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Need: Evaluate new non-digester technologies and practices through commercial-scale research and development

- New technologies and practices (currently non-fundable through AMMP, not in use in California, or considered experimental) for manure management are being developed
- There is a lack of independently verified data to evaluate economic and environmental performance of emerging manure management technology under California conditions at commercial scale

## Recommendation:

- **Create a non-digester research and development program with the purpose of advancing emerging technologies**
  - Systematically evaluate technology options and identify those that appear most promising
  - Invite and fund pilot commercial-scale projects
  - Independently verify economic and environmental performance



**Subgroup #1:  
Non-Digesters**

# Recommendation Area #5

Need: Develop additional data to identify economic incentives for methane reduction from non-digesters practices

- Non-digester practices currently are disadvantaged compared to digesters by a lack of saleable products (such as electricity and fuel) and environmental credits
- A parallel system is needed that:
  - Recognizes value for methane reductions in non-digester projects (carbon offsets or similar)
  - Helps add value to resulting products (e.g. market incentives for production and sale of value-added manure products resulting from use of non-digester methane-reducing technologies)
- As it does with digesters, such a system could help spur broader development and deployment of non-digester practices
- Transaction costs are high and would likely need to be lowered to be feasible

## Recommendations:

- **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**
- **If deemed economically feasible, develop recommended changes to carbon offset framework rules and act on regulatory changes identified**



**Subgroup #1:  
Non-Digesters**

# Recommendation Area #6

Need: Expanded education and outreach to dairy operators is essential for promoting non-digester practices

- Dairy operators need a trusted, unbiased source of information to understand which practices and technologies actually reduce methane and other emissions, along with information about operational and economic feasibility

## Recommendation:

- **Develop a formal education and outreach program to serve as a trusted, non-biased resource for dairy producers. Program should include:**
  - Independent, scientifically verified information to help dairy operators better evaluate vendor claims
  - Information and training on how to successfully implement practices and technology under California environmental, regulatory, and operational conditions
  - Outreach led by trusted partners such as UCCE, RCDs, CDQAP, producer associations, etc.
  - A centralized clearinghouse for information and resources

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Non-Digesters

# Next steps

- Subgroup #1 co-chairs drafted recommendations; these were reviewed by the subgroup member in June
- Subgroup #1 co-chairs received comments from subgroup members and agencies and are in the process of making a new revision for final review by the subgroup
  - *Policy discussions and informational presentations have concluded; additional changes expected to be largely editorial in nature to ensure document accurately reflects the discussions that already occurred*
  - *We anticipate concluding this process in August 2018*



**Subgroup #1:  
Non-Digesters**