grants.gov/>). Grants.gov assistance is also available as follows:

Grants.gov customer support  
1-800-518-4726 Toll-Free or 606-545-5035  
Business Hours: 24 hours a day, 7 days a week. Closed on [Federal Holidays](#).  
Email: [support@grants.gov](mailto:support@grants.gov)

Grants.gov iPortal: Top 10 requested help topics (FAQs), Searchable knowledge base, self service ticketing and ticket status, and live web chat (available 7:00 A.M. - 9:00 P.M. ET). Get help now!

Please have the following information available when contacting Grants.gov, to help expedite your inquiry:

- Funding Opportunity Number (FON)
- Name of Agency You Are Applying To
- Specific Area of Concern

See [http://grants.gov/applicants/app\\_help\\_reso.jsp](http://grants.gov/applicants/app_help_reso.jsp) or <http://www.nifa.usda.gov/funding/electronic.html> for additional resources for applying electronically.

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

Electronic applications should 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 A. 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.**

**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.**

**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**

Information related to the questions on this form is dealt with in detail in Part V, 2. of the NIFA Grants.gov Application Guide.

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

Information related to the questions on this form is dealt with in detail in Part V, 3. of the NIFA Grants.gov Application Guide.

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

Information related to the questions on this form is dealt with in detail in Part V, 4. of the NIFA Grants.gov Application Guide.

**a. Field 7. Project Summary/Abstract.** The summary should also include the relevance of the project to the goals of the FPR program. See Part V. 4.7 of NIFA Grants.gov Application Guide for further instructions and a link to a suggested template.

**b. Field 8. Project Narrative.**

PLEASE NOTE: The Project Narrative shall not exceed **15** pages of written text regardless of whether it is single or double spaced and up to **5** additional pages for figures and tables. This maximum (**20** pages) has been established to ensure fair and equitable competition. The Project Narrative must include all of the following:

- a. Introduction: A clear statement of the long-term goal(s) and supporting objectives of the proposed activities should be included. Summarize the body of knowledge or other past activities which substantiate the need for the proposed project. Describe ongoing or recently completed significant activities related to the proposed project including the work of key project personnel. Preliminary data/information pertinent to the proposed project should be included. In addition, this section should include in-depth information on the following, when applicable:
  - (1) Estimates of the magnitude of the problems/challenges and their relevance to stakeholders and to ongoing State-Federal food and agricultural research programs.
  - (2) Role of the stakeholders in problem identification, planning, and implementation and evaluation as appropriate.
  - (3) Reasons for having the work performed at the proposing institution.

- b. **Objectives:** Clear, concise, complete, and logically arranged statement(s) of specific aims of the proposed effort must be included in all proposals.
- c. **Methods:** The procedures or methodology to be applied to the proposed effort should be explicitly stated. This section should include but not necessarily be limited to:
  - (1) A description of stakeholder involvement in problem identification, planning, implementation and evaluation;
  - (2) A description of the proposed project activities in the sequence in which it is planned to carry them out;
  - (3) Techniques to be employed, including their feasibility and rationale for their use in this project;
  - (4) Kinds of results expected;
  - (5) Means by which data will be analyzed or interpreted;
  - (6) Details of plans to communicate results to stakeholders and the public;
  - (7) Pitfalls that might be encountered; and
  - (8) Limitations to proposed procedures.
- d. **Project Timetable:** The proposal should outline all important phases as a function of time, year by year, for the entire project, including periods beyond the grant funding period.

#### **4. R&R Senior/Key Person Profile (Expanded)**

Information related to the questions on this form is dealt with in detail in Part V, 5. of the NIFA Grants.gov Application Guide. Part V, 5. of the NIFA Grants.gov Application Guide includes information about the individuals for which a Senior/Key Person Profile must be completed, and details about the Biographical Sketch and the Current and Pending Support including a link to a suggested template for the Current and Pending Support.

**5. R&R Personal Data** – As noted in Part V, 6. of the NIFA Grants.gov Application Guide, the submission of this information is voluntary and is not a precondition of award.

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

Information related to the questions on this form is dealt with in detail in Part V, 7. of the NIFA Grants.gov Application Guide.

#### **7. Supplemental Information Form**

Information related to the questions on this form is dealt with 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 (i.e., enter “**Forest Product Research**” and the program code (i.e., enter “**FPR**”).
- b. **Field 8. Conflict of Interest List.** See Part VI, 1.8 of the NIFA Grants.gov Application Guide for further instructions and a link to a suggested template.

### **C. Submission Dates and Times**

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

Applications must be received by Grants.gov by COB on **July 31, 2013** (5:00 p.m. Eastern Time). Applications received after this deadline will normally not be considered for funding.

**Applicants who have problems with the submission of an application to Grants.gov are encouraged to FIRST contact the Grants.gov Help Desk to resolve any problems. Keep a record of any such correspondence. See Part IV. A. for Grants.gov contact information.**

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 the AR has not received correspondence from NIFA regarding a submitted application within 30 days of the established deadline, please contact the Program Contact identified in Part VII of the applicable RFA and request the proposal number assigned to the application. **Failure to do so may result in the application not being considered for funding by the peer review panel. Once the application has been assigned a proposal number, this number should be cited on all future correspondence.**

### **D. Funding Restrictions**

Pursuant to Section 1473 of the National Agriculture Research, Extension, and Teaching Policy Act of 1977, as amended, 7 USC 3319, indirect costs or tuition remission are not allowable costs under section 2(c)(1)(B) projects, and no funds will be approved for this purpose. Further, costs that are a part of an institution's indirect cost pool (e.g., administrative or clerical salaries) may not be reclassified as direct costs for the purpose of making them allowable.

