

December 14, 2021

Office of Environmental Farming and Innovation
California Department of Food and Agriculture
1220 N Street
Sacramento, CA 95814

Via email: cdfa.oefi_ddrdp_tech@cdfa.ca.gov

**Re: The 2022 Dairy Digester Research and Development Program (DDRDP)
- Draft for Public Comment: Request for Grant Applications**

Dear OEFI Staff:

Thank you for the opportunity to comment on the draft Request for Grant Applications (RGA) pertaining to the 2022 DDRDP. We offer below our comments on elements in need of the department's further attention regarding the proposed solicitation as currently envisioned in the draft RGA:

The draft RGA should include a "Dairy Digester Research and Development Program Pilot and Demonstration Projects" component. This component may be modeled on the 2019 Dairy Digester Research and Development Program Demonstration Projects" final RGA (as released on December 28, 2018¹).

It remains critical for the department to maintain a consistent focus on ensuring a reasonable and impactful portion of these dollars are available for pilot and demonstration projects for promising next-generation innovative fuels. California's aggressive GHG reduction goals, now focused by Governor Newsom on creating a carbon-neutral economy in the state by 2045, creates an urgency that all state programs tasked with the responsibility to contribute to those ambitious goals must also continue to seek improved technologies that can be developed and deployed to further assist California's progress moving forward.

We support focusing this solicitation on near-commercial, field-ready projects, not in-lab, bench-top experiments. Therefore, we recommend the phrasing "pilot and demonstration projects" so as to not imply a specific technology readiness level, rather than just "demonstration projects."

¹https://www.cdfa.ca.gov/oefi/ddrdp/docs/2019DDRDP_Demo_RGAfinal.pdf

A minimum of \$2 million should be set aside for “pilot and demonstration projects” with other requirements on par to the overall program.

Pilot and demonstration projects can be costly due to the scaling and building of first-of-its-kind projects and the smaller scale on which products are produced. The department’s financial support is critical to providing pathways to commercial products.

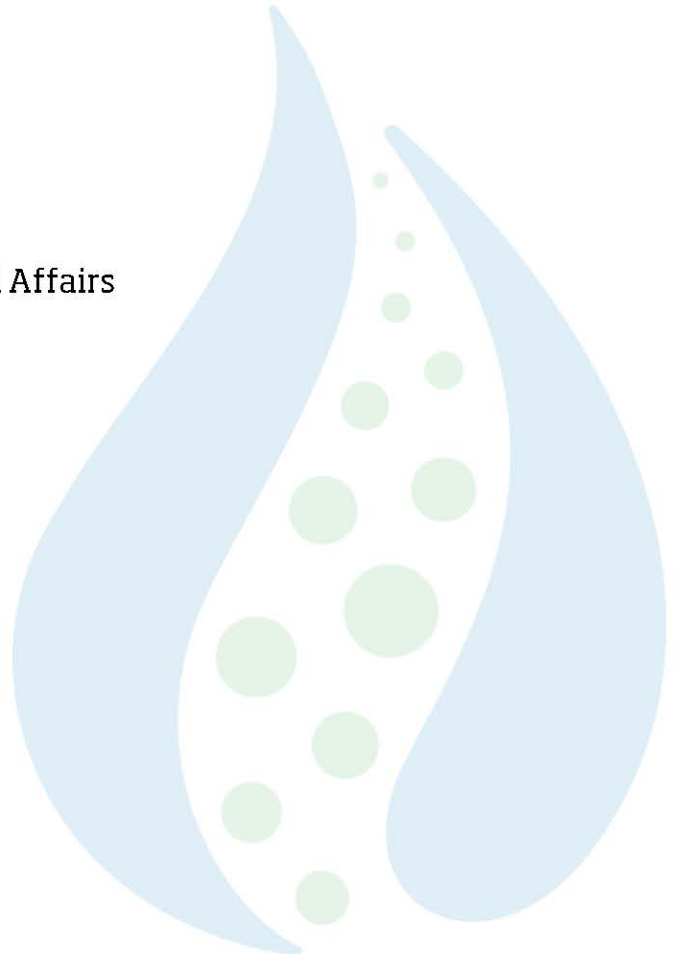
Including a solicitation component within the 2022 DDRDP RGA for “Pilot and Demonstration Projects” would afford the department the opportunity to evaluate the real-world performance of innovative technologies on working dairy farms, which, in turn, can offer these farms the opportunity to further reduce their emissions footprints, while creating additional revenue streams for them.

Thank you for your thoughtful consideration of our comments. Please do not hesitate to reach out to me with any questions. We look forward to continuing our work with the department to reduce emissions, advance economic growth, and drive innovation in California’s agriculture sector. Please do not hesitate to contact me with any questions at 202-680-0459 or david@oberonfuels.com.

Sincerely,



David Mann
Vice President, Regulatory and Governmental Affairs
Oberon Fuels
david@oberonfuels.com



WESTERNUNITEDDAIRIES

December 17, 2021

Karen Ross
Secretary of Agriculture
California Department of Food and Agriculture
1220 N Street
Sacramento, CA 95814

Regarding: **Draft Request for Grant Applications**

Dear Secretary Ross:

Western United Dairies (WUD) appreciates the opportunity to provide comments on the Request for Grant Applications for both the Dairy Digester Research and Development Program (DDRDP) and the Alternative Manure Management Program (AMMP). WUD is the largest dairy farmer trade association in California, with members located throughout the state from Del Norte County to Southern California. Our members farms vary from pasture based organic dairies to conventional dairies. These two programs (AMMP and DDRDP) help dairies of any size and production style to reduce their manure methane emissions to help meet California's ambitious greenhouse gas emissions goals.

With the passage of SB 1383 (2016) California set a target for livestock and dairy manure methane emissions to be reduced by 40% by 2030. This is a major reduction to be achieved in a short period of time. Fortunately, the State was serious about meeting the target and funded the DDRDP and AMMP to incentivize reductions. These programs have been tremendously successful and livestock and dairy manure methane emissions have been significantly reduced in just a few years. We are on our way toward meeting our goals due to the cooperative nature of the State incentives and the livestock and dairy operators to implement changes on their operations. WUD supports CDFA's implementation of these programs and the Request for Grant Applications (RGA) for both programs.

WUD appreciates the inclusion of additional technologies into the AMMP RGA. There are a variety of different technologies that achieve the State's GHG goals, and it is important that they be available for funding. However, it is just as important that the technologies are vetted as effective and durable before being allowed into the program. CDFA followed a clear process in accepting additional technologies and WUD supports that process and their inclusion into the RGA.

Both RGAs also have a strong focus on benefiting priority populations. These projects should benefit their communities and the RGAs ensure this is the case with the outreach and community

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engagement requirements and points awarded for benefits to the communities. In addition to methane emissions reductions these projects also improve air and water quality near the operations that implement them. These projects also create jobs, both short term construction jobs and long-term jobs. These jobs help communities improve their quality of life.

WUD will continue to work with CDFA to help our dairies meet the State's goals in ways that are beneficial to all Californians. Dairies provide healthy, nutritious local products to benefit the health of our communities in addition to reducing our GHG emissions to benefit our global community.

Sincerely,

A handwritten signature in blue ink that reads "Paul Sousa". The signature is written in a cursive, flowing style.

Paul Sousa, Director of Environmental & Regulatory Affairs
Western United Dairies

From: [Stephen Hatley](#)
To: [CDFA OEFI Dairy Digester Research and Development Program Grant Solicitation@CDFA](#)
Cc: [Alex Ro](#); [Dessa Eagleson](#)
Subject: 2022 DDRDP RGA - Written Comments
Date: Tuesday, December 21, 2021 3:49:26 PM

CAUTION: [External Email] - This email originated from outside of our CDFA organization. Do not click links or open attachments unless you recognize the sender and know the content is expected and is safe.

Hi DDRDP Team,

Below are our written comments for the 2022 DDRDP Request for Grant Applications:

We recommend that CDFA reduce the maximum grant amount under this program from \$2,000,000 to \$1,500,000. This will allow the limited funding to be spread across more projects to further the environmental and economic impact of the program.

