CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Office of Agricultural Resilience and Sustainability

ADAPTIVE IPM FOR INVASIVE AGRICULTURAL PESTS

REQUEST FOR PROPOSALS (RFP)

Release date: July 8, 2025
Grant Proposals Due Date: August 29, 2025

Late grant proposals will not be accepted

https://www.cdfa.ca.gov/oars/opca/adaptive-ipm.html

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About the program

The California Department of Food and Agriculture's (CDFA) Office of Pesticide Consultation and Analysis (OPCA) is now accepting applications for the Adaptive IPM for Invasive Agricultural Pests grant program. The purpose of this Request for Proposals (RFP) is to develop integrated pest management (IPM) program(s) or components that can be rapidly implemented when new invasive agricultural pests arrive and become established in California or when recently arrived invasive pests resurge or expand their range or host species. The program also supports research to refine and optimize existing IPM strategies to improve their effectiveness or exploring additional control measures against established invasive pests that drive extensive pesticide use but remain uncontrolled due to developed pesticide resistance.

A total of $500,000 for one award is available in this grant cycle. Funds for the current RFP come from a General Fund appropriation.

Background

California's diverse agriculture, producing over 400 commodities, faces a constant threat from invasive pests. While exclusion or eradication of new invasive pests are the preferred first lines of defense, some pests become established and require long-term management strategies. These new pests pose a significant challenge for growers, often leading to increased reliance on insecticides. Increased use of broad-spectrum insecticides can disrupt integrated pest management systems, creating secondary pest outbreaks, and potentially decreasing profits. At the same time, growers are under pressure from ever-tightening regulations and need to adopt new more sustainable pest management methods to remain competitive.

CDFA safeguards the state's agricultural industry by preventing the establishment of invasive pests and mitigating their impact. Global travel and inadvertent introductions often bring these pests into urban areas first. To prevent their spread to agricultural regions, CDFA proactively controls pest outbreaks in urban environments. However, due to growing concerns in affected communities about the health and environmental impacts of insecticide use, exploring alternative solutions is essential.

CDFA uses pest management efforts based on IPM, a comprehensive approach that includes biological control, selective or low-risk chemicals, biopesticides, cultural control, life history analysis to target vulnerable developmental stages, and monitoring pest populations. Classical biological control is a valuable tool against invasive species; however, the significant time required for biological agent discovery, evaluation, permitting, and release can allow invasive pest populations to become widespread. Recognizing this challenge, CDFA initially implemented the Proactive IPM Solutions program (2019-2024) to proactively identify potential invasive pests in California and create long-term IPM strategies for swift implementation upon the pest's arrival. Building on this foundation, the program has evolved into the Adaptive IPM for Invasive Agricultural Pests. This transition reflects a more adaptive and inclusive approach that now also

addresses newly arrived or locally established invasive agricultural pests to prevent their resurgence and further spread. Furthermore, the Adaptive IPM program supports research focused on enhancing existing IPM strategies and exploring new control measures for established pests that have developed pesticide resistance and contribute to significant pesticide use.

Research Requirements and Priorities

This program funds projects that meet one of the following objectives:

- Develop IPM program(s) or components that can be rapidly implemented if a new invasive agricultural pest arrives in California and becomes established. The invasive pest must be one of the target pests identified by CDFA (Table 1). For these pests, it is a priority to first utilize and adapt existing knowledge and technology that may exist outside of California. Additionally, the focus is on targets suitable for long-term IPM control. Pests that are typically successfully eradicated, such as certain fruit flies, will not be considered.
- Develop or improve IPM program(s) or components for invasive agricultural pests that have recently arrived undetected and have been established locally, and resurged or expanded their range/hosts in California.
- Refine or optimize existing IPM program(s) to enhance their effectiveness against established invasive agricultural pests that drive extensive pesticide use, yet remain uncontrolled due to developed pesticide resistance.

A proposal should provide straightforward descriptions of the proposed IPM project or strategy, including a detailed scope of work, commitments from team members, and a budget justification (details provided in the **Grant Proposal Requirements** section). CDFA encourages but does not require matching funds from industry partners.

Project proposals must include details and reasoning on what IPM strategies for the pest will be investigated. Projects may include any number of IPM components, including a single aspect of an IPM system. Projects with biological control components should detail a plan to collect data necessary to obtain a release permit and describe the process to obtain it. The focus of the research should be on long-term control of the invasive pest that minimizes disruption of urban communities and existing agricultural IPM systems. For example, it would be preferable to prioritize selective, low-risk chemicals, biological chemistries, cultural control, and biological control. Proposals should consider the availability of products not registered in California and potential remedies.

Table 1: CDFA Target Pest List

Scientific name	Common name
Acalitus phloeocoptes	
Acleris comariana	Strawberry tortrix
Acutaspis albopicta	Albopicta scale
Agonoscena pistaciae	Pistachio psyllid
Agrilus planipennis	Emerald ash borer
Aleurocanthus woglumi	Citrus blackfly
Anoplophora chinensis	Citrus longhorned beetle
Anoplophora glabripennis	Asian longhorned beetle
Anthonomus rubi	Strawberry blossom weevil
Anthonomus signatus	Strawberry bud weevil
Aonidiella orientalis	Oriental scale
Argyrotaenia ljungiana	Grape tortrix moth
Capnodis carbonaria	
Cerambyx dux	
Clavaspis perseae	Armored scale
Conotrachelus nenuphar	Plum curculio
Contarinia nasturtii	Swede midge
Cryptoblabes gnidiella	Honeydew moth
Curculio caryae	Pecan weevil
Cydalima perspectalis	Box tree moth
Davidsonaspis aguacatae	Armored scale
Deudorix livia	Pomegranate butterfly
Erschoviella musculana	
Eupoecilia ambiguella	European grape berry moth
Eurytoma amygdali	
Harrisina americana	Grapeleaf skeletonizer
Heilipus spp.	Avocado seed weevils
Helicoverpa armigera	Old World bollworm
Lobesia botrana	European grapevine moth
Lycorma delicatula	Spotted lanternfly
Lymantria dispar	Gypsy moth
Monosteira unicostata	
Oebalus pugnax	Rice stink bug
Oncometopia nigricans	Florida sharpshooter
Oncometopia orbona	Broad headed sharpshooter
Oryctes rhinoceros	Coconut rhinoceros beetle
Osphranteria coerulescens	
Ostrinia nubilalis	European corn borer
Paralobesia viteana	Grape berry moth
Parlatoria blanchardi	Parlatoria date scale
Parlatoria ziziphi	Black citrus scale

Scientific name	Common name
Paysandisia archon	South American palm borer
Phytomyza gymnostoma	Allium leafminer
Pinnaspis strachani	Armored scale
Prays oleae	Olive moth
Raffaelea lauricola	Laurel wilt
Resseliella citrifrugis	Gall midge
Rhynchophorus palmarum	South American Palm Weevil
Schizotetranychus smirnovi	
Scolytus amygdali	
Stenoma catenifer	Avocado seed moth
Thaumatotibia leucotreta	False codling moth
Toxoptera citricida	Brown citrus aphid
Trioza spp.	Avocado leaf-galling psyllids
Tuta absoluta	Tomato leafminer
Xyleborus glabratus	Red bay ambrosia beetle
Xylella fastidiosa subspecies *pauca*	Pierce's disease
Zeuzera pyrina	Leopard moth

Funding and Grant Term

CDFA will select proposals based on the criteria presented below in the Evaluation Criteria section. A timeline is available here. Projects should start on January 1, 2026, and end on or before January 31, 2029. Maximum funding is $500,000. Applicants may submit for the full amount or anything less. CDFA encourages but does not require matching funds.

Funding must supplement, not supplant, existing activities/programs. Supplement is defined as adding to existing funds to enhance or expand existing activities. Supplant is defined as replacing existing funds for an activity because grant funds are to fund the same activity.

CDFA reserves the right to offer an award different than the amount requested.

Project Eligibility

Public or private colleges and universities, local, state, and federal government entities including California Native American Tribes, and non-profit organizations are eligible to apply.