NIFA has determined that grant funds awarded under this authority may not be used for the renovation or refurbishment of research, education, or extension space; the purchase or installation of fixed equipment in such space; or the planning, repair, rehabilitation, acquisition, or construction of buildings or facilities.

The award period is limited to 3 years in duration as this award is issued under the authority of Sections 2(c) of Pub. L. 89-106, 7 U.S.C. §450i(c).

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

**The applicant should follow the submission requirements noted in Part IV, section 1.9 in the document entitled “NIFA Grants.gov Application Guide.”**

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

## **PART V—APPLICATION REVIEW REQUIREMENTS**

### **A. General**

Each application will be evaluated in a 2-part process. First, each application will be screened to ensure that it meets the administrative requirements as set forth in this RFA. Second, applications that meet these requirements will be technically evaluated by a review panel.

Reviewers will be selected based upon 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 activities; (b) the need to include as reviewers experts from various areas of specialization within relevant scientific, education, or extension fields; (c) the need to include as reviewers 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 as reviewers 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 age distribution; and (f) the need to include reviewers who can judge the effective usefulness to producers and the general public of each application.

### **B. Evaluation Criteria**

The evaluation criteria below will be used in reviewing applications submitted in response to this RFA:

1. Relevance of the application to program goals and objectives as described in Part I, B; **30 Points**
2. Innovativeness of the research, approaches, process, and the project application itself; **20 Points**
3. Adequacy of the proposal response to items listed in the Project Narrative; **20 Points**
4. Quality and extent of documented stakeholder involvement in application development; **10 Points**
5. Experience, accomplishments and time commitments of key project personnel; **10 points**
6. Appropriateness/cost effectiveness of requested budget; **10 Points**

### **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, Virginia 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, with updates on an as needed 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 preaward process. Although an applicant may be eligible based on its status as one of these entities, there are factors which 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).

## **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. The date specified by the awarding official of NIFA as the effective date of the grant shall be no later than September 30 of the Federal fiscal year in which the project is approved for support and funds are appropriated for such purpose, unless otherwise permitted by law. It should be noted 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, the Department's assistance regulations (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 including, at a minimum, the following:

- (1) Legal name and address of performing organization or institution to whom the Director has issued an award under the terms of this request for applications;
- (2) Title of project;
- (3) Name(s) and institution(s) of PDs chosen to direct and control approved activities;
- (4) Identifying award number assigned by the Department;
- (5) Project period, specifying the amount of time the Department intends to support the project without requiring recompetition for funds;
- (6) Total amount of Departmental financial assistance approved by the Director during the project period;
- (7) Legal authority(ies) under which the award is issued;
- (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 award; and

(11) Other information or provisions deemed necessary by NIFA to carry out its respective awarding activities or to accomplish the purpose of a particular award.

### **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 220 – Cost Principles for Educational Institutions (OMB Circular A-21).

2 CFR Part 225 – Cost Principles for State, Local, and Indian Tribal Governments (OMB Circular A-87).

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, A-87, and A-122, now codified at 2 CFR Parts 220, 225 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).

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 (2 CFR Part 215).

7 CFR Part 3021—USDA Implementation of 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—USDA procedures to implement the National Environmental Policy Act of 1969, as amended.

7 CFR 3430—Competitive and Noncompetitive Non-formula Financial 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**

Grantees are to submit initial project information and annual and summary reports to NIFA's electronic, 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.

## **PART VII—AGENCY CONTACTS**

Applicants and other interested parties are encouraged to contact:

### **Daniel Cassidy**

National Program Leader  
Division of Bioenergy  
3210 Waterfront Centre

[Full Address and Directions](#)

**Phone:** (202) 401 - 6444

**Fax:** (202) 401 - 1706

**Email:** [dcassidy@nifa.usda.gov](mailto:dcassidy@nifa.usda.gov)

### **Catalino Blanche**

National Program Leader  
Division of Environmental Systems  
3271 Waterfront Centre

[Full Address and Directions](#)

**Phone:** (202) 401 - 4190

**Fax:** (202) 401 - 1706

**Email:** [cblanche@nifa.usda.gov](mailto:cblanche@nifa.usda.gov)

Or

### **Eric Norland**

National Program Leader  
Division of Environmental Systems  
3212 Waterfront Centre

[Full Address and Directions](#)

**Phone:** (202) 401 - 5971

**Fax:** (202) 401 - 1706

**Email:** [enorland@nifa.usda.gov](mailto:enorland@nifa.usda.gov)

## **PART VIII—OTHER INFORMATION**

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

Copies of reviews, not including the identity of reviewers, and a summary of the panel comments will be sent to the applicant PD after the review process has been completed.

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

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

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

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

a. The permissible changes by the awardee, PD(s), or other key project personnel in the approved project 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 awardee 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 awardee 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 awardee 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 awardee and approved in writing by the ADO prior to effecting such transfers, unless prescribed otherwise in the terms and conditions of the award.

e. 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 any applicable statutory limit or expiring appropriation limitation. Any extension of time shall be conditioned upon prior request by the awardee and approval in writing by the ADO, unless prescribed otherwise in the terms and conditions of award.

f. Changes in Approved Budget: Unless stated otherwise in the terms and conditions of award, changes in an approved budget must be requested by the awardee 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 award.

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

When an application results in an award, 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. The original copy of an application that does not result in an award will be retained by the Agency for a period of three years. Other copies will be destroyed. Such an application will be released only with the consent of the applicant or to the extent required by law. 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 collection of information requirements contained in this Notice have been approved under OMB Document No. 0524-0039.

### **E. Definitions**

Please refer to 7 CFR 3430, Competitive and Noncompetitive Non-formula Financial Assistance Programs--General Award Administrative Provisions, for applicable definitions for this NIFA grant program.