



FARM Environmental Stewardship

U.S. dairy farmers have a long history of being good environmental stewards. Our industry's challenge today is to show customers and consumers that dairy farms continue to make progress towards improving environmental outcomes. 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.

How does FARM ES work?

FARM ES estimates farm-level greenhouse gas (GHG) emissions and energy intensity. It uses a [scientific, peer-reviewed model](#) based on IPCC Tier 2 methods and life cycle assessment (LCA) research. Input data includes milk production records, herd data, rations, manure management, and energy use. The results are pounds of carbon dioxide (CO₂) equivalent per pound of fat and protein corrected milk (FPCM). FPCM normalizes milk to the same scale, so that farms can track their results consistently even if milk output changes year to year. With each FARM ES evaluation, farmers and cooperatives can assess change over time, identify areas of operational improvement, and report best practices to corporate customers.



Who is interested in FARM ES results?

Dairy processors, retailers, and food service customers are making public commitments to reduce the environmental footprint of their products. These commitments include targets to reduce the GHG emissions of their entire supply chain beginning at the farm level. To meet those targets, dairy buyers are asking cooperatives and dairy processors to provide aggregated farm-level data on GHG emissions.

Cooperatives and dairy processors can use FARM ES to collect on-farm GHG emissions data in a consistent and streamlined way; helping dairy farmers and the entire dairy value chain demonstrate our commitment to environmentally-responsible production.

Why use FARM ES?

Between regulatory requirements and frequent surveys, there is a lot of pressure on farms to provide data and information. It is fair to ask why FARM ES is requesting another set of data. FARM ES is focused on reducing the burden on farmers and providing value back to the farm:

Use a Tool that Protects Privacy – Unlike other sustainability tools, FARM ES is *made by and for the dairy community*. The farm's personal information is private because that is our commitment to our dairy community. The FARM Program and the Innovation Center only use aggregated, anonymous results in public reports.



Use a Tool with a Streamlined Set of Questions – Many GHG measurement tools require a lot of detailed inputs. FARM ES, on the other hand, relies on a scientifically rigorous model to simplify the amount of information farmers need to collect, while still providing robust results.

Find Ways to Increase Efficiency and Productivity – Improving the farm’s bottom line and environmental footprint can go hand in hand. FARM ES makes that connection, for example:

- *Feed and Productivity* – Improving herd health and optimizing ration formulations are key ways to reduce GHG emissions *and* improve the farm’s bottom line. The [FARM ES Reference Manual](#) offers science-based considerations on ration formulation, forage quality and concentrate management as well as animal health, nutrition and cow comfort to achieve gains in productivity, feed efficiency, and GHG emissions intensity.



- *Energy Use* – FARM ES results show if the farm’s energy use intensity is above or below regional and national benchmarks. Are the farm’s results above the benchmarks? If so, the dairy may be missing opportunities to save money on energy bills. The [FARM ES Reference Manual](#) walks through how to select a vendor to conduct an energy audit to identify exactly what can work for that individual farm. The Manual also has energy-saving tips like keeping equipment maintained, replacing old light fixtures, and more.

Improve Internal Management Systems – Farms must gather documents and records to complete the FARM ES evaluation, for example nutrient management plans, milk production records, crop production data, and more. Collecting and reviewing all of these records in one place is a chance to think about on-farm management in a new way. It can lead to creating or improving systems to track data, which enables better management over time.

Show the Farm’s Commitment to Natural Resources – U.S. dairy farms are among the world’s most efficient at producing milk with the [lowest carbon footprint](#). At the same time, U.S. dairy farms continue to innovate by adopting new technologies and management practices. FARM ES captures these efficiency gains and helps identify opportunities to continue the path toward continuous improvement. And what’s more, **FARM ES collects information customers are asking about**. Cooperatives and processors that participate in FARM ES can share their experience in external communications. By addressing a topic that society views as an urgent natural resource risk – GHG emissions – the program helps strengthen investor confidence and maintain U.S. dairy’s leadership position in the global marketplace.

Learn more online at <https://nationaldairyfarm.com/dairy-farm-standards/environmental-stewardship/> or contact the FARM Program directly at dairyfarm@nmpf.org