

# Dairy Subgroup #1: Fostering Markets for Non-Digester Projects

Oversight Group  
(Agency Heads)



Subgroup #1:  
Non-Digesters



Subgroup #2:  
Digesters



Subgroup #3:  
Research



## Committee Membership Breakdown

### CO-CHAIRS

- J.P. Cativiela (Dairy Cares)
- Ryan Flaherty (Sustainable Conservation)

### 11 Subgroup committee members represent:

- dairy farmers (pasture and non-pasture)
- academic expertise on livestock waste management
- environmental justice groups
- environmental/conservation groups
- private sector dairy design engineering
- private sector environmental crediting
- dairy industry organizations

**Nine meetings July 2017-May 2018**

# Final Recommendations Process

## 1) Evidence-based recommendations

- Subject matter experts presented publicly to subgroup (including some specialists who were subgroup members)
- Topics included: current practices/technologies, whole-farm environmental benefits/impacts of changing practices, emerging technologies, environmental justice concerns, environmental crediting, barriers and opportunities
- Public comments
- Subgroup discussion to analyze evidence, identify additional information needs and develop consensus where possible

## 2) Threshold for subgroup recommendations

- After reviewing meeting discussion notes, co-chairs drafted written findings and recommendations for further discussion and revision
- Recommendations supported by at least 9 of 11 subgroup members became final recommendations



**Subgroup #1:  
Non-Digesters**

# Final Recommendations

- 1) Continue providing financial incentives for non-digester practices already known to reduce methane.**
  - a. Conduct research to establish a solid baseline of current manure management practices on California dairies.
  - b. Continue funding via AMMP for those non-digester practices that are already approved for funding.
  - c. Continue to improve AMMP program implementation to reduce application complexity and enhance program impact.

**Subgroup #1:  
Non-Digesters**

# Final Recommendations

## 2) Better quantify environmental benefits and impacts and address environmental justice concerns related to non-digester practices.

- a. Develop, through cross-agency collaboration and input from non-agency scientists, a **common methodology** for evaluating cross-media impacts to ensure there is (1) a consistent protocol for measuring emissions and (2) a consistent methodology for assessing impacts across air, water, and GHG emissions.
- b. The State should **assess the expected emissions increases/decreases and other environmental benefits and impacts** of practices currently funded by AMMP, their magnitude, and the likely benefits and impacts to nearby communities.
- c. Use outcomes from 2b to **articulate the expected environmental benefits and impacts of each AMMP-funded technology and practice** category so that AMMP applicants need not duplicate such an assessment.
- d. **Continue and expand research** into whole-farm emissions changes related to installation of non-digester practices.
- e. Coordinate and integrate agency programs and efforts to expand and accelerate implementation of non-digester practices while achieving multiple environmental benefits.

**Subgroup #1:  
Non-Digesters**

# Final Recommendations

## 3) Study the market for value-added manure-based products.

- a. Conduct, through agency and industry collaboration, an intensive market analysis for manure-based products, with focus on the largest and closest potential markets – including, but not limited to, other agriculture in California’s Central Valley. The study should look at the different products that could be made from manure, demand for these products by market segment, the potential scale of demand in each segment, product specifications to serve each segment, and economic viability of servicing these different segments.

**Subgroup #1:  
Non-Digesters**

# Final Recommendations

## **4) Evaluate new non-digester practices through commercial-scale research and development.**

- a. Create a non-digester research and development program with the purpose of advancing innovative non-digester practices in California by identifying the most promising options, inviting proposals, funding projects, and supporting independent evaluation of environmental and economic benefits of commercial-scale projects.

**Subgroup #1:  
Non-Digesters**

# Final Recommendations

## **5) Develop data to support additional economic incentives for non-digester projects and implement regulatory changes if doing so will enable economic viability of carbon credits or other incentives.**

- a. Conduct an economic analysis of various methane reducing technologies and practices within a carbon offset framework to evaluate if the offset sale can be economically feasible as an incentive for dairies to reduce methane emissions. Document the carbon offset framework rules that are used in the economic analysis to identify which rules create high transaction costs.
- b. Recommend and implement appropriate changes to carbon offset framework rules, if the economic analysis finds that such changes could make carbon credits or other incentives economically viable. Framework rules that affect the economic viability of carbon credits or other incentives include, but are not limited to, the definition of additionality, whether practice or project aggregation is allowed, the discount factor used to account for risk, and the credit verification process.

**Subgroup #1:  
Non-Digesters**

# Final Recommendations

## 6) Develop an outreach and education program for dairy and livestock operators that:

- a. Provides **independently verified information** about non-digester practices to assist dairy and livestock operators in evaluating performance claims made by vendors and others;
- b. Includes information necessary for good decision-making, such as estimation of expected methane emissions reductions and other environmental benefits/impacts, assessment of operational and economic feasibility, and information for **implementing the technology in California, e.g. environmental regulations and site-specific operational parameters.**
- c. Involves **trusted partners with California experience** – such as UC Cooperative Extension, Resource Conservation Districts, California Dairy Quality Assurance Program, Newtrient, and dairy/livestock trade associations – in developing and implementing program;
- d. Establishes and maintains a central **clearinghouse** (such as a website, mobile app, etc.) for program-related information, including the information referenced in 6a and 6b as well as relevant funding opportunities, application deadlines, published research, etc.
- e. Includes **farmer-centric events** such as demonstration farms, field days, and other activities to present information and provide comfortable space for dairy farmers to share experiences and ask questions.

**Subgroup #1:  
Non-Digesters**