Crop Protection and Pest Management Competitive Grants Program

MODIFIED: Page 30, Added "Response to Previous Review" 03/21/2017

FY 2017 Request for Applications (RFA)

APPLICATION DEADLINE: May 9, 2017

ELIGIBILITY: See Part III, A of RFA

USDA United States Department of Agriculture National Institute of Food and Agriculture

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

CROP PROTECTION AND PEST MANAGEMENT COMPETITIVE GRANTS PROGRAM

INITIAL ANNOUNCEMENT

CATALOG OF FEDERAL DOMESTIC ASSISTANCE: This program is listed in the Catalog of Federal Domestic Assistance under 10.329, Integrated Research, Education, and Extension Competitive Grants Program.

DATES: Applications must be received by **5 p.m. Eastern Time on May 9, 2017.** Applications received after this deadline will normally not be considered for funding (see Part IV, C of this RFA). 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: We at the National Institute of Food and Agriculture (NIFA) seek your comments about this RFA. We will consider your comments when we develop the next RFA for the program, if applicable, and we'll use them 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)). Submit your written stakeholder comments by the deadline set forth in the DATES portion of this notice via email to Policy@nifa.usda.gov. (This email address is 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 Crop Protection and Pest Management Program RFA.

Visit the NIFA website to access a factsheet on the Center of Excellence (COE) designation process, including COE criteria, and a list of programs that offered COE opportunities in FY 2017. You may also review a recording of COE outreach webinars held in February and March of 2015 from the site. We will update COE webpages as appropriate.

EXECUTIVE SUMMARY: NIFA requests applications for the Crop Protection and Pest Management (CPPM) Competitive Grants Program for fiscal year (FY) 2017 to address critical state, regional and national integrated pest management (IPM) needs to ensure food security and respond effectively to other major societal pest management challenges. The CPPM program supports projects that address these challenges with IPM approaches developed by coordinated state, regional, and national research and extension efforts. The impact of these research and extension efforts will be increased by the establishment of communication networks and stakeholder participation in setting priorities. In FY 2017, NIFA will competitively solicit only the Applied Research and Development Program Area (ARDP) and the Extension Implementation Program Area (EIP) applications under the CPPM program. NIFA will fund current Regional Coordination Program Area (RCP) projects through continuation proposals. The anticipated amount available for grants in FY 2017 is approximately $4.1 for ARDP and $8.0 million for EIP. This RFA is being released prior to the passage of an appropriations act for

FY 2017. Enactment of additional continuing resolutions or an appropriations act may affect the availability or level of funding for this program.

Applied Research and Development Program Area (ARDP)
a. Project Period – Two to four years.
b. Budget – Budgets may not exceed $200,000 for applications with PDs from one state/U.S. territory. Budgets may not exceed $325,000 for applications with Project Directors (PDs) from more than one state/U.S. territory. <u>There is an exception to the $200,000 maximum budget for PD(s) from one state or U.S. territory who are studying a major crop/commodity of regional or national importance that is produced only or predominately in one state or U.S. territory and as a result multistate collaboration is not practical. This situation applies primarily to the Western Region where major crops/commodities are grown only or predominately in one state or U.S. territory. Please contact the National Program Leader Programmatic Contact to determine if your project is eligible for this exception and a higher budget up to the $325,000 maximum budget</u>.
c. Depending on the size of project budget requests, NIFA anticipates making in the range of 12 to 18 new ARDP awards.
d. Purpose – To enhance the development, adoption, and implementation of innovative, ecologically-based, sustainable IPM tactics and strategies that address regional and/or national IPM priorities.

All funds for ARDP awards will be provided in year one of the project.

Extension Implementation Program Area (EIP)
a. Project Period – Three years.
b. Budget – Awards may not exceed $900,000 per project. The Consolidated Appropriations Act of 2016 provided NIFA with the following directive for EIP awards: *"Provided further, that notwithstanding any other provision of law, indirect costs shall not be charged against any Extension Implementation Program Area* grant awarded under the Crop Protection/Pest Management Program (7 U.S.C. 7626)." For this reason, no indirect costs may be reimbursed from EIP awards in FY 2017.
c. Depending on the size of project budget requests, NIFA anticipates making in the range of 30 to 60 awards.
d. Purpose – To assure the implementation of IPM through extension activities and coordination with other EIP grantees and other CPPM program areas based on defined state, multi-state, regional, national, or international needs.
EIP awards will be administered as continuation projects (i.e., funding will be provided in one-year increments). Funding after year one will be dependent on legislative authority, availability of annual appropriations, and satisfactory progress.

This notice identifies the objectives for CPPM projects, deadline dates, funding information, eligibility criteria for projects and applicants, and application forms and associated instructions needed to apply for a CPPM grant.

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PART I—FUNDING OPPORTUNITY DESCRIPTION

A. Legislative Authority and Background

Section 406 of the Agricultural Research, Extension, and Education Reform Act of 1998 (AREERA) (7 U.S.C. 7626), as reauthorized by Section 7306 of the Food, Conservation, and Energy Act of 2008 (FCEA) (Pub. L. 110-246) and by Section 7302 of the Agricultural Act of 2014 (H.R. 2642; Pub. L. 113-79), authorized the Secretary of Agriculture to establish a competitive grants program that provides funding for integrated, multifunctional agricultural research, extension, and education activities. Subject to the availability of appropriations to carry out this program, the Secretary may award grants to colleges and universities (as defined by section 1404 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) (7 U.S.C. 3103)), as amended, on a competitive basis for projects that address priorities in United States agriculture and involve integrated research, education, and extension activities, as determined by the Secretary in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board (NAREEEAB).

Section 7206 of the Farm Security and Rural Investment Act of 2002 amended section 406(b) of AREERA to add the 1994 Land-Grant Institutions as eligible to apply for grants under this authority. Section 7129 of the Food, Conservation, and Energy Act of 2008 (FCEA) (Pub. L. 110-246) amended section 406(b) of AREERA (7 U.S.C. 7626(b)), adding Hispanic-serving agricultural colleges and universities (HSACU) as eligible entities for competitive funds awarded under this authority (see Part III, A. for more information).

B. Purpose and Priorities

The purpose of the CPPM program is to address high priority issues related to pests (including insects, nematodes, pathogens, weeds, and other pests) and their management using integrated pest management (IPM) approaches at the state, regional and national levels. The CPPM program supports projects that will ensure food security and respond effectively to other major societal pest management challenges with comprehensive IPM approaches that are economically viable, ecologically prudent, and safe for human health. The CPPM program addresses IPM challenges for emerging issues and existing priority pest concerns that can be addressed more effectively with new and emerging technologies. The outcomes of the CPPM program are effective, affordable, and environmentally-sound IPM practices and strategies needed to maintain agricultural productivity and healthy communities.

The CPPM program provides support for research to develop new IPM approaches, extension to disseminate IPM knowledge and improve adoption of IPM practices, and coordination of IPM activities at the regional and national levels to increase the adoption and implementation of IPM practices on a broad scale. The CPPM program provides support for these functions with three linked programs that emphasize research and development for discovery of IPM knowledge; extension activities for IPM adoption and implementation; and enhanced coordination, collaboration and communications among related CPPM programs and awardees. Together the Applied Research and Development Program Area (ARDP), the Extension Implementation

Program Area (EIP), and the Regional Coordination Program Area (RCP) represent a comprehensive approach for developing IPM practices and strategies and extending this new knowledge across many environments through a coordinated national network. It is anticipated that the application of this evidence-based science will have positive outcomes for society.

In FY 2017, NIFA is soliciting new applications for two of the three program areas supported by the CPPM program, ARDP and EIP. New applications are not being solicited for the third program area (RCP) in FY 2017; RCP projects selected in a previous competition will be supported with continuation awards.

(1) Applied Research and Development Program Area. ARDP funds projects that develop new IPM tactics, technologies, practices, and strategies. ARDP Applied Research (single-function) projects develop innovative, ecologically-based, sustainable IPM strategies and systems that address regional and/or national IPM priorities. ARDP Research-led projects enhance the adoption of innovative, ecologically-based, sustainable IPM strategies and systems. ARDP Extension-led projects increase levels of implementation of innovative, ecologically-based, sustainable IPM strategies and systems by IPM practitioners and growers. For ARDP applications submitted for projects in agricultural settings, IPM projects in both conventional and organic production systems are appropriate.

(2) Extension Implementation Program Area. EIP funds projects based on combinations of primary and secondary priorities intended to increase IPM implementation among the clientele served. Proposed activities in EIP should implement new IPM strategies and improve implementation of known IPM strategies.

National IPM Roadmap
The CPPM program is aligned with the IPM goals identified in the National IPM Roadmap for Integrated Pest Management (National IPM Roadmap). The National IPM Roadmap identifies strategic directions for IPM research, implementation, and measurement for pests in all settings throughout the nation (see http://nifa.usda.gov/sites/default/files/resources/National%20Road%20Map%20for%20Integrated%20Pest%20Management.pdf). In FY 2017, successful CPPM program applicants will develop knowledge and information and improved IPM practices needed for the adoption and implementation of IPM methods that have the following National IPM Roadmap goals:

- Improve cost-benefit analyses when adopting IPM practices;
- Reduce potential human health risks and related management strategies;
- Minimize adverse environmental effects from pests and related management strategies.

Schematic Representation of the CPPM Program's Desired Outcomes and Goals
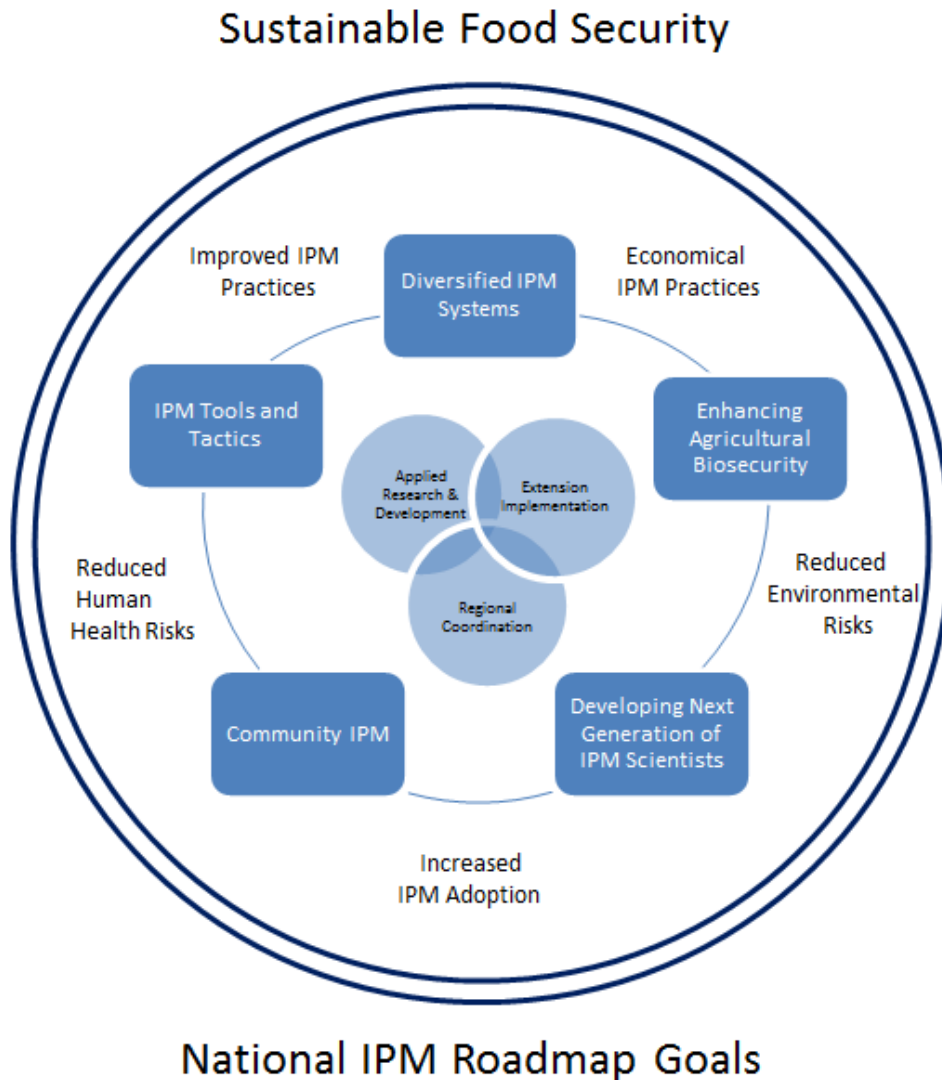
Figure 1. The three CPPM program areas at the center of the figure address IPM needs in the five focus areas described below, thereby contributing to the achievement of the five goals of the National IPM Roadmap shown in the outer ring of Figure 1. and sustainable food security.

The CPPM program, through its three component CPPM program areas (ARDP, EIP, and RCP), will address overall IPM needs in the five following focus areas as funding is available.

1) **Plant Protection Tactics and Tools.** This focus area represents the need for discovery, development, and introduction of new pest management tactics for use in IPM systems.
2) **Diversified IPM Systems.** This focus area represents the need for long-term sustainable solutions to pest management problems on a regional or national scale.
3) **Enhancing Agricultural Biosecurity.** This focus area represents the need to develop and maintain key information systems, networks, and decision support tools that provide the

knowledge infrastructure needed for early detection and the application of science-based IPM systems for invasive, emerging and high-consequence pests that threaten U.S. agriculture. For example, early warning and decision support systems such as the Pest Information Platform for Extension and Education (ipmPIPE) have a direct effect on biosecurity.

4) **IPM for Sustainable Communities.** This focus area represents the need for direct application of IPM knowledge and expertise to address pest management challenges in non-traditional settings such as urban structures, landscapes and gardens, homes and schools.

5) **Development of the Next Generation of IPM Scientists.** This focus area represents the need to develop pre-doctoral and post-doctoral education programs to prepare the next generation of IPM scientists.

For more detailed descriptions of the focus areas, see: http://nifa.usda.gov/sites/default/files/resources/Crop%20Protection%20Focus%20Areas.pdf.

In FY 2017, the CPPM program will provide funding for Plant Protection Tactics and Tools (focus area one), Enhancing Agricultural Biosecurity (focus area three), and IPM for Sustainable Communities (focus area four). Applicants should clearly identify which CPPM focus area(s) their proposal addresses. See Part IV, B., 3., a. for where the CPPM focus area(s) and goals should be placed in the Project Summary.

CPPM Logic Model: The programmatic logic model chart for the CPPM program (Figure 2) incorporates stakeholder input; anticipated outcomes; appropriate elements from IPM logic models from previously funded NIFA IPM programs; goals for the REE Action Plan; goals for USDA and NIFA strategic plans; and goals for the National IPM Roadmap. NIFA will use the programmatic logic model chart to guide the development of future funding priorities and to document the impact of investments made by the CPPM program.

Please Note: All applicants are required to: (1) submit a project-specific logic model chart as part of each application and (2) explain how their project-specific logic model supports the CPPM programmatic logic model chart (Figure 2). See Program Area Description (Part I, C., items 1-2) and Application and Submission Information (Part IV, B., 3.d.) for specific logic model requirements. The project-specific logic model chart must provide details for the inputs, outputs (activities and participants), and outcomes of the proposed project. The logic model chart must also include the project specific situations, assumptions, and external factors statements. See the CPPM program logic model (Figure 2) below to see where you should place these elements in the logic model. For more general information on logic model charts, see www.ipm.gov/LogicModels/index.cfm.

Figure 2. Crop Protection and Pest Management Program Logic Model

Situation: Emerging diseases, insects, weeds and other pests continue to negatively impact U.S. agricultural production, natural areas, and urban settings including places where people live, work, and attend school. Obtaining new science-based IPM knowledge and extending that knowledge with effective, affordable, and environmentally-sound IPM strategies at the local, state, regional and national levels are needed to address these priority IPM challenges.

Inputs	Outputs		Outcomes/Results		
	Participants	Activities / Products	Short Term	Medium Term	Long Term
Legislative authority Annual appropriation USDA involvement NIFA intra-agency coordination Multi-state projects Program directors Support staff Panel Managers Peer Review Panels Stakeholder and partner comments	Stakeholders Commodity associations Public interest groups Farmers Ranchers General public NGOs End users or consumers Underserved individuals or communities Land-grant university partners Cooperative Extension Research, teaching and extension faculty State agencies Federal agencies USDA-NIFA Other allied state and federal agencies Regional IPM stakeholders eXtension CoPs NGOs Public interest groups	Respond to Congressional authorization and appropriation Publish RFA Recruit panel managers and peer review panelists Conduct peer review panel meetings Award funds to meritorious applications Support IPM research to address priority IPM needs Promote collaborative team-building through national and regional coordination meetings and activities and broad-based stakeholder participation Promote the development and implementation of IPM by facilitating coordination and collaboration across states, disciplines and programs Establish and maintain pest management information networks Build partnerships and address challenges and opportunities Develop notable IPM training programs and foster their sustainability Review and evaluate impacts of IPM implementation and communicate successes Communicate positive outcomes to key stakeholders Manage funding resources effectively Collect program impact data	Increase knowledge and adoption of new IPM tools and tactics in integrated strategies for IPM Adapt existing science-based IPM knowledge to new pest scenarios and foster sound IPM solutions Engage broadest possible IPM scientific, extension, and education communities in challenges faced by IPM Engage new stakeholder communities challenged by pest issues who could benefit from IPM Facilitate production of audience-appropriate information/training materials including mobile, web-based, and other digital, as well as traditional formats Facilitate communication among the scientific IPM community and among the research, teaching and extension communities, practitioners, stakeholders, and consumers in a proactive communication strategy Facilitate production of original materials and collaboration with existing or new eXtension CoPs	Innovative and diversified IPM systems are implemented on an area-wide or landscape scale Key information systems, networks, and decision-support tools are adopted for emerging and high-consequence pests and diseases. Enhanced coordination and responsiveness of IPM research, education, and extension effort for critical, priority pest management and food security challenges New stakeholders are using IPM; Stakeholders are using more advanced IPM best management practices Producers and processors adopt newly developed IPM technologies and innovations Regional and national trans-disciplinary systems approaches are being used to solve IPM problems A new generation of research and extension scientists capable of and adept at working in effective, trans-disciplinary regional and national teams are in place Networks improve information flow among IPM components, among stakeholders, and among IPM research, education, and extension communities Stakeholders can document why IPM was beneficial for them and the environment	Crop protection systems are more profitable with IPM Agricultural production increased through reduced pest and disease losses Cost benefit ratios of adopting IPM practices are improved Sustainable IPM practices are implemented Human health and environmental risks from managing pests are reduced U.S. food producers are more competitive globally Global capacity to meet growing food demand improved Safe, affordable and high-quality crops are widely available to consumers Hunger is reduced through improved food security in vulnerable populations Effective, affordable, and environmentally-sound IPM strategies are in place to reduce economic, environmental, and societal losses from pests and diseases that affect crops and livestock, human well-being and community vitality Coordinated state-based, region-wide and national research, education, and extension programs function as catalysts for promoting further development and use of new IPM approaches

Assumptions:
Sustainability is a foundation of integrated pest management (IPM).
IPM plays a significant role in U.S. agricultural production.
Complementary and coordinated state, regional and national approaches are needed in obtaining increased adoption of IPM in agricultural, natural and urban settings.

External Factors:
Congressional appropriations/funding
Stakeholder input
Emerging and critical issues requiring IPM practices and technologies
New pests and pathogens

C. Program Area Description

1. Applied Research and Development Program Area

Program Code – ARDP
Proposed Budget Requests – Budgets may not exceed $200,000 for applications with PDs from one state/U.S. territory. Budgets may not exceed $325,000 for applications with Project Directors (PDs) from more than one state/U.S. territory. **There is an exception to the $200,000 maximum budget for PD(s) from one state or U.S. territory who are studying a major crop/commodity of regional or national importance that is produced only or predominately in one state or U.S. territory and as a result multistate collaboration is not practical. This situation applies primarily to the Western Region where major crops/commodities are grown only or predominately in one state or U.S. territory. Please contact the National Program Leader Programmatic Contact to determine if your project is eligible for this exception and a higher budget up to the $325,000 maximum budget.** (See table below and Multi-State/U.S. territory and/or Regional/National Involvement located in this section).

Project Period – Two to four years
Requested Project Type – The ARDP supports three project types:
- Applied research (single-function) projects develop innovative, ecologically-based, sustainable IPM strategies and systems that address regional and/or national IPM priorities.
- Research-led projects enhance the adoption of innovative, ecologically-based, sustainable IPM strategies and systems.
- Extension-led projects extend implementation of innovative, ecologically-based, sustainable IPM strategies and systems by IPM practitioners and growers.

Please Note – Project proposals must indicate in the Project Summary whether the project is applied research (single-function), research-led, or extension-led.
Program Area Contact – Dr. Herbert Bolton, (202) 401-4201 or hbolton@nifa.usda.gov.

Maximum Award for Each ARDP Project

Project Directors	Maximum Award
Project Directors (PDs) from one state/U.S. territory. *See exception below in paragraph on Multi-State/U.S. Territory and/or Regional/National Involvement.	$200,000
PDs from more than one state/U.S. territory or PDS from one state/U.S. territory addressing a major crop/commodity predominately produced in one state/U.S. territory.	$325,000

Program Area Priorities

Applied Research (single-function) Projects

Applied Research (single-function) projects develop the foundation of IPM knowledge needed for on-going IPM adoption and implementation efforts. Applied Research (single-function) projects develop innovative, ecologically-based, sustainable IPM strategies and systems that address regional and/or national IPM priorities.

Applied Research (single-function) priorities include: 1) development of individual tools and tactics needed for pest management systems (e.g., biocontrol, cultural/physical/mechanical control, host plant resistance, and particularly novel uses of chemicals, monitoring methods or decision support) or 2) increased understanding of how interactions among tactics alter the effectiveness of pest management within agricultural, recreational, suburban, and urban ecosystems. The experimental approach for ARDP proposals should emphasize field-scale experiments over multiple seasons and/or locations, where appropriate. IPM practices should be designed to reduce initial pest populations, lower the carrying capacity of the ecosystem for pests, increase tolerance of hosts to pest injury, and/or provide tools for making management decisions, such as monitoring methods and action thresholds.

Long-term fundamental research is not appropriate for funding in this category. We encourage research on novel, cutting-edge methods, for which data exist to support the likelihood of successful IPM research and adoption. Research involving chemical pesticides should be designed to reduce the amount applied, frequency of applications, increase the selectivity, reduce the risks associated with their use, and/or develop novel resistance management strategies. Project proposals should be designed to minimize adverse impacts on beneficial organisms and to limit buildup of resistant pest populations. Proposals should clearly describe how the tactic or IPM system, once developed, can be incorporated into an existing production or management system. Proposals should also clearly describe the economic, social, and environmental benefits of the proposed IPM strategies, and identify ways to overcome constraints to greater adoption of IPM methods by users.

The following are examples of possible topic areas that could be addressed by Applied Research (single-function) proposals. Identification of these topic areas is not intended to be exclusionary and should not deter submission of applications that address other topic areas appropriate for Applied Research (single-function) projects.

- Documenting (measuring) the impacts of IPM adoption;
- Developing an effective strategy or tactic for a pest problem that currently limits production efficiency in a plant or animal production system, and is recognized by the user community as a key priority;
- Addressing multiple cycles of pests (arthropods, nematodes, vertebrates, pathogens, or weeds) over seasons, and/or multiple species and complexes at the landscape or ecosystem level (agricultural production, urban, or natural systems) with consideration of the interactions of the entire system;

- Promoting biological diversity in pest management systems and integration of multiple pest management tactics;
- Identifying constraints to greater adoption of IPM strategies and developing approaches to overcome these constraints;
- Promoting an interdisciplinary, IPM systems approach;
- Developing effective pest management tactics for invasive pests (arthropods, nematodes, vertebrates, pathogens, or weeds) in cropping systems and natural and urban areas; and
- Developing projects that enhance the development of innovative, ecologically-based, sustainable IPM strategies and systems for current and/or emerging pests of national importance.

Research-led Projects

Research-led projects primarily address the priorities identified for Applied Research (single-function) projects (listed above), but at least 20 percent of project effort must be focused on the topic areas identified for Extension-led projects (listed below). Proposals should clearly describe how Extension personnel will be involved at the beginning of project planning and how the Extension activities will be conducted concurrently with research activities throughout the life of the project.

Extension-led Projects

Extension-led projects enhance outreach efforts and maximize opportunities to build strategic alliances with stakeholders to expand their active participation in increasing the implementation of IPM methods.

Extension-led priorities include: 1) development of extension materials and information delivery systems for outreach efforts, 2) implementation of field-scale or on-farm demonstrations, and 3) delivery of IPM extension outreach and training. Extension-led proposals should document the existence of a research-base relevant to the extension effort. ARDP funding is not intended to support ongoing extension programmatic efforts. At least 20 percent of project effort should be focused on the topic areas identified for Applied Research (single-functions) projects (listed above).

Examples of possible topic areas covered in Extension-led proposals are listed below. Identification of these topic areas is not intended to be exclusionary and should not deter submission of applications that address other topic areas appropriate to Extension-led priorities.

- Providing IPM outreach and training to individuals involved with the production, processing, storage, transporting, and marketing of food and agricultural commodities;
- Developing educational materials and information delivery systems that provide IPM personnel in the public and private sectors with timely, state-of-the-art information about effective IPM strategies;
- Providing outreach on endangered species protection related to IPM;

- Developing IPM programs for urban and natural systems, and address human and environmental health issues when appropriate; and
- Enhancing the development and implementation of innovative, ecologically-based, sustainable IPM strategies and systems for current and/or emerging pests of national importance.

Successful ARDP applications will fully address each of the following:

- **Stakeholder-Identified IPM Needs.** Proposals should address IPM needs identified by diverse regional and national stakeholders. <u>Applications must include at least one explicit citation that documents the specific stakeholder-identified needs addressed by the proposed project.</u> Clearly reference identified needs with corresponding citations. The citation of stakeholder IPM needs is important because it demonstrates that a project is both important to stakeholders and that PDs are engaged with the stakeholder community. Sources of stakeholder-identified needs include, but are not limited to:
    - o Needs identified by the Regional IPM Centers. See:
        - www.ncipmc.org/grants/stakeholder_priorities.php
        - www.northeastipm.org/grant-programs/stakeholder-priorities
        - www.sripmc.org/Policy/Priorities,
        - westernipm.org/index.cfm/center-grants/priorities/;
    - o Needs identified in crop profiles. See www.ipmcenters.org/CropProfiles;
    - o Needs identified in Pest Management Strategic Plans. See www.ipmcenters.org/pmsp;
    - o Recommendations or reports from state IPM programs;
    - o Recommendations from relevant IPM research and/or extension multi-state committees;
    - o IPM needs from Sustainable Agriculture Research and Extension (SARE) sub-regional conferences;
    - o Recommendations from other IPM stakeholder groups; and
    - o Other documented IPM needs assessment evaluations.

    Letters of support and collaboration from stakeholders may be submitted; however, letters of support do not satisfy the requirement that the applications must include at least one explicit citation that documents the specific stakeholder-identified needs addressed by the proposed project.

- **Multi-State/U.S. Territory and/or Regional/National Involvement.** Proposals must address regional and/or national IPM priorities and should include multi-state, regional, and national collaborations for purposes of efficiency, economy, and synergy. **All applications, including those with PDs from one state or U.S. territory, <u>must clearly describe how the project will provide benefits to more than one state or U.S. territory.</u>** Multi-state/U.S. territory, regional, and national proposals must describe the role of each collaborating partner in enough detail to convince the peer reviewers of the application that the multi-state/U.S. territory collaboration is meaningful. **Projects undertaken by PDs in a single state/U.S. territory will be accepted, but the expected benefits for other states/U.S. territories must be described** (see Part III, A., Eligible Applicants). *__There is an exception to the $200,000 maximum budget for PD(s) from one state or U.S. territory who are studying a major__

crop/commodity that is produced only or predominately in one state or U.S. territory and as a result multistate collaboration is not practical. This situation applies primarily to the Western Region where major crops/commodities are grown only or predominately in one state or U.S. territory. Please contact the National Program Leader Programmatic Contact to determine if your project is eligible for this exception and a higher budget up to the $325,000 maximum budget. When a proposal involves a crop/commodity that is of regional or national importance and is produced predominately in one state/U.S. territory, the proposal must include <u>documentation</u> that the crop/commodity is grown predominately in one state/U.S. territory and must describe why multistate collaboration is impractical.

- **Multi-Disciplinary and Systems-Oriented.** Proposals should promote cooperative efforts across appropriate disciplines, with linkages between research and extension efforts, and components of existing or emerging pest management systems. The proposal <u>must</u> describe the role of each member of the multi-disciplinary team and their responsibilities to the project.

- **Systems Approach.** Proposals should describe a plan for enhancing the development, adoption, and implementation of innovative, ecologically-based, sustainable IPM strategies and systems. The IPM strategies that are developed should have the potential to significantly enhance and protect environmental quality, reduce the risk of health problems and other problems associated with pest control practices, promote biological diversity in pest management systems, and integrate multiple pest management tactics. The primary emphasis of the proposed project should be to enhance productivity and profitability while addressing critical environmental quality and human health issues. Proposals <u>may</u> address major acreage agricultural production systems, high value crops such as key fruit and vegetable systems, animal production systems, urban systems, or other agro-ecosystems including natural areas. For ARDP applications submitted for projects in agricultural settings, IPM projects in both conventional and organic production systems are appropriate.

- **Implementation Plan.** Proposals <u>must</u> include a plan for implementation of results generated by the project, and a plan for measuring and assessing adoption, implementation, and potential impact using cost-effective approaches and criteria.

- **Timeline.** Proposals must include a detailed timeline with key milestones for the project objectives and other important project tasks.

- **Logic Model.** Proposals must include a project-specific logic model chart, and explain how the project-specific logic model chart supports the CPPM programmatic logic model (see Application and Submission Information, Part IV, B., 3., d. The project-specific logic model chart must provide details for the inputs, outputs (participants and activities/products), outcomes/results (short term, medium term, and long term), situations, assumptions, and external factors of the proposed project.

- **Coordination.** Successful applicants <u>must</u> participate in appropriate Hatch Multistate IPM Education/Extension and Research Activities (e.g., NCERA222, NEERA1604, SERA3, and WERA1017. See the National Information Management and Support System (NIMSS) at www.nimss.org for information on these committees and other relevant research multi-state committees, and the regional IPM centers for other regional programmatic efforts coordinated by regional IPM centers. The purpose of these coordination opportunities is to facilitate collaboration and cooperation; move research results to actual application through IPM adoption and implementation; and achieve CPPM program outcomes.

- **Partnerships.** Applicants are strongly encouraged to develop partnerships that include collaboration with small- or mid-sized, accredited colleges and universities; 1890 land-grant institutions; 1994 land-grant institutions; Hispanic-serving institutions; Hispanic-serving Agricultural Colleges and Universities (HSACUs); and/or other institutions that serve high-risk, under-served, or hard-to-reach audiences.

- **National IPM Roadmap.** Proposals should address in the project narrative and the project-specific logic model chart applicable goals identified by the National IPM Roadmap for Integrated Pest Management (see http://nifa.usda.gov/sites/default/files/resources/National%20Road%20Map%20for%20Integrated%20Pest%20Management.pdf).

- **Project Director (PD) Workshop.** Successful applicants, or a designee, are required to participate in a PD workshop during the term of their project. The regional IPM centers will organize and conduct these project director workshops in each region. The regional IPM centers may hold this workshop in conjunction with another conference or separately from any other meeting. For the purpose of budget development, applicants are required to request funds for attending this workshop. The request for these funds should be clearly indicated in the budget narrative section of the application. Applicants may contact their regional IPM center for more details on upcoming project director workshops.

Other ARDP Program Area Information

The ARDP extension-led projects are separate from extension projects funded in the Extension Implementation Program Area (EIP) and are generally not as mature, are more narrowly focused, and/or are outside the scope of EIP.

2. Extension Implementation Program Area

Program Code – EIP
Proposed Budget Requests – Budgets must not exceed $300,000 per year and $900,000 per project. This program area is limited to one application per institution per year and each application must include an endorsement letter. For details see: Part IV., B., 3., b. Proposals Submitted to the Implementation Program Area, (7). **Project Period – Three years**
Requested Project Type – Extension implementation. This program will support an extension IPM coordination project at eligible institutions. Applications submitted to EIP should describe

institution-based programs that are extension-led, but may include research-demonstration components. Any research activities must be directly related to the extension program. No more than 20 percent of a project's activities may be research-led.

Program Area Contact – Dr. Herbert Bolton, (202) 401-4201 or hbolton@nifa.usda.gov

Program Area Priorities – EIP applications must address the following:

Primary Priorities *Must include at least one. Budgets must adhere to the funding cap*[*]	**Secondary Priorities** *May be included if appropriate. No single secondary priority may exceed $50,000 per year*[*]
IPM Implementation in Agronomic Crops	IPM Conservation Partnerships
IPM Implementation in Animal Agriculture	IPM Support for Pest Diagnostic Facilities
IPM Implementation in Communities	IPM Training and Implementation in Housing
IPM Implementation in Specialty Crops	IPM Education for Pesticide Applicators
IPM for Pollinator Health	IPM in Public Health
	IPM on Recreational Lands
	IPM Training and Implementation in Schools
	IPM Partnerships in Wide-Area Pest Monitoring and Reporting Systems

[*]EIP proposals must adhere to a $300,000 per year funding cap. Proposals may request a total of $300,000 per year (for each year in the three-year award period) to support any combination of up to six primary (must include one primary priority) and secondary program area priorities. The list of priorities above is in alphabetic order by priority keywords and does not represent any prioritization. Each priority will carry equal weight in the ranking of an application during the peer review process. Including more priorities will not positively impact the review ranking of the proposal.

Program Priorities Descriptions

This section provides descriptions of the EIP primary and secondary priorities. Applications may include a maximum of six primary and secondary priorities, but may have fewer than six priorities. Applications <u>must</u> describe active IPM programming for at least one primary priority; additional priorities may be any combination of primary or secondary priorities.

For EIP proposals, the Project Summary/Abstract and the Project Narrative must include the following mandatory information. For each primary and secondary priority in the EIP proposal, list the priority and provide the percentage of the total proposal budget that the primary or secondary priority represents. An example is: IPM Implementation in Agronomic Crops (55%), IPM for Pollinator Health (30%), and IPM in Public Health (15%).

Primary Priorities:

(a) IPM Implementation in Agronomic Crops. Agronomic crops include grain and oilseed crops such as wheat, corn, cotton, soybean, rice, cultivated forages, mixed rangeland forages, and other crops traditionally viewed as agronomic. Applicants must provide justification for the size of the funding request based on the economic significance of the crop and the need for IPM in the crop as defined by statewide agricultural receipts, planted acres, the potential for addressing environmental or health risks, stakeholder input, and/or the importance of the pest in a local cropping system.

(b) IPM Implementation in Animal Agriculture. Extension training, outreach programs, and materials development to increase adoption of IPM practices in livestock production and other areas of animal agriculture is included in this priority. Applicants must provide justification for the size of the request based on the scope and significance of the industry and opportunities for adoption of IPM.

(c) IPM in Communities. This priority includes extension training programs and materials development and delivery to increase adoption of IPM practices by private citizens in the home landscape, lawn care companies, garden centers, urban foresters, and similar practitioners. [**Note:** Programming for commercial nursery and greenhouse production should be included in the priority listed below, "IPM Implementation for Specialty Crops". Home horticulture is included in the IPM in Communities priority.] NIFA strongly encourages significant linkages with state and/or county Extension Master Gardener programs for this priority. Applicants must provide justification for the size of the funding request based on the local risk from the pests described in the proposal, the level of service provided to the public, and the economic significance of the pest to consumer horticulture.

(d) IPM Implementation in Specialty Crops. Specialty crops are defined as fruits and vegetables, tree nuts, dried fruits, and horticultural and nursery crops (including floriculture). Input costs, intensiveness of labor or production, or return on investment are typically greater for specialty crops than for agronomic crops. Applicants must provide justification for the size of the funding request based on the economic significance of the crop and the need for IPM in the crop as defined by statewide receipts, planted acres, the potential for addressing environmental or health risks, stakeholder input, and/or the importance of the pest in a local cropping system.

(e) IPM for Pollinator Health. This priority includes extension projects that support Pollinator Health. Projects could include:

1) Implementation of outreach and extension strategies to reduce declines of pollinators in agroecosystems and/or surrounding landscapes caused by one or more factors such as habitat changes or loss, nutritional imbalances, pathogens, pests, pesticides, toxins, genetic factors, or management practices;

2) Implementation of successful habitat restoration systems that maximize conservation of pollinators and integrate with management of other components of agricultural systems, including, but not limited to, invasive plants and other pests and diseases;

3) Implementation of improved best management practices for protection and conservation of pollinators and coordination with pest management practitioners using an Integrated Pest Management (IPM) framework to ensure that pests and diseases are effectively managed; or

4) If an educational component is included, projects may incorporate curriculum development, novel experiential learning opportunities, online educational resources, citizen science, apps and/or educational games.

For these projects, partnerships between public and private entities are encouraged, such as universities, government agencies (e.g., USDA's APHIS, ARS, FS, FSA, NRCS; USEPA; USGS; and/or State programs), beekeepers, crop producers, farm advisors, IPM practitioners, land managers, private industries, or non-profit organizations. The specific contribution(s) of these entities to the project (e.g., outreach coordination, leveraging additional funds and other resources, sharing data and information, and/or citizen engagement) must be specified in the application.

Secondary Priorities:

Secondary priorities may complement primary priorities, but are more focused priorities and typically have a narrower scope. Secondary priorities are not required in EIP applications.

(f) **IPM Conservation Partnerships.** This priority includes coordination with local Natural Resources Conservation Service (NRCS) districts or state conservationists to implement the NRCS 595 standard for IPM. The 595 standard for IPM practice is applied as part of a conservation system to mitigate the negative impacts on soil, water, air, plant, and animal and/or human resources and to protect and enhance quantity and quality of agricultural outputs. Applicants must show evidence of collaboration with their NRCS state conservationist or local conservation districts. The project budget must reflect the level of collaboration. You must provide justification for the size of the request based on the significance of the issue and the potential of successful coordination with NRCS and local conservation districts. You can find further explanation in Agronomy Technical Note No. 5 (www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044467.pdf) as summarized in the documents located at efotg.sc.egov.usda.gov/references/public/WI/595.pdf and www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044470.pdf.

(g) **IPM Support for Pest Diagnostic Facilities.** Accurate identification of the pest or problem is fundamental to IPM strategies. Applicants must provide justification for the size of the request based on the defined need and existing support for diagnostic facilities.

(h) **IPM Training and Implementation in Housing.** This priority includes extension training programs, and materials development and delivery, to increase adoption of IPM practices

in housing and to address resident exposure to pest-related allergens and pesticide residues. Applicants must provide justification for the size of the request based on the number of housing units to be served and the need for IPM in the facilities. Applications may target public housing, housing on tribal lands, or other types of housing, particularly when addressing underserved audiences in collaboration with county social services or other entities that make housing affordable and accessible (e.g., Habitat for Humanity).

(i) IPM Education for Pesticide Applicators. IPM principles may be an integral part of many pesticide applicator-training activities. This training often takes place as part of topic-specific training for certification/recertification category credits. However, general IPM principles are also incorporated into core credit education delivered to all types of applicators. You must provide a justification for the size of the funding request based on the training outputs to be achieved and their corresponding outcomes. NIFA will give priority to educational activities with the highest likelihood of achieving positive and measurable impacts toward the goals articulated in the National IPM Roadmap (https://nifa.usda.gov/sites/default/files/resources/National%20Road%20Map%20for%20Integrated%20Pest%20Management.pdf). NIFA expects proposals that address this priority to include information necessary to demonstrate strong linkages with the Pesticide Safety Education Program (PSEP) or other existing applicator education programs. However, only activities specifically providing IPM education for pesticide applicators are eligible for funding; proposals that provide general support for related extension programs will not be considered for funding.

(j) IPM in Public Health. This priority supports extension training programs (including material development) to increase adoption of IPM practices for management of ticks and lice, mosquitoes, and similar pests of humans, particularly those that may vector disease. Applicants must provide a justification for the size of the request based on the local risk from the described pests. Because risks from pests of humans may be highly regional, evidence of incidence of disease or frequency of pest incidence in a locale are valid justifications for importance of a local pest problem. Partnerships may involve entities outside the university community such as city or county public health services, federal service agencies, and non-governmental entities. However, these IPM partners may not originate a proposal. Indoor pests, such as bedbugs, may also be addressed under two other secondary priorities: "IPM Training and Implementation in Housing" and/or "IPM Training and Implementation in Schools."

(k) IPM on Recreational Lands. This priority supports extension training programs (including material development) to increase adoption of IPM practices in parks, athletic facilities, golf courses, natural areas, parklands, and other recreational areas. For this priority, applications should identify partnerships that would be *formed* with federal and state agencies that manage public lands.

(l) IPM Training and Implementation in Schools. This priority includes extension training, outreach programs, and materials development to increase adoption of IPM practices in schools to address childhood exposure to pest related allergens and pesticide residues in

the PreK-12 school environment. Additional activities may include development and/or delivery of Extension IPM education programs. Applicants must provide justification for the size of the request based on the number of school districts to be served, the need for IPM in the educational environment, or a demonstrated need for IPM in the district served.

(m) IPM Partnerships in Wide-Area Pest Monitoring and Reporting Systems. This priority includes participation in pest monitoring when it is associated with wide-area tracking, such as through the Pest Information Platform for Extension and Education (ipmPIPE). Tracking and monitoring efforts require implementation of standardized national protocols for area-wide efforts involving ipmPIPE. Preparation of training and Extension education materials within those systems may be a component of this emphasis area. The ipmPIPE provides a delivery model for the development of tools to increase usefulness, improve data retrieval and interpretation, and maintain databases and other information resources needed for pest management decision-making. Detailed information about ipmPIPE can be found at www.ipmpipe.org. Similar systems are also eligible as long as the proposal includes data sharing with producers and decision-makers to improve their pest management decisions based on IPM principles and enhanced knowledge of pest distributions. Applicants must provide justification for the size of the request based on costs to conduct the proposed activities associated with the monitoring of the program and how the funds will complement funding from other sources.

Successful EIP applications will:

- Include an administrative coordination plan for project activities and a description of project activities with expected outcomes for the primary and secondary priorities included in your application. Most applicants will describe this section separately and budget for the associated costs.
- Explain why the priority(ies) included in the application are appropriate based on identified need and stakeholder input.
- Specifically describe plans/design to implement the project by delivering and coordinating extension/outreach programs within the audiences and geography served by the institution. Include short, medium and long-range outcomes that show measureable advances in knowledge of IPM, understanding/attitudes about IPM, and adoption of increasingly higher level IPM strategies in any of the primary or secondary priorities.
- Specify project activities that may include informal and non-formal educational approaches (see definitions in Part VIII, Section E). In these cases, describe how the project will:
    - **(a)** Provide technical assistance and troubleshooting to build understanding when clients are most receptive to instruction;
    - **(b)** Develop materials to assist in program delivery that could include printed manuals and fact sheets, media productions, internet resources, decision support guidance and other teaching aids;
    - **(c)** Maintain programs addressing the management of endemic, established pests of economic and social concern that aid in the implementation across appropriate geographic areas;

    (d) Respond to emerging pests of economic and social concern and aid in IPM implementation across appropriate geographic areas;

    (e) Use participatory and demonstration research techniques to engage practitioners and stakeholders in IPM systems that employ novel tactics;

    (f) Coordinate with current researchers in appropriate disciplines, incorporate new IPM tactics into educational programs, and measure the improvements resulting from the application or implementation of those enhanced IPM strategies. Any application that includes research activities must clearly describe how the research is directly connected to the extension effort and how it will contribute to applied outcomes. No more than 20 percent of the described project and budget should be devoted to research;

    (g) Train key clientele (agents/educators, consultants, scouts, growers, and others) to enhance understanding of pest management tactics and strategies.

- Build collaborative teams among other CPPM programs in the region and nation to leverage resources, expertise, and coordination with your regional IPM center. Proposals must also address the desired outcome of multiple regional and national team building efforts, active communication networks, and enhanced stakeholder participation. Successful applicants will be expected to participate in the current and future iterations of the Hatch Multistate IPM Education/Extension and Research Activity (currently labeled NEERA1604, NCERA222, SERA3, and WERA1017. See the National Information Management and Support System (NIMSS) at www.nimss.org), for the purpose of facilitating and obtaining regional IPM outcomes consistent with the CPPM program and other regional programmatic efforts coordinated through their appropriate regional IPM center.

- Partner, engage, and involve diverse audiences in building collaborative teams. NIFA strongly encourages collaboration with small- or mid-sized accredited colleges and universities; 1994 land-grant institutions; insular areas; Hispanic-serving institutions; Hispanic-serving Agricultural Colleges and Universities (HSACUs); and/or other institutions that serve high-risk, under-served, or hard-to-reach audiences.

- Engage stakeholders to assure a shared vision of the advantages of IPM implementation and seek their involvement in establishing program priorities and evaluation of program successes.

- Apply appropriate guidance provided in the National IPM Roadmap (see https://nifa.usda.gov/sites/default/files/resources/National%20Road%20Map%20for%20Integrated%20Pest%20Management.pdf).

- Measure and evaluate program successes by implementing an integrated plan for education, implementation, and assessment. A successful program will include indicators and measures of program success, reflecting outcomes addressing issues critical to clientele that will lead to high level outcomes (www.ipm.gov/LogicModels/index.cfm).

- Participate in a project director (PD) workshop**.** Successful applicants, or a designee, are required to participate in a PD workshop during the term of their project. The regional IPM centers will organize and conduct these project director workshops in each region. The regional IPM centers may hold this workshop in conjunction with another conference or separately from any other meeting. For the purpose of budget development, applicants are required to request funds for attending this workshop. The request for these funds should be

clearly indicated in the budget narrative section of the application. Applicants may contact their regional IPM center for more details on upcoming project director workshops.

