

# The evolution of the FARM Animal Care program: Trends, priority issues and opportunities for veterinarians

Steven Roche, MSc, PhD

ACER Consulting Limited  
Guelph, ON Canada N1G5L3

## Abstract

The FARM Program's goal is to assist U.S. dairy farmers, participating cooperatives and processors in providing assurance to dairy buyers that U.S. dairy farmers care for their animals, workforce and land in a humane and ethical manner. Over 17,000 second-party evaluations and 480 third-party verifications have been conducted on U.S. dairy farms under Version 4 of the animal care program. Though the majority of farms meet FARM standards, lack of a VCPR and herd health plan signed by the veterinarian in the past 12 months, missing/incomplete continuing education records for employees, not meeting the benchmark for broken tails, lack of pain control for disbudding, and incomplete drug treatment records are the most common corrective actions. Overall, a high percentage of herds have met animal observation benchmarks (99% knee lesions, 98% body condition, 97% locomotion, 95% hock lesions, 91% hygiene, and 85% broken tails). Veterinarians are positioned as a critical resource in this program; they are not only needed to comply with program standards and when out of compliance, have a specific opportunity to consult, advise, guide and support clients regarding the health and welfare of their herd.

**Key words:** FARM program, dairy cattle, welfare assessment, quality assurance

## The FARM Program

Established in 2009 by the National Milk Producers Federation (NMPF) and supported by Dairy Management Incorporated, the National Dairy Farmers Assuring Responsible Management (FARM) Program is the U.S. dairy industry's national quality assurance program. Consisting of program silos on antibiotic stewardship, animal care, environmental stewardship, workforce development and biosecurity, their stated goal is to assist U.S. dairy farmers, participating cooperatives, and processors in providing assurance to dairy buyers that U.S. dairy farmers care for their animals, workforce and land in a humane and ethical manner.

## FARM Animal Care

The animal care silo of the FARM program is in its fourth version, which started on January 1, 2020. Each program cycle is meant to last 3 years, at which time a new version that offers updates and refinements is implemented. Version 4 of the program was extended by 18 months due to COVID-19 and will be in place until June 30, 2024, with Version 5 beginning on July 1, 2024.

Today, 145 organizations (cooperatives/processors) representing 99% of the U.S. milk supply are participating in the program. Additionally, FARM Animal Care maintains both Professional Animal Auditor Certification Organization and International Organization for Standardization 34700:2016 certification.

The FARM Animal Care program is largely built around 3 core elements: 1) science and outcomes-based standards, 2) second-party evaluations, and 3) third-party verification.

### 1. Science and outcomes-based standards

The FARM Animal Care program sets their programs with a few key guiding principles in mind, most notably: scientific research, facility and size neutrality, and outcomes-based standards. The focus for animal care standards has been to promote and ensure strong veterinary relationships, employee training and continuing education, caring for high-risk animals (calves, non-ambulatory, euthanasia, fitness to transport), and animal-based observations. It should be noted that wherever possible, the FARM program has aligned itself with the recommendations and guidelines of the AABP and the AVMA, in effort to promote best practice from the veterinary community.

The process to develop, review and refine these standards involves a number of key steps and layers of governance, which involves farmers and veterinarians at every level:

1. The Animal Care Task Force (ACTF), consisting of farmers, veterinarians, animal scientists and cooperative/processor staff, reviews existing standards.
2. The ACTF identifies standards needing revisions due to updates in scientific literature, best management practices, and/or implementation feedback.
3. The Farmer Advisory Council, exclusively comprised of dairy farmers, provide guidance and input for consideration.
4. The ACTF proposes any changes to the NMPF Animal Health and Well-Being Committee.
5. The NMPF Animal Health and Well-Being Committee provides edits before going out for a public comment period.
6. The NMPF Animal Health and Well-Being Committee reviews feedback from the public comment period and finalizes a proposal to go forward to the NMPF Board of Directors for approval.