Thanks for all your work to facilitate this program and I hope you and your family have a wonderful holiday.

Stephen Hatley | Chief Financial Officer
[Maas Energy Works, Inc.](#) | 512.618.2987



1949 5th Street, Suite 101, Davis, CA 95616
530-564-4260
info@biofiltro.com
www.biofiltro.com

December 21, 2021

Re: Biofiltro's comments on the draft **"2022 Dairy Digester Research and Development Program Request for Grant Applications"**

Biofiltro (www.biofiltro.com) appreciates the opportunity to comment on the California Air Resources Board draft *2022 Dairy Digester Research and Development Program Request for Grant Applications*. Biofiltro is a greenhouse gas reduction, water filtration, and nutrient capture vermifiltration system that provides the environmental benefits sought by the dairy industry, CARB, and California. Biofiltro U.S. and its complimentary company based in Chile has dozens of installations that achieve the goals set forth for the California dairy sector. With adequate incentives, Biofiltro is poised to be a technology that added to a digester reduces additional greenhouse gas emissions (CH₄ and N₂O), captures otherwise fugitive nitrogen, ammonia and phosphorus, eliminates manure and flush water odors and produces refurbished, reusable water and a highly biologically active product well suited as a fertilizer replacement and soil health amendment.

To assist CARB and the process of applying for DDRDP funds, Biofiltro provides the following comments:

General comments:

It is not clear if the program will offer Demonstration Projects. We feel it is an important opportunity to improve the reduction of GHG emissions and add additional benefits to the anaerobic digestion.

The current calculations of additional benefits only consider air pollutants. However, the IPCC guidelines include for management of livestock manure the emission of N₂O during and after manure storage/treatment. We understand the DDRDP funds were allocated to reduce exclusively dairy methane emissions. We believe the analysis should include the effect of anaerobic digestion on production of direct and indirect N₂O emissions. Quantification of these GHG emissions is possible following the IPCC guidelines (and the CDM methodology ACM0010). These emissions should also be addressed for the AMMP practices.

The RGA states: "Projects may propose to include nutrient management technologies, such as those to help manage excess nitrogen in addition to the anaerobic digesters eligible under the DDRDP. Unfortunately, implementation of stand-alone nutrient management technologies to an existing digester is not eligible." This should be reconsidered.

Vermifiltration is not a stand-alone nutrient management technology as it simultaneously removes (and treats) N and VS (Miito et al 2021), and thus can considerably improve the digesters' ability to treat manure VS. We propose to include in the DDRD Program the option to add a vermifilter to treat the effluent of an existing digester. The combination Anaerobic Digester + Vermifilter would result in a very high treatment of the VS of the manure (the digester treats approximately 70% of the incoming VS and the vermifilter 87% of the residual). The combination Anaerobic Digester + Vermifilter would also reduce >80% N₂O and NH₃ emissions during treatment (Lai et al., 2018) and after land application, because of the .80% N removal from the digester effluent (Miito et al., 2021). The combined Anaerobic Digester + Vermifilter would remove other excess nutrients and salts from manure, resulting in a reduction of the dairy high-quality water demand. The bioproduct would be a high-quality soil amendment that has additional benefits compared to the manure digestate (Hussein et al., 2018).

In summary, we believe the 2022 DDRD Program should include funding for the addition of a vermifilter to an existing operational AD. This would considerably decrease the time needed to test and quantify effects of the anaerobic digestion + vermifiltration combination that would occur if the vermifilter could only be added to a digester proposed for 2022.

Biofiltro appreciates the opportunity to comment on the draft Report and looks forward to seeing increased opportunity to bring this simple, but effective practice/technology to California.

Respectfully,

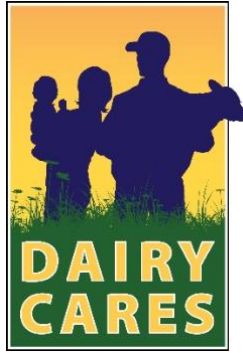
A handwritten signature in blue ink, appearing to read 'M. Sjögren'.

MatiasSjögren, CEO

Hussain, N., & Abbasi, S. A. (2018). Efficacy of the vermicomposts of different organic wastes as "clean" fertilizers: state-of-the-art. *Sustainability*, 10(4), 1205.