- Submit a separate logic model chart for each EIP primary or secondary priority in your application. The logic models will explain the situation and how inputs and outputs will result in outcomes that are in line with the CPPM programmatic logic model (Figure 2; also see Application and Submission Information Part IV, Section B, 3., d.. Each logic model chart must provide details for the activities, participants, outputs, and outcomes for that priority.

Other EIP Program Area Information

It is important to recognize that EIP is an extension implementation program and as such does not directly create knowledge through fundamental or basic research. EIP disseminates knowledge to users beyond the traditional classroom through both classical and creative methods of informal and non-formal education and both delivers and assesses program outcomes through a transdisciplinary approach. For the differentiation between the terms 'transdisciplinary,' 'multidisciplinary', and 'interdisciplinary', see definitions (Part VIII, Section E).

Eligible institutions may apply independently or may apply together with other eligible universities to deliver programs to more diverse audiences or to provide a broader expertise or expanded project scope. See Part III for eligible institutions. Collaboration with institutions in other states may also be appropriate where common issues exist and complementary expertise is available. Please note that sub-awardees do not need to be eligible applicants for the CPPM program.

Institutions awarded EIP funding in FY 2017 will be expected to build on the successes and capacity developed by previous NIFA grants and activities associated with the CPPM/EIP program (see http://cris.nifa.usda.gov/cgi-bin/starfinder/0?path=fastlink1.txt&id=anon&pass=&search=gc=(EIP)%20AND%20gy%3e2008&format=WEBTITLESG) and the Extension IPM Coordination and Support program (see: http://cris.nifa.usda.gov/cgi-bin/starfinder/0?path=fastlink1.txt&id=anon&pass=&search=gc=(QQIPM;QQ.E)%20AND%20gy%3e2008&format=WEBTITLESG. New applicants will not be disadvantaged from not previously receiving funding from the CPPM/EIP program or earlier Smith-Lever 3(d) programs.

To provide an extensive collaborative national extension network, NIFA expects to fund EIP projects at as many eligible institutions as possible, providing the peer review panel ranks individual proposals in a fundable category and activities are complementary rather than duplicative.

Please Note: NIFA encourages (but does not require) projects that develop content suitable for delivery through eXtension (https://extension.org/).

PART II—AWARD INFORMATION

A. Available Funding

The anticipated amount available for new grants in the ARDP and EIP program areas of the CPPM program in FY 2017 is approximately $4.1 and $8 million, respectively. This RFA is being released prior to the passage of an appropriations act for FY 2017. Enactment of additional continuing resolutions or an appropriations act may affect the availability or level of funding for this program.

There is no commitment by USDA to fund any particular application or to make a specific number of awards.

The Automated Standard Applications for Payment System (ASAP), operated by the Department of Treasury's Bureau of the Fiscal Service, is the designated payment system for awards resulting from this RFA. For more information see
www.fiscal.treasury.gov/fsservices/gov/pmt/asap/asap_home.htm.

B. Types of Applications

In FY 2017, you may only submit a new or resubmitted application to the CPPM program in response to this RFA:

New application. This is a project application that has not been previously submitted to the CPPM program. We will review all new applications competitively using the screening for administrative requirements, review panel evaluation of proposals using evaluation criteria and selection process described in Part V—Application Review Requirements. NIFA may choose to issue a new award on a continuation basis. A continuation award is an award instrument by which NIFA agrees to support a specified level of effort for a predetermined period of time with a statement of intention to provide additional support at a future date, provided that performance has been satisfactory, appropriations are available for this purpose, and continued support would be in the best interest of the federal government and the public.

Resubmitted application. This is an application that had previously been submitted to the CPPM program but not funded. Project Directors (PDs) must respond to the previous review panel summary (see Response to Previous Review, Part IV). We must receive resubmitted applications by the relevant due dates. We will evaluate resubmitted applications in competition with other pending applications in the appropriate area to which they are assigned and review them according to the same evaluation criteria (Part V, B) as new applications.

C. Project Types

1) Applied Research and Development Program Area (ARDP)

Three types of ARDP proposals can be submitted: Applied Research (single-function) projects, Research-led projects, or Extension-led projects. See Part 1, C., 1. for descriptions of the project types.

2) Extension Implementation Program Area (EIP)

All EIP projects will be three-year extension implementation projects awarded as initial grants with yearly continuations or as fully funded in the initial grant. See Part 1, C., 2. for the description of this project type.

D. Responsible and Ethical Conduct of Research

In accordance with sections 2, 3, and 8 of 2 CFR Part 422, institutions that conduct USDA-funded extramural research must foster an atmosphere conducive to research integrity, bear primary responsibility for prevention and detection of research misconduct, and maintain and effectively communicate and train their staff regarding policies and procedures. In the event an application to NIFA results in an award, the Authorized Representative (AR) assures, through acceptance of the award that the institution will comply with the above requirements. Award recipients shall, upon request, make available to NIFA the policies, procedures, and documentation to support the conduct of the training. See http://nifa.usda.gov/responsible-and-ethical-conduct-research for more information.

PART III—ELIGIBILITY INFORMATION

A. Eligible Applicants

Applications may only be submitted by colleges and universities (as defined in section 1404 of NARETPA) (7 U.S.C. 3103) to the CPPM program. Section 1404 of NARETPA was amended by section 7101 of the Food, Conservation, and Energy Act of 2008 (FCEA) to define Hispanic-serving Agricultural Colleges and Universities (HSACUs), and to include research foundations maintained by eligible colleges or universities. Section 406(b) of AREERA (7 U.S.C. 7626), was amended by section 7206 of the Farm Security and Rural Investment Act of 2002 to add the 1994 Land-Grant Institutions as eligible to apply for grants under this authority.

Award recipients may subcontract to organizations not eligible to apply provided such organizations are necessary for the conduct of the project. Failure to meet an eligibility criterion by the 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

In accordance with section 1492 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3371), as added by section 7128 of the Agricultural Act of 2014 (Pub. L. 113-79), for grants awarded after October 1, 2014, the recipient of an award from the CPPM program must provide funds, in-kind contributions, or a combination of both, from sources other than funds provided through such grant in an amount that is at least equal to the amount awarded by NIFA unless one of the exemptions described herein is applicable. Note that NIFA included information at http://www.nifa.usda.gov/business/awards/matching_require.html to further assist you in determining if you must meet the new matching requirement.

The matching funds requirement does not apply to grants awarded:

1. To a research agency of the United States Department of Agriculture (USDA); or
2. To an entity eligible to receive funds under a capacity and infrastructure program (as defined in section 251(f)(1)(C) of the Department of Agriculture Reorganization Act of 1994, 7 U.S.C. 6971(f)(1)(C)), including a partner (see Part VIII, E. Definitions for definition of partnership) of such an entity.

Entities eligible to receive funds under a capacity and infrastructure program and exempt from the matching funds requirement include:

1. 1862 Land-grant Institutions, including State Agricultural Experiment Stations receiving funding under the Hatch Act of 1887.
2. 1890 Land-grant Institutions.
3. 1994 Land-grant Institutions.

4. Entities eligible to receive funds under the Continuing Animal Health and Disease, Food Security, and Stewardship Research, Education, and Extension Program Funds — Capacity and Infrastructure Program (CIP).
5. Hispanic-Serving Agricultural Colleges and Universities (HSACU).
6. Insular Area Schools Eligible to Receive Funds from the Distance Education/Resident Instruction Grant Programs.
7. Entities eligible to receive funds under the McIntire-Stennis Cooperative Forestry Program Funds.
8. Non-Land Grant Colleges of Agriculture (NLGCA) – (for exemption from the new matching requirement, these applications must include NLGCA certification, see instructions for requesting certifications at http://www.nifa.usda.gov/form/form.html, and for attaching the certification in Part IV, B. of this RFA).
9. Entities eligible to receive funds under a program established under section 1417(b) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3152(b)), including: (1) 1890 Institution Teaching, Research, and Extension Capacity Building Grants Program; (2) Higher Education Challenge Grants Program; (3) Higher Education Multicultural Scholars Program; and (4) Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Grants Program.
10. Individual public or private, nonprofit Alaska Native-Serving and Native Hawaiian-Serving Institutions of higher education (see 20 U.S.C. 1059d).

A proposal submitted in response to this RFA may indicate that the work will be completed by multiple entities as a collaborative partnership. All partners must have a substantial involvement in the project throughout the life of the project. If a partnership among multiple entities is proposed, the proposal must clearly identify the following:

1. A narrative of each entity's clearly established role in the project;
2. How each entity involved as a partner on the project will contribute to execution of project objectives, determination of experimental design, development of the project work plan and time table, and submission of collaborative, timely reports; and
3. A comprehensive project budget that reflects each entity's financial or third party in-kind contribution (see section 2 of 7 CFR 3430 or section 96 of 2 CFR part 200) to the total project budget costs.

If a proposal indicates that the work on the project will be completed by multiple entities as partners, and at least one entity is exempt from the matching requirement under #2 above, the entire project will be exempt from the matching requirement regardless of whether all entities involved are otherwise exempt. Any partner entity can serve as the lead entity on the project. All partners must be significantly involved in the project.

After proposals have been recommended for award, NIFA will determine if the submitted proposal and proposed division of work reflects substantial involvement of all entities involved. If a proposal is recommended for award to a lead entity not otherwise exempt from the matching requirement and the proposal does not reflect substantial involvement of at least one partner that is exempt under #2 above, then the matching requirement will apply. Exemption from the

matching requirement for an entity not otherwise exempt is limited to the project for which it is a partner.

Waiver of Match - NIFA may waive the matching funds requirement for a recipient for one year with respect to a competitive grant that involves research or extension activities that are consistent with the priorities established by the National Agricultural Research, Education, Extension and Economics Advisory Board (NAREEEAB) for the year involved. To determine whether proposed activities are consistent with the priorities of the NAREEEAB, please refer to the 2014 Research, Education and Economics Action Plan (https://nifa.usda.gov/resource/ree-action-plan). Instructions for requesting a waiver are included in Part IV, B, 6. of this RFA.

C. Centers of Excellence

Pursuant to Section 7214 of the Agricultural Act of 2014 (Pub. L. 113-79), beginning in Fiscal Year 2015, for applicable competitive research and extension programs, NIFA will recognize and provide priority in the receipt of funding to applications from "centers of excellence" that carry out research, extension, and education activities that relate to the food and agricultural sciences. NIFA held listening sessions in July 2014 and accepted written comments from stakeholders to inform NIFA's implementation of the COE provision. Information from the webinars and a summary of the input are available on NIFA's website at http://nifa.usda.gov/centers-excellence.

A COE is composed of one or more of the following entities that provide financial or in-kind support to the COE.

   (A) State agricultural experiment stations;

   (B) Colleges and universities;

   (C) University research foundations;

   (D) Other research institutions and organizations;

   (E) Federal agencies;

   (F) National laboratories;

   (G) Private organizations, foundations, or corporations;

   (H) Individuals; or

   (I) any group consisting of two or more of the entities described in (A) through (H).

COE designation is available only to CAP and standard grant applicants. Because CPPM grants are standard grants, they are eligible for COE designation. Part IV, B., 3. of this RFA contains additional requirements for COE consideration.

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. We urge you to submit early to the Grants.gov system. For information about the pre-award phase of the grant lifecycle see http://www.grants.gov/web/grants/learn-grants/grants-101/pre-award-phase.html.

