**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE**
**2023 Alternative Manure Management Program**
Applications Submitted to CDFA

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| # | Project Title | Description* | County | GHG Emission Reduction Over 5 Years ($MTCO_2e$)** | Requested Grant Funds | Matching Funds Proposed | Primary Management Practice |
|---|---|---|---|---|---|---|---|
| 1 | 5N Cattle ValMetal Mechanical Separator with composting, storage pad and side dump trailer | 5N Cattle proposes to install a single 8' x 12' curved and sloped screen separator with 12" x 8' HD Screw Press and stacking belt conveyor for optimal manure separation along with a concrete manure storage pad for passive windrow composting and Danco side dump pull trailer for improved manure management practices. | Merced | 1,027 | $ 750,000.00 | $ 46,715.95 | Solid Separation, Composting |
| 2 | Adamscows Family Small Dairy Pack Barn Project | Adamscows Family Small Dairy Pack Barn Project proposed project is to build a bedded pack compost barn with an irrigated exercise pasture to house one of the last true small family milking herds. The barn would have a north/south orientation and a feed lane along its east side, as well as an 12ft alley to allow access to the exercise pasture on the east side of the barn. The primary purpose of the irrigated pasture is to create an outdoor exercise area for the herd without the risk of creating Particulate Matter (PM) from a dry dirt exercise lot, as well as reduce the manured area that may provide runoff to the lagoon that may form methane. The vegetation will be allowed to grow in winter to retain stormwater and trap residual manure within the pasture area. | Fresno | 544 | $ 499,578.00 | $ 113,313.00 | Compost Bedded Pack Barn |
| 3 | Alberto Dairy Solid Separation Project | The Alberto Dairy plans to completely transform its manure management system. Among the planned activities, the AMMP project proposes doubling the existing separator capacity and adding a second-stage separator to remove smaller particle sizes. The existing separator is unable to handle the dairy's total volume of flush water. This often leads to significant volumes of manure bypassing the separator and discharging directly into a lagoon where anaerobic conditions generate methane. The new solid-liquid separation system will treat all the dairy's flush water. This will allow the dairy to greatly increase the quality of both the water stored in the lagoon and the water used for flushing. The dairy will thereby have the opportunity to decrease the amount of water needed to flush the barns. By effectively separating the solids, the dairy can also prevent the long-term storage of volatile solids in lagoons thus reducing the volume of methane generated. The increased volume of separated solids will be composted and then used as bedding or as a valuable soil amendment that can be applied on the farm fields or exported to reduce the dairy's surplus nitrogen. | Stanislaus | 19,729 | $ 749,548.00 | $ 172,945.00 | Solid Separation, Composting |
| 4 | Albin Livestock Separator Project | The Albin Livestock LLC dairy proposes to install a new screw press manure separator to minimize the amount of manure stored anaerobically at the dairy and therefore methane emissions from the manure. | Humboldt | 1,156 | $ 373,252.88 | $ - | Solid Separation, Solid Storage |
| 5 | Anchor J Dairy Advanced Liquid Manure Separation Project | The planned project revises the current manure management handling at Anchor J Dairy by further processing the effluent through an updated system for the collection and processing of fine manure solids. The system will be comprised of three stages: a mechanical sand separation stage, large fiber separation and drying, and flocculant separation (not part of the AMMP project). All solids will be collected in the existing processing pit, which will also be used as the flush pit. The flush water will be processed through the existing separator system, sent through a Seditank AD 150 for the removal of sand and processed over 90135ss MK IV Separator Screens. Each screen will discharge into a screw press for further dewatering of the large fiber solids, which will be transported to a natural gas forced drying system to completely dry the manure for use in the freestall barn as bedding. | Merced | 15,055 | $ 750,000.00 | $ 629,650.00 | Solid Separation, Force evaporation with natural-gas fueled dryers |
| 6 | Art Silva Dairy #3 Two Compost Bedded Pack Barns with flush to dry scrape conversion | Art Silva Dairy #3 proposes to construct two compost bedded pack barns over existing flushing lane corrals for support stock and dry cows and also convert the flush lanes to dry scrape to eliminate 100% of the manure produced onsite from conveying to the storage pond system | Stanislaus | 5,911 | $ 750,000.00 | $ 590,600.00 | Compost Bedded Pack Barn |