The FARM program has over 50 unique standards that cover topics related to veterinary oversight (e.g. veterinarian-client-patient relationship [VCPR], treatment records), facility observations (e.g. access to feed and water, lighting, ventilation, etc.), animal and facility management (e.g. herd health plan protocols), pre-weaned calf management, non-ambulatory animal management, and euthanasia. Each employee on the dairy is meant to have documented annual continuing education for one or more of the following, if they have a role in that action: euthanasia, non-ambulatory management, stockmanship, pre-weaned calf care, and fitness for transport. Documented continuing education is a key piece of evidence that can be used to demonstrate a commitment to care and proficiency

in certain areas, and improve consistency and ensure all are current on the latest expectations/practices. Animal-based observation standards also exist, including: locomotion, body condition, hygiene, injured tails and hock and knee lesions. A full overview of the Version 4 standards can be found at [www.nationaldairyfarm.com](http://www.nationaldairyfarm.com)

Failure to meet certain standards can result in required corrective actions for farms. There are 3 types of corrective actions. An immediate action plan is reserved exclusively for those that do not comply with the ban on routine tail docking. A mandatory corrective action plan (MCAP) is reserved for certain standards, such as pre-weaned calf care, that the industry wants to ensure strong adherence to across the industry. An MCAP has a maximum time for resolution of 9 months. Continuous improvement plans (CIPs) have a 3-year time frame for resolution. Failure to resolve the corrective action within the stated time frame puts the farm's milk market at risk. Program participants (cooperatives/processors) may also elect to create additional CIPs or reduce the timelines for resolving MCAPs and CIPs at their discretion.

## 2. Second-party evaluations

A second-party evaluation is an external review and assessment of on-farm animal care practices for a participating dairy farm facility based on the FARM program standards. Facilities participating in FARM Animal Care must undergo a second-party evaluation at least once every 3 years (though program participants may elect to have more frequent evaluations). These evaluations are not conducted unannounced; evaluators are positioned as resources for farmers and aim to support veterinarians, where they assist in providing resources and templates, but advocating that veterinarians are consulted to complete templates and protocols. Second-party evaluations are conducted by a trained evaluator that represents the co-op/processor that the farm ships milk to. This might be a trained staff member, or an independent that has been contracted to complete evaluations on behalf of the co-op/processor. They conduct the evaluation but can also support the farm in addressing issues found during the evaluation and resolving any overdue corrective actions.

Second-party evaluators are certified individuals who complete and pass annual in-person training, and shadow evaluations for calibration. Before attending a training course, they are required to meet minimum prerequisites including a combination of 5 years of education and/or on-dairy farm industry experience, a written application and completion of an in-depth interview. Nationwide, there are approximately 400 certified animal care evaluators; some demographics of their background experience include:

- 60% grew up on a dairy farm
- More than 75% of evaluators have more than 20 years of industry experience
- 10% are veterinarians
- 50% have a bachelor's degree
- 20% have an advanced degree (masters, PhD, DVM)

## 3. Third-party verification

All facilities that have had a second-party evaluation are subject to being selected for third-party verification. Contracted with the FARM Animal Care program, third-party verifiers conduct verifications on a representative percentage of participating facilities each year, using the same evaluation tool as the second-party evaluators. These verifiers have no relationship

with the farms and do not consult or advise on how farms can or should change to address the results of the evaluation. Farms are selected by employing a stratified random sampling approach based on a number of demographic characteristics of the facilities evaluated within the previous year. Results from third party verifications are statistically compared to second party results to evaluate consistency, offering a second layer of assessment that ensures second-party evaluators are implementing the program with integrity and in turn, that the program accomplishes its goals and objectives. It is worth noting that program participants can elect to conduct additional third-party verifications beyond what is described here.