New Users of Grants.gov

Prior to preparing an application, we recommend that the Project Director/Principal Investigator (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 not (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 long 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 **"Register," in the top right corner of the Grants.gov web page (or go to** http://www.grants.gov/web/grants/register.html**), for information on registering the institution/organization with Grants.gov.** Part II, 1 of the NIFA Grants.gov Application Guide contains detailed information regarding the registration process. Refer to item 2, below, to locate the "NIFA Grants.gov Application Guide."

Steps to Obtain Application Package Materials

To receive application materials:
1. You must download and install a version of Adobe Reader compatible with Grants.gov to access, complete, and submit applications. For basic system requirements and download instructions, see http://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html. Grants.gov has a test package that will help you determine whether your current version of Adobe Reader is compatible.

2. To obtain the application package from Grants.gov, go to http://www.grants.gov/web/grants/applicants/download-application-package.html and enter the funding opportunity number

    Funding Opportunity Number: USDA-NIFA-CPPM- 006264

    From the search result, click "Select Package" to access the application package. A Grant Application Package is tied to a particular funding opportunity. You may submit an application ONLY to the particular funding opportunity to which the Grant Application Package is associated.

Contained within the application package is the "NIFA Grants.gov Application Guide." 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 you require assistance to access the application package (e.g., downloading or navigating Adobe forms) **or submitting the application,** refer to resources available on the Grants.gov website (http://www.grants.gov/web/grants/applicants/applicant-tools-and-tips.html). Grants.gov assistance is also available at:

Grants.gov customer support
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

Grants.gov iPortal (see https://grants-portal.psc.gov/Welcome.aspx?pt=Grants): Top 10 requested help topics (FAQs), Searchable knowledge base, self-service ticketing and ticket status, and live web chat (available 7 a.m. - 9 p.m. EST). Have the following information available when contacting Grants.gov:

- Funding Opportunity Number (FON)
- Name of agency you are applying to
- Specific area of concern

B. Content and Form of Application Submission

You should prepare electronic applications following Parts V and VI of the NIFA Grants.gov Application Guide. This guide is part of the corresponding application package (see Section A of this part). The following is **additional information** you need 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., PDF) in Part III, Section 3 of the guide. <u>ANY PROPOSALS THAT ARE NON-COMPLIANT WITH THE REQUIREMENTS (e.g., content format, PDF file format, file name restrictions, and no password protected files) WILL BE AT RISK OF BEING EXCLUDED FROM NIFA REVIEW</u>. Grants.gov does not check for NIFA required attachments or whether attachments are in PDF format; see Part III, Section 6.1 of the guide for how to check the manifest of submitted files. Partial applications will be excluded from NIFA review. We will accept subsequent submissions of an application until close of business on the closing date in the RFA (see Part V, 2.1 of the NIFA Grants.gov Application Guide for further information).

For any questions related to the preparation of an application, review the NIFA Grants.gov Application Guide and the applicable RFA. If assistance is still needed for preparing application forms content, contact:
- Email: electronic@nifa.usda.gov
- Phone: 202-401-5048
- Business hours: Monday through Friday, 7 a.m. – 5 p.m. EST, 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. See Part V, Section 2.18 of the NIFA Grants.gov Application Guide for the required certifications and assurances (e.g., Prohibition Against Entities Requiring Certain Internal Confidentiality Agreements).

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

Detailed information related to the questions on this form is available in Part V, 3 of the NIFA Grants.gov Application Guide.

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

Detailed information related to the questions on this form is available in Part V, 4 of the NIFA Grants.gov Application Guide.

a. Field 7. Project Summary/Abstract.

The Project Summary must list the names and institutions of the PD and co-PDs and indicate which specific FY 2017 program area and/or project type the proposed project addresses. Project types are stated within each Program Area Description (see Part I, Section C, 1-2).

For Applied Research and Development Program Area (ARDP) Applications: The first line of your summary should state the type of project you are submitting, for example, "This is an ARDP research (single-function) project" or "This is an ARDP Research-led project" or "This is an ARDP Extension-led project."

For Extension Implementation Program Area (EIP) Applications: The first line of your summary should state the type of project you are submitting, "This is an EIP project." Please indicate in the summary, the overall goals and supporting objectives, a list of the primary and secondary priorities included in the application, and the names of the program coordinator and administrative contact (see Part VIII, E.). A breakdown of research-extension investments is not required in this program area because all research conducted should be directly related to the extension function.

The summary should also include the relevance of the project to the focus areas and goals of the CPPM program. It is important that the Project Summary be concise and informative. See Part V. 4.7 of NIFA Grants.gov Application Guide for further instructions and a link to a suggested template.

For EIP proposals, the Project Summary/Abstract must include the following mandatory information. For each primary and secondary priority in the EIP proposal, list the priority and provide the percentage of the total proposal budget that the primary or secondary priority represents. An example is: IPM Implementation in Agronomic Crops (55%), IPM for Pollinator Health (30%), and IPM in Public Health (15%).

b. Field 8. Project Narrative

The Project Narrative shall not exceed **18** pages of written text, figures, and tables regardless of whether it is single- or double-spaced with font size no smaller than 12 point (except for your logic model chart, which can be smaller than 12 point). Applicants requesting consideration of center of excellence status must include their justification within the 18-page limit of the project narrative. We have established this maximum (**18** pages) to ensure fair and equitable competition. Pages should be numbered sequentially. The Project Narrative must include all of the following:

Proposals Submitted to the Applied Research and Development Program Area (ARDP)

(1) Response to Previous Review (if applicable).

This requirement only applies to "Resubmitted Applications" as described in Part II, B. PDs must respond to the previous review panel summary on no more than two (2) pages, titled "Response to Previous Review". This will not be counted against the page limit of the project narrative. Please provide the NIFA proposal number of the previous submission.

(2) Problem, Background, and Justification

Project type: The initial sentence must state the project type (Applied Research (single-function), Research-led, or Extension-led) and the amount of the request.

Problem: Describe, in simple terms, the problem. Consider including the economic importance of the crop or problem, the importance of the pests, and the reason for your study (e.g., conventional pest-control strategies no longer work; beneficial insects are being harmed by available pest-control options; there is a lack of training or implementation of new IPM tactics).

Background: Provide the explicit citation that documents the specific stakeholder-identified need(s) addressed by the proposed project and describe how the project addresses those needs. Demonstrate that you are engaged with stakeholders and that your project addresses their needs. See Part I, C., 1. for more information about stakeholder identified needs. General letters of support do not substitute for the required explicit citation that documents specific stake-holder identified needs.

Review and reference relevant completed or ongoing work (local/regional/national). Describe how previous research contributes to the proposed project.

Justification: Identify who will benefit from your project in multistate/U.S. territory, regional, and/or national terms. Consider environmental, human health, and/or economic benefits. Describe why current technologies and practices are inadequate, and explain how the proposed approach will: (1) help to improve or implement existing pest management systems; and (2) address the specific needs identified in the application. Discuss the

potential applicability of the proposed approach to other regions and the relevance of the project to the ARDP priorities (see Part I, C.). Proposals with PDs from more than one state or U.S. territory must clearly describe how the project will benefit each of the states and U.S. territories involved in the project.

(3) Objectives and Anticipated Impacts

Provide clear, concise, and logically numbered statements of the specific aims of the proposed effort. **If you are writing an ARDP Research-led proposal or an ARDP Extension-led proposal, please identify both the research and extension objectives.**

Describe the anticipated impacts that could be associated with the fulfillment of your objectives (you may do this in list or table format). Both your objectives and your impacts should connect to the goals of the National IPM Roadmap, which are to advance the implementation of IPM to safeguard human health, safeguard the environment, and promote economic benefits.

The stated project impacts/outcomes in your application refer to *measurable* changes that can be substantiated by *data analyses*.

(4) Approach and Procedures

Describe the procedures for each objective. Describe how each of the stated objectives will be reached. Include approximate experimental design and experimental units, reference methods to be used, and appropriate statistical analysis. Include a timetable for the start and completion of each phase of the project. For an ARDP Research-led project or an ARDP Extension-led project, describe how the project will be managed, particularly how coordination between research and extension components will be achieved and maintained.

(5) Cooperation and Institutional Units Involved

When appropriate, the project must be coordinated with the efforts of other states/territories and/or national programs. Identify each institutional unit contributing to the project. Identify each state/U.S. territory in a multiple-state/U.S. territory application and clearly identify the lead state. The degree of collaboration must be specifically addressed where the project involves multi-state/U.S. territory collaboration, and/or is submitted as multi-disciplinary or multi-organizational. Clearly describe the roles of all collaborating participants in the project.

(6) Implementation Plan

Describe the implementation plan for the project and the plan for measuring and assessing adoption, implementation, and potential impact using cost-effective approaches and criteria.

Proposals Submitted to the Extension Implementation Program Area (EIP)

For EIP proposals the Project Narrative must include the following mandatory information. For each primary and secondary priority in the EIP proposal, list the primary and secondary priorities and provide the percentage of the total proposal budget that the primary or secondary priority represents. An example is: IPM Implementation in Agronomic Crops (55%), IPM for Pollinator Health (30%), and IPM in Public Health (15%).

The following information must be included for the overall application and each program area priority:

(1) Program Scope. Fully describe the program area priorities that will be addressed by the program along with expected outcomes for each; address the items listed in Part I., C., 2. for each priority and specific project activities;

(2) Program Leadership. List the IPM Coordinator, IPM Administrative Contact (see Part VIII, D) and other key personnel required for the delivery of the program;

(3) Stakeholder Engagement. Describe how stakeholders were engaged in identifying the need for the activities proposed in this application and how they will be involved as the program is implemented;

(4) Coordination/Management Plan. Describe how projects and activities supported by the program will be coordinated to ensure that stakeholder-identified needs are addressed and expected outcomes are achieved.

(5) Collaborative Teams and Information Dissemination. Provide a plan for establishing and maintaining collaborations and communications networks within the institution and (if appropriate) across the region and nation. Describe how these networks will be used to develop and review science and regulatory issues, to collaborate on regionally pertinent projects, and to share new results and outcomes with pest managers and other stakeholders;

(6) Program Evaluation. Include a plan to measure program successes. Include milestones and indicators of success that are critical to stakeholders and lead to high level outcomes (see CPPM programmatic logic model, Figure 2), and can be used to assess progress and accomplishments throughout the project; and

(7) Endorsement Letter. Only one application will be allowed per institution. That application must be endorsed by the Director of Cooperative Extension, Extension Administrator or Director of Outreach at the institution. Multiple applications from an institution may lead to the disqualification of all of those applications. The endorsement letter should be included in the application as an appendix.

c. Center of Excellence Justification

For consideration as a COE, you must provide a brief justification statement as part of your Project Narrative (and within the page limits provided) that describes how you meet the standards of a COE, based on the following criteria:

(A) The ability of the COE to ensure coordination and cost effectiveness by reducing unnecessarily duplicative efforts in the research, teaching, and extension activities outlined in this application;

(B) In addition to any applicable matching requirements, the ability of the COE to leverage available resources by using public-private partnerships among agricultural industry groups, institutions of higher education, and the federal government in the proposed research and/or extension activities outlined in this application. Resources leveraged should be commensurate with the size of the award;

(C) The planned scope and capability of the COE to implement teaching initiatives that increase awareness and effectively disseminate solutions to target audiences through extension activities of the proposed research and/or extension activity outlined in this application; and

(D) The ability or capacity of the COE to increase the economic returns to rural communities by identifying, attracting, and directing funds to high-priority agricultural issues in support of and as a result of the implementation of the proposed research and/or extension activity outlined in this application.

