CDQAP Quality Assurance Update - September 2021

Harvest Samples with the Harvest Moon

By Deanne Meