Building Value in Baseline Sustainability Assessments
Workshop Findings

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Livestock & Poultry Environmental Learning Community

Overview

Various advisors can potentially enhance the value of sustainability assessments to swine and dairy farms. However, many advisors lack familiarity with sustainability assessments, and industry programs do not always specify *when*, *where*, and *how* advisor involvement is needed.

Introduction to Environmental Assessments

This workshop at the 2025 Waste to Worth meeting introduced two environmental sustainability assessments used in the dairy and swine sectors (**Table 1**). In the dairy sector, the Farmers Assuring Responsible Management Environmental Stewardship (**FARM ES**) assessment is a processor-mediated approach to estimating greenhouse gas and energy impacts for farms. The National Pork Board advances the Pork Cares Impact Report to quantify greenhouse gas emissions, energy use, and water use from swine farms. For Pork Cares Impact Reports, the farm assessments are mediated by a third-party evaluator.

Table 1. Comparison of common dairy and swine environmental assessments used in the U.S.

	FARM ES Program	Pork Cares Impact Report
Who requests the report	Milk processor	Farmer
Who gathers data	A FARM ES evaluator: trained representative of milk processor, certified by FARM ES program	Private consulting group (as of 2024, Eocene Environmental Group).
How are environmental impacts calculated	Evaluators run an online program with an open source Ruminant Farm Systems model (RuFaS) to generate impact estimates	Private consulting group uses internal databases and public models (e.g., COMET FARM) to generate impact estimates
How is data shared	FARM ES evaluator provides a farm-specific report to the farm owner/manager	Private consulting group provides a farm-specific report to the farm owner/manager
How is data aggregated	By farm, by milkshed, by region, national; Individual farm data is private to the farm	By farm, by state, and national; Must have enough separate integrators to ensure individual firm data is confidential. NPB only receives aggregated data.
More information	https://nationaldairyfarm.com/dairy-farm-standards/environmental-stewardship/	https://www.porkcares.org/progress/environment/
Example Reports	Example MN Small Farm FARM ES Report	Example Pork Cares State-wide Summary Report
Example Data Input	Data Collection Prep Sheet	

Advisor Roles in Environmental Assessments

Based on prior extension work, we considered advisor involvement could hypothetically span several phases of assessment (**Figure 1**). Additionally, we expected that advising could be proactive (e.g., developing programming and information resources, sharing opportunities, informing on new solutions, checking in) or reactive (e.g., on-demand consultation, troubleshooting).

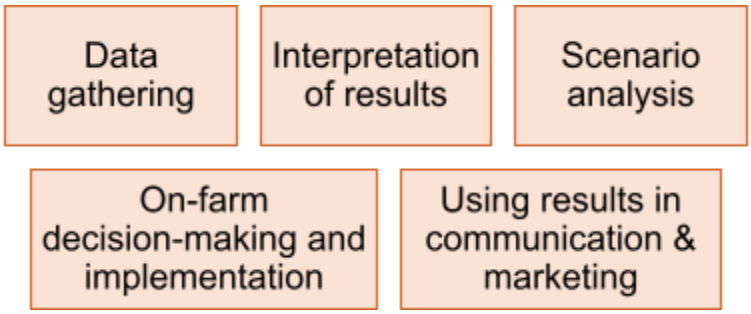

Figure 1. Phases for advisor involvement.

Participants and Procedure

We solicited feedback through a semi-structured discussion during a 100-minute workshop with n = 12 advisors at the 2025 Waste-to-Worth Conference. Most participants had no or limited familiarity with environmental assessments prior to the workshop.

Findings

Data gathering

- Providing a detailed, accurate description of farm practices can be difficult when assessment programs have limited input options, or when the farm uses highly-customized practices. There may be opportunities for advisors to assist farms in characterizing environmental impacts of highly-specialized practices.
- Evaluators and advisors should visit each site to ensure model results are a sensible and sufficiently-detailed description of the farm.
- For input data, assessment programs should provide default inputs but allow farms to modify them. Flow charts, display logic (adaptive surveys), or checklists may also be useful strategies that reduce the burden for data collection while allowing for farm-specific customization.
- Some inputs may be subject to social desirability bias (e.g., “Does this farm implement its nutrient management plan” is likely to be answered “Yes”). Compared with self-report data, third-party evaluators may improve data integrity.

Interpretation of results and scenario analysis

- Interpreting reports requires understanding of environmental impact assessment terminology and jargon. This may be a barrier for understanding and acting on reports that advisors can help overcome.
- Assessments can provide benchmarks or consultation to assist stakeholders in interpreting and acting on results. For example, the FARM ES program (V2) has provided individual farm results in relation to a regional average that serves as a benchmark for performance.

On-farm decision-making and implementation

- The report and results themselves do not necessarily prescribe actions to reduce environmental impacts. Therefore, there is a need for advisor involvement in charting next steps following an environmental assessment.

Using results in communication and marketing

- Confidentiality is important to farms. Environmental assessment programs and personnel should emphasize the intended use of the report and clarify measures that prevent the report from ending up in the wrong hands.
- Environmental assessment reports can assist farms in framing results in a holistic, positive manner. For example, the Pork Cares Impact Report highlights the cost savings and offsets of synthetic fertilizer production generated by using swine manure.
- Farmers may use the reports to gain a competitive advantage. For example, farmers bidding on crop land leases can present documentation of the soil health benefits of swine manure use from the Pork Cares Impact Report to claim advantages over synthetic fertilizer users.
- There may be value to creating different reports for different audiences. For example, the Pork Cares Impact Report features a crop-focused and barn-level report that share different aspects of environmental performance. Additionally, reports could be modified for scientific audiences vs. for public audiences by adding or removing detail, respectively.

Recommendations for Practice

Advisors care deeply about the technical accuracy of environmental assessments. However, they can be mindful that no environmental assessment is perfect, and assessments (although imperfect) can still be a valuable starting point for farms. There are opportunities for advisors to focus efforts on supporting on-farm decision-making and assisting producers in using assessment results in communication and marketing.

Industry leaders have opportunities to engage advisors in environmental assessments, potentially expanding their use and usefulness to farms. To gain advisor support, industry environmental stewardship assessment programs can offer training opportunities and guidance specific to advisors.