Additionally, where practicable (but not required) COE applicants should describe proposed efforts to improve teaching capacity and infrastructure at colleges and universities (including land-grant colleges and universities, cooperating forestry schools, certified Non-Land Grant Colleges of Agriculture (NLGCA) (list of certified NLGCA is available at www.nifa.usda.gov/funding/pdfs/nlgca_colleges.pdf), and schools of veterinary medicine).

d. Field 12. Add Other Attachments

Representation Regarding Felony Convictions or Tax Delinquent Status form. PDF Attachment. See Part V. Section 4.12 of the NIFA Grants.gov Application Guide (Field 12 on the form) for instructions regarding mandatory Felony Convictions or Tax Delinquent Status.

Logic Model. PDF attachment. **All CPPM program applications require submission of a logic model chart(s). See the specific requirements for logic models for each CPPM program area in Part I, Section C. and refer to project narrative instructions in Part IV., B.** Each project-specific logic model chart must provide details for the inputs, outputs (activities and participants), and outcomes of the proposed project. For samples and templates, see www.ipm.gov/LogicModels/ and more information at the NIFA and University of Wisconsin web sites: www.nifa.usda.gov/funding/integrated/integrated_logic_model.html and

www.uwex.edu/ces/pdande/index.html. Refer to the logic model in your project description, evaluation plans, and elsewhere, as applicable.

Non-Land Grant College of Agriculture (NLGCA) Certification. PDF Attachment. If you claim exemption from the new matching requirements as a NLGCA, then you must attach the NLGCA certification letter you requested and received from NIFA. Title the attachment 'NLGCA Certification' and save the file as 'NLGCACertification.' To request certification as an NLGCA, complete the form at www.nifa.usda.gov/form/form.html. Note that certification can take up to 30 days from submission of request form. **See Part III Section 3.1 of the NIFA Grants.gov Application Guide for NIFA attachment specifications.**

4. R&R Senior/Key Person Profile (Expanded)
Detailed information related to the questions on this form is available in Part V, 5 of the NIFA Grants.gov Application Guide. This section of the guide includes instructions about senior/key person profile requirements, 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
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. Part V.6 also notes the importance and use of the information.

6. R&R Budget
Detailed information related to the questions on this form is available in Part V, 7 of the NIFA Grants.gov Application Guide.

EIP Budget. Please note that due to the insertion of specific language in the explanatory statement of the Consolidated Appropriations Act of 2016, no **indirect costs** may be reimbursed from EIP awards in FY 2017. The consolidated Appropriations Act of 2016, provided NIFA with the following directive for EIP awards: *"Provided further, That notwithstanding any other provision of law, indirect costs shall not be charged against any Extension Implementation Program Area grant awarded under the Crop Protection/Pest Management Program (7 U.S.C. 7626)."*

Matching Funds. If you conclude that matching funds are not required as specified under Part III, B Cost-Sharing or Matching, you must include a justification in the Budget Narrative. We will consider this justification when determining final matching requirements or if required matching can be waived. NIFA retains the right to make final determinations regarding matching requirements.

For grants that require matching funds as specified under Part III, B, the Budget Narrative should include written verification of commitments of matching support (including both cash and in-kind contributions) from third parties. Written verification means:

(a) For any third party cash contributions, a separate pledge agreement for each donation, signed by the authorized representatives of the donor organization (and the applicant organization ONLY if provided after submission of the application), must include:

- Donor's name, address, and telephone number;

- Name of the applicant organization;

- Title of the project;

- Dollar amount of the cash donation (the budget narrative must describe how the cash donation will be used);

- Statement that the donor will pay the cash contribution during the grant period; and

- Whether the applicant can designate cash as the applicant deems necessary or the cash contribution has been designated to a particular budget item.

(b) For any third party in-kind contributions, a separate pledge agreement for each contribution, signed by the authorized representatives of the donor organization (and the applicant organization ONLY if provided after submission of the application), must include:

- Donor's name, address, and telephone number;

- Name of the applicant organization;

- Title of the project;

- A good faith estimate of the current fair market value of the third party in-kind contribution and a description of how the fair market value was determined; and

- A statement that the donor will make the contribution during the grant period

  Summarize on a separate page the sources and amount of all matching support from outside the applicant institution and place that information in the proposal as part of the Budget Narrative. You must place all pledge agreements in the proposal immediately following the summary of matching support.

  Establish the value of applicant contributions in accordance with applicable cost principles. Refer to 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards," for further guidance and other requirements relating to matching and allowable costs.

Indirect Costs. For further information and instructions regarding indirect costs, refer to Part V, section 7.9 of the NIFA Grants.gov Application Guide. For indirect cost funding restrictions, refer to Part IV, D. of this RFA.

Project Director Workshop. In the budget narrative, include the request for funds for the required Project Director Workshop. Refer to Part 1, C., 1. and 2. for specific project director workshop requirements for ARDP and EIP, respectively.

7. **Supplemental Information Form**

Detailed information related to the questions on this form is available 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. Note that accurate entry of the program code is very important for proper and timely processing of an application.

Program Code Name	Program Code
Applied Research and Development Program Area	ARDP
Extension Implementation Program Area	EIP

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

We recommend that you conduct an administrative review of the application before submission of it via Grants.gov to ensure that it complies with all preparation instructions. An application checklist is included in Part VII of the NIFA Grants.gov Application Guide to assist with this review. While the checklist should be used to check the application for completeness, the application should be checked for the following required item(s). This is not an exhaustive list of required items; it only serves to highlight items that may be overlooked. The list includes:

- Biographical Sketch for all relevant personnel (two-page limit)
- Current and Pending Support for all relevant personnel (listing this proposal)
- Conflict of Interest List for all relevant personnel

Additional requirements:

- List of National IPM Roadmap goals and CPPM focus areas (ARDP and EIP)
- Logic Model Chart (ARDP and EIP)
- Implementation Plan (ARDP and EIP)
- Timeline (ARDP)
- Milestones and Indicators of Success (EIP)

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 **5 p.m. Eastern Time on May 9, 2017.** Applications received after this deadline will normally not be considered for funding.

If you have trouble submitting an application to Grants.gov, you should 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.

We send email correspondence to the AR regarding the status of submitted applications. We strongly encourage you to provide accurate email 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, contact the Agency Contact identified in Part VII of the 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, you should cite this number on all future correspondence.**

D. Funding Restrictions

Indirect Costs:
For ARDP, Section 713 of the Consolidated Appropriations Act, 2016 (Pub. L. 114-113) limits indirect costs to 30 percent of the total federal funds provided (or 42.857 percent of total direct costs) under each award. Similar language may be included in the FY 2017 appropriation, therefore, when preparing budgets, you should limit your request for the recovery of indirect costs to the lesser of your institution's official negotiated indirect cost rate or the equivalent of 30 percent of total Federal funds awarded. See Part V section 7.9 of the NIFA Grants.gov Application Guide for further indirect cost information.

For EIP, The Consolidated Appropriations Act of 2016 provided NIFA with the following directive for EIP awards: *"Provided further, That notwithstanding any other provision of law, indirect costs shall not be charged against any Extension Implementation Program Area grant awarded under the Crop Protection/Pest Management Program (7 U.S.C. 7626)."* For this reason, no indirect costs may be reimbursed from EIP awards in FY 2017.

You may not use grant funds awarded under this authority to renovate or refurbish research, education, or extension space; purchase or install fixed equipment in such space; or the plan, repair, rehabilitate, acquire, or construction of buildings or facilities.

E. Other Submission Requirements

You 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

We evaluate each application in a two-part process. First, we screen each application to ensure that it meets the administrative requirements as set forth in this RFA. Second, a technical review panel will evaluate applications that meet the administrative requirements.

We select reviewers based upon their training and experience in relevant scientific, extension, or education fields, taking into account the following factors:

- 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;
- the need to include experts from various areas of specialization within relevant scientific, education, or extension fields;
- 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;
- the need to include experts from a variety of organizational types (e.g., colleges, universities, industry, state and federal agencies, and private profit and non-profit organizations) and geographic locations;
- the need to maintain a balanced composition with regard to minority and female representation and an equitable age distribution; and
- the need to include reviewers who can judge the effective usefulness of each application to producers and the general public.

After each peer review panel has completed its deliberations, the responsible program staff of CPPM will recommend that your project be approved for support from currently available funds or be declined due to insufficient funds or unfavorable review.

CPPM reserves the right to negotiate with the PD/PI 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.

We will send copies of reviews, _not_ including the identity of reviewers, and a summary of the panel comments to the PD after the review process has been completed.

B. Evaluation Criteria

We will use the evaluation criteria below to review applications submitted in response to this RFA.

Criteria for the Applied Research and Development Program Area (ARDP)

<u>**Applied Research (single-function) Project Applications**</u>

1. **Technical Merit of Applied Research (single-function) Applications (45 points)**

   a. Project objectives and outcomes are clearly described, adequate, and appropriate. The Applied Research (single-function) project proposal addresses Applied Research (single-function) priorities and applied research topic areas;
   b. When model systems are used, the proposal demonstrates the ability to transfer knowledge gained from these systems to organisms of importance to U.S. agriculture;
   c. Proposed research is conceptually sound and research hypotheses are applicable and appropriate;
   d. Proposed approach, procedures, or methodologies are innovative, original, clearly described, suitable, and feasible;
   e. Preliminary data submitted in the proposal demonstrates feasibility of proposed research;
   f. Probability of project success is high given the level of scientific originality and risk-reward balance.

2. **Qualifications of Project Personnel, Adequacy of Facilities, and Project Management (20 points)**
   a. Applicant(s) (individual or team) are qualified to conduct the proposed project and have performance record(s) and potential to achieve research objectives and outcomes;
   b. Application demonstrates awareness of previous and alternative approaches to the identified problem;
   c. Evidence of institutional capacity and competence in the proposed area of work is provided in the proposal;
   d. Support personnel, facilities, and instrumentation are sufficient; and
   e. The proposal has a detailed timeline that includes the key milestones for the project objectives and other important project tasks. Project timelines allow sufficient time to complete objectives on schedule, administer and manage the project partnerships/collaborations, translate outcomes, and coordinate project participants and institutions.

3. **Project Relevance (35 points)**
   a. Documentation in the proposal is adequate that the project is directed toward specific research program topic areas identified in this RFA;
   b. The proposed work addresses identified stakeholder needs;

c. The plan and methods for evaluating success of project activities and documenting potential impact against measurable short and mid-term outcomes are suitable and feasible; and

d. The application adequately describes a plan for implementation of results generated by the project. The application provides cost-effective approaches and criteria to measure and assess adoption, implementation, and potential impact.

Research-led and Extension-led Project Applications

1. Technical Merit of Research-led or Extension-led Applications (45 points)

a. Project objectives and outcomes are clearly described, adequate, and appropriate. Research-led project proposals address Applied Research (single-function) priorities and applied research topic areas and at least one extension-priority; Extension-led projects address Extension-led priorities and extension topic areas and at least one applied research priority;

b. Proposed approaches, procedures, or methodologies are innovative, original, clearly described, suitable, and feasible;

c. Expected results or outcomes are clearly stated, measurable, and achievable within the allotted time frame;

d. Proposed research fills knowledge gaps that are critical to the development of practices and programs to address the stated problem or issue; and

e. Proposed extension participants and activities lead to measurable, documented changes in knowledge/learning, actions/behaviors, or conditions in an identified audience or stakeholder group.

