

# IPM

Regional Integrated Pest Management Grants Program

Western Region

GUIDELINES FOR PROPOSAL

PREPARATION AND SUBMISSION  
FOR FISCAL YEAR 2000

Deadline for Submission:

**Research Proposals: February 2, 2000**

**Extension and Research-Extension Proposals: February 10, 2000**

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## I. BACKGROUND

The Regional Integrated Pest Management (IPM) Grants Program supports the continuum of research and extension needed to increase implementation of IPM methods from development of individual pest control tactics, to the integration of tactics into an IPM system to extension education and training. The program is administered through the Land-Grant University system's four regions (North Central, Northeastern, Southern, Western) in partnership with USDA's Cooperative State Research, Education, and Extension Service (CSREES). The goal of the Regional IPM Grants Program is to provide support for projects that develop and help users implement IPM systems that: 1) are profitable and environmentally sound over the long-term; 2) reduce reliance on pesticides; and 3) protect and conserve ecosystem quality and diversity.

## II. PROGRAM PRIORITIES

The Western region is characterized by a diversity of cropping systems in close proximity to vulnerable ecosystems and natural resources. Public concerns about water use and quality, worker safety and public health related to pesticide use provide impetus to develop and implement regional IPM strategies.

### **A. Goals of Western Region IPM Program**

The goals of the Western Region IPM Program include development of long-term sustainable, profitable, and environmentally sound pest management systems for agriculture; promotion of reduced risk pest management practices; and protection and conservation of ecosystem quality and diversity.

### **B. Availability of Funding/Eligibility**

Funding is available to research and extension staff at Land-Grant Universities in the region.

Research and extension staff from other regions as well as staff from other state and federal agencies are encouraged to participate as members of the project team, but cannot serve as project directors. Additional non-federal funding is strongly encouraged. Appropriateness of budget is one of the criteria on which evaluations will be based.

Each applicant is eligible to submit one proposal as Principal Investigator/Project Director (PI/PD) and one as Co-PI/Co-PD in the research category (Section III. A.) and one to either the extension or research-extension categories (Sections III. B. & C.).

## III. PROJECT TYPES

The Western region will provide funding for three types of IPM projects in fiscal year (FY) 2000: research, extension, and research-extension. Applicants should indicate which type of project is being proposed and submit by the deadline listed (Section X. 2.).

## **A. Research**

This funding category develops the research base needed for the construction of comprehensive pest management systems that have a strong likelihood of contributing to ongoing IPM implementation efforts. Research may be proposed to develop individual tactics needed for pest management systems (e.g., biocontrol, cultural control, host resistance) or to increase the understanding of how interactions among tactics alter the effectiveness of pest management systems. The experimental approach should emphasize field-scale experiments over multiple seasons and/or locations where appropriate. Proposals should clearly demonstrate how the tactic or IPM system, once developed, can be incorporated into an existing production system.

**Projects funded through this category may include a variety of topic areas, including:**

Developing an effective tactic for a production management system for a pest problem that currently limits the production efficiency and is generally recognized by the user community as a key priority.

Addressing the agro ecosystem extending beyond a single commodity and addressing multiple cycles of pests over seasons and/or multiple species and complexes.

Promoting biological diversity in pest management systems and integrating of multiple pest management tactics.

Identifying linkages with components of existing or emerging pest management systems.

Demonstrating the economic and environmental benefits of IPM strategies.

Identifying the constraints to greater adoption of IPM strategies and developing approaches to overcome these constraints.

Promoting cooperative effort across appropriate disciplines, with linkages between research and extension efforts.

Elucidating the relationship of ecological principals to life systems of pests and the functioning of the agro ecosystem as a whole.

Integrating plant and animal production in an IPM system.

Proposals may be submitted for 1-3 years' duration with a maximum funding level of \$100,000 per year. Continued funding is subject to availability of funds and demonstration of satisfactory progress (see Section VI.).

## **B. Extension**

This funding category enhances outreach efforts that support the wide-scale implementation of IPM methods and maximize opportunities to build strategic alliances with industry and user groups to expand their active participation in increasing the adoption of IPM methods. Projects may be proposed to develop educational materials and information delivery systems needed for outreach efforts, conduct field-scale or on-farm demonstrations, or deliver IPM education and training.

A research component is not a required element of extension proposals, but the research base should be documented. Projects funded in this category should include one or more of the following:

IPM training and education to individuals involved with the production, processing, storage, transporting, and marketing of food and agricultural commodities.

Development of 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.

Extension proposals may be submitted for 1-3 years' duration and a maximum funding level of \$50,000 per year. Continued funding is subject to availability of funds and demonstration of satisfactory progress (see Section VII.).