Lai, E., Hess, M., & Mitloehner, F. (2018). Profiling of the microbiome associated with nitrogen removal during vermifiltration of wastewater from a commercial dairy. *Frontiers in microbiology*, 9, p.1964.

Miito, G.J., Ndegwa, P., Alege, F., Coulibaly, S.S., Davis, R. and Harrison, J., 2021. A vermifilter system for reducing nutrients and organic-strength of dairy wastewater. *Environmental Technology & Innovation*, p.101648.



December 21, 2021

Via email to: cdfa.oefi_ddrdp_tech@cdfa.ca.gov

Re: Comments on Dairy Digester Research and Development Program (DDRDP) and Alternative Manure Management Program (AMMP)

On behalf of Dairy Cares, we are pleased to provide comments on the above-referenced programs. Dairy Cares is a coalition of California dairy companies and associations including the state's leading dairy producer trade associations and the major milk processing companies and cooperatives. Formed in 2001, Dairy Cares is dedicated to promoting long-term environmental and economic sustainability for California's family-owned dairy farms.

Dairy Cares continues to strongly support both the Alternative Manure Management Program (AMMP) and the Dairy Digester Research and Development Program (DDRDP) as highly effective and needed incentive programs to reduce dairy manure methane emissions consistent with state goals. These programs remain critical toward incentivizing voluntary methane reductions across the state's dairy farms.

Both programs continue to be highly effective and have already achieved well more than half of the 40 percent manure methane reductions by 2030 sought by the state when the programs were implemented.

Given the limited funding for 2021-2022 we encourage CDFA to not seek additional program changes at this time that will limit funding for the core program goals of reducing methane from manure management.

Ongoing Support for Funding Distribution

The dairy methane reduction programs (AMMP and DDRDP) have already successfully funded more than 230 projects. Dairy operator interest in both programs remains high, and Dairy Cares supports continued funding within similar ratios between the programs. We believe the funding ratio utilized to date strikes an appropriate balance between digester and non-digester strategies and provides appropriate prioritization of AMMP program funding as directed by the legislature. CDFA has funded 114 AMMP projects and 117 digester projects. CDFA should not lose sight of the need to reduce dairy methane emissions consistent with the state's ambitious reduction goals. In this regard, DDRDP is more cost-effective and provides roughly 90 percent of the livestock methane reductions to date.

Dairy Cares has two concerns with proposed language, in the Draft Request for Grant Applications (hereafter “Draft RGA”), as follows:

Regulatory Compliance

Dairy Cares has concerns with proposed language to ensuring that applicants are compliant with regulatory requirements. One example of this language appears on page 8 of the Draft RGA:

“Applicant dairy operations must be compliant with all applicable air and/or water pollution control standards and requirements for the dairy operation during the application submission. Awarded dairy digester projects and dairy operations must maintain compliance with all applicable air and/or water pollution control standards and requirements during the project grant agreement term.”

Similar language occurs in other parts of the Draft RGA, such as on page 4:

“Grant recipients will be required to submit quarterly progress reports to CDFA explaining in detail the project’s progress and the status of compliance with all applicable air and/or water pollution control standards and requirements of the hosting dairy facility.”

Our concern with the language is two-fold: 1) the reference to the need to be compliant and maintain compliance is somewhat vague and may be subject to interpretation; and, 2) reference to meeting air and/or water pollution control standards could be interpreted as requiring strict compliance with air and/or water quality standards even in situations where proper time schedules for compliance apply. To address these concerns, we request that the language in question be clarified, specifically to ensure that minor infractions or violations that are in the process of being corrected do not subject an applicant or recipient to disqualification, and to recognize that where there are properly adopted time schedules and an applicant is following such a schedule, that this is the equivalent of meeting pollution control standards and requirements. We recommend that CDFA work with regional water quality and air quality authorities to clarify this language to allow for differentiation between minor, correctable violations such as what might turn up in a routine dairy inspection, from more serious issues that might result in civil or administrative civil liabilities, fines, or be subject to other enforcement orders that may be adopted by the applicable governing body.

