

AGRICULTURAL MANAGEMENT PRACTICES INCENTIVIZED THROUGH THE CDFA DAIRY AND LIVESTOCK METHANE REDUCTION INCENTIVES PROGRAMS

CDFA has identified eligible manure management practices that reduce atmospheric greenhouse gases (GHGs) and provide additional benefits, such as renewable energy and compost production, for funding through its two dairy methane reduction incentives programs. Program specific Quantification Methodologies and tools to estimate GHG reduction and co-benefits developed in collaboration with the California Air Resources Board (CARB) are currently available for these practices.

I. Alternative Manure Management Program

Manure Collection and/or Separation:

1. Pasture-based management
 - a. Alternative manure treatment and storage such as compost bedded pack barn and slatted floor pit storage manure collection
2. Solid separation of manure solids prior to entry into a wet/anaerobic environment through technologies such as:
 - a. Weeping Wall (system must have a minimum of at least two cells)
 - b. Stationary Screen
 - c. Vibrating Screen
 - d. Screw Press
 - e. Centrifuge
 - f. Roller Drum
 - g. Belt Press/Screen
3. Conversion from a flush to scrape

Each manure collection and/or storage practice must be followed by manure treatment, drying and/or storage from the options below:

1. Open solar drying of manure
2. Closed solar drying
3. Forced evaporation with natural-gas fueled dryers;
4. Daily spread
5. Solid Storage
6. Composting in vessel
7. Composting in aerated static pile
8. Composting in intensive windrows
9. Composting in passive windrows

II. Dairy Digester Research and Development Program

Anaerobic digester systems on California dairy operations that convert the bio-methane to renewable electricity or fuel (to use on-site or inject into an existing pipeline), or for the utilization of energy at a neighboring facility or transportation fuel.

AGRICULTURAL MANAGEMENT PRACTICES ELIGIBLE FOR FUNDING THROUGH THE CDFA HEALTHY SOILS PROGRAM (HSP)

CDFA has identified eligible agricultural management practices that sequester carbon, reduce atmospheric GHGs, and improve soil health, for funding through the HSP Incentives Program and HSP Demonstration Projects. These practices were selected from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Conservation Practice Standards (CPS) and CDFA specified practices such as compost application and whole orchard recycling. HSP-specific [Quantification Methodology](#) and tools to estimate [GHG reduction](#) and [co-benefits](#) developed in collaboration with the California Air Resources Board (CARB) and USDA NRCS are currently available for these practices.

Eligible practices are categorized based on agricultural systems where they can be implemented. They are divided into three categories below.

I. Cropland

- Alley Cropping ([USDA NRCS CPS 311](#))
- Compost Application
 - Compost Purchased from a Certified Facility
 - On-farm Produced Compost
- Conservation Cover ([USDA NRCS CPS 327](#))
- Conservation Crop Rotation ([USDA NRCS CPS 328](#))
- Contour Buffer Strips ([USDA NRCS CPS 332](#))
- Cover Crop ([USDA NRCS CPS 340](#))
- Field Border ([USDA NRCS CPS 386](#))
- Filter Strip ([USDA NRCS CPS 393](#))
- Forage and Biomass Planting ([USDA NRCS 512](#))
- Grassed Waterway ([USDA NRCS CPS 412](#))
- Hedgerow Planting ([USDA NRCS CPS 422](#))
- Herbaceous Wind Barrier ([USDA NRCS CPS 603](#))
- Mulching ([USDA NRCS CPS 484](#))
- Multi-story Cropping ([USDA NRCS CPS 379](#))
- Nutrient Management ([USDA NRCS CPS 590](#)) (15% reduction in fertilizer application *only*)

- Residue and Tillage Management – No-Till ([USDA NRCS CPS 329](#))
- Residue and Tillage Management – Reduced Till ([USDA NRCS CPS 345](#))
- Riparian Forest Buffer ([USDA NRCS CPS 391](#))
- Riparian Herbaceous Cover ([USDA NRCS CPS 390](#))
- Strip Cropping ([USDA NRCS CPS 585](#))
- Tree/Shrub Establishment ([USDA NRCS CPS 612](#))
- Vegetative Barriers (601) ([USDA NRCS CPS 601](#))
- Windbreak/Shelterbelt Establishment ([USDA NRCS CPS 380](#))

II. Orchard or Vineyard

- Compost Application
 - Compost Purchased from a Certified Facility
 - On-farm Produced Compost
- Conservation Cover ([USDA NRCS CPS 327](#))
- Cover Crop ([USDA NRCS CPS 340](#))
- Filter Strip ([USDA NRCS CPS 393](#))
- Mulching ([USDA NRCS CPS 484](#))
- Hedgerow Planting ([USDA NRCS CPS 422](#))
- Nutrient Management ([USDA NRCS CPS 590](#)) (15% reduction in fertilizer application *only*)
- Residue and Tillage Management – No-Till ([USDA NRCS CPS 329](#))
- Residue and Tillage Management – Reduced Till ([USDA NRCS CPS 345](#))
- Whole Orchard Recycling
- Windbreak/Shelterbelt Establishment ([USDA NRCS CPS 380](#))