## Version 4 results

Data from 17,177 herds that received second-party evaluations were available and included in this analysis. These evaluations were completed between January 3, 2020 to June 1, 2023. Data from 483 herds that received both second- and third-party evaluations were also included for discrepancy analysis, to assess consistency between the 2 types of assessments. In the case of animal-based observations, where a herd-level prevalence estimate is made, a gain score is calculated, among other statistics, by subtracting the third-party prevalence estimate from third-party from the second-party prevalence estimate prevalence estimate of the second party. A positive result would indicate the third party had a higher prevalence estimate, while the opposite would be true for a negative estimate. A gain score of 0 would indicate consistency. It is important to note that comparisons between second- and third-parties must be done with caution. These are 2 snapshots in time using the same evaluation tool, are conducted by different people, and often have a more than 6-month difference in time between them.

## Herd demographics

Most of the herds were located in the Midwest (47.1%; 8,096), followed by the Northeast (35.0%; 6,006), West (9.6%; 1,653), Southeast (6.0%; 1,027), and Southwest (2.3%; 395). The median (range) of the number of lactation cows on site was 74 (0 to 135,000) and was split into quartiles, where 4,417 (25.7%) had  $\leq 43$  cows, 4,205 (24.5%) had 44 to 74 cows, 4,299 (25.0%) had 75 to 210 cows, and 4,256 (24.8%) had  $\geq 210$  cows. Most farms used free-stall (45.3%; 7,783) housing for their lactating cows, followed by tie-stall (28.6%; 4,907), using pasture only (7.6%; 1,307), open or dry lot (4.6%; 786), other/mixture of multiple housing types (6.2%; 1,059), bedded pack (4.5%; 779), and stanchion (3.2%; 554). With respect to labor, the median number of family and non-family employees was 2 (0 to 47) and 0 (0 to 316), respectively. For family employees, 1 or less, 2, 3,  $\geq 4$  were found on 4,439 (25.8%), 6,069 (35.3%), 3,289 (19.2%), and 3,380 (19.7%), respectively. With respect to non-family employees, 10,437 (60.8%) had no non-family employees, whereas 6,740 (39.2%) had  $\geq 1$  non-family employees. A total of 180 different FARM participants (ranging from 1 to 1,278 farms per participant evaluated) were included in the analysis.

## Key corrective actions

The top 5 MCAPs (requiring resolution within a maximum of 9 months) exclusively relate to incomplete paperwork on the farm. More specifically, these MCAPs were issued for:

1. **Herd Health Plan:** Not having the farm's herd health plan signed by the veterinarian in the last 12 months (17% of all MCAPs)
2. **VCPR:** Not having a veterinarian-client-patient relationship form signed by the veterinarian and facility owner/manager within the last 12 months (14% of all MCAPs)
3. **Cow care agreement:** Not having all non-family employees on the farm having a signed cow care agreement in the last 12 months (6% of all MCAPs) or
- 4 & 5. **Continuing education for non-family employees:** Not having signed and documented training in stockmanship (6% of all MCAPs) or pre-weaned calf care (5% of all MCAPs) for those that have those responsibilities on the farm

The top five CIPs (requiring resolution within a maximum of 3 years) relate to incomplete paperwork, actions on the farm, and animal observations. More specifically, these CIPs were issued for:

1. **Treatment records:** Not having complete and permanent treatment records on the farm (17% of all CIPs)
- 2 & 3. **Pain mitigation for disbudding:** Not using pain control when disbudding (13% of all CIPs) and not indicating the use of pain mitigation in a disbudding protocol (10% of all CIPs)
4. **Broken tails:** Exceeding the benchmark of 5% for the prevalence of broken tails in lactating cattle (9% of all CIPs)
5. **Continuing education for family employees:** Not having signed and documented training in euthanasia (8% of all CIPs) for those who have this responsibility

## Animal observations

There are 6 key animal observation standards that establish benchmarks for dairy herds:

- 99% or more of pre-weaned calves (> 2 days old), post-weaned heifers and lactating cows observed have a body condition score of 2 or greater on FARM body condition scorecard.
- 95% or more of lactating cows observed do not have broken tails.
- 90% or more of pre-weaned calves (> 2 days old), post-weaned heifers, pre-fresh heifers/dry cows and lactating cows observed score 2 or less on the FARM hygiene scorecard.
- 95% or more of the lactating cows observed score 2 or less on the FARM knee scorecard.
- 95% or more of the lactating cows observed score 2 or less on the FARM hock scorecard.
- 95% or more of the lactating cows observed score 2 or less on the FARM locomotion scorecard.