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| 7 | Bar E Dairy Solid Separation Project | The Bar E Dairy proposes to improve its mechanical solid-liquid treatment system. The dairy currently collects its manure by flushing and then treating it through an undersized separator before it is stored in anaerobic lagoons. The dairy has limited land available for the beneficial use of the manure produced by its livestock. The dairy's lagoon water is exported annually to avoid applying excess nutrients to the farm's crops. The proposed project will improve the dairy's manure management by installing a new solid-liquid mechanical separator to treat all liquid manure produced at the dairy. The treated water will be used for irrigation with lower environmental risks. By effectively separating the solids, the dairy can prevent the long-term storage of volatile solids in lagoons, where anaerobic conditions generate methane and ammonia emissions. The project will significantly increase the amount of manure solids at the dairy which will be composted and used as bedding or exported from the farm. This will reduce the current need to export liquid manure, with significant economic and environmental benefits for the dairy owner. | Kings | 5,107 | $ 746,578.00 | $ 128,072.00 | Solid Separation, Open Solar Drying |
| 8 | Biosphere intensive recovery, vibrancy spectrum | Data not provided. | Yolo | Data not provided | $ 190,000.00 | Data not provided | Data not provided |
| 9 | California Dairy Farms, GP-Larson Compost Bedded Pack Barn | California Dairy Farms, GP-Larson proposes to build a new compost bedded pack barn to house animals currently in a flushed freestall barn. This will reduce the amount of manure volatile solids ending up in the lagoon and forming methane. | Merced | 1,783 | $ 637,728.00 | $ - | Compost Bedded Pack Barn |
| 10 | Correia Family Heifer Ranch Compost Bedded Pack Barn with Conversion from Flush to Dry Scrape | Correia Family Heifer Ranch proposes to install a compost bedded pack barn with conversion from flushing to dry scrape. | Merced | 4,256 | $ 750,000.00 | $ 49,551.00 | Compost Bedded Pack Barn |
| 11 | Creekside Dairy Mechanical Separator Project | Creekside Dairy is proposing to install a mechanical separator through the 2023 AMMP Grant Program as a means to reducing methane emissions on the dairy facility. The dairy is proposing to install a ValMetal dual screen separator with a goal of removing 55% of the solids from the waste stream. | San Joaquin | 8,694 | $ 725,984.48 | $ 7,200.00 | Solid Separation, Composting |
| 12 | Cross A Dairy Advanced Separation | The planned project revises the current manure management handling at Cross A Dairy by further processing the effluent through an updated system for the collection and processing of fine manure solids. The system will be comprised of three stages: a mechanical sand separation stage, large fiber separation and drying, and flocculant separation (not part of the AMMP project). All liquid will be collected in a new processing pit, which will also be used as the flush pit. Once the flush cycle is completed, the flush water collected in the pit will be sent through a Seditank AD 150 for the removal of sand and processed over 90135ss MK IV Separator Screens with 10 mesh (2mm). Each screen will discharge into a screw press for further dewatering of the large fiber solids, which will be transported to a natural gas forced drying system to completely dry the manure for use in the freestall barn as bedding or go to be windrow composted for use as crop nutrients. | Stanislaus | 10,899 | $ 750,000.00 | $ 610,185.00 | Solid Separation, Force evaporation with natural-gas fueled dryers |

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| 13 | CSU Chico University Dairy | CSU Chico University Dairy proposes the implementation of a compost-bedded pack barn to house lactating cows. This project also proposes the purchase of new equipment to properly maintain the required C:N ratios within the bedded pack and achieve a successful composting process. This project will provide cow comfort, human safety, and methane reduction. Furthermore, the proposed project has a co-benefit of being uniquely positioned to educate the next generation of dairy producers in California. | Butte | 801 | $ 750,000.00 | $ 272,446.00 | Compost Bedded Pack Barn |
