# FARM ES Evolution

## Innovation Center for U.S. Dairy Board Meeting

### January 26, 2022

# FARM Environmental Stewardship today

Quantifies a dairy farm's GHG + energy use footprints and asks about the use of nutrient management plans to enable supply chain transparency and support continuous improvement

**Status**

- **2,300+** FARM ES assessments completed

- **37** FARM ES Participants (co-ops and proprietary processors) representing **80%** of milk supply

- Implemented by trained, 2nd party evaluators

- Resources to assist with implementation and continuous improvement

# Next version of FARM ES improves on strong foundation

## FARM ES Today

**1** Over 2,300 evaluations conducted; not too time-consuming

**2** Establishes baseline GHG footprint

**3** Built on cutting-edge research led by U.S. dairy, published in 2013

**4** Enables co-ops and processors to report farmgate Scope 3 emissions to customers

## Going Forward

**1** Remain easy to use; connect w/on-farm software to streamline data collection

**2** Offer environmental and economic insights to assist in decision making

**3** Incorporate new research + enable simpler future updates

**4** Facilitate goal-setting at the co-op / processor level to meet growing customer interests
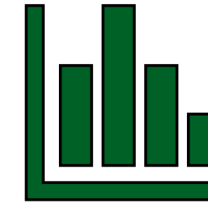
# RuFaS, a process-based model, will be the new "engine" of FARM ES Version 3 (July 2024) to provide a more robust tool

Account for physical, chemical, and biologic cycles

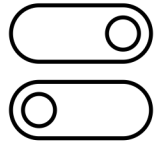Provide ability to extrapolate beyond known conditions ("what-if" scenario analysis)

Generate environmental and economic analysis of multiple management scenarios

FARM ES, as it's built today, cannot complete these more complicated calculations

# FARM ES v3 will meet producers where they are

## Toggle on/off

- Based on their available information and time, producers will be able to toggle on/off inputs (choosing to use default values or input their own data)

## 3 Levels

1. **Basic GHG accounting** – inputs similar to FARM ES today
2. **Advanced GHG accounting & scenario planning** – enter additional data for more accurate results and perform scenario analyses
3. **Environmental financing access (pending market development)** – collect/document data allowing for increased/new market opportunities

# FARM ES v3 enables processors and co-ops to better meet customer requests

| Key needs for addressing customer requests | Current FARM ES | Evolved FARM ES |
|---|---|---|
| Aggregate data for Scope 3 reporting to customers | X | X |
| Plan out potential GHG reduction strategies to contribute to customer GHG reduction goals | | X |
| Assess GHG emissions and sequestration opportunities in feed / forage production | | X |

Additionally, a tool that offers more producer-level insights will encourage greater adoption; making roll-out and customer GHG reporting easier.

# Stakeholder awareness and engagement is key

## Promote awareness through regular updates

- FARM ES Governance Channels
  - FARM ES Task Force
  - NMPF Environmental Issues Committee
  - NMPF Board of Directors
- Innovation Center for US Dairy Channels
  - IC Environmental Stewardship Committee
  - IC Stewardship Commitment Committee
  - Dairy Sustainability Alliance's Restaurant and Food Retail Working Group
  - Dairy Sustainability Alliance Webinar(s)
  - IC Board of Directors

## Solicit feedback and engagement throughout the process

- Development Phase
  - **Feedback Sessions** with farmers, evaluators, and co-op / processor staff
  - **Bi-Monthly Working Group** of farmers, evaluators, co-op / processor staff
- Pilot Phase
  - **Feedback Survey** from farmers
  - **Debrief Meeting** with evaluators and co-op / processor staff

# Additional resources available or in development today

**Environmental Stewardship Consideration and Resources Guide (*available today*)**

- A customizable checklist of opportunities to reduce the environmental footprint in the areas of manure, animal, feed, and energy management
- Organizations using the resource guide can add in information about local contacts available to support farmers in each of those management areas

**Conservation Practice Questionnaire *(Target: mid 2022)***

- Optional add-on questionnaire to FARM ES evaluation that addresses topics beyond GHGs that are of growing customer interest

**Practices and Technologies for GHG Mitigation *(Target: late 2022)***

- Select list of practices / technologies with an expected range of GHG reduction potential
- Resource useful for strategizing around GHG reduction goals; for example, helping to answer customer questions about how the supplier plans to contribute to GHG reduction targets

Timeline to FARM ES v3 launch in July 2024

| | Q1 2022 | Q2 2022 | Q3 2022 | Q4 2022 | Q1 2023 | Q2 2023 | Q3 2023 | Q4 2023 | Q1 2024 | Q2 2024 |
|---|---|---|---|---|---|---|---|---|---|---|
| Model development and testing | | | | | | | | | | |
| Develop scenario analyses | | | | | | | | | | |
| User interface development and pilot | | | | | | | | | | |

Discussion