Overall, a high percentage of herds have met animal observation benchmarks (99% knee lesions, 98% body condition, 97% locomotion, 95% hock lesions, 91% hygiene, and 85% broken tails). Evaluation agreement between second and third-party assessments was strong, with median gain scores of 0% in all areas except broken tails (gain score = +5%). A positive gain score meaning that, on average, third-party verifiers found 5% more broken tails than second-party evaluators did. Based on the broken tails finding, the FARM program retrained all evaluators; improving gain score alignment (reduced from +5% to +3%) considerably post training, and reduced to 0% in the past 3 months.

## Investigating broken tails

The FARM program considers a tail with any swelling, visible deviations in the vertebrae, and/or any evidence of necrotic tissue as broken. The current benchmark is 95% of the lactating animals scored must have unbroken tails. Roughly 15% of farms were found to not meet the benchmark, while the median herd-level prevalence estimate is 2.5%. However, as mentioned above, this is the one measure where inconsistency was found, with second-party results likely under-reporting the true prevalence (based on a +5% gain score). The adjusted prevalence estimate, based on third-party verifications, suggests that the median herd-level prevalence may be closer to 6%.

Herds with more than 1,000 cows were significantly more likely to not meet the broken tails benchmark, compared to herds below 300. The more general trend tends to indicate that prevalence increases as herd size increases. Open lot facilities were found to have significantly more broken tails than other housing types; where 39% of all open lots did not meet the benchmark, compared to 20% of free stalls (the facility type with the next highest proportion of herds not meeting the benchmark). Interestingly, the prevalence of broken tails also tends to increase as the number of non-family employees on the dairy increases; where the prevalence of breaks increases roughly 5% for every additional non-family employee added to the farm. Dairies with calves raised offsite were also significantly more likely to not meet the benchmark compared to herds that raised their calves exclusively on site.

## Investigating lameness results

The FARM Animal Care program relies on a 3-point scoring system for scoring locomotion (1 = sound, 2 = moderately lame, 3 = severely lame). The current benchmark is 95% of the lactating animals scored must score 2 or less. Roughly 3% of farms were found to not meet the benchmark, while the median herd-level prevalence estimate of severe lameness sits at 1%. The median proportion of the herd scoring a 2 for lameness was only 3%. There was strong consistency between second- and third-party evaluations for score 2 and score 3 locomotion.

Generally speaking, the scientific literature would suggest that the average within-herd prevalence of lameness (mild to severe) is around 24%. Typically, we see about two-thirds to three-fourths of the 24% is mild to moderate lameness, with the remainder being more severe cases. The results reported in the FARM data suggest lameness is being under-reported. This might be due to the fact that up to 100 animals (max) are evaluated during evaluation and the specific 100 chosen might not be representative of the entire herd, it could be evaluators are missing more subtle signs of lameness, or the fact that some evaluators score by exception, meaning they only focus on identifying animals that do not meet the current benchmark criteria (in this case, only focusing on animals that are severely lame (omitting score 2 cows), and/or it could reflect reality. The other point of note is that the research studies conducted are often more rigorous on observation, often have multiple raters and more control of the animals being scored, and may be more sensitive in their detection compared to what is more commonly observed in the field.

Free stalls were significantly more likely to not meet the benchmark compared to open lots and tie stalls. Smaller herds, with few to no employees, were significantly more likely to not meet the benchmark either.

