

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2023 Livestock Enteric Methane Emission Reduction Research Program (LEMER-RP)

Applications Submitted to CDFA

Updated in 08/16/2023

Application Count	Impact Area	Project Title	Lead Organization Name(s)	Principal and Co-Investigator(s)	Estimated Funding Requested
1	1	Holistic evaluation of Galaxis Frontier™	University of California, San Diego & University of California, Davis	Karsten Zengler & Matthias Hess	\$2,500,000
2	1	An Evaluation of Long-Term 3-NOP Applications in a Research and Commercial Setting with subsequent impacts on Life Cycle Analysis for the California Dairy Industry	University of California, Davis	Frank Mitloehner	\$2,500,000
3	2	Evaluation of the Efficacy of Two Protocols Aiming to Maintain Enteric Methane Emissions Reduction Over the Entire Lactation when Using Methanogenic Inhibitors	California Dairy Research Foundation	Denise Mullinax	\$1,500,000
4	2	Investigating the Synergistic Potential of Asparagopsis Taxiformis and Agolin for Reducing Enteric Methane Emissions in California's Dairy Industry	California State University, Chico & Kansas State University	Cynthia Daley, Ricardo Orellana, Darby Heffner & Logan Thomspson	\$784,500
5	2	Parallel feeding of monensin and 3 nitrooxypropanol at different doses for mitigating enteric methane emissions from beef cattle fed high forage and high concentrate diets	Colorado State University	Sara Place, Pedro Carvalho, Kimberly Stackhouse-Lawson & Terry Engle	\$807,000
6	2	Toward adoption of feed additive combinations that reduce enteric methane in ruminants	University of Nebraska-Lincoln & California State University, Chico	Paul Kononoff & Cellina Phillips	\$1,500,000
7	2	Reducing Enteric Methane Emissions from Beef Cattle by Inclusion of Fermented Almond Hulls and 3-NOP in a Typical California Feedlot Ration	University of California, Davis	Frank Mitloehner	\$1,250,000
8	2	Dual not Duel: Evaluating the Impact of Methanogenic Inhibitors Co-fed with Alternative Feed Additives on Lactating Dairy Cows and Dairy Cow Manure under California Dairy Management Practices	University of California, Davis	Noelia Silva del Rio & Pramod Pandey	\$1,500,000
9	2	Effects of the Inclusion of Two Feed Additives on Performance and Enteric Methane Emission of Dairy Cows	Washington State University & University of Wisconsin	Marcos Marcondes & Hilario Mantovani	\$1,450,000
10	3	ClimateSmart Grazing Cattle: A Model for Selection of Feed-Efficient, Range-Ready Bulls and Cows through Seaweed-Supplement Methane Reduction	California Polytechnic State University, San Luis Obispo	Zachary McFarlane	\$1,250,000

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11	3	A bromoform safety study for California dairy and beef cattle	Colorado State University	Terry Engle & Sara Place	\$1,250,000
12	3	Utilization of a Slow-Release Bolus to Reduce Enteric Methane Emissions from California Beef Cattle	University of California, Davis	Frank Mitloehner	\$1,250,000
13	3	Effectiveness of a feed additive (Rumin8) on enteric methane emissions delivered through drinking water	University of California, Davis	Ermias Kebreab & Matthias Hess	\$1,250,000
14	3	Utilization of a Feed Additive in Cow-Calf Operations to Reduce Lifetime Environmental Impact through Early Life Intervention Strategies	University of California, Davis	Frank Mitloehner	\$1,250,000
15	3	Researching Asparagopsis supplementation for radical methane emission reduction in cow-calf operations in California	University of California Cooperative Extension, Santa Clara County	Sheila Barry, Gabriele U. Maier, Larry Forero & Josh Davy	\$875,200
16	4	Reducing Enteric Methane Emissions with Camelina Meal	California Dairy Research Foundation	Denise Mullinax	\$750,000
17	4	Development of baseline enteric methane production data from multiparous cows consuming varying forage chop lengths	Colorado State University	Terry Engle, Pedro Carvalho, Sara Place, & Kim Stackhouse-Lawson	750,000
18	4	Sorghum silage replacement for corn silage and its effects on dairy production and enteric greenhouse gas emissions	Texas A&M University	Juan M. Piñeiro, K Casey, LO Tedeschi & D Luhatschek	\$650,523
19	4	Demonstration of Fermented Agricultural Byproducts as Dietary Modulators to Reduce Enteric Methane Emission from Dairy Cows	University of California, Davis	Matthias Hess, Ruihong Zhang & Ermias Kebreab	\$750,000
20	1, 2, & 4	Nutritional and Selection Strategies to Improve feed efficiency and Reduce Greenhouse Gas Emissions in Dairy Cattle	California Polytechnic State University, San Luis Obispo	Mohammed Abo-Ismael, George Gallagher, Siroj Pokharel, Julie M Huzzey, Fernando Campos, David Vagnoni, Gary Arthur & Michael La Frano	\$936,638

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21	2 & 4	Megasphaera elsdenii in high or low forage dairy cattle diets as a strategy for enteric methane emission reduction	Kansas State University	William Brown, James Drouillard & Logan Thompson	\$314,850
22	2 & 4	Boviniz Cockroaches: A Novel Path to Methane Reduction in California's Livestock	North Carolina State University	Aram Mikaelyan, Heike Sederoff, Vivek Fellner & Eli Hornstein	\$1,250,000
23	Did not state (possibly 2)	Interactions between dietary fatty acids, seaweed, and bromoform on enteric and manure methane emissions and energetic conversion in lactating dairy cows	Cornell University	Joseph W. McFadden, Mike Van Amburgh, Thomas Overton, Kristan Reed, Lauren Ray, Jason Oliver, Christopher Mason, David Vagnoni, Matt Budine & Michael DeGroot	\$1,500,000

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