The project lead(s) and their institutions must be based in California but can work with out-of-state collaborators.

The project lead(s) and/or collaborators must have access to a quarantine facility if the project involves pests that are not yet established in California.

Researchers must obtain all necessary federal and state permits for work with any non-exempt species.

How to Submit a Grant Proposal

Submit grant proposals via email by sending both PDF and Word versions of the complete application to cdfa.opca@cdfa.ca.gov. The subject line must be "Adaptive IPM for Invasive Agricultural Pests". All proposals must be received by 5 p.m. on the grant due date.

CDFA does not accept late submissions.

CDFA cannot assist in the preparation of grant proposals; however, applicants may submit general questions to cdfa.opca@cdfa.ca.gov. In order to ensure that all potential applicants benefit from all submitted questions and answers, CDFA will post all questions and responses on the program's webpage (https://www.cdfa.ca.gov/oars/opca/adaptive-ipm.html) within five business days of submission. CDFA will not accept questions within five business days of the application deadline.

Proposal Review and Evaluation

A committee consisting of scientists and specialists at CDFA and other State agencies, California universities, non-governmental environmental organizations, and/or grower representatives will review the merits of the proposals and provide feedback. Any member of the committee connected to a submitted project will recuse themselves from the process. The evaluation criteria are found at the end of this document. CDFA will make final funding decisions.

Award Notification

CDFA will notify all applicants regarding the status of their proposal and provide comments. Successful applicants will complete a grant agreement following the award announcement. Grant recipients may not begin project activities until both parties have executed the grant agreement. This program requires recipients to submit annual reports and a final report to demonstrate project accomplishments, address problems and delays, and describe activities planned during the next reporting period. This program requires quarterly invoices and may consider more frequent invoices on a case-by-case basis.

Disqualifications

Applications that do not meet the following requirements may be disqualified:

- The applicant is not an eligible entity.

- The application includes activities with dates outside the allowable grant duration.
- The funding amount requested is less than the minimum award amount allowable or exceeds the maximum award amount allowable.
- The application is incomplete, including an application with one or more unanswered questions or missing, blank, or unreadable attachments.
- The application includes non-allowable costs or activities.
- The application does not meet the purpose as defined in the Request for Proposal.
- The application would provide an improper benefit if funded.
- The application is submitted after the submission period has ended.

Appeal

Applicants may appeal any disqualification taken by OPCA during the administrative review for the preceding reasons to CDFA's Office of Hearings and Appeals within 10 calendar days of receiving a notice of disqualification from CDFA. The appeal must be in writing and signed by the responsible party name on the grant application or his/her authorized agent. It must state the grounds for the appeal and include any supporting documents and a copy of the OARS decision being challenged. The submissions must be sent to the California Department of Food and Agriculture, Office of Hearings and Appeals, 1220 N Street, Sacramento, CA 95814 or emailed to CDFA.LegalOffice@cdfa.ca.gov. Submissions received outside of this timeframe will be denied.

Grant Proposal Requirements

Allowable and non-allowable costs

A cost is allowable if it directly relates to the project and is incurred solely to advance work under the Grant Agreement. Allowable costs include, but are not limited to, salaries and wages, release time (California State University researchers), indirect costs, fringe benefits, consultant services, travel, equipment (lease/rental), subcontractors and materials, data processing, land rentals, training, and communications. Non-allowable expenses include, but are not limited to, costs for hospitality suites, alcoholic beverages, costs of entertainment, and costs for organized fund raising including financial campaigns and solicitation of gifts. CDFA does not reimburse non-allowable costs.

More information about allowable and non-allowable items of cost can be found here: https://www.cdfa.ca.gov/Regulations/General/FinalSelectedItemsofCost_Guidance.pdf

Executive Order N-6-22 – Russia Sanctions

On March 4, 2022, Governor Gavin Newsom issued Executive Order N-6-22 regarding Economic Sanctions against Russia and Russian entities and individuals. "Economic Sanctions" refers to

sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any sanctions imposed under state law. By submitting a proposal or application, Applicant represents that it is not a target of Economic Sanctions. Should the State determine Applicant is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned individuals or entities, that shall be grounds for rejection of the Applicant's proposal/application any time prior to agreement execution, or, if determined after agreement execution, shall be grounds for termination by the State.