2. Qualifications of Project Personnel, Adequacy of Facilities, and Project Management (20 points)

a. Roles of key personnel are clearly defined;

b. Key personnel have sufficient expertise to complete the proposed project, and where appropriate, partnerships with other disciplines (e.g., social science or economics) and institutions are established;

c. Evidence of institutional capacity and competence in the proposed area of work is provided in the proposal;

d. Support personnel, facilities, and instrumentation are sufficient to complete the proposed work;

e. The proposal has a detailed timeline that includes the key milestones for the project objectives. The proposal articulates a clear plan for project management, including time allocated for attainment of objectives and delivery of products, maintenance of partnerships and collaborations, and a strategy to enhance communication, data sharing, and reporting among members of the project team; and

f. The budget clearly allocates sufficient resources to carry out a set of research and extension activities that will lead to desired outcomes, with appropriate allocations of funds in the budget across all selected project areas. If funds are budgeted in support of eXtension Communities of Practice core functions and project-specific activities, they

are adequately justified with respect to adding value to the eXtension vision, mission, and values.

3. **Project Relevance (35 points)**
   a. Documentation is adequate that the project is directed toward specific program topic areas identified in this RFA;
   b. Project components (research and extension) are fully integrated and necessary to address the problem or issue;
   c. The proposed work addresses identified stakeholder needs;
   d. Stakeholder involvement in project development, implementation, and evaluation is demonstrated, where appropriate;
   e. Plan and methods for evaluating success of project activities and documenting potential impact against measurable short and mid-term outcomes are suitable and feasible;
   f. The application adequately describes a plan for implementation of results generated by the project. The application provides cost effective approaches and criteria to measure and assess adoption, implementation, and potential impact.
   g. For extension activities, resulting products will sustain extension functions beyond the life of the project; and
   h. For extension activities, the resulting outputs or materials include information and recommendations from a broad range of research initiatives.

Criteria for the Extension Implementation Program Area (EIP) include the following:

1. **Relevance of activities (55 points)**
   a. Documented need. Application includes documentation substantiating that the program is directed to current or to likely future problems/challenges in IPM (10 points);
   b. Clear stakeholder involvement. Application includes information on how stakeholders will be involved in defining the program and how their input will be solicited and incorporated or how stakeholder input was used to determine program goals (10 points);
   c. Quality of extension outreach plan. Criteria include: program is extension-led with limited and applied research activities to inform the extension effort; outreach plan is detailed and includes analysis of the situation, inputs, outputs, and outcomes as well as methods for measurements to deal with proactive and reactive scenarios; description of outcomes includes stakeholder and end user benefits from the investment including measurable impacts and indicators or milestones (15 points);
   d. Application demonstrates understanding of IPM in the primary and secondary priorities addressed, effective team building involving appropriate cooperators and disciplines, and networking with other regional programs (10 points); and
   e. Application documents a transdisciplinary approach addressing economic, environmental, and human health aspects of IPM and application to relevant pests and disciplines (10 points).

2. Quality of application and activities (45 points)

   a. Conceptual adequacy. Application clearly states objectives which are potentially attainable within project time, scope and budget (10 points);
   b. Design. The application's methodology and analytical approach are appropriate to project objectives. The planned activities will result in the expected outcomes. Activities for each priority in the project are connected to stakeholder needs and expected outcomes (15 points);
   c. Appropriate expertise. Personnel involved represent a breadth and depth of knowledge and experience. Senior/key project/program personnel, including collaborators, respective roles described in planned activities, analysis and evaluation (5 points);
   d. Audiences are well defined and identify underserved populations, when appropriate (5 points);
   e. Appropriateness of budget. Funds are reasonable and appropriate to complete tasks proposed (5 points); and
   f. Application adheres to RFA guidelines (5 points).

C. Center of Excellence Status

All eligible applicants will be competitively peer reviewed (as described in Part V, A and B of this RFA), and ranked in accordance with the evaluation criteria. Those that rank highly meritorious and requested to be considered as a COE will be further evaluated by the peer panel to determine whether they have met the standards to be a COE (Part III, D and Part IV, B). In instances where they are found to be equally meritorious with the application of a non-COE, based on peer review, selection for funding will be weighed in favor of applicants meeting the COE criteria. NIFA will effectively use the COE prioritization as a "tie breaker." Applicants that rank highly meritorious but who did not request consideration as a COE or who are not deemed to have met the COE standards may still receive funding.

In addition, the applicant's Notice of Award will reflect that, for the particular grant program, the applicant meets all of the requirements of a COE. Entities recognized as excellence COE will maintain that distinction for the duration of their period of performance or as identified in the terms and conditions of that award.

D. Conflicts of Interest and Confidentiality

During the peer evaluation process, we take extreme care to prevent any actual or perceived conflicts of interest that may impact review or evaluation. See http://www.nifa.usda.gov/business/competitive_peer_review.html for further information about conflicts of interest and confidentiality as related to the peer review process.

E. Organizational Management Information

Specific management information relating to an applicant shall be submitted one-time, with updates on an as-needed basis. This requirement is part of the responsibility determined 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. We will provide you 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).

F. Application Disposition

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

PART VI—AWARD ADMINISTRATION

A. General

Within the limit of funds available for such purpose, the NIFA awarding official 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 NIFA awarding official 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. 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 may be used only for the purpose for which they are granted in accordance with the approved application and budget, regulations, terms and conditions of the award, applicable federal cost principles, USDA assistance regulations, and 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 information described in 2 CFR 200.210.

See http://www.nifa.usda.gov/business/awards/awardterms.html to view current NIFA award terms and conditions.

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 may include, but are not limited to, the ones listed on the NIFA web page – http://nifa.usda.gov/federal-regulations.

NIFA Federal Assistance Policy Guide—a compendium of basic NIFA policies and procedures that apply to all NIFA awards, unless there are statutory, regulatory, or award-specific requirements to the contrary—is available at http://nifa.usda.gov/policy-guide.

D. Responsible and Ethical Conduct of Research
Refer to Part II, D for more information.

E. Expected Program Outputs and Reporting Requirements

The output and reporting requirements are included in the award terms and conditions (see http://www.nifa.usda.gov/business/awards/awardterms.html for information about NIFA award terms). If there are any program or award-specific award terms, those, if any, will be identified in the award.

PART VII—AGENCY CONTACT

Applicants and other interested parties are encouraged to contact:

Programmatic Contacts –
  Herbert Bolton
  Title: National Program Leader
  Unit: Institute of Food Production and Sustainability
  Location: 3343 Waterfront Centre
  Phone: (202) 401-4201
  Email: hbolton@nifa.usda.gov

  Rubella Goswami
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  Unit: Institute of Food Production and Sustainability
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Administrative/Business Contacts –
  Rochelle McCrea
  Title: Team Leader, Team I
  Unit: Office of Grants and Financial Management
  Location: 2160 Waterfront Centre
  Phone: (202) 401-2880
  Email: rmccrea@nifa.usda.gov

  Sondra Watkins
  Title: Team Leader, Team II
  Unit: Office of Grants and Financial Management
  Location: 2170 Waterfront Centre
  Phone: (202) 401-4249
  Email: swatkins@nifa.usda.gov

PART VIII—OTHER INFORMATION

A. Use of Funds; Changes

1. Delegation of Fiscal Responsibility

Unless the terms and conditions of the award state otherwise, awardees 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 Budget or Project Plans

In accordance with 2 CFR 200.308, awardees must request prior approval from NIFA for the following program or budget-related reasons:
   (i) Change in the scope or the objective of the project or program (even if there is no associated budget revision requiring prior written approval).
   (ii) Change in a key person specified in the application or the federal award.
   (iii) The disengagement from the project for more than three months, or a 25 percent reduction in time devoted to the project, by the approved project director or principal investigator.
   (iv) The inclusion, unless waived by the federal awarding agency, of costs that require prior approval in accordance with 2 CFR 200 Subpart E—Cost Principles of this part or 45 CFR Part 75 Appendix IX, "Principles for Determining Costs Applicable to Research and Development under Awards and Contracts with Hospitals," or 48 CFR Part 31, "Contract Cost Principles and Procedures," as applicable.
   (v) The transfer of funds budgeted for participant support costs as defined in §200.75 Participant support costs to other categories of expense.
   (vi) Unless described in the application and funded in the approved federal awards, the subawarding, transferring or contracting out of any work under a federal award, including fixed amount subawards as described in §200.332 Fixed amount subawards. This provision does not apply to the acquisition of supplies, material, equipment, or general support services.
   (vii) Changes in the approved cost-sharing or matching provided by the non-federal entity.
   (viii) The need arises for additional federal funds to complete the project.

The awardee will be subject to the terms and conditions identified in the award. See http://www.nifa.usda.gov/business/awards/awardterms.html for information about NIFA award terms.

B. 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 of Agriculture 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. We will retain for three years a copy of an application that does not result in an award. 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.

C. Regulatory Information

For the reasons set forth in the final Rule related Notice to 2 CFR Part 415, Subpart C, 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.

D. 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.

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

Informal education is an education approach that occurs outside of a classroom setting, in loosely structured settings, with non-traditional learners. It may link closely to life skills. Contact time may be erratic and learners are not in classes or cohorts. Education can be led by trained educators or peers.

Integrated Pest Management (IPM) is "a sustainable approach to managing pests by combining biological, cultural, physical and chemical tools in a way that minimizes economic, health and environmental risks." (Food, Conservation, and Energy Act of 2008). The National IPM Roadmap (2013) provides further description of IPM (see http://nifa.usda.gov/sites/default/files/resources/National%20Road%20Map%20for%20Integrated%20Pest%20Management.pdf).

IPM Collaboration(s) refer to a section of a program proposal that contains a component of collaboration with another institution: (1) in which an applicant institution includes a cooperative element with at least one other entity that is not legally affiliated with the applicant institution; and (2) where the applicant institution and each cooperating entity will assume a significant role in the implementation of the proposed collaborative program component. Funds need not be subcontracted in all cases, and may be administered by the applicant institution. Only the applicant institution must meet the definition of an eligible institution as specified in this RFA.

IPM Coordinator(s) refers to the individual(s) with programmatic lead responsibilities at institutions with IPM programs. Programs may exist with or without funding from this program, but in reference to the CPPM program, the term is used to identify the individual responsible for executing the institutional extension IPM program funded through the EIP.

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

Interdisciplinary projects are composed of representatives from multiple disciplines who engage together to create and apply new knowledge as equal stakeholders to address a shared goal.

Multidisciplinary project means a project in 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.

Non-formal education includes assorted structured learning situations. These learning scenarios are sometimes described as "training". Usually, participation in non-formal education does not earn the learner credits, but certificates may be issued. The objectives may be limited to increasing skills and knowledge.

Partnership requires that all partners have a substantial involvement in the project throughout the life of the project. If a partnership between multiple entities is proposed, the proposal should clearly identify the following:
1. A narrative of each entity's clearly established role in the project;
2. How each entity involved as a partner on the project will contribute to execution of project objectives, determine experimental design, develop the project work plan and time table, and submit collaborative, timely reports; and
3. A comprehensive project budget that reflects each entity's financial or in-kind contribution to the total project budget costs.

Program Administrative Contact is the institutional staff member responsible for direct supervision of personnel conducting the EIP program. At various institutions, this individual may be a dean, associate dean, department head, or section head. The contact information is needed to ensure all key personnel are kept apprised in communications.

Transdisciplinary is the term for a unique collaborative approach that is often mistakenly used as a synonym for interdisciplinary and multidisciplinary. But these terms are distinct and differ in scale and scope. Transdisciplinary projects address strategic approaches that span the boundaries of many disciplines in a holistic or systems approach. Transdisciplinary projects consider the human element of social and economic issues in decision-making as key considerations. Projects with a transdisciplinary approach consider the effects of one action on another dynamic, for example, the effect of reduced tillage on both weed growth and diversity; on pest and disease risks; and on the economics of control.

E. Materials Available on the Internet

Crop Protection and Pest Management program information is available on the NIFA web site at http://nifa.usda.gov/funding-opportunity/crop-protection-and-pest-management.