



## **Office of Environmental Farming and Innovation**

# **Small Dairy Climate Change Research Request for Research Proposals (RFP)**

**Release Date: March 6, 2018**

**Grant Proposals Due: April 16, 2018 5:00 P.M. PDT**

*Late grant proposals will not be accepted.*

<https://www.cdfa.ca.gov/oefi/>

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The California Department of Food and Agriculture's (CDFA) Office of Environmental Farming and Innovation (OEFI) is pleased to announce funding available for small dairy climate change research. CDFA received \$250,000 in funding for this research as part of Item 8570-001-0001-2017 of the 2017-18 Budget Act. The purpose of this Request for Research Proposals (RFP) is to select and fund research that can be used to inform the Small Dairy Climate Action Plan described in Item 8570-101-3228 of the Supplemental Budget Act of 2017-18; <http://www.lao.ca.gov/reports/2017/3696/2017-18-supplemental-report.pdf>). Specifically, funded research must evaluate how small dairies may differ from large dairies in adapting and mitigating to climate change and describe cost effective strategies to reduce methane emission from small-scale dairies.

## **1. FUNDING AND GRANT TERM**

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CDFA will award a maximum total of \$250,000 for one research project that addresses all the needs of this RFP. Matching funds are not required but are highly encouraged. CDFA reserves the right to offer an award amount different than the amount requested.

Projects cannot exceed one year of funding. Funds may not be expended prior to June 30, 2018 or after June 30, 2019.

## **2. PROJECT ELIGIBILITY**

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California academic research institutions and non-profit organizations are eligible to apply. Organizations outside of California are eligible if they coordinate and collaborate closely with California scientists and organizations.

## **3. TIMELINE**

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Item	Estimated Dates
Request for Proposals released	March 6, 2018
Grant Proposals due	April 16, 2018 5:00 P.M. PDT
Proposal evaluation period	April – May, 2018
Announce grant awardees	May, 2018

## **4. RESEARCH PRIORITIES**

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The objective of this research proposal is to study and evaluate how methane emission levels from small-scale dairies may differ from large dairies and describe cost effective strategies to reduce methane emissions from small-scale dairies.

Research proposals must address the following using science based strategies supported by the scientific literature review process and modeling:

- An evaluation of the best methods and potential metrics on how to distinguish between small and large dairies in California based on herd size, economics or other variables

- Low, high and average methane emission from small dairies based on metrics to identify small dairies.
- Low, high and average methane emission from large dairies based on metrics to identify large dairies.
- Strategies and technologies to reduce methane emission on large dairies and small dairies.
- Comparison of economic impact of implementing methane emission reduction strategies on small dairies versus large dairies.
- Comparison of whole-farm environmental and economic impacts of implementing methane emission strategies on small dairies versus large dairies.
- Comparison of methane reduction potential at small and large dairies, presented as a cost-benefit analysis of environmental and economic impacts on an estimated 1, 5 and 10-year scale.
- Sustainability of small dairies in California over the an estimated 5, 10 and 20-year time scale in consideration of new environmental regulations including reductions for methane emissions, inflation, dairy product prices, labor costs and location of the dairies.

## 5. HOW TO SUBMIT A GRANT PROPOSAL

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**Grant Proposals must be submitted by e-mail to: [cdfa.oefi@cdfa.ca.gov](mailto:cdfa.oefi@cdfa.ca.gov) no later than Monday, April 16, 2018, 5:00 P.M. PDT.**

***Late submissions will not be accepted.***

Grant Proposals are only considered complete if all required components/sections are attached in one email submission. Mailed or faxed copies will not be accepted.

Applicants will receive a confirmation email within two business days from the date of their Grant Proposal submission.

### **ASSISTANCE AND QUESTIONS**

CDFA cannot assist in the preparation of Grant Proposals; however, general questions may be submitted to [cdfa.oefi@cdfa.ca.gov](mailto:cdfa.oefi@cdfa.ca.gov). In order to ensure all potential applicants benefit from all submitted questions and answers, all questions and responses will be posted on the [CDFA website](#). To ensure a response from CDFA, all questions must be submitted by April 3, 2018. Responses will be posted no later than 5:00 P.M. PDT on April 6, 2018 at: <https://www.cdfa.ca.gov/oefi/research/>

## 6. PROPOSAL REVIEW AND EVALUATION

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OEFI scientists at CDFA will review and evaluate the merits of the proposals. OEFI houses several incentive programs that address methane emission reduction from dairy operations in California and has the technical expertise to evaluate the proposals. CDFA may collaborate with subject matter experts from other state agencies to assist with the review of the proposals.

The [evaluation criteria](#) are found at the end of this document.

