



## Western Integrated Pest Management Center

### 2017 Annual Grant Program Request for Applications

The 2017 Western IPM Center annual grant program and this RFA are similar to recent years' announcements. Grants available in this RFA include **(A) Project Initiation, (B) IPM Work Groups, (C) Outreach and Implementation, and (D) IPM Planning Documents.**

**Applications are due by 5 p.m. Pacific Standard Time on Friday, December 9, 2016.**

This RFA may be accessed at [www.westernipm.org](http://www.westernipm.org).

Applications must be submitted electronically and all components must be in portable document format (PDF).

Applicants must register at <https://projects.ipmcenters.org/Western> to download the documents required to use for submissions.

The amount available for this program in 2017 is approximately \$250,000.

If you encounter any problems or have questions regarding this process or the RFA, please contact Western IPM Center Associate Director Matt Baur at (530) 750-1270 or [mebaur@ucanr.edu](mailto:mebaur@ucanr.edu).

#### Key Dates

October 4:	RFA released
November 2:	RFA Webinar (2 p.m. PDT)
December 9:	Completed applications due, with all required attachments, by 5 p.m. Pacific Standard Time.

Details about the webinar are in the Center's October newsletter. Visit [www.westernipm.org](http://www.westernipm.org) and look under "Publication" to access newsletter issues.

## I. SUMMARY

The Western IPM Center (“The Center”) engages a broad diversity of stakeholders in the West to identify strategic directions and set priorities for IPM research, education, and extension for pest management in all settings. Through these activities the Center promotes the USDA Research, Education, and Economics Action Plan goals of effective, affordable, and environmentally sound integrated pest management practices and improved response to emerging or reemerging pests of high consequence. The Center supports the *National Roadmap for Integrated Pest Management* (<http://ipmcenters.org/Docs/IPMRoadMap.pdf>).

The goals of the Center are to 1) improve the cost-benefit analyses when IPM practices are adopted; 2) reduce potential human health risks from pests and related management strategies; and 3) minimize adverse environmental impacts from pests and related management strategies.

Center grants provide funds to complement other federal, state and private funding sources by supporting project initiation, outreach and implementation, work groups, and IPM planning document development. We encourage projects that extend IPM practices to stakeholders who will use IPM strategies to decrease the risks associated with pests and pest management while addressing Center goals.

**Available funds.** Funding of approximately \$250,000 is available for this competitive grant program. Budget limits per project type are in *Section VII: Types of Projects*. Budgets may include indirect charges of no more than 30% of Total Federal Funds (TFF). If an insufficient number of quality proposals is received, the Western IPM Center may award less than the total amount of funding available.

**Who may apply?** Eligible applicants include private individuals and institutions, faculty and qualified staff of two- and four-year universities, businesses, commodity organizations, and governmental and non-governmental organizations. The primary project director (PD) must be in the Western Region, but co-project directors may be from outside the region. The Western Region is the following states and territories: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, American Samoa, the Federated States of Micronesia, Guam, and the Northern Mariana Islands.

**Proposal submission.** All applications will be submitted through a secure online system in PDF format at <http://projects.ipmcenters.org/Western>. **Proposal submission must be completed by 5 p.m. PST, Friday, December 9, 2016.**

**Proposal timeline.** Projects are to start March 1, 2017 and all funds must be expended by February 28, 2018.

## II. GENERAL INFORMATION

### **Regional Importance**

Stakeholders from the 13 Western states and Pacific Island territories identify priorities for the Western IPM Center, and the Center is committed to addressing those pest management needs. Because of the

vast geographic, climatic, and host diversity in the Western Region – as well as the constant threat posed by invasive and emerging pest species – our stakeholders have determined that a single list of priority pests, crops or issues is not practicable.

Therefore, Western IPM Center priorities fall into two categories:

1. Invasive, resistant or emerging pest problems that are disrupting effective IPM programs in agriculture, natural lands or community settings.
2. Pest issues and concerns identified as priorities by stakeholder groups in the West. Sources of stakeholder-identified priorities include, but are not limited to:
  - Pest Management Strategic Plans (available online at <http://www.ipmcenters.org/index.cfm/center-products/pmsps/>)
  - Recommendations from multistate project work groups supported by the Associations of Agriculture Experiment Station Directors (see Section V for examples).
  - Reports from program advisory committees, such as the advisory committees for state IPM or extension programs
  - Reports or research priorities published by stakeholder groups, such as pest-management priorities listed in commodity-commission-funded grant programs

All applications must document their relevance to the West by citing the specific, documented stakeholder-identified needs addressed by the proposed project. Explicitly citing sources of stakeholder-identified needs is valuable to establish 1) the importance of the project and 2) the Project Directors are engaged with the stakeholder community.

**General letters of support that do not indicate specific stakeholder support for the objectives of the proposed project DO NOT fulfill the requirement for demonstrating stakeholder involvement.**

### **III. MULTI-STATE / ISLAND / TERRITORY / TRIBAL NATION INVOLVEMENT**

A goal of the Center grants program is to support collaborations among states, islands, territories, and tribal nations for purposes of efficiency, economy, and synergy. In this RFA, the term “states” is also meant to include individual islands within the state of Hawaii, as well as the Pacific Island territories and tribal nations. Projects must have participants from multiple states or clearly demonstrate that the project will benefit more than one state. Exceptions are allowed when the PD can document that the host/pest combination only occurs in one state.

### **IV. MATCHING FUNDS**

No matching funds are required.

## **V. LEVERAGING RESOURCES**

The Western IPM Center encourages applicants to build on or partner with other existing resources to support their proposed projects. Examples include leveraging data and products from prior Western IPM Center projects, or partnering with current Western IPM Center Signature Programs or Western Extension Research and Academic (WERA) multistate coordination groups ([www.nimss.org/lgu\\_v2](http://www.nimss.org/lgu_v2)).

### **Use of Western IPM Center Signature Programs**

Western IPM Center Signature Programs provide support to foster collaborations. Project Directors are encouraged to collaborate with the Climate- and Weather-based Decision Support Tools Signature Program, the Crop Pest-Loss and Impact Assessment Signature Program or the Protocols for Responding to Invasive Species in the West Signature Program, where appropriate.

A letter of collaboration from Paul Jepson ([jepsonp@science.oregonstate.edu](mailto:jepsonp@science.oregonstate.edu)) must be included if planning to make use of the Western IPM Center Climate- and Weather-based Decision Support Tools Signature Program.

A letter of collaboration from Peter Ellsworth ([peterell@cals.arizona.edu](mailto:peterell@cals.arizona.edu)) must be included if planning to make use of the Western IPM Center Crop Loss and Impact Assessment Signature Program.

A letter of collaboration from Kassim Al-Khatib ([kalkhatib@ucdavis.edu](mailto:kalkhatib@ucdavis.edu)) must be included if planning to make use of the Western IPM Center Protocols for Responding to Invasive Species in the West Signature Program.

For more information on Signature Programs, see the Center Projects section of the [westernipm.org](http://westernipm.org) website.

### **Use of Multistate Project Work Groups**

Multistate project work groups supported by the Associations of Agriculture Experiment Station Directors are formed to collaborate in projects that two or more states share as a priority. Western IPM Center-funded projects are encouraged to leverage resources from multistate project work groups. Some examples include:

- NE1443 Biology, Ecology & Management of Emerging Disease Vectors
- W2008 Biology and Management of Iris Yellow Spot Virus, Other Diseases and Thrips in Onions
- W3185 Biological Control in Pest Management Systems of Plants
- W3186 Variability, Adaptation, and Management of Nematodes Impacting Crop Production
- WERA 11 Western Regional Turfgrass Research
- WERA 20 Virus and Virus-like Diseases of Fruit Trees, Small Fruits, and Grapevines
- WERA 60 Management of Pesticide Resistance
- WERA 66 Integrated Management of Russian Wheat Aphid and Other Cereal Arthropod Pests
- WERA 77 Managing Invasive Weeds in Wheat
- WERA 89 Potato Virus and Virus-like Disease Management
- WERA 97 Diseases of Cereals
- WERA 1007 Curly Top Virus Biology, Transmission, Ecology, and Management
- WERA 1014 Intensive Pasture Management for Sustainable Livestock Production in the West
- WERA 1017 Coordination of IPM Research, Extension and Education in the West

WERA 1021 Spotted Winged Drosophila Biology, Ecology and Management

Multistate project work group details are listed at <http://www.nimss.org/>.

## **VI. STRONG EVALUATION PLANS FOR ADOPTION AND IMPACT ASSESSMENT**

Applicants are strongly encouraged to develop concrete evaluation plans for adoption and impact assessment. Clear descriptions of anticipated impacts and plans to evaluate the success of the project in terms of IPM adoption and implementation are important. The Regional IPM Centers have developed a toolkit for assessing IPM adoption and impacts to support a good project evaluation. Access it at <http://ipmimpact.ucanr.edu/>

## **VII. TYPES OF PROJECTS**

The types of projects that may be funded through the Western IPM Center grants program are **(A) Project Initiation, (B) IPM Work Groups, (C) Outreach and Implementation, and (D) IPM Planning Documents.**

If you wish to submit applications for more than one project or project type, you must submit separate applications.

### **A. Project Initiation (up to \$30,000)**

Project Initiation proposals should test new IPM research ideas. Project Initiation examples include, but are not limited to, proof-of-concept, preliminary experiments, stakeholder needs assessment or priority setting activities. Proposals should demonstrate a strong potential for success by developing, facilitating or catalyzing novel, effective solutions to important or potentially important IPM issues.

### **B. IPM Work Groups (up to \$30,000)**

IPM Work Groups support bringing together diverse groups to collaboratively address a regional IPM priority. Multi-state work groups address information, resource and research needs in region-wide or broad-area categories and enhance communication and collaborations within the region. Work groups outputs often include proposals for future funding.

Previously funded IPM work groups must apply for renewal each year and funding will be based on merit of the proposal and accomplishments from prior funding periods. Applications for work group renewal must be received by the application due date. They will be evaluated in competition with the other applications and will be reviewed according to the same criteria as new applications. Work group renewal applications must include a two-page progress report documenting accomplishments of the past year. The two-page progress report is in addition to the eight-page proposal narrative.

### **C. Outreach and Implementation (up to \$30,000)**

Outreach and Implementation projects build on previous IPM research and development projects by providing outreach to stakeholders to encourage the adoption and implementation of IPM practices. Outreach and implementation grants may be initiated by someone involved in earlier research, or may be proposed by project directors based on the research done by another scientist or group. Examples include but are not limited to workshops, demonstration projects, printed documents, and online IPM resources. Projects that provide eXtension Communities of Practice with outreach and implementation tools are encouraged. A goal of outreach and implementation projects should be the increased

adoption of IPM practices in agricultural, community, or natural settings. The target audience, distribution plan for project products, and evaluation plan to assess knowledge or behavior change among the target audience must be clearly articulated.

**D. IPM Planning Document (up to \$15,000)**

IPM Planning Documents projects support development of Pest Management Strategic Plans, IPM practices evaluations, and similar IPM planning documents.

*Pest Management Strategic Plans (PMSPs)* are developed with a regional group of growers and other stakeholders to identify the pest management needs and priorities of a particular commodity or site. The plans document current pest management practices (chemical and non-chemical) and those under research and demonstration trial development. The plans also indicate priorities for research to fill knowledge gaps, regulatory changes, and education/training programs to support adoption of integrated pest management practices. PMSPs must conform to the guidelines found on the National IPM Centers web site at <http://www.ipmcenters.org/pmsp/index.cfm> and are not considered complete until they are approved by the Western IPM Center and posted on the National IPM Centers' database. Proposals to develop PMSPs for crops that do not have a plan or to update outdated PMSPs (more than five years old) are encouraged.

*IPM practices evaluations* typically query growers or other pest management stakeholders to gather information about the current pest management methods on a particular crop or in a particular system or setting. This category includes projects that are entirely advanced sociological analysis – assessment of the economics, adoption and impact of IPM practices based on data from past evaluations – or a follow up evaluation to document change in IPM practices or condition since the previous survey. Tools developed by the Crop Pest-Loss and Impact Assessment Signature Program (*Section V*) may provide guidance for building information and data resources needed to do practice evaluations.

**VIII. EVALUATION AND SELECTION CRITERIA**

All applications received will be acknowledged. A panel of reviewers from outside the Western Region will review all the applications. When writing the proposal narrative and your CV, do not assume that reviewers are familiar with your program, abilities, or past accomplishments. The review panel will score applications using the Proposal Score Sheet below. Note: Projects are evaluated and scored against all applications received, not just against proposals within a specific project type.

**PROPOSAL SCORE SHEET**

<b>Criterion</b>	<b>Project Initiation</b>	<b>Work Group</b>	<b>Outreach &amp; Implementation</b>	<b>Planning Documents</b>
Preparation (10 points)	<ul style="list-style-type: none"> <li>Information is clearly presented</li> <li>Meets all format requirements with all required forms and components included</li> </ul>			
Problem and justification (20 points)	<ul style="list-style-type: none"> <li>Problem important in Western region and specific stakeholder priorities are cited</li> <li>Multi-state or documents crop/pest combination in a single state</li> <li>“States” includes islands within the state of Hawaii, the Pacific Island territories, and tribal nations</li> </ul>			Fills gap in IPM Planning Document portfolio
Potential for Success (25 points) -Objective -Approach -Procedures	<ul style="list-style-type: none"> <li>Objectives logically target solution to the problem</li> <li>Approach likely to result in novel, effective solutions to important IPM issues</li> <li>Procedures linked to objectives and likely to result in clear evidence with respect to problem</li> <li>Timeline and scale of project reasonable</li> <li>Collaborators have agreed to participate through a letter of support</li> </ul>	<ul style="list-style-type: none"> <li>Objectives are either new or significantly expand a previous effort</li> <li>Composition of the work group has potential to coordinate regionally and catalyze solutions to complex IPM issues</li> <li>Procedures linked to objectives</li> <li>Timeline and scale of project reasonable</li> <li>Collaborators have agreed to participate through a letter of support</li> </ul>	<ul style="list-style-type: none"> <li>Objectives logically focus on a solution to the problem</li> <li>Project clearly identifies the audience targeted by the outreach and implementation efforts</li> <li>Procedures linked to objectives</li> <li>Target audience (stakeholders) have documented a desire for products and willingness to implement IPM solutions</li> </ul>	<ul style="list-style-type: none"> <li>PMSPs will use Regional IPM Center's standard format and procedures</li> <li>Evaluations or other planning documents will meet accepted standards for stakeholder information collection and summarization</li> <li>Collaborators have agreed to participate through letter of support</li> </ul>
Anticipated Impacts and Evaluation Plan (25 points)	<ul style="list-style-type: none"> <li>Anticipated impacts link directly to project objectives and are reasonable for the type and scale of the project</li> <li>The evaluation plan logically links to the anticipated impacts and details evaluation objectives, measurement indicators and specific methods</li> <li>Evaluation plan either: (1) collects data to evaluate change in learning, action, or condition <u>OR</u> (2) collects baseline learning, action or condition data related to the same crop or pest system as the proposed project</li> </ul>			
Expertise (10 points)	Curriculum Vitae indicate Project Directors and team have the expertise needed to successfully complete the project			
Budget (5 points)	<ul style="list-style-type: none"> <li>Budget is well-defined, reasonable for the proposed project, and within the project funding limits described in this RFA</li> <li>Budget follows guidelines described in the RFA and instructions on the budget form</li> <li>Budget narrative follows the order of the budget form and fully justifies budget items</li> </ul>			
Underserved population (5 points)	Project specifically involves stakeholders or stakeholder groups who have not participated in or have received limited benefits from USDA programs (for example, Limited Resource Producers, Small Farmers/Ranchers, Minority Groups, Pacific Islands, Alaska, Tribal Nations, and Women)			