### **C. Combined Research-Extension**

This funding category combines research and extension activities as described in A and B above. Research-extension projects validate pest management systems, introduce new pest management tactics into local production systems, and deliver these systems to producers and their advisors through IPM education and training programs. The project team should include faculty with appointments in research and extension.

Research-extension proposals may be submitted for 1-3 years' duration and a maximum funding level of \$50,000 per year.

## **IV. AVAILABLE FUNDING**

In FY 2000, CSREES will make available approximately \$500,000 to support research projects, \$225,000 to support projects involving a combined effort of research and extension activities, and \$70,000 to support Extension projects in the Western region. Continued funding is subject to availability of funds and demonstration of satisfactory progress (see Section VII.)

The authority for the research funding is contained in Section 2(c)(1)(B) of the Act of August 4, 1965, Public Law No. 89-106, as amended (7 U.S.C. 450i (c)(1)(B)) and the authority for the extension funding is contained in Section 3(d) of the Smith-Lever Act of May 8, 1914, ch. 79, 38 Stat. 373, 7 U.S.C. 341 et seq. This funding is administered by CSREES, USDA. NOTE: For combined effort proposals, separate awards will be executed for Pub. L. 89-106 and Smith-Lever funds.

## **V. SCIENTIFIC PEER REVIEW AND MERIT REVIEW**

Subsection (c)(5) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. § 450i(c)), as amended by Section 212 of the Agricultural Research,

Extension, and Education Reform Act of 1998, (7 U.S.C. 450i(c)(5)) requires grantees to arrange for scientific peer review of their proposed research activities and merit review of their proposed extension and education activities prior to award in accordance with regulations promulgated by the Secretary prior to the Secretary making a grant award under this authority. These regulations were published in the *Federal Register* on June 24, 1999, and establish the following requirements:

(a) Prior to the award of a standard or continuation grant by CSREES, any proposed project shall have undergone a review arranged by the grantee. For research projects, such review must be a scientific peer review conducted in accordance with 7 CFR 3400.21. For education and extension projects, such review must be a merit review conducted in accordance with 7 CFR 3400.22.

(b) Review arranged by the grantee must provide for a credible and independent assessment of the proposed project. A credible review is one that provides an appraisal of technical quality and relevance sufficient for an organizational representative to make an informed judgment as to whether the proposal is appropriate for submission for Federal support. To provide for an independent review, such review may include USDA employees, but should not be conducted solely by USDA employees.

(c) A notice of completion of review shall be conveyed in writing to CSREES as part of the submitted proposal. In the case of the Integrated Pest Management Program, applicants may (1) conduct the review at their institutions, or (2) utilize the regional panel review process. Applicants are not required to submit results of the review to CSREES; however, proper documentation of the review process and results should be retained by the applicant. (See Section VI. Q.)

(d) Review by the grantee is not automatically required for renewal or supplemental grants as defined in Sec. 3400.6. A subsequent grant award will require a new review if, according to CSREES, either the funded project has changed significantly, other scientific discoveries have affected the project, or the need for the project has changed. Note that a new review is necessary when applying for another standard or continuation grant after expiration of the grant term.

Scientific peer review is an evaluation of a proposed project for technical quality and relevance to regional or national goals performed by experts with the scientific knowledge and technical skills to conduct the proposed research work. Peer reviewers may be selected from an applicant organization or from outside the organization, but shall not include principals, collaborators or others involved in the preparation of the application under review.

Merit review is an evaluation of a proposed project or elements of a proposed program whereby the technical quality and relevance to regional or national goals are assessed. The merit review shall be performed by peers and other individuals with expertise appropriate to evaluate the proposed project. Merit reviewers may not include

principals, collaborators or others involved in the preparation of the application under review.

## **VI. PROPOSAL FORMAT**

Proposals must be submitted in the following format using the forms provided in the IPM Application Forms Package. Please see <http://www.reeusda.gov/agsys/ipm/forms.htm>.

Please note that the Application for Funding form and the IPM Budget have been modified to enable applicants to include information pertaining to research, extension, or joint research-extension projects. You need only to complete these forms as they pertain to the type of project for which you are applying.