# Investigating key standards involving veterinary oversight

## Veterinarian-Client-Patient Relationship

The majority of farms (71.1%) had a written VCPR signed and updated by the farm and the veterinarian of record that had been signed in the past year. This differed by region (highest in Southwest and lowest in Northeast), milking cow housing type (highest in open/dry lot and lowest in tie-stall), number of milking cows on site (highest on farms milking > 210 cows and lowest on farms milking < 44 cows), number of family employees (highest [73.4%] on farms with 0 to 1 employees, followed by > 3 [71.8%], 3 [71.5%], and 2 [68.8%]), number of non-family employees (76.6% on farms with 1 or more non-family employees and 67.5% on farms with no non-family employees), and FARM Participant (ranging from 0 to 100%).

## Herd health plan

The written herd health plan was reviewed annually by the VOR and the review was conducted within the past year on 67.3% of farms. This differed by region (highest in Southwest and lowest in Northeast), milking cow housing type (highest in open/dry lot and lowest in tie-stall), number of milking cows on site (highest on farms milking > 210 cows and lowest on farms milking < 44 cows), number of family employees (highest [69.5%] on farms with 0 to 1 employees, followed by 3 [68.4%], > 3 [67.3%], and 2 [65.0%]), number of non-family employees (72.4% on farms with 1 or more non-family employees and 63.9% on farms with no non-family employees), and FARM Participant (ranging from 0 to 100%).

## Treatment records

Permanent treatment records for treatment of the facility's common diseases were present on 73.9% of farms. This differed by region (highest in Southwest and lowest in Northeast), milking cow housing type (highest in open/dry lot and lowest in tie-stall), number of milking cows on site (highest on farms milking > 210 cows and lowest on farms milking 44 to 74 cows), number of family employees (highest [77.8%] on farms with 0 to 1 employees, followed by > 3 [75.8%], 3 [73.5%]), and 2 [70.2%]), number of non-family employees (81.1% on farms with 1 or more non-family employees and 69.2% on farms with no non-family employees), and FARM Participant (ranging from 0 to 100%). The majority of the farms used written records (62.5%) followed by DairyComp (11.0%) and a variety of other methods.

## Pain mitigation for disbudding

If a farm chooses to disbud their animals, they must do so within the first 8 weeks of age. These farms are also required to administer some form of pain control for this procedure. There is no prescriptive requirement at this time for the method of disbudding or what form of pain management is used. About 8% of farms did not meet the standard for performing the practice within 8 weeks. This is an MCAP. In most cases, for both the action and the standard. About 21% of farms did not meet the standard for provision of pain mitigation. This is a CIP. In most cases, for both the action and the standard. This differed by milk cow housing (highest in other and lowest in tie-stall), number of milking cows on site (highest on farms milking > 210 cows and lowest on farms milking 44 to 74 cows), number of family employees (highest [81.2%] on farms with 0 to 1 employees, followed by > 3 [79.0%], 2 [77.5%], and 3 [77.3%]), number of

non-family employees (80.0% on farms with 1 or more non-family employees and 77.8% on farms with 0 non-family employees), and FARM Participant (ranging from 0 to 100%).

AABP guidelines suggest that a local anesthetic and an NSAID to be the ideal pain management protocol for disbudding. However, only 6% reported following this practice. Fifty percent reported the use of local only, while 35% reported the use of an NSAID only.

## What's coming in Version 5

The FARM Animal Care Program website has a dedicated webpage (<https://nationaldairyfarm.com/dairy-farm-standards/animal-care/animal-care-version-5-development/>) that describes the development process, current status, and relevant details of Version 5. Early in Version 5 development, a series of focus groups with farmers, veterinarians, researchers and co-op/processor representatives clearly pointed to a desire for Version 5 to offer tweaks and refinements to Version 4; opposed to wholesale changes. These sentiments were reinforced in a national industry survey.

After more than a year of deliberation between the ACTF and other layers of NMPF governance, a series of recommended changes have been accepted for implementation on July 1, 2024 as part of Version 5. An entire list of changes can be found online at [www.nationaldairyfarm.com](http://www.nationaldairyfarm.com). The more significant changes are as follows:

**Locomotion:** A benchmark for moderate lameness (score 2) of 15% will be established, that will result in a CIP (requiring resolution within a maximum of 3 years) if not met.