## **IX. APPLICATION AND SUBMISSION INFORMATION**

**Applications are due by 5 p.m. PST, Friday, December 9, 2016.** This RFA may be accessed at [www.westernipm.org](http://www.westernipm.org).

Applications must be submitted electronically and all components must be in portable document format (PDF). Applicants will have to register at <http://projects.ipmcenters.org/Western> to download the documents required for submission.

Please be sure to follow all directions on what to submit, format, length restrictions, due date and other requirements.

**Point Size, and Margins:** Applications must be typed in a 12-point or larger font, single- or double-spaced, with 1-inch margins all around.

### **Application must include:**

**A. WESTERN IPM CENTER APPLICATION FORM.** Application form signed by the authorized representative of the submitting organization and submitted as a PDF.

**B. PROJECT SUMMARY FORM.** Must specify the project category applying for and include a clear summary of the project, its objectives, and procedures for accomplishing the objectives. Include a brief statement of how the proposed project meets Western IPM Center priorities (see Section II). The summary must not exceed 250 words.

**C. PROJECT NARRATIVE.** Project narrative is limited to eight pages. (Two additional pages are allowed for the progress report for work groups requesting renewal.)

### **Problem and Justification**

Provide a summary of the problem and how this project is expected to contribute to addressing it. Include explicit citations that document the stakeholder-identified needs addressed by the proposed project.

### **Objectives**

Include a concise, complete, logically arranged and numbered series of statements defining the objectives of the project. The nature of the project and its objectives will determine the ease of predicting success, but where feasible, indicate the likelihood of achieving the objectives in a specified length of time.

### **Procedures**

Include a numbered procedure statement corresponding with each numbered objective that outlines the working plans and methods designed to achieve each objective. The procedure statement must show that the proposed work has the potential to accomplish the objectives.

### Project Evaluation Plan

The toolkit for assessing IPM outcomes and impacts is available at <http://ipmimpact.ucanr.edu/>.

The toolkit is a rich source of information and guidance for establishing a project evaluation plan. Please refer to this website or other similar sociological references and scientists as needed to assist you with this section.

Identify the project's expected outputs and outcomes, and how they relate to the goals of the Western IPM Center. **Outputs** are *activities, services, events or products that you develop*, such as field days, presentations, training materials, websites, services, data, meetings held, reports, papers and services. **Outcomes** are the *results or changes among individuals, groups, communities, systems or society* that may be influenced by your outputs. Outcomes are often divided into short-, medium- and long-term outcomes.

- **Short-term outcomes** are related to **learning**: Changes in awareness, knowledge, attitude, skills, opinions, aspirations, and motivations of the target audience.
- **Medium-term outcomes** are related to **actions**: Behaviors, practices, decisions made, policies affected or social actions taken by members of the target audience.
- **Long-term outcomes**, also called **impacts**, are related to **conditions**: Social, economic, or environmental conditions that change as a result of actions taken by end-users.

(Use of some of these terms can vary. For example, the IPM.gov website refers to all levels of outcomes as "Impacts." But a true impact in the logic model-sense is something that happens beyond the scale of an individual.)

All proposals should identify the **evaluation objectives** and associated **indicators** to be collected. All proposals should describe the **specific methods** that will be used to evaluate the project outcomes. A timeline showing anticipated progress and anticipated outputs and outcomes would be helpful and could be used as a part of a future progress report to demonstrate satisfactory progress. See the "Toolkit for Assessing IPM Outcome and Impacts" (<http://ipmimpact.ucanr.edu/>) for further explanation of these terms and concepts.

Ideally, every funded project would include a plan to measure its own outcomes and impacts. That can be problematic with short-term, small-budget projects. Therefore evaluation plans may be either:

- (1) A collection of data to evaluate change in learning, action, or condition,  
OR
- (2) A collection of baseline data that can be used later to measure future changes in learning, action or condition. The baseline data will be submitted to the Western IPM Center and will be available for later projects to use for comparison.

### Duration

Projects must have an end-date no later than February 28, 2018.

**Cooperation of Key Personnel and Institutional Units Involved**

Identify key personnel and each institutional unit contributing to the project. In multiple-institution applications, each institution must be identified and the lead institution designated.

Applications must clearly define the roles and responsibilities of each person and institutional unit of the project team, if applicable.

If the project includes consulting, collaborative, or sub-contract arrangements, such agreements must be fully explained and justified in the budget narrative and budget. In addition, evidence must be provided that the project co-directors and collaborators involved have agreed to render these services. Acceptable documentation for this purpose includes letters of intent or statements of work from the individual or organization. Copies of either letters or email messages from the project co-directors and collaborators will suffice for this purpose. Letters of intent or letters of support from stakeholders should be included in the Appendix.

**Work Group Progress Report – only for proposals to continue previously funded work groups (Two additional pages)**

Describe the work group's progress in completing the objectives and evaluation plan from the previous year's grant.

**D. LITERATURE CITED.** Full citations for all relevant literature are required.

**E. CURRICULUM VITAE.** Project directors, project co-directors, and any collaborators who will receive a portion of the budget must provide current CV (three pages maximum) including a listing of the most relevant publications during the last five years.

**F. BUDGET FORM.** A budget form must be included. When preparing budgets, applicants should limit their requests for recovery of indirect costs to the lesser of their institution's official USDA negotiated indirect cost rate or the equivalent of 30 percent of total costs of the project. Additional details on budget issues are available from the Western IPM Center.

**G. BUDGET NARRATIVE.** A brief budget justification is required and must provide details for each line item in the budget.

**H. CURRENT AND PENDING SUPPORT FORM.** A completed current and pending support form must be included for each project director and co-project director.

**I. CONFLICT OF INTEREST FORM.** A completed conflict of interest form must be included for each project director and co-project director.

**J. NATIONAL ENVIRONMENTAL POLICY ACT EXCLUSION FORM.** A completed NEPA form [CSREES-2006] is required.

**K. USDA-CSREES ASSURANCE STATEMENT FORM.** A completed assurance statement form [CSREES-2008] is required.

**G. APPENDICES** (Letters of collaboration, etc.) All appendices must be combined in a single PDF document. Appendices should be used only to provide documentation of statements presented in the

main proposal, such as letters of collaboration, memoranda of understanding, etc. Inclusion of additional narrative material is neither beneficial nor desired.

#### **VIII. FINAL REPORT**

A final report must be submitted to the Western IPM Center no later than 60 days after the expiration of the project. The final report must use the Western IPM Center Project Report form, found at <http://www.westernipm.org/index.cfm/center-grants/for-recipients/>.

#### **IX. SUBMISSION OF APPLICATIONS**

Applications must be submitted electronically, and all components must be in portable document format (PDF). Applicants will have to register at the site <http://projects.ipmcenters.org/Western> to download the documents required to use for submissions. The registration process is simple and should only take a minute.

If you have questions or problems with the submission system, contact

Matt Baur, Associate Director  
Western Integrated Pest Management Center  
Phone: 530-750-1270 Email: mebaur@ucanr.edu  
[www.westernipm.org](http://www.westernipm.org)

The Regional IPM Centers are supported by the USDA National Institute of Food and Agriculture and comply with the USDA-NIFA nondiscrimination policy ([www.csrees.usda.gov/about/nondiscrimination.html](http://www.csrees.usda.gov/about/nondiscrimination.html)).