## **A. Application for Funding**

One copy of the application must contain the pen-and-ink signature(s) of the proposing principal investigator(s)/project director(s). Any proposed principal investigator/project director or co-principal investigator/co-project director whose signature does not appear on the Application for Funding form will not be listed on any resulting grant award. Please pay particular attention to the following blocks:

1. Total Funds Requested (Block 14). Accurately include the amount requested from research funds (P.L. 89-106) and/or extension funds (Smith-Lever 3(d)). This is important since it will be an indicator of whether the proposal is a research, extension, or a combined research-extension submission.
2. Certification (following Block 22). Proposals require the following Authorized Organizational Representative's (AOR) signatures. An AOR is an individual who possesses the necessary authority to commit the institution's time and other relevant resources to the project:

<u>Type of Request</u>	<u>Required AOR Signature(s)</u>
Research Only:	Director of the Agricultural Experiment Station or other AOR
Extension Only:	Director of the Cooperative Extension Service
Combined Effort Proposal:	(1) Director of the Agricultural Experiment Station or other AOR, and (2) the Director of the Cooperative Extension Service

## **B. Table of Contents**

For ease in locating information, each proposal must contain a detailed table of contents. The Table of Contents should be placed after the Application for Funding form and contain page number references for each component of the proposal.

## **C. Abstract**

Provide a brief description (no more than one page) of the problem or opportunity, and project objectives.

## **D. The Problem, Background, and Justification**

Describe why current technologies are inadequate and how the proposed approach will help improve the pest management system. Address the specific needs identified in this solicitation and identify the relative importance of the strategy(ies) to an improved pest management system in the region/area, and the potential applicability of the proposed approach to other production regions.

## **E. Literature Review**

Review ongoing or completed work (local/regional/national) that is relevant.

## **F. Objectives**

Provide clear, concise, complete, and logically arranged statement(s) of the specific aims of the proposed effort along with details of the anticipated accomplishments.

## **G. Approach and Procedures**

Describe how each of the stated objectives will be reached. Include appropriate 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 a combined research-extension proposal, describe how the project will be managed, particularly how coordination between research and extension components will be achieved and maintained. Provide detailed plans for evaluation of the project and how successful impacts and outcomes will be measured. Include specific evaluation objectives with specific impact indicators (e.g., adoption rate, number of acres impacted, pesticide use, profitability) that will be used to measure the success of the project.

## **H. Literature Cited**

The citations should be accurate, complete, written in acceptable journal format, and be appended to the proposal.

## **I. Cooperation and Institutional Units Involved**

Identify each institutional unit contributing to the project. Identify each State in a multiple-State proposal and designate the lead State. When appropriate, the project should be coordinated with the efforts of other State and/or national programs. Clearly define the roles and responsibilities of each institutional unit of the project team, if applicable.

## **J. Key Personnel**

Identify key personnel in the proposed project and their specific roles in the proposed project. Each individual must provide a current vita (2 page maximum), listing the most relevant publications.

A separate conflict of interest list must be submitted with the proposal for each investigator for whom a curriculum vitae is required. This list is necessary to assist program staff in excluding from proposal review those individuals who have conflicts of interest with the project personnel in the grant proposal.

(i) For each investigator (and other personnel as described in the program description), list alphabetically the full names of only the individuals in the following categories. It is not necessary to list individuals in each category separately; rather, a single alphabetized list of each investigator is preferred. Other investigators working in the applicant's

specific research area are not in conflict of interest with the applicant unless those investigators fall within one of the categories listed below. Additional pages may be used as necessary. A conflict of interest list must be submitted before a proposal is considered complete. Inclusion of a curriculum vitae or publication list in lieu of a conflict of interest list is not sufficient.

(A) All collaborators on research projects within the past five years, including current and planned collaborations;

(B) All co-authors on publications within the past five years, including pending publications and submissions;

(C) All persons in your field with whom you have had a consulting or financial arrangement within the past five years

(D) All thesis or postdoctoral advisees/advisors within the past five years.

#### **K. Collaborative Arrangements**

If the project includes consulting, collaborative, or subcontractual arrangements, such arrangements should be fully explained and justified. In addition, evidence should be provided that the collaborators involved have agreed to render these services such as a letter of intent from the individual or organization.

#### **L. Budget**

Each proposal must include a detailed budget form for each year of requested support and a budget form that summarizes total project costs for the duration of the project. For a combined research-extension proposal, funds must be distributed in both the research and extension columns of the budget form. See the budget instructions included in the IPM Application Forms Package.

#### **M. Budget Narrative**

A detailed budget narrative must be included for research and extension activities. If consulting, collaborative arrangements, or subcontractual arrangements are included in the proposal, these arrangements should be fully explained and the rate of pay for any consultants must be included as direct costs. Letters of intent or other evidence should be provided that collaborators involved have agreed to render these services. A proposed statement of work and a budget for each arrangement involving the transfer of substantive programmatic work or the providing of financial assistance to a third party must be provided. Each State involved in multiple State proposals must be identified and the lead State noted.

#### **N. Research Involving Special Considerations**

Form CSREES-662, Assurance Statement, must be completed and included in the proposal if it is anticipated that the research project will involve recombinant DNA or RNA research, animal care, or the protection of human subjects.

