2020 Alternative Manure Management Program

CDFA Workshop for Prospective Applicants

February 18, Modesto
February 19, Petaluma
February 20, Fresno
About the Program

• What is AMMP?
  • Competitive grant solicitation process administered by the California Department of Food and Agriculture (CDFA).

• Purpose
  • To award funds to California dairy and livestock operators for the implementation of alternative manure management practices that result in methane emission reductions.
106 awarded projects
$63 million in grants
1.1 million mt CO₂e over 5 years

<table>
<thead>
<tr>
<th>County</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Del Norte</td>
<td>1</td>
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<tr>
<td>Fresno</td>
<td>2</td>
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<tr>
<td>Glenn</td>
<td>2</td>
</tr>
<tr>
<td>Humboldt</td>
<td>6</td>
</tr>
<tr>
<td>Kings</td>
<td>5</td>
</tr>
<tr>
<td>Madera</td>
<td>4</td>
</tr>
<tr>
<td>Marin</td>
<td>2</td>
</tr>
<tr>
<td>Merced</td>
<td>32</td>
</tr>
<tr>
<td>Sacramento</td>
<td>1</td>
</tr>
<tr>
<td>San Joaquin</td>
<td>17</td>
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<tr>
<td>Sonoma</td>
<td>6</td>
</tr>
<tr>
<td>Stanislaus</td>
<td>18</td>
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<tr>
<td>Tulare</td>
<td>10</td>
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Funding and Duration

• 2020 AMMP funding is authorized by the Budget Act of 2019, AB 74
• $6.1 to 10.7 million available
  • Up to $750,000 per project
• Maximum project duration
  • January 1, 2021 to December 31, 2022
Changes from 2019

- Funding
  - $6.1 – 10.7 million
- Eligible Practices
  - Weeping Wall requires minimum of two cells
Solicitation Process

1. Application Submission to CDFA
2. Administrative & Financial Review
3. Technical Review
4. Successful Applicants Notified
5. Successful Applicants Notified and Given Feedback
6. Grant Agreements Executed
7. Unsuccessful Applicants Notified and Given Feedback
Eligibility

- The project site must be located on a commercial California dairy or livestock operation.
- A group of dairy or livestock operations can propose to develop a centralized project (e.g. a centralized composting facility).
- Project with existing dairy digesters NOT funded by CDFA’s Dairy Digester Research and Development Program (DDRDP) may apply to reduce methane emissions from manure NOT being treated in the digester system.
Eligible Practices

1. Pasture-based management including:
   - Conversion of a non-pasture livestock operation to a pasture-based management
   - Increasing the amount of time livestock spend at pasture at an existing pasture operation

2. Alternative manure treatment and storage including:
   - Compost bedded pack barn
   - Slatted floor pit storage
Eligible Practices

3. Solid separation (in conjunction with one of the solid drying practices)
   - Weeping Wall (Minimum of two cell system)
   - Stationary Screen
   - Vibrating Screen
   - Screw Press
   - Centrifuge
   - Roller Drum
   - Belt Press/ Screen
Eligible Practices

4. Conversion from flush to scrape (in conjunction with one of the solid drying practices)
   - Full or Partial scrape system
   - Full or Partial vacuum
Manure Treatment and or Storage Practices

- Open solar drying
- Closed solar drying
- Forced evaporation with natural-gas fueled dryers
- Daily spread
- Solid storage
- Composting in vessel
- Composting in aerated static piles
- Composting in intensive windrows
- Composting in passive windrows
Exclusions

• Projects that propose to switch existing management practices to those that increase baseline greenhouse gas (GHG) emissions (e.g. from dry scrape to flush lagoon systems)

• Duplicate equipment or activities that will receive funding from a different state or federal funding source

• Operations that have already installed, or plan to install an anaerobic digester system funded by DDRDP or facilities that previous received AMMP funding

• Treatment of manure digestate, i.e. digested manure material resulting from an anaerobic digestion process
Benefits Calculator Tool

• Applicants must use the California Air Resource Board’s Benefits Calculator Tool to estimate avoided methane emissions from anaerobic manure decomposition

• For specific questions regarding the Benefits Calculator Tool, please contact GGRFProgram@arb.ca.gov

• The Benefits Calculator Tool is available at:
  • www.arb.ca.gov/cci-resources
California Air Resources Board’s Role in CDFA’s Alternative Manure Management Program

- CARB required by statute to develop Quantification Methodologies (QMs) for Greenhouse Gas Reduction Fund (GGRF) projects
- QMs provide a mechanism to estimate the net GHG benefits from project implementation
AMMP QM Development

• In developing AMMP QM and GHG Calculator Tool, CARB considered:
  • Minimizing complexity for applicants
  • Balancing ease of use with flexibility
  • Drop-down selections for most inputs