| 14 | D and V Dairy Solid Separation Project | The D&V Dairy proposes to introduce mechanical liquid-solid separation to its manure management system. Currently, the dairy's entire cow population is hosted in open lots. The manure is flushed from the feeding areas and the parlor and stored in anaerobic lagoons. The proposed AMMP project will improve the dairy's manure management system by installing a mechanical separator to treat all flushed manure produced at the dairy. By effectively separating the solids, the dairy can prevent the long-term storage of manure in lagoons, where anaerobic conditions generate methane and ammonia. The increased amount of manure solids generated by the project at the dairy will be composted and used as bedding or as a valuable soil amendment. | Tulare | 16,465 | $ 747,318.00 | $ 82,072.00 | Solid Separation, Composting |
| 15 | DaSilva Farms #3 Solid Separation with Open Solar Drying | The proposed AMMP project will be implemented at the DaSilva Dairy 3. The manure collection method currently utilized at this facility is flushing using pressurized water twice a day, in the morning and evening, and summer corrals are scraped two times per year. The AMMP project proposed for this dairy includes installation of solid separator to separate the solids from the manure and construction of concrete platform to dry the separated solids using natural solar drying system. The use of solids separator will enable the dairy to collect the solids, which can be utilized by applying to the fields and as a bedding for the compost bedded pack barns. | San Joaquin | 26,066 | $ 698,600.00 | $ - | Solid Separation, Open Solar Drying |
| 16 | De Carvalho Bros Dairy Separator Project | De Carvalho Bros Dairy proposes to add a mechanical manure separator to the dairy to remove manure volatile solids from the flush water before it enters the pond system to reduce the amount of methane produced from manure at the dairy. | Stanislaus | 5,340 | $ 742,204.50 | $ - | Solid Separation, Composting |
| 17 | Del Arco Separator | The Manure Mechanical Separator System project for separating solid and liquid components from the dairy manure waste stream. The system will contribute to sustainable agriculture by mitigating environmental pollution, reducing greenhouse gas emissions, and producing valuable byproducts for use in fertilizers and energy production. | Tulare | 9,413 | $ 750,000.00 | $ 50,683.10 | Solid Separation, Open Solar Drying |
| 18 | Fagundes Bros Dairy #2 Barn | The proposed project is a conversion from a dry lot corral to a compost bedded pack barn. The designated open flushed dry lot corral will be replaced with a compost bedded pack barn. The purpose of the project is to reduce the volume of solids flushed to the wastewater pond. | Merced | 238 | $ 750,000.00 | $ 637,875.00 | Compost Bedded Pack Barn |

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| 19 | Fagundes Dairy Chowchilla | The proposed project is a conversion from a dry lot corral to a compost bedded pack barn. The designated open flush corral will be replaced with a compost bedded pack barn. The compost bedded back barn will provide our herd with the ample space of at least 100 square feet per cow. | Madera | 1,734 | $ 750,000.00 | $ 579,080.00 | Compost Bedded Pack Barn |
| 20 | Four Star Dairy Manure Separator Upgrade | The proposed project planned at Four Star Dairy is to collect all manure from the dairy, and process it through an octagon processing pit, dual slope screen separators with screw presses on a raised platform and further drying in windrows. The processing pit will also function as the flush pit and be used to flush during the cleaning cycles. The system will process the deposited affluent within 24 hours so that organic solids are removed prior to the formation of anaerobic conditions. Wastewater will then be discharged into the current settling pond and proceed through the manure handling system to the storage lagoon. A 2-acre slab will be poured adjacent to the separation system for manure drying. The collected solid material will be partially dewatered by the separation process and will be windrowed on the slab where additional leachate can be directed to the storage lagoon. After sufficient drying, the separated solids will be stockpiled and utilized and/or exported as crop nutrients | Kings | 15,202 | $ 750,000.00 | $ 374,909.00 | Solid Separation, Open Solar Drying |
| 21 | Fred A Douma Dairy Advanced Separation Project | The planned project revises the current manure management handling at Fred A Douma by further processing the effluent through an updated system for the collection and processing of fine manure solids. The system will be comprised of three stages: a mechanical sand separation stage, large fiber separation and drying, and flocculant separation (not part of the AMMP project). All liquid will be collected in a new processing pit, which will also be used as the flush pit. Once the flush cycle is completed, the flush water collected in the pit will be sent through a Seditank AD 150 for the removal of sand and processed over 90135ss MK IV Separator Screens with 10 mesh (2mm). Each screen will discharge into a screw press for further dewatering of the large fiber solids, which will be transported to a natural gas forced drying system to completely dry the manure for use in the freestall barn as bedding or go to be windrow composted for use as crop nutrients. | San Joaquin | 15,256 | $ 749,980.00 | $ 652,685.00 | Solid Separation, Force evaporation with natural-gas fueled dryers |