Further, if there are cases where an applicant’s project is part of a dairy’s plan to correct problems leading to a previous violation, and the project itself will contribute to bringing the dairy into compliance, the project should be allowed to proceed to help the dairy achieve compliance.

Dairy Cares is additionally concerned that the new language regarding compliance only appears in the DDRDP RGA, and not in the Alternative Manure Management Practices RGA. This would appear to set a different standard for dairies in each program. Notwithstanding the concerns stated above, Dairy Cares believes both the AMMP and the DDRDP should hold dairies to similar requirements.

Past Performance

CDFA is proposing two new criteria that would result in potentially negative evaluation points for Submitting Organizations. The first would deduct five points (-5) if a Submitting Organization has had one or more projects *terminated* by CDFA due to a lack of progress. The second would deduct three points (-3) if a Submitting Organization requested cancellation of two or more projects that had incurred grant costs.

Dairy Cares is seriously concerned with the latter. Submitting Organizations should not be penalized for cancellations that are often largely outside of their direct control. When Submitting Organizations apply for and accept a grant, considerable time, money and effort has been expended by the Submitting Organization and they have every intention of proceeding with the project. Cancellations generally occur when the partnering dairy has a change of heart about the project, unforeseen obstacles emerge, or the dairy owner determines it may not continue operating long term. Penalizing Submitting Organizations and future dairy digester partners for circumstances outside of their direct control is unfair and results in unreasonable bias against the new partnering dairy.

Moreover, while cancellations are always worrisome, it is better to have a project cancel before significant investment has been made by the state than proceed and discontinue operation when the cost implications will be far greater by a failed project. For these reasons, we strongly urge CDFA to remove the unnecessary penalty for cancellations.

Conclusion

As always, we thank CDFA for their efforts to streamline implementation and effectively administer the DDRDP and AMMP. Both programs remain critical to dairy manure methane reduction efforts. We look forward to continuing to work with CDFA on these important programs.

Sincerely,



Michael Boccadoro
Executive Director

CC: Charles "Chuck" Ahlem
Secretary Karen Ross
Amrith Gunasekara
Dairy Cares Board



Dr. Amrith Gunasekara
Office of Environmental Farming & Innovation
California Department of Food and Agriculture
1220 N Street
Sacramento, CA 95814

December 21, 2021

RE: DDRDP Draft RGA Comments

Dear Dr. Gunasekara,

California Dairy Campaign appreciates the opportunity to provide comments on the draft Request for Grant Applications (RGA) for the Dairy Digester Research and Development (DDRDP) program. As an organization representing dairy farm families across the state, California Dairy Campaign supports expanding efforts to fund DDRDP projects on dairies of a smaller dairy herd sizes. DDRDP grant funding can provide a way for dairy farmers to reduce their greenhouse gas emissions and achieve additional environmental benefits.

Set-Aside for Smaller-Scale Dairy Producers - We request that one percent of the Dairy Digester Research & Development Program (DDRDP) budget be set aside to accommodate the special needs of smaller-scale dairy producers, including but not limited to a market assessment and the development of a dairy farmer cooperative designed to provide access to all phases of the CDFA DDRDP and marketing opportunities for smaller scale dairy producers. The funds would be utilized to provide all aspects of digester development to all dairy producers at reasonable costs in the most economical way to achieve scalability for smaller dairy digesters across the state.

Decrease DDRDP Grant Award Amounts to Include a Greater Number of Dairies - We urge CDFA to award smaller grant amounts for DDRDP projects so the program can establish dairy digesters on dairy operations of varying sizes across the state. We support policies and programs that will expand the number of dairies participating and include dairy farmers in every stage of the process. Anaerobic digestion is a mature technology, and all aspects of dairy digester development and maintenance should be more open so dairy farmers themselves can develop and operate these systems.

Finally, we urge CDFA to continue the practice of publicly posting *all* funded and not funded DDRDP applications with their project summaries and funding requests on the program website.

Sincerely,

Lynne McBride
Executive Director
California Dairy Campaign

cc: Virginia Jameson, Deputy Secretary, CDFA

California Dairy Campaign
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