

CALIFORNIA DEPT. OF FOOD AND AGRICULTURE

REQUEST FOR PROPOSALS - EVALUATION OF ALTERNATIVE MANURE MANAGEMENT PRACTICES

Webinar – May 10 – 3:00 pm

Background

- California has estimated 1,400 dairies.
- The California Air Resources Board (ARB) recently adopted the Short-Lived Climate Pollutant Strategy (SLCP) to reduce emissions of black carbon, methane and other SLCPs, including emissions of manure methane from California dairies
- SB 1383, (Lara 2016) requires implementation of the SLCP strategy by January 1, 2018. The strategy includes a 40% methane emission reduction from 2013 levels by 2030.
- ARB estimates that 20% of methane emissions in 2013 come from dairy enteric fermentation and 25% from dairy manure and 10% from non-dairy cattle.

Alternative Manure Mgmt Program

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The screenshot shows the website for the California Department of Food and Agriculture (CDFA). The header includes the CDFA logo, the text "CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE", a search bar, and navigation tabs for Home, Divisions, Customer Service, Meetings, News, Jobs, Laws/Regs, Statistics, and Publications. Below the header is a secondary navigation bar with links for Find Subject, Programs & Services, Public Meetings, Site Map, FAQs, Contact Us, About CDFA, and Español. The main content area features a large image of a green field with trees in the background. Overlaid on this image is the text "THE OFFICE OF ENVIRONMENTAL FARMING & INNOVATION" and a logo of a cow head inside a purple square. Below the logo, the text "alternative manure management practices" is displayed in a large, white, sans-serif font. At the bottom of the page, there is a breadcrumb trail: "CDFA Home > Office of Environmental Farming & Innovation > Alternative Manure Management Program". The main heading is "ALTERNATIVE MANURE MANAGEMENT PROGRAM". The text below explains that milk and dairy products are important protein and nutrient food sources for human health, and that California leads the nations in milk production. It notes that one tradeoff is the production of methane, a greenhouse gas and a short-lived climate pollutant, from livestock manure. Management practices exist for reducing methane emissions from animal manure through non-digester methodologies. The text further states that CDFA received \$50 million from the Greenhouse Gas Reduction Fund in 2016 (AB 1613 Section 13, Item 8570-101-3228) for methane emissions reductions from dairy and livestock operations. The Alternative Manure Management Program (AMMP) will be developed and implemented by CDFA to support non-digester dairy methane reduction practices. CDFA will allocate \$9-16 million from the total \$50 million appropriation as incentives to support project development to support the AMMP objective. The remainder of the funding appropriation will incentivize development of dairy digesters through the Dairy Digester Research and Development Program. On the right side of the page, there are three yellow buttons: "EMAIL SUBSCRIPTIONS" with a link to "Sign up for Email Notifications", "RESOURCES", and "AMMP LINKS".


CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

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THE OFFICE OF ENVIRONMENTAL FARMING & INNOVATION

 **alternative manure**
management practices

CDFA Home > Office of Environmental Farming & Innovation > Alternative Manure Management Program

ALTERNATIVE MANURE MANAGEMENT PROGRAM

Milk and dairy products are important protein and nutrient food sources for human health. California leads the nations in milk production. California dairies are some of the most efficient and innovative in the world. One tradeoff is the production of methane, a greenhouse gas and a short-lived climate pollutant, from livestock manure. Management practices exist for reducing methane emissions from animal manure through non-digester methodologies.

CDFA received \$50 million from the Greenhouse Gas Reduction Fund in 2016 (AB 1613 Section 13, Item 8570-101-3228) for methane emissions reductions from dairy and livestock operations. The Alternative Manure Management Program (AMMP) will be developed and implemented by CDFA to support non-digester dairy methane reduction practices. CDFA will allocate \$9-16 million from the total \$50 million appropriation as incentives to support project development to support the AMMP objective. The remainder of the funding appropriation will incentivize development of dairy digesters through the [Dairy Digester Research and Development Program](#).

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RESOURCES

AMMP LINKS

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

CDFA Request for Proposals

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1. Literature review of modeling tools for agricultural/dairy GHG's, especially methane, and other nitrogen and carbon cycle-related emissions.
2. Baseline emission measurements on CDFA Alternative Manure Management Program (AMMP)-funded dairies.

Project Goals

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1. Identify an appropriate methodology or model for estimating baseline emissions on selected individual dairies that receive AMMP funding,
2. Identify appropriate methodology for measuring actual baseline emissions on selected individual dairies that receive AMMP funding,
3. Estimate pre-project emissions on several dairies (4 to 6 sites depending on funding availability) using a model or methodology proposed by the research team, based on the results of (1) and approved by the CDFA Ad Hoc Advisory Committee.

Project Goals Continued

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4. Measure pre-project emissions on several dairies (4 to 6 sites depending on funding availability) using a methodology proposed by the awarded team, based on the results of (2) and approved by the CDFA Ad Hoc Advisory Committee.
5. Prepare a final report of results comparing estimated and measured emissions pre- and post-installation of AMMP-funded technologies, assessing performance of the estimation methods and making recommendations to improve or calibrate models and methodologies as needed.

AMMP Practices (non-digester)

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- AMMP Practices - mechanical manure solids/liquids separation combined with rapid drying;
- Conversion to pasture-based operation;
- Collecting manure with scrape systems that rapidly dry the collected manure, or conversion to dry lot manure management systems.

Project Implementation Timeline

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| Task # | Task Description | End Date |
|--------|--|------------|
| Task 1 | Review of Modeling tools | Dec. 2017 |
| Task 2 | Baseline Emissions on CDFA AMMP-funded dairies | Nov. 2018 |
| Task 3 | Reporting | March 2019 |

RFP Details

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- Proposal due – May 22, 2017
- Funding Amount – Up to \$400,000
- Eligible Institutions - Academic research institutions, governmental agencies and non-governmental organizations.

Request for Proposals -

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REQUEST FOR PROPOSALS: EVALUATION OF ALTERNATIVE MANURE MANAGEMENT PRACTICES

The California Department of Food and Agriculture (CDFA) is now accepting research applications for the Dairy Marketing Branch on the evaluation of alternative manure management practices. Funding for this research effort is authorized by the Food and Agricultural Code Division 21, Part 3, Chapter 2, Section 61805(d).

Eligible research institutions and organizations may apply for funding of up to \$400,000 for research on methane and other air quality emissions on dairies that are considering the use of [AMMP practices](#).

- [Proposal Submittal Requirements](#)
- [Proposal Budget Template](#)

- RFP document is located at:
https://www.cdfa.ca.gov/dairy/AMMP_RFP.html
- Applicants need to submit PDF application and excel budget, see proposal submittal documents.

RESEARCH TEAM QUALIFICATIONS

- Applications should include a diverse, collaborative team of scientists,
- Experts in fields of air and water quality,
- Specific expertise in monitoring dairy emissions, greenhouse gas mitigation and modeling,
- Specialists in manure management practices on dairies in California.

FAQ process

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E-mail any additional questions you may have to casey.cady@cdfa.ca.gov.

Responses will be posted according to the schedule below.

| Questions Rec'd by: | Responses Posted by: |
|-------------------------|-------------------------|
| May 16, 2017 at 8:00 am | May 18, 2017 at 5:00 pm |