| 22 | Garcia Registered Jerseys LLC Mechanical Separator with Passive Windrow Composting and Manure Spreader | Garcia Registered Jerseys LLC proposes to install Two ValMetal 8 ft X 12 ft curved and sloped screens manure separator system with accompanying 12 inch by 8 ft screw presses and 24 inch by 38 ft stacking belt conveyor with passive windrow composting of the separated manure. Along with purchasing a Laird MB-2804VB Mechanical Vertical Beater Manure Spreader for more efficient manure management. | Stanislaus | 11,410 | $ 750,000.00 | $ 476,582.09 | Solid Separation, Composting |
| 23 | George Bianchi Dairy | George Bianchi Diary proposes to install an In-Vessel composter (Hydro Bio Cell Pasteurizer) with a screw press separator as a method of solid separation. The separated solids from the composter will then be stored in a compost storage barn. | Sonoma | 2,577 | $ 745,348.00 | $ 318,874.00 | Solid Separation, Composting |
| 24 | Ghidinelli Dairy's Albert's Dream | The Ghidinelli Dairy proposes to implement a compost bedded pack barn to convert an open shavings pack and scraped lane into a compost bedded pack housing for the milk cows, dry cows, and some of the heifers at the dairy. The project will reduce methane emissions from the lagoon at the dairy by minimizing the amount of manure going to lagoon storage. | Humboldt | 265 | $ 407,377.00 | $ 421,418.00 | Compost Bedded Pack Barn |

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| 25 | Harris Feeding Company Separator | This project aims to improve the manure management system at the Harris Feeding Company/Harris Ranch Feedlot by implementing a solid manure separation system. After separation, the manure will be dried naturally using the open solar drying practice. | Fresno | 10,045 | $ 750,000.00 | $ - | Solid Separation, Open Solar Drying |
| 26 | Hawkins Ranch Separation Project | The planned project revises the current manure management handling at Hawkins Ranch to process the effluent through a two-stage separator system. The collection system will remain the same; all solids will be collected in the existing processing pit. The flush water collected in the pit will be sent through a Seditank AD 150 for the removal of sand and processed over 90135ss MK IV Separator Screens with 10 mesh (2mm). Each screen will discharge into a screw press for further dewatering of the large fiber solids, which will be stacked and moved to the drying area for solar drying. | Merced | 5,405 | $ 750,000.00 | $ 47,525.00 | Solid Separation, Open Solar Drying |
| 27 | Hilmar Holsteins Compost Bedded Pack Barn | Hilmar Holsteins is applying for an alternative manure treatment and storage practice which is the construction of a compost bedded pack barn. With the completion of the proposed barn the dairy plans to move milk cows from freestall housing into the bedded pack barn. | Merced | 6,445 | $ 750,000.00 | $ 219,980.00 | Compost Bedded Pack Barn |
| 28 | J and A Bedded Pack Barn and Separator Upgrade | The proposed project at J & A Dairy is to convert half of the corrals North of the milking barn to a single walk lane compost bedded pack barn for housing milking and dry Holsteins cows. Cows are projected to have 200 ft2 of pack space each, decreasing time on the flush lanes due to increased loafing on the pack. Manure in the flush lane will be scraped into the pack daily and rototilled in during the daily aeration till. The compost barn will be cleaned out twice per year, consisting with corral cleanout and compost removal. In addition to the proposed compost pack barn, J & A Dairy proposes installing a new solid separating system. The proposed project planned at J & A Dairy is to collect all manure from the flush lanes located on the dairy and process it through a sand settling lane, processing pit, dual slope screen separator, and screw press. The proposed solid separating management system will reduce the amount of manure going to the settling pond and anerobic conditions for the animals under the project scope that are not raised in the compost pack barn. | Kings | 6,426 | $ 750,000.00 | $ 182,032.92 | Compost Bedded Pack Barn |
| 29 | M & M Machado Dairy/ Double Cross Dairy #1 | The project includes the installation of a new mechanical solid manure separator to reduce the amount of manure going to the lagoon and the methane emissions from manure at the dairy. | Stanislaus | 8,455 | $ 594,331.41 | $ - | Solid Separation, Composting |
