



*Dairy Cares News, May 2021*

## Got Dairy Methane Reduction? California's Cost-Effective and Proven Climate Solution

California has shown that dairy farms can deliver much needed short-term methane reductions. The annual report of [California Climate Investments](#) continues to demonstrate that the state's two dairy methane reduction programs are among the state's most cost-effective tactics for reducing greenhouse gas (GHG) emissions. The significant reductions being achieved will provide short-term climate benefits and are a key part of the dairy sector's and the state's overall climate strategy.

The UN environmental program (ENep)'s [recent global assessment](#) highlights that "reducing human-caused methane emissions is one of the most cost-effective strategies to rapidly reduce the rate of warming and contribute significantly to global efforts to limit temperature rise to 1.5°C." California's Dairy Digester Research and Development Program ([DDRDP](#)) and the Alternative Manure Management Program ([AMMP](#)) will collectively reduce 2.3 million metric tons of GHGs (MTCO<sub>2e</sub>) per year. Reductions are achieved by installing technologies and adopting new manure management practices, including anaerobic digesters, solid separators, and vacuum trucks. The DDRDP and AMMP complement one another, helping reduce emissions on farms of all sizes. The state has invested a total of \$289 million to date for both programs, with more than \$422 million provided in matching private funds. These investments are already paying off with significant climate benefits that are helping to mitigate the harmful, long-lasting impacts of carbon dioxide (CO<sub>2</sub>).

got methane reduction?



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### Proving to be Cost-Effective Strategies

The state's dairy digester incentive program is achieving more GHG reductions than any other climate program. Of California's 71 climate programs, 46 are currently implemented and demonstrating quantifiable GHG emission benefits. **The digester program (DDRDP) alone is delivering 29% of the total GHG reductions across all programs, while being allocated just 1.3% of the total funds invested by the state.** At a cost of \$9 per ton of GHG reduction, the program is the most cost-effective effort in the fight against climate change. At a cost of \$60 per ton of GHG reduction, the AMMP is also among the top ten most cost-effective programs and has achieved 2% of the total reductions achieved to date.

The DDRDP and AMMP are valuable climate reduction tools because methane reduction provides faster climate benefits. The UNep assessment notes that improving manure management is one of two key climate strategies for the livestock sector. The other recommendation is to improve animal health and husbandry, allowing for improved milk production efficiency (more milk with fewer cows). California dairy farmers have already made tremendous strides in this area, which has resulted in a [45 percent reduction](#) in total GHG emissions per glass of milk over the past 50-plus years (1964-2014). Now, through improved manure

management, supported by the state's programs, dairy farmers are achieving further reductions in methane that can help offset the dairy sector's remaining—and longer lasting—GHGs.

### **Need for Continued Investment**

While major headway has been made, more reductions are needed to achieve the state's goal of a 40 percent reduction of livestock manure methane by 2030. Progress made through the DDRDP and AMMP has achieved about 60% of that goal. Most progress was achieved through projects funded during the final three years of the Brown Administration (a total of \$248 million), while funding during the Newsom administration has been sharply reduced. Governor Newsom recently proposed an additional \$60 million investment, which will be considered as part of the state's annual budget process.

### **Improving Air Quality**

By installing digesters, California farmers are not only helping further shrink dairy's carbon footprint to unprecedented levels, they are also helping the state transition to clean, renewable energy. More than 130 California dairy farms are operating or developing digester projects that will create carbon-negative transportation fuel in the form of RNG to replace the use of diesel in heavy-duty trucks. Additionally, four dairy farms are developing projects that will use a cutting-edge fuel cell technology to generate clean, renewable electricity to power electric vehicles. This creation of clean transportation fuels—both RNG and electricity—will continue to provide tremendous air quality benefits by reducing smog-forming emissions.

### **Meeting the Goal for 2030 and Beyond**

California is off to a tremendous start with its dairy methane reduction programs. In partnership with the state, dairy farmers have made significant progress toward achieving the 40 percent methane reduction by 2030 and creating a climate neutral dairy sector. They are also providing new sources of fuel and electricity for clean transportation. Ultimately, with continued funding, this critically important climate strategy can contribute greatly to the collective goal of limiting climate warming.

**California dairy farmers are committed to helping cool the planet.**

*Dairy Cares is a statewide coalition supporting economic and environmental sustainability and responsible animal care. Our members include Bar 20 Dairy Farms, California Dairies Inc., California Dairy Campaign, California Dairy Research Foundation, California Farm Bureau Federation, Dairy Farmers of America-Western Area, Dairy Institute of California, F & R Ag Services, Hilmar Cheese Company, Joseph Gallo Farms, Land O'Lakes, Milk Producers Council, Ruan Transport Corp., Yosemite Farm Credit, Zenith Insurance Company, and others. For information, visit [DairyCares.com](https://DairyCares.com) or call 916-441-3318. To subscribe to the newsletter, contact [news@dairycares.com](mailto:news@dairycares.com).*