## **7. AWARD NOTIFICATION**

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All applicants will be notified regarding the status of their proposal. Successful applicants will be provided a grant agreement following award announcement. Grant recipients may not begin project activities until a grant agreement is executed by both parties.

Grant recipients will be required to submit quarterly reports and a *final* report to demonstrate project accomplishments, address problems and delays, and describe activities planned during the next reporting period. Grant payments are subject to receipt and acceptance of deliverables as approved by CDFA in the Scope of Work. Grant payments will be reimbursed in arrears.

Upon request, applicants will be provided feedback regarding their proposal. Applicants will be provided a summary of comments; final scores will not be released.

## **8. GRANT PROPOSAL REQUIREMENTS**

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Grant proposals must include Sections A through I as described below.

Section A: Cover Page must be submitted using the provided template as discussed in cover page section and in PDF format.

Sections B through G must not exceed 12 single-spaced pages with one-inch margins and 12-point font, and submitted in PDF format.

Section H: Budget Template must be submitted as a PDF prepared using the Microsoft Excel template provided. Budgets that do not use the required template will not be accepted.

Section I: Appendices must be submitted as a PDF file.

Proposals that do not meet the specified formatting requirements or exceed 12 pages will not be accepted.

The applications which are submitted past due date, incomplete or do not meet formatting requirements will be disqualified.

### **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, indirect costs [allowable on personnel costs (salaries and benefits) only], fringe benefits, consultant services, travel, telephone, equipment (lease/rental), subcontractors and materials, data processing, land rentals, training and communications. Indirect costs are limited to 20% on personnel costs (salaries and benefits) only.

## **UNALLOWABLE COSTS**

Unallowable expenses include but are not limited to costs for publication in scientific journals, hospitality suites, alcoholic beverages, costs of entertainment and costs for organized fund raising including financial campaigns and solicitation of gifts. Unallowable costs will not be reimbursed.

### **A. COVER PAGE** *(not included in the 12-page maximum)*

Use the Cover Page template to provide the following information:

#### **1. Project Title.**

Provide a unique and concise title for the proposed project that adequately describes the request.

#### **2. Project Leader(s).**

Specify each project leader's name, title, affiliation, mailing address, telephone number, and email address.

*\*A two-page resume, a list of recent publications, and a description of current research/outreach activities must be included for each project leader under Section I: Appendices.*

#### **3. Research Collaborator(s).**

Specify each collaborator's name, title, affiliation, mailing address, telephone number, and email address.

*\*A letter from each cooperator must be included under Section I: Appendices 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 proposal unless a support letter is included with the proposal at the time of submission.*

#### **4. 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 under Section I: Appendices 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.*

#### **5. CDFA Funding Request Amount/Other Funding.**

Provide funding request (\$) figure from CDFA and amount committed from extra-mural or in-kind sources for each year of the project. Specify organizations that have committed funding to this project including funding amounts, contact names, addresses, and telephone numbers.

### **B. PROJECT SUMMARY** *(not to exceed two pages)*

#### **1. Problem**

Simply and concisely define the problem to be addressed consistent with this RFP.

**2. Objectives, Approach, and Evaluation**

State specific project objectives consistent with this RFP. Briefly describe the approaches to be used, and identify criteria that will be used to evaluate the project's success.

**C. PROJECT NARRATIVE**

**1. Problem**

Specify the problem to be addressed consistent with this RFP.

**2. CDFA Small Dairy Research Priorities**

Identify and explain how the project will address all of the requirements in this RFP. Explain how the project will contribute to the goals of this RFP of how small dairy may differ from large dairies and describe cost effective strategies to reduce methane emissions from small scale dairies.

**3. Related Research**

Describe previously conducted related research and/or education efforts.

**4. Contribution to Knowledge Base**

Explain the project's contribution to current knowledge and specify new information to be generated by the project.

**D. OBJECTIVES**

1. Provide a clear, concise, and complete statement of each specific research objective described in this RFP.

**E. WORK PLAN AND METHODS**

**1. Work Plan**

Organize the work plan into project tasks and sub-tasks, which are units of work designed to achieve the specific project objectives. Each task should be numerically identified with a descriptive title and should include a description of the activities and methods. Describe interim and final task products and completion dates or milestones. Use the [Work Plan template](#) provided to summarize all tasks and sub-tasks.

**2. Methods**

Explain the methods and modeling to be employed, indicating data to be gathered, parameters to be described, and methods of analysis to be used.

**F. PROJECT MANAGEMENT, EVALUATION, AND OUTREACH**

Describe the role of project leaders and research collaborators and briefly explain how the various participants' work will be coordinated. Describe the evaluation criteria that ensure the final success of the research objects. If the research proposal is soliciting

surveys or other outreach techniques to gather data, describe the outreach plan and strategy to ensure project success.

## **G. BUDGET NARRATIVE**

Provide a detailed narrative of your proposed budget. The budget should contain a narrative in paragraph format for each budget category in order to determine the costs are reasonable and allowable. Assume a start date of June 30, 2018 and explain all of the following:

1. Personnel. Provide classification level, percent 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 are anything with an acquisition cost under \$5,000 per unit. 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*: 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: Colleges and Universities must comply with their institution's travel policies. 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.
  - 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 Cost*: Indirect costs are any costs that are incurred for common or joint objectives that therefore cannot be readily identified with an individual project, program, or organizational activity. Indirect costs are limited to 20% on personnel costs (salaries and benefits) only.
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.



#### H. BUDGET TEMPLATE *(not included in the 12-page maximum)*

Prepare a budget table for the project using the [2018 CDFA Small Dairy Research Budget Worksheet Template](#). The template uses formulae to automatically generate totals as numbers are entered into the fields; do not alter the formatting or formulae in the unshaded cells. **Budgets submitted without using the template will not be accepted.** Assume a project start date of June 30, 2018 and show amounts requested for each category. Amounts indicated in the budget template must be consistent with the budget narrative provided. Each line item in the Budget Template must be consistent with the tasks listed in the Work Plan.

#### I. APPENDICES *(not included in the 12-page maximum)*

##### 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 from each research collaborator describing their role in the project, estimated time commitment, and statement of agreement to participate in the project. Scanned copies of letters are acceptable if attached to the proposal at submission time.

##### 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.

## 9. EVALUATION CRITERIA

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All applications will be evaluated based on the criteria detailed below:

EVALUATION CRITERIA	MAX. POINTS
<b>Proposal Quality</b> <ul style="list-style-type: none"><li>• <b>Project Summary:</b> Concisely defines the problem, states project objectives, describes the approach to be used, and identifies criteria that will be used to evaluate the project's success.</li><li>• <b>Objectives:</b> Provides a clear and concise statement of each objective.</li><li>• <b>Work Plans and Methods:</b> Work plan is organized by tasks and sub-tasks and includes milestones. Explains data gathering, parameters, and methods of analysis. Proposes/ utilizes sound scientific strategies to generate new information as requested in RFP</li></ul>	25

<ul style="list-style-type: none"> <li>• <b>Project Management, Evaluation, and Outreach:</b> Describes participants' roles, evaluation metrics, and qualifying outreach component.</li> <li>• Additional information includes required information for project leaders, cooperators, and supporters.</li> </ul>	
<p><b>Project Justification</b></p> <ul style="list-style-type: none"> <li>• <b>Justification:</b> Defines/describes the problem, explains impact on a local/regional/statewide level, indicates potential contribution to long-term problem resolution, describes previously conducted related research, and specifies new information to be generated.</li> <li>• <b>Relevance to Research Priorities:</b> Clearly states how the project addresses 2018 Small Dairy Climate Change Research Priorities and advances the scientific knowledge in methane emission reduction in California's dairy sector.</li> </ul>	20
<p><b>Project Team and Resources</b></p> <p><b>Team</b></p> <ul style="list-style-type: none"> <li>• Are the project leaders, cooperators and other researchers well-suited to the project?</li> <li>• Does the project have a strong California nexus?</li> <li>• Early stage/new investigators: Do they have appropriate training and experience?</li> <li>• Established investigators: Have they demonstrated an ongoing record of accomplishments that have advanced their field(s)?</li> <li>• Collaborative/multi leader project: Do the investigators have complementary and integrated expertise and their leadership approach/governance and organizational structure appropriate for the project?</li> <li>• Does the project proposal have strong support from relevant organizations/ individuals?</li> </ul> <p><b>Resources</b></p> <ul style="list-style-type: none"> <li>• Will the scientific environment in which the work will be done contribute to the probability of success?</li> <li>• Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed?</li> <li>• Will the project especially benefit from the unique features of the scientific environment and/or collaborative arrangements?</li> </ul>	20
<p><b>Feasibility and Impact</b></p> <ul style="list-style-type: none"> <li>• Project is manageable within proposed framework of budget, time and personnel.</li> </ul>	20

<ul style="list-style-type: none"> <li>• Project objectives are clear, well stated and achievable.</li> <li>• 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.</li> </ul>	
<b>Fiscal Merit</b> <ul style="list-style-type: none"> <li>• Project's budget is detailed, reasonable and accurate.</li> <li>• <b>Budget Narrative:</b> Itemizes, describes, and justifies all project expenses.</li> <li>• All available matching funds are identified.</li> </ul>	<b>15</b>
<b>Total Points</b>	<b>100</b>