| 30 | M &N Miranda Dairy Compost Bedded Pack Barn | This project consists of the construction of a new compost bedded pack barn replacing the use of existing dry lots. This project also involves the purchase of new equipment necessary for incorporating a direct haul system for scraped manure as well as composting equipment to manage the bedded pack as well as managing rows of aerobic compost. The implementation of this project will decrease the amount of manure that is currently reaching the lagoon system and encountering heavy coastal rainfall within the existing dry lots. | Humboldt | 503 | $ 441,448.69 | $ 384,317.00 | Compost Bedded Pack Barn |

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| 31 | Manuel Martins Dairy L.P. Mechanical Separator Project | Manuel Martins Dairy is proposing to install a mechanical separator through the AMMP Grant Program as a means to reducing methane emissions on the dairy facility. The dairy is proposing to install a ValMetal dual screen separator with a goal of removing 55% of the solids from the waste stream. A manure stacking pad is also proposed as part of the project. | Stanislaus | 5,638 | $ 749,890.34 | $ 141,000.00 | Solid Separation, Composting |
| 32 | McCall Dairy Pasture Improvement Project | The proposed project will allow the dairy to fertigate and increased pasture availability for an extended pasture season. | Marin | 1,247 | $ 242,570.00 | $ - | Pasture-Based Management |
| 33 | McIsaac Dairy | The McIsaac Dairy proposes to install a reception pit and a screw press separator. Solids will be piled on a concrete pad. | Marin | 1,601 | $ 749,079.00 | $ 189,234.78 | Solid Separation, Solid Storage |
| 34 | MDF - Feed Lot Solid Separation System | MDF - Feed Lot is applying for the Alternative Manure Management Program administered by the California Department of Food and Agriculture with the goal of reducing methane emissions from manure management at the feed lot. The feed lot is proposing to acquire a Valmetal dual screen separation system to remove a significant amount of the methane forming volatile solids from the from the flush water going to the pond. This would also remove a significant amount of the manure nutrients from the lagoon that could then be handled in the solid form allowing more of the nutrients to be exported. | Merced | 3,443 | $ 717,233.26 | $ - | Solid Separation, Composting |
| 35 | Morrison Dairy | Morrison Dairy proposes to install a Hydro Biocell Invessel Composter following their new Slope Screen Solid Separator. The second piece of their proposal is a Compost Storage Barn for separated solid storage purposes, replacing their current open solar drying system. | Sonoma | 2,443 | $ 749,807.00 | $ 12,240.00 | Solid Separation, Composting |
| 36 | North Dairy Manure Collection and Composting | The vision for our manure management project contains a three fold design to capture manure, and put it to beneficial use. Primarily, we will be implementing a transition from flushing lanes to vacuum scraping. This will conserve significant water and energy, and will greatly decrease anaerobic digestion in our lagoon. Secondarily we aspire to put our solid waste to significant use in intensive windrows by initiating a robust composting program. Producing compost from cow manure is helpful in many ways for the dairy, farmland, and the environment. Ultimately, the compost created will then beneficial in two applications: spreading on permanent crops, as well as bedding for the cows. Putting this manure to work for us will reduce the negative environmental impact of methane emissions on our region as well as improve the soil health for our permanent crops. | Kings | 11,940 | $ 690,953.48 | $ - | Conversion from Flush to Scrape, Composting |

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| 37 | Nunes & Sons Heifers Compost Bedded Pack Barn with Composting in Passive Windrows | Nunes & Sons Heifers proposed to construct a compost bedded pack barn over existing corrals that flush and house heifers currently. The barn will have LED lights, a soaker system, and ventilation installed for animal comfort. Flushing lanes will no longer flush and will be dry scraped; manure scraped will be used for bedding and composting activities in the pack barn. | Tulare | 1,977 | $ 750,000.00 | $ 533,421.53 | Compost Bedded Pack Barn |
| 38 | O & S Holsteins Separator Project | This project proposes the replacement of an ineffective manure separator with a modern, new separator to remove more of the manure solids from flush prior to entering the pond. This will reduce manure methane emissions. | Riverside | 4,281 | $ 580,950.09 | $ - | Solid Separation, Composting |