• Net GHG benefits result from:
  • Avoided CH4 emissions from uncovered anaerobic storage of dairy manure
  • Impact of fossil fuel use changes associated with installation of AMMP practice (s)
Example Project – QM Example 2 (p17)  
Solid Separation with composting in vessel

- Located in Tulare County;
- Solid separation with composting (in vessel);
- Current practice involves flush system and uncovered lagoon;
- Stationary screen solid separation in baseline scenario;
- Installation of new centrifuge solid separator in project scenario;
- $200,000 GGRF funds requested;
- 1,500 lactating dairy cows in freestalls, 800 dry cows, and 400 heifers (on feed);
- Average milk production of 60 lbs/cow/day, with 4% milk fat, 3.1% true protein, and 4.7% lactose;
- Diesel fuel used for manure collection and transport is expected to decrease from approx. 2,000 gallons/yr to 1,500 gallons/yr;
- 400 MWh electricity consumption in baseline scenario is expected to increase to 550 MWh (due to increased electricity consumption associated with centrifuge solid separator).
Application Attachments

Project Plan & Long-Term Viability

1. Project Narrative Template
   1.1 - Site plan, project design documents, schematic diagrams, etc.
   1.2 - Letter of agreement from landowner

2. Work Plan Template

Budget & Financials

3. Budget Worksheet Template
   3.1 – Bids or quotes to support budget costs

4. Financials
   • Independent CPA Audits, tax returns, financing letter from bank
Application Attachments

Estimated GHG Emissions Reduction
5. Benefits Calculator Tool
   5.1 – Explanation of assumptions of GHG calculations

Project Readiness
6. Permitting Documents
   • Provide copies of permits obtained (NOD, CUP, ATC, WDRs, etc.)

Benefits to Priority Populations
7. Supporting Documentation
## Tentative Timeline

<table>
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<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Invitation to Submit Grant Applications</td>
<td>February 3, 2020</td>
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<tr>
<td>CDFA grant application workshops</td>
<td>February 18-20 2020</td>
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<tr>
<td>Grant applications due</td>
<td>March 27, 2020</td>
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<tr>
<td>Review process</td>
<td>April – August 2020</td>
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<tr>
<td>Award announcement</td>
<td>September, 2020</td>
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Scoring

Estimated GHG Reduction 35 points
Project Plan & Long-Term Viability 25 points
Budget & Financials 15 points
Project Readiness 10 points
Environmental Co-Benefits 10 points
Benefits to Priority Populations 5 points

TOTAL 100 points
Common Mistakes to be Avoided

• Lack of details in Project Narrative
• Lack details in Work Plan
• Lack of information on applicable permits
• Lack of details/ justification in Budget Worksheet
• Missing itemized Budget
• Lack of consistency among two or more application sections Project Narrative, Work Plan, Budget Worksheet and GHG Calculator
Common Mistakes to be Avoided

• Lack of details on Project Design
• GHG Calculator
  • Inconsistency with Project Narrative
  • Lack of justification on electric/ fuel use (before and after scenario)
• Lack of supporting documents
  • Environmental Benefits
  • Benefits to Priority Populations
Electronic Application Submission System

- Applicant portal is available on AMMP homepage and 2020 AMMP RGA
  - Demonstration
AMMP Demonstration Projects – Advancing Practices Farmer to Farmer

- Demonstrate the effectiveness of manure management practices that reduce dairy/livestock methane and maximize co-benefits
- Conduct field days (two per year) and publish education material for the operators
- Collaborate at least with one previously funded AMMP awardee
Eligibility and Funding

- California-based universities personal and cooperative extension specialists, Resource Conservation Districts and non-profit organizations
- Total funding: $450,000 (Budget Act, 2019)
  - $150,000 per project
- Funding is for outreach efforts only
Application Attachments

1. **Project Merits and Impact**
   Complete and Upload Project Merits and Impact Template

2. **Project Timeline and Work Plan**
   Complete and upload Work Plan Template

3. **Team Qualifications**
   Upload team qualification and resume

4. **Budget**
   Upload budget template

5. **Benefit to Priority Populations**
   Upload supporting documents

6. **Letters of Commitment**
## Scoring Criteria

<table>
<thead>
<tr>
<th>Application Section</th>
<th>Maximum Points</th>
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</thead>
<tbody>
<tr>
<td>Project Merits and Impact</td>
<td>40</td>
</tr>
<tr>
<td>Project Timeline and Work Plan</td>
<td>10</td>
</tr>
<tr>
<td>Project Team Qualification</td>
<td>20</td>
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<tr>
<td>Budget</td>
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<tr>
<td>Priority Population</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
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Program Contact

cdfa.oefi_ammp_tech@cdfa.ca.gov