## **O. Current and Pending Support**

Each proposal must contain Form CSREES-663. NOTE: This proposal should be identified in the pending section of Form CSREES-663.

## **P. Peer and Merit Review Certifications**

By signing the Application for Funding form, the Authorized Organizational Representative of the applicant institution is providing the required certification that the proposal has received/will receive a credible and independent peer and merit review arranged by the institution. (See Section V.)

## **Q. Other Certifications**

Note that by signing the Application for Funding form the applicant is providing the required certifications regarding Debarment and Suspension and Drug-Free Workplace. The certification forms are included in this application package for informational purposes only. It is not necessary to submit these forms with your proposal.

## **R. Compliance with the National Environmental Policy Act**

As outlined in 7 CFR Part 3407 (CSREES regulations implementing NEPA), the environmental data for any proposed project is to be provided to CSREES so that CSREES may determine whether any further action is needed; therefore, Form CSREES-1234, "NEPA Exclusions Form," must be completed indicating whether the applicant is of the opinion that the project falls within a categorical exclusion and the reasons therefore.

## **S. Current Research Information System (CRIS)**

CRIS FORMS, Forms AD-416 and AD-417, apply only to the Pub. L 89-106 funds and will be requested if a proposal is identified for funding.

## **VII. REPORTING**

In addition to the annual CRIS reports, principal investigators will be expected to provide annually written progress reports to the coordinator. A termination report is required within 90 days of project completion.

## VIII. INFORMATION CONTACT(S)

FOR FURTHER INFORMATION CONTACT:

Dr. Nick C. Toscano, Coordinator  
Western Regional IPM Special Grants Program  
Dept. of Entomology  
University of California  
Riverside, CA 92521  
(909) 787-5826  
E-mail: [nick.toscano@ucr.edu](mailto:nick.toscano@ucr.edu)

## IX. WHAT TO SUBMIT

An original and 10 copies of each proposal must be submitted to the address shown in Section X. Proposals should contain all requested information when submitted. Each proposal should be typed on 8 1/2" x 11" white paper; all pages should be numbered, and should be double-spaced on one side of the page with one-inch margins. Sections D through G should not exceed 15 pages. Please note that the text of the proposal should be prepared using type no smaller than 12-point font size. Staple each copy of the proposal in the upper left-hand corner. Please do not bind copies of the proposal. **Proposals not conforming to this format will be returned without review.**

## X. TIMETABLE

1. The original and 10 copies of the proposal should be sent to:

Dr. Nick C. Toscano, Coordinator  
Western Regional IPM Special Grants Program  
Dept. of Entomology  
University of California  
Riverside, CA 92521  
(909) 787-5826

2. Proposals must be received by Dr. Toscano on or before the "close of business" on the following dates:

Research Proposals: February 2, 2000

Extension and Research-Extension: February 10, 2000

3. Proposals will be reviewed, evaluated, scored, and ranked during April 2000 by a peer review panel consisting of scientists representing the research and extension areas addressed and who have not submitted proposals for support on the proposed activity. Reviewers may be from other regions. Reviewers from within the region will not review proposals submitted from their institution. The review panel will consist of members from the pest management disciplines (entomology, nematology,

plant pathology, and weed science) and an appropriate mix of scientists from production disciplines. Evaluation criteria are listed in Section XI.

4. The grants manager will convey peer scores and recommendations including funding level and duration to a subcommittee of western regional experiment station directors and/or cooperative extension directors for review, concurrence and submission to CSREES.

## **XI. WESTERN REGION IPM GRANTS PROPOSAL EVALUATION**

### **Proposal #**

#### **Title**

- |                    |  |                     |
|--------------------|--|---------------------|
| <b>I.</b>          | Importance and significance of the pest/production problem(s) and relevance of the proposal to the development of a successful IPM program.  | (20 points)         |
| <b>II.</b>         | Appropriate objectives, design, and methodology.   | (30 points)         |
| <b>III.</b>        | Degree of interdisciplinary and multi-organizational collaboration, including appropriate statewide and multiple-state collaboration among research, extension, private consultants, industry, and the user community, appropriately scaled to the problem. The feasibility of increasing IPM implementation as a result of the project. | (20 points)         |
| <b>IV.</b>         | Appropriate strategy/process to evaluate the success of the project, including milestones, developed by IPM implementation team.   | (10 points)         |
| <b>V.</b>          | Appropriateness of the budget.   | (10 points)         |
| <b>VI.</b>         | Professional competence of the project team.   | (5 points)          |
| <b>VII.</b>        | Relevance to the proposal guidelines.  | (5 points)          |
| <b>TOTAL SCORE</b> |  | <b>(100 points)</b> |

### **Additional Comments:**