| 39 | Oasis Holsteins Dairy Solid Separation Project | The Oasis Holsteins Dairy proposes to improve its mechanical solid-liquid treatment system. The dairy's manure is currently collected by flushing and then treated by an undersized separator before it is stored in anaerobic lagoons. The project will improve the dairy's manure management system by installing a new solid-liquid mechanical separator treating all liquid manure produced at the dairy. The treated water will be used for irrigation with lower environmental risks. By effectively separating the solids, the dairy can prevent the long-term storage of volatile solids in lagoons, where anaerobic conditions generate methane and ammonia emissions. The project's increased volume of separated solids will be composted and used as bedding or exported from the farm. | Kern | 6,038 | $ 747,985.00 | $ 78,072.00 | Solid Separation, Composting |
| 40 | Parkview Dairy LP Compost Bedded Pack Barn with Flush Conversion to Dry Scrape | Parkview Dairy LP proposes to construct a compost bedded pack barn over existing corrals that flush and house milk cows currently. Flushing lanes will no longer flush and will be dry scraped; manure scraped will be used for bedding and composting activities in the pack barn. The project will also consist of purchasing a compost tiller for manure management under the pack barn. | Merced | 5,403 | $ 750,000.00 | $ 126,512.70 | Compost Bedded Pack Barn |
| 41 | Pete Postma & Sons Dairy Compost Bedded Pack Barn with static screen mechanical separator and IEC Thermo attrition disinfecting drying system | Pete Postma & Sons Dairy proposes to construct a compost bedded pack barn for high producing milk cows, along with the installation of a 3 static screen mechanical separator with IEC thermo drying and disinfecting system, and Flush and EQ tank with processing pit for further separation of manure solids produced by the remaining herd and conveyed to the storage ponds system. | Stanislaus | 10,516 | $ 750,000.00 | $ 1,284,035.00 | Compost Bedded Pack Barn |
| 42 | RELM Dairy Mechanical Separator Project | RELM Dairy is proposing to install a mechanical separator through the AMMP Grant Program, as a means to reducing methane emissions on the dairy facility. The dairy is proposing to install a ValMetal dual screen separator, with a goal of removing 55% of the solids from the waste stream. A manure stacking pad is also proposed as part of the project. | San Joaquin | 3,101 | $ 631,101.64 | $ 42,000.00 | Solid Separation, Composting |

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| 43 | River Oak Dairy Flocculant Enhanced Manure Treatment | The planned project revises the current manure management handling at River Oaks Dairy by further processing the effluent through an updated system for the collection and processing of fine manure solids. The system will be comprised of three stages: a mechanical sand separation stage, large fiber separation and drying, and flocculant separation (not part of the AMMP project). All liquid will be collected in a new processing pit, which will also be used as the flush pit. Once the flush cycle is completed, the flush water collected in the pit will be sent through a Seditank AD 150 for the removal of sand and processed over 3 90135ss MK IV Separator Screens with 10 mesh (2mm). Each screen will discharge into a screw press for further dewatering of the large fiber solids, which will be transported to a natural gas forced drying system to completely dry the manure for use in the freestall barn as bedding or go to be windrow composted for use as crop nutrients. | San Joaquin | 20,380 | $ 750,000.00 | $ 612,185.00 | Solid Separation, Force evaporation with natural-gas fueled dryers |
| 44 | Ron Verhoeven Family Dairy Solid Separation Project | The Ron Verhoeven Family Dairy proposes to install a mechanical solid-liquid manure treatment system. Currently, the manure is collected by flushing and then collected in three reception cells in parallel before it is treated by an old and undersized separator. In periods of heavy manure loads, a large portion of the liquid manure bypasses the separator and is deposited untreated into anaerobic lagoons. The proposed project will improve the dairy's manure management by installing two new, more efficient solid-liquid mechanical separators to treat all liquid manure produced at the dairy. After treatment, lagoon water will be used for irrigation with lower risks of over applying nitrogen to crop soils and utilizing less electricity to agitate the manure and pump lagoon water to fields. By effectively separating the solids, the dairy can reduce the long-term storage of volatile solids in the lagoons, where anaerobic conditions generate methane and ammonia. The project will significantly increase the amount of manure solids at the dairy which will be used as bedding or as a valuable soil amendment. | Tulare | 5,848 | $ 747,244.00 | $ 78,072.00 | Solid Separation, Composting |