**Disbudding:** The corrective action for not providing pain management for disbudding will change from a CIP to an MCAP (requiring resolution within a maximum of 9 months). Farmers will also only be permitted to use caustic paste and/or cautery to disbud calves.

**Colostrum feeding:** Farmers will be allowed to provide evidence of successful transfer of passive immunity if they choose to collect this information. If not, a facility's colostrum management will be evaluated by determining if they meet the quantity (approximately 10% of birth weight), quality (refractometer, visual, colostrometer, etc.) and timeliness (within 6 hours) guidelines.

**Continuing education:** The corrective action for family employees not having annual CE completed in the areas that they have responsibilities for will change from a CIP to an MCAP (requiring resolution within a maximum of 9 months). This will then be in line with the corrective actions applied if non-family employees do not meet the same standards.

**Euthanasia:** Farmers will be asked to identify both a primary and secondary person (or service provider) to perform euthanasia on the farm. If an off-farm service provider or individual is responsible for euthanasia (e.g. a veterinarian), the farm must have at least one staff member trained in euthanasia, in the event that the primary option is unavailable to perform it promptly. Farm euthanasia protocols must also clearly indicate that they confirm death as part of the euthanasia process, per AABP and AVMA guidelines.

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**Program implementation:** A process will be put in place that flags evaluation results if they have exceeded animal observation benchmarks significantly. Those facilities found to have one or more measures (e.g. severe lameness, emaciation, etc.) that are in the 95<sup>th</sup> percentile for prevalence (i.e. some of the highest levels of severe outcomes in the country) will be automatically required to have a discussion with FARM staff regarding the situation and the planned actions to address the situation.

## Opportunities to support your clients

The FARM program should be viewed as an opportunity by practitioners. Veterinarians are being positioned in this program as a critical resource. A signed VCPR and herd health plan is required annually. The importance of a valid and current VCPR should not be underestimated; this is not only important to ensure farmers have access to medications, guidance and veterinary services when needed, it is also a cornerstone of quality assurance. Dairy customers and the broader public put a great deal of trust in veterinarians; demonstrating U.S. dairy farms have veterinary oversight is part of the credible foundation for assuring that dairy animals are well cared for. The rationale for requiring annual review of the herd health plan is to help give veterinarians the chance to have input into animal care and drive a conversation about standards of care with their clients. Simply put, it offers a specific opportunity to consult, advise, guide and support clients regarding the health and welfare of their herd.

Permanent and detailed treatment records are also required. Farmers must have protocols for treatment and prevention of specific diseases and conditions, management of calves, non-ambulatory management and euthanasia. Veterinarians are once again positioned well to offer guidance and support on how to write and implement effective protocols.

When farmers do receive corrective actions for being out of compliance with a given standard, they need support on how to address those issues. In the case of not meeting animal-based observations standards, they are going to need help. From improved lameness prevention and treatment, to conducting root cause analyses to explore where tails may be getting injured on the farm. All of these are within the wheelhouse of veterinarians. This is an opportunity to not just practice “fire-engine medicine” or focus on the reproductive aspects of herd health. This is an opportunity for consultative practice, and to help foster continuous improvement.

Lastly, second-party evaluators are telling us their farmers sometimes have a hard time getting the veterinarian engaged. Your clients need your support; failure to have and maintain veterinary support (as evidenced through signed records and completed protocols), and to align farm practices with AABP guidelines, puts them at risk of losing their milk market. Beyond farmers themselves, many second-party evaluators are looking for ways to engage with you and to collectively support your client. If you are keen to learn more about the FARM program and/or to engage with evaluators in your local area, don't hesitate to reach out to the FARM program. Remember, you are being directly positioned as a resource that producers must access and rely on to comply with this program, and many facets of this program result in corrective actions that you are uniquely positioned to advise and support on. Take advantage of this!

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