Indirect costs

Indirect costs are facilities and administrative costs that cannot easily be tied directly to the activities of the grant. Examples of common indirect costs include administrative/clerical services, rent, utilities, internet and telephone service, maintenance, and general office supplies. Indirect costs should be calculated as a percentage of the modified total direct costs (MTDC). MTDC is calculated as all total direct costs minus excluded costs such as tuition and equipment in excess of $5,000. Subawards may not be included in the MTDC calculation for the full project budget. University of California, California State University, and other entities with negotiated rates, should use those. Entities without negotiated rates will be capped at 10%. See OPCA's Indirect Cost Policy document for more information: https://www.cdfa.ca.gov/oars/opca/docs/opca_indirect_costs_policies.pdf

Full Proposal Outline

A. Applicant Information

1. **Project Leader(s).** Specify each project leader's name, title, affiliation, mailing address, telephone number, email address, and project role. A curriculum vitae, a list of recent publications, and a description of current research/outreach activities must be included for each project leader Appendices document.
2. **Research Collaborator(s).** Specify each collaborator's name, title, affiliation, mailing address, telephone number, and email address. Commodity boards/growers/grower groups providing funding or in-kind support should be included here. A letter from each collaborator must be included in the Appendices document describing their role in the project, estimated time commitment, and a statement of agreement to participate in the project. Do not include a collaborator's name on the cover page unless a support letter is included with the proposal at the time of submission.
3. **Supporter(s).** Specify organizations and/or individuals that support the ideas and objectives of the project but are not providing funding. A letter from each supporter must be included in the Appendices document explaining the rationale for their support. Do not include a supporter's name on the cover page unless the support letter is included with the proposal at the time of submission.

B. Project Information

1. **Project Title.** Provide a unique and concise title for the proposed project that adequately describes the project.
2. **Project Summary.** Concisely define the problem and describe the project including project objectives.
3. **Introduction and Justification.**
   3.1 Specify reasons for selecting the target pest including how it might impact California.
   3.2 Explain how the project will contribute to the goals of the program.
   3.3 Describe relevant research about the target pest and/or system.
4. **Work Plan and Methods.** Provide a work plan in which the project is divided into tasks and sub-tasks. Identify who is responsible for completing each task. Discuss briefly how the project's success will be evaluated.
5. **Project Management and Evaluation.** Provide a timeline. Describe how data will be collected and shared with the CDFA. Detail what measures will be used to evaluate the project and how they will be assessed and reported to CDFA.

C. Budget

Complete the budget table. An Excel version of the budget table is available on the program's webpage.

If there is a subaward, include a budget table for the subaward as well. Costs that are not personnel, operating expenses, or subawards should be listed individually under other direct costs. These might include, but are not limited to, greenhouse rentals, quarantine costs, and/or publishing costs.

Provide a detailed narrative of your proposed budget, broken into years 1, 2, and 3 (if applicable). The budget should contain a narrative in paragraph format for each budget category to justify whether costs are reasonable and allowable. Allowable and non-allowable costs are defined in the Allowable and non-allowable costs section above. Assume a start date of 1/1/2026 and explain all of the following:

1. **Personnel.** Provide classification level, percentage of time based on full time salary/wages, benefits, employment period, and name of individual to be hired, if available.
2. **Operating Expenses**. Itemize and justify all of the following operating expenses:

   A. Supplies. Itemize and justify all supplies to be purchased. Supplies include all consumable materials with an acquisition cost less than $5,000 per unit. Supplies must be used exclusively for the project. For each grant year, provide an itemized list of projected supply expenditures, the dollar amount for each item, and describe how it will support the purpose and goal of the project.

B. Travel. For each grant year, itemize and indicate the following information (if applicable) for each trip: (a) destination; (b) purpose of trip; (c) number of trips; (d) identify travelers; (e) number of days traveling; (f) estimated airfare costs; (g) estimated ground transportation costs; (h) estimated lodging and meals costs; and (i) estimated mileage rate. The maximum travel rates allowable are the rates in effect at the time of travel as established by the California Department of Human Resources (CalHR).

