Climate Smart Agriculture

Partnering with California's farmers to efficiently reduce greenhouse gas emissions, support economic vitality, and sustain food security

Investments

California Greenhouse Gas Reduction Fund
Investments in Agriculture

Programs

State Water Efficiency and Enhancement Program:
California Department of Food and Agriculture’s (CDFA) State Water Efficiency and Enhancement Program (SWEEP) provides financial incentives for agricultural operations to invest in water irrigation and/or distribution systems that save water and reduce greenhouse gas (GHG) emissions.

Project Investments to Date (2014-17): $67.1 million from the Greenhouse Gas Reduction Fund
- Acres: 606 projects 110,000 acres under irrigation systems
- Estimated GHG savings: 74,200 metric tons CO₂ equivalent per year (which is equivalent to removing about 15,889 cars off the road annually according to the USEPA calculator).
- Estimated water savings: 97,700 acre feet per year.
- Matching funds: $38.8 million.

Dairy and Livestock Manure Management Programs

Dairy Digester Research and Development Program
CDFA’s Dairy Digester Research and Development Program (DDRDP) supports projects that reduce greenhouse gas (GHG) emissions from California dairy operations by capturing GHGs, harnessing GHGs as a renewable bioenergy source and promoting low carbon fuels.

Alternative Manure Management Program
CDFA’s Alternative Manure Management Program (AMMP) supports non-digester based manure management practices on California dairy and livestock operations, such as conversion to dry scrape or solid separation, followed by drying or composting, and pasture-based management. This is a new program created in 2017.

Project Investments to Date:

2015 - $12 million from the Greenhouse Gas Reduction Fund
- 6 funded digester projects
- GHG Savings: an estimated 1.56 million metric tons of CO₂ equivalent over 10 years
- Renewable Energy: Expected production of 40,000 MW-h per year

2017 - $50 million from the Greenhouse Gas Reduction Fund:
- 18 dairy digester projects awarded a total of $35.2 million. Announced Oct. 25, 2017
- GHG savings: an estimated 4.3 million metric tons of CO₂ equivalent over 10 years.
- This funding expands authority to fund alternative manure management practices through the AMMP. A total of $9.8 million will be awarded to projects selected for funding through this program.

Additional Allocations
- FY 2017-19 - $99 million for DDRDP and AMMP.

Healthy Soils Program:
CDFA’s Healthy Soils Program provides financial assistance for incentivizing and demonstrating the implementation of conservation agricultural management practices (such as cover crops, compost application, no-till and hedgerows) that sequester carbon, reduce atmospheric GHGs and improve soil health. It stems from the California Healthy Soils Initiative, which is a collaboration of state agencies and departments that promotes the development of healthy soils on California’s farmlands and ranchlands.

The program funds direct farmer incentives program and on-farm demonstration projects that showcase conservation management practices that create a platform for widespread adoption of practices throughout California.
Investments:
- $7.5 million for FY 2016-18:
  - $3.75 million for HSP Incentives Program.
  - $3 million for HSP Demonstration Projects.

Sustainable Agricultural Lands Conservation Program
Funds for agricultural conservation easements and local agricultural protection strategies to protect lands from conversion to urban and rural residential development

Project Investments to Date (2014-16): $45 million from the Greenhouse Gas Reduction Fund
- Funded 27 easements, protecting 29,488 acres of irreplaceable agricultural land
- Funded 7 strategy and outcomes planning grants
- By limiting development, will reduce emissions by eliminating nearly 47 billion vehicle miles. That equates to nearly 19 million metric tons of carbon dioxide over a 30-year period or keeping more than 4 million cars off the road for one year

Additional Allocations
- FY 2017-18 - $27 million

Agricultural Vehicle and Equipment Investments Program:
The California Air Resources Board’s (CARB) Agricultural Vehicle and Equipment Investments Program is a new program this year and funded through the Greenhouse Gas Reduction Fund and two other sources. This program is intended to reduce agricultural sector emissions by providing grants, rebates, and other financial incentives for agricultural harvesting equipment, heavy-duty trucks, agricultural pump engines, tractors, and other equipment used in agricultural operations.

Allocations
- FY 2017-18 - $85 million from the Greenhouse Gas Reduction Fund

Food Processors:
New in 2017, this program will be administered by the California Energy Commission to provide grants, loans or any financial incentives to implement projects that reduce greenhouse gas emissions for food processors and also to support renewable energy projects in the agricultural sector.

Allocations
- FY 2017-18 - $66 million from the Greenhouse Gas Reduction Fund
  - $60 million for research and development
  - $6 million for renewable energy
Technical Assistance for CDFA Programs

Technical and community-outreach assistance for applicants to CDFA’s incentive programs has been made available through partnerships with agencies such as the United States Department of Agriculture (USDA) and the Strategic Growth Council (SGC). The USDA provided $50,000 to support technical assistance for SWEEP in 2016. The SGC, with funding from the greenhouse gas reduction fund provided $125,000 in 2017 to support:

- State Water Efficiency and Enhancement Program: $25,000
- Dairy Digester Research and Development Program: $25,000
- Alternative Manure Management Program: $50,000
- Healthy Soils Program: $25,000

This amount was further supplemented by CDFA to maximize the availability of technical assistance providers statewide. Various entities such as non-profit organizations, University Cooperative Extensions and Resource Conservation Districts received funding through a competitive grant process to serve as CDFA-trained technical assistance providers.