| 45 | Shady Acres Dairy Solid Separation Project | The Shady Acres Dairy proposes to install a mechanical solid-liquid manure treatment system. The dairy's manure is collected by flushing and then treated by two sets of settling basins that remove only approximately 20% of solids before the liquid manure is stored in anaerobic lagoons. The proposed project will improve the dairy's manure management by installing a solid-liquid mechanical separator to treat all liquid manure produced at the dairy. The separator treated water will be used for irrigation, with lower risks of overapplying nitrogen to crop soils and less electricity required to agitate and pump the lagoon water to the fields. By more effectively separating the solids, the dairy can prevent the long-term storage of manure in lagoons, where anaerobic conditions generate methane, ammonia, and indirect nitrous oxide emissions. The project will significantly increase the volume of separated manure solids which will be composted and used as bedding or as a valuable soil amendment that can be applied to the farm ground. | Fresno | 18,758 | $ 742,429.00 | $ 48,072.00 | Solid Separation, Composting |
| 46 | Solo Dairy Advanced Solid-Liquid Separation Project | The planned project revises the current manure management handling at Solo Dairy by further processing the effluent through an updated system for the collection and processing of fine manure solids. The system will be comprised of three stages: a mechanical sand separation stage, large fiber separation and drying, and flocculant separation (not part of the AMMP project). All solids will be collected in the existing processing pit, which will also be used as the flush pit. The flush water will be processed through the existing separator system with the 30 mesh screens during the flush cycle. Once the flush cycle is completed, the flush water collected in the pit wil1 be sent through a Seditank AD 150 for the removal of sand and processed over 90135ss MK IV Separator Screens with 10 mesh (2mm). Each screen will discharge into a screw press for further dewatering of the large fiber solids, which will be transported to a natural gas forced drying system to completely dry the manure for use in the freestall barns as bedding. | Kern | 12,811 | $ 750,000.00 | $ 629,650.00 | Solid Separation, Force evaporation with natural-gas fueled dryers |
| 47 | Sozinho Dairy #1 Solid Separation Project | The Sozinho Dairy #1 proposes to install a mechanical solid-liquid treatment system. Currently at the dairy, the anaerobic lagoon receives the milking cows' flushed manure after treatment by an undersized solid separator, and semi-solid manure that is scraped and vacuumed in the beef cattle and heifer barns. The project will improve manure management at the dairy by replacing the old inefficient separator with a new solid-liquid mechanical separator to treat all manure produced at the dairy. The treated lagoon water will be used for irrigation with lower risks of overapplying nitrogen to crop soils and lower energy required to apply it. By more effectively separating the solids, the dairy can prevent the long-term storage of volatile solids in the lagoon, where anaerobic conditions generate methane and ammonia emissions. The project will significantly increase the amount of manure solids at the dairy which will be composted and used as bedding or applied to the dairy's farmland. | Kings | 12,671 | $ 748,101.00 | $ 35,000.00 | Solid Separation, Solid Storage |
| 48 | Sozinho Dairy #2 Solid Separation Project | The Sozinho Dairy #2 proposes installation of a mechanical solid-liquid treatment system. Currently, the manure at the dairy is flushed and treated by an old and undersized solid separator before being stored in an anaerobic lagoon. The proposed project will improve the dairy's manure management by replacing the old inefficient separator with a new solid-liquid mechanical separator treating all liquid manure produced at the dairy. The treated lagoon water will be used for irrigation with lower risks of overapplying nitrogen to crop soils and less energy required for application. By effectively separating the solids, the dairy can prevent the long-term storage of volatile solids in the lagoon, where anaerobic conditions generate methane and ammonia emissions. The project will significantly increase the amount of manure solids at the dairy which will be used as bedding or applied to the dairy's farm ground. | Fresno | 10,154 | $ 747,985.00 | $ 78,072.00 | Solid Separation, Solid Storage |

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE**
**2023 Alternative Manure Management Program**
Applications Submitted to CDFA

*The 2023 AMMP application information was extracted from the online application system as submitted by the applicants, therefore, CDFA cannot guarantee accuracy of the information.
** Total GHG emission reduction is estimated by the applicant and has not been verified.

| # | Project Title | Description* | County | GHG Emission Reduction Over 5 Years ($MTCO_2e$)** | Requested Grant Funds | Matching Funds Proposed | Primary Management Practice |
|---|---|---|---|---|---|---|---|
| 49 | Sozinho Dairy #5 Solid Separation Project | The Sozinho Dairy #5 proposes the installation of a mechanical solid-liquid treatment system. Currently, the dairy's anaerobic lagoon receives the milking cows' flushed manure after treatment by an undersized solid separator, and semi-solid manure that is scraped and vacuumed from the beef cattle and heifer barns. The proposed project will improve manure management by adding to the old separator a new solid-liquid mechanical separator to treat all liquid manure produced at the dairy. This includes the additional manure collected with a new vacuum truck, so that all collected manure will be treated by the separators before going to the lagoon. The treated lagoon water will be used for irrigation with lower risks of overapplying nitrogen to crop soils and lower energy required for application. By effectively separating the solids, the dairy can prevent the long-term storage of volatile solids in the lagoon, where anaerobic conditions generate methane and ammonia emissions. The project will significantly increase the amount of manure solids at the dairy which will be used as bedding or applied to the dairy's farmland. | Kings | 15,477 | $ 749,638.00 | $ 111,200.00 | Solid Separation, Composting |
| 50 | Tillema Farms Primary Separation Enhancement Project | The planned project revises the current manure management handling at Tillema by further processing the effluent through an updated system for the collection and processing of fine manure solids. The system will be comprised of three stages: a mechanical sand separation stage, large fiber separation and drying, and flocculant separation (not part of the AMMP project). All liquid will be collected in a new processing pit, which will also be used as the flush pit. Once the flush cycle is completed, the flush water collected in the pit will be sent through a Seditank AD 150 for the removal of sand and processed over 90135ss MK IV Separator Screens with 10 mesh (2mm). Each screen will discharge into a screw press for further dewatering of the large fiber solids, which will be window composted for use as bedding. | Kern | 31,078 | $ 750,000.00 | $ 348,813.51 | Solid Separation, Composting |
| 51 | Tri-BAK Dairy Compost bedded Pack Barn Phase 2 | The proposed project at Tri-BAK is to convert half of the eastern corrals into two single walk lane compost bedded pack barns, capable of housing milking Holsteins. Cows are projected to have 156 ft2 of pack space each, decreasing time on the flush lanes due to increased loafing on the pack. Manure in the flush lane will be scraped into the pack daily and rototilled in during the daily aeration till. The compost barn will be cleaned out twice per year, consisting with corral cleanout and compost removal. | Tulare | 3,560 | $ 750,000.00 | $ 787,780.00 | Compost Bedded Pack Barn |
| 52 | Triple J Dairy: Conversion of Flush into Scrape system utilizing manure vacuum tank | The proposed AMMP project will be implemented at the Triple J dairy. The manure collection method utilized at this facility is flushing using pressurized water twice a day, in the morning and evening, and summer corrals are scraped two times per year.<br>The AMMP project proposed for this dairy is Conversion of Flush to Scrape system with manure vacuum tanker and open solar drying of manure on the existing concrete drying yard. The use of manure vacuum tanker will enable the Triple J Dairy to collect the manure, which can be utilized by applying to the fields and as a bedding for the compost bedded pack barns reducing the chemical fertilizer cost. | San Joaquin | 156 | $ 322,311.00 | $ - | Conversion from Flush to Scrape, Open Solar Drying |
| 53 | Western Pacific Compost Bedded Pack Barn Project | The proposed project at Western Pacific Dairy is to remove and regrade the existing three problematic corrals north of the milk barn as well as the relocating a hay barn and constructing a single walk lane compost bedded pack barn, capable of housing for milking Holsteins, dry cows, and close-up heifers. Cows are projected to have 160 ft2 of pack space each. Manure in the flush lane will be scraped into the pack daily and rototilled in during the daily aeration till. The compost barn will be cleaned out twice per year, consisting with corral cleanout and compost removal. | Tulare | 4,114 | $ 750,000.00 | $ 604,000.00 | Compost Bedded Pack Barn |
| | | | **Total** | 408,842 | $ 36,216,555 | $ 12,788,072 | |