FARM Environmental Stewardship

Version 2 Updates

The Farmers Assuring Responsible Management (FARM) Environmental Stewardship (ES) program area helps track and communicate a farm's environmental achievements as well as set a path for continuous improvement. FARM ES regularly reviews and incorporates new science to (1) ensure robust and reliable results; and, (2) meet expanding interests and needs of farmers and FARM Participants. Launched in January of 2020, FARM ES Version 2 contains the following updates.

New Data Inputs

- Solid-Liquid Separation (SLS) enables farms to separately manage solid and liquid manure fractions, which can have greenhouse gas (GHG) benefits. The Innovation Center for U.S. Dairy science team worked with researchers at the University of Wisconsin-Madison to add SLS as an option in the FARM ES model.

- Solar / Wind Energy Generation can benefit society and offset a farm's own carbon footprint. FARM ES now allows farms to enter information about their solar or wind generation and quantify the associated benefits.

- FARM ES now asks about the farm's use of a Nutrient Management Plan (NMP). NMPs help guide management decisions to ensure nutrients are applied in an economically efficient and environmentally sound manner. FARM Participants can use this information to report on the Innovation Center for U.S. Dairy Stewardship Commitment metric: "Do you implement and maintain a written Nutrient Management Plan?"

Updated Emissions Factors

The algorithms in the model have been updated with crop emissions factors using production data from 2013 to 2017. The previous model used data from 2004 to 2008 from the original LCA study. Additionally, researchers fully examined the methodology underpinning the original LCA study. They updated select portions of the crop emissions methodology to better enable future updating as well as match current best practices.

More Detailed Results

FARM ES results have previously been broken down by category of emissions (enteric, manure, energy, and feed production). Now, FARM ES will also display GHG emissions intensity results broken down by gas type (carbon dioxide, methane, and nitrous oxide). This is important for FARM Participants that are looking to better respond to customer questionnaires. It also enhances the understanding of the sources of emissions on the farm, enabling better continuous improvement planning.