Exceptions: For federal entities, if domestic travel is a reimbursable expense, receipts must be maintained to support the claimed expenditures. The maximum rates allowable are those established by the Federal Travel Regulation, issued by General Services Administration (GSA), including the maximum per diem and subsistence rates prescribed in those regulations. Colleges and Universities must comply with their institution's travel policies.

C. Other Direct Costs. Identify and explain any additional expenses not covered by the above categories. Other expenses include, but are not limited to, conferences or meetings, communications, speaker/trainer fees, publication costs, data collection, and other budgeted costs associated with the project.

D. Indirect costs. Indirect costs are facilities and administrative costs that cannot easily be tied directly to the activities of the grant. Examples of common indirect costs include administrative/clerical services, rent, utilities, internet and telephone service, maintenance, and general office supplies. See OPCA's Indirect Cost Policy document for more information: https://www.cdfa.ca.gov/oars/opca/docs/opca_indirect_costs_policies.pdf

3. **Other Funding Sources.** Indicate if any Federal, State or other grant program(s) are providing funding for this project. Identify the federal, state agency or organization administering the program(s), and the amount(s) of funds requested/awarded.

D. Appendices (uploaded as a single PDF file)

1. **Project Leaders.** Include a two-page resume and list of recent publications. Also include a description of current research/outreach activities; provide information on all current, planned, pending, and recent projects, whether or not there is a specific time commitment and how it will impact the proposed project.
2. **Research Collaborators.** Include a letter of support from each research collaborator, including a description of their role in the project and statement of agreement to participate in the project.
3. **Supporters.** Include a letter from each supporter explaining the rationale for their support. Scanned copies of letters are acceptable if attached to the proposal at submission time.
4. **Budget Table.** Include a complete budget table.

5. **Literature Cited.**

Evaluation Criteria

All applications will be evaluated based on the criteria detailed below (Table 2).

Table 2: Evaluation criteria

Evaluation Criteria	Max points
Proposal Quality • Project Summary. Concisely defines the problem, describes the project, and provides a clear and concise statement of each objective. • Introduction and Justification. Specifies reasons for selecting the target pest, explains how the project will contribute to the goals of the program, and describes relevant research about the target pest and/or system. • Work Plan and Methods. Clearly explains project tasks and how they will be conducted including experimental design and statistical analyses and discusses how the project's success will be evaluated. • Project Management and Evaluation. Provides a timeline and metrics that will be used to evaluate the project's success. • Additional information. Includes required information for project leaders, cooperators, and supporters.	25
Project Justification • Relevance to Research Priorities. Clearly states how proposed target fits the research priorities. • Justification. Defines/describes the problem, explains impact on a local/regional/statewide level, indicates potential contribution to long-term problem resolution, describes previously conducted relevant research, and specifies new information to be generated.	30
Project Team and Resources *Team* • Are the project leaders, cooperators, and other researchers well-suited to the project? • Does the team have complementary and integrated expertise and the leadership approach/governance and organizational structure appropriate for the project?	15

• Does the project have strong support from relevant organizations/individuals? *Resources* • Are matching funds provided by industry partners/commodity boards? • Are the institutional support, equipment, and other physical resources available to the investigators adequate for the project proposed? • Will the project especially benefit from the unique features of the scientific environment and/or collaborative arrangements?	
Feasibility and Impact • Project is manageable within proposed framework of budget, time and personnel. • Project objectives are clear, well stated, and achievable. • The overall strategy, work methodology, and analyses methods are well-reasoned and appropriate to accomplish the objectives of the project. Potential problems, alternative strategies and benchmarks for success are included. • Does the project have clear strategy for outreach to interested farmers and agricultural consultants beyond the project duration?	20
Fiscal Merit • Project's budget is detailed, reasonable, and accurate. • Budget Narrative: Itemizes, describes, and justifies all project expenses.	10
Total points	100