III. Grazing Land

- Compost Application
 - Compost Purchased from a Certified Facility
 - On-farm Produced Compost
- Hedgerow Planting ([USDA NRCS CPS 422](#))
- Prescribed Grazing ([USDA NRCS CPS 528](#))
- Range Planting ([USDA NRCS CPS 550](#))
- Riparian Forest Buffer ([USDA NRCS CPS 391](#))
- Silvopasture ([USDA NRCS CPS 381](#))
- Tree/Shrub Establishment ([USDA NRCS CPS 612](#))
- Windbreak/Shelterbelt Establishment ([USDA NRCS CPS 380](#))

Additional Practices for Demonstration and Data Collection

In addition to the above listed practices, additional practices are eligible for funding through the HSP Demonstration Projects (Type A projects). A GHG quantification methodology is not currently available for these practices, therefore, field GHG measurements must be included as part of the proposed projects. Projects proposing these practices are required to collect scientific data to fulfill the following priorities and to inform development of implementation standards for these practices in the long-term:

- (i) Demonstrate soil organic carbon sequestration and GHG reduction potential of the practice in diverse California climate types, soil types and crop types, through collection of data including but not limited to field measurement of GHG emissions and soil health indicators.
- (ii) Address knowledge gaps regarding environmental and eco-system impacts and co-benefits resulting from implementation of these practices at field-scale.
- (iii) Develop and/or standardize methodology for practice implementation, and, formulation and characterization of material(s) needed for implementation of practices including but not limited to vermicompost and microbial inoculation with compost tea.

The practices eligible under this category are:

- Anaerobic Digestate Application: Cropland application of solids generated from anaerobic digestion of organic materials.
- Microbial Inoculation with Compost Tea: Cropland application of diluted compost steeped or brewed in water with aeration/stirring (i.e. compost tea).
- Mycorrhizal Application: Incorporating soil with fungi that form a symbiotic relationship with roots of crop plants.
- Nutrient Management ([CPS 590](#)) (Replacing Synthetic N Fertilizer with Soil Amendments such as beef feedlot manure, chicken broiler manure, chicken layer manure, other manure, dairy manure, sheep manure and swine manure).
- Nutrient Management ([CPS 590](#)) (Use of Nitrification Inhibitors).
- Nutrient Management ([CPS 590](#)) (Use of Slow Release Fertilizers).
- One-Time Compost Application with Higher Rates for Grazed Grasslands: Application of compost to grazed grasslands at rates higher than currently supported by Healthy Soils Program once every ten years.
- Vermicompost Application: Application of compost produced from organic materials using various species of worms.

AGRICULTURAL MANAGEMENT PRACTICES ELIGIBLE FOR FUNDING THROUGH THE CDFA STATE WATER EFFICIENCY AND ENHANCEMENT PROGRAM (SWEEP)

CDFA has identified eligible agricultural management practices that support water conservation, improved water efficiency, improved energy efficiency and/or reduction of greenhouse gas (GHG) emissions from agricultural water distribution systems on farms. These practices were selected from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Conservation Practice Standards (CPS). These practices, used in various combinations, can support SWEEP's objectives of on-farm water savings and GHG emissions reductions from crop irrigation. SWEEP specific [Quantification Methodology](#) and tools to estimate GHG reduction, water savings and co-benefits developed in collaboration with the California Air Resources Board (CARB) and USDA NRCS are currently available for these practices. SWEEP also funds project components that, when used in combination with these management practices, contribute to water conservation, water and energy efficiency improvements and GHG reductions.

- Combustion System Improvement (USDA NRCS CPS [372](#))
- Irrigation Ditch Lining (USDA NRCS CPS [428](#))
- Irrigation Pipeline (USDA NRCS CPS [430](#))
- Irrigation Reservoir (USDA NRCS CPS [436](#))
- Irrigation System, Microirrigation (USDA NRCS CPS [441](#))
- Sprinkler System (USDA NRCS CPS [442](#))
- Irrigation Water Management (USDA NRCS CPS [449](#))
- Irrigation Land Leveling (USDA NRCS CPS [464](#))
- Pumping Plant (USDA NRCS CPS [553](#))
- Structure for Water Control (USDA NRCS CPS [587](#))
- Salinity and Sodic Soil Management (USDA NRCS CPS [610](#))
- Water Harvesting Catchment (USDA NRCS CPS [636](#))