

Study measures greenhouse gas emissions associated with gallon of milk

U.S. dairy industry says data shows its GHG emissions is just 2% of total U.S. emissions

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The U.S. dairy industry said Wednesday it has completed a carbon footprint study that measured the greenhouse gas (GHG) emissions associated with a gallon of milk in the United States.

The study was commissioned to measure the GHG emissions of fluid milk from farm to table, including everything from what is fed to cows through how a consumer disposes of a milk container.

The study determined that the carbon footprint of a gallon of milk is 17.6 pounds of carbon dioxide equivalents (CO₂e) per gallon of milk consumed.

The industry said the carbon footprint study, together with data from additional studies measuring GHG emissions, shows that total U.S. dairy GHG emissions are approximately 2 percent of total U.S. emissions.

Industry trade group, the Innovation Center for U.S. Dairy, said that's far lower than the 18 percent number reported about the global livestock industry that was incorrectly attributed to U.S. dairy.

"World Wildlife Fund is pleased to see the U.S. dairy industry take a science-based approach to measuring its environmental footprint and to determine appropriate reductions methods," said Bryan Weech, director of livestock at WWF. "The U.S. dairy industry's commitment to reducing its footprint can have major influence on WWF's conservation objectives, like reducing climate impact, conserving finite resources and preserving biodiversity."

In July, the Applied Sustainability Center at the University of Arkansas completed a GHG life cycle assessment (LCA), or carbon footprint study, of fluid milk.

The study measured the greenhouse gas emissions for one gallon of fluid milk by analyzing 2007-2008 data from more than 500 farms and 50 processing plants across the United States and more than 210,000 round trips transporting milk from farm to processor.

The study identified opportunities for efficiency and innovation across the fluid milk supply chain, including feed efficiency (how effectively a cow's diet helps her produce milk), manure management (manure storage), energy management, packaging materials reduction and fuel efficiency.

One conclusion was that differences in management practices determine the carbon footprint on farms, in plants and for transportation fleets more so than geographic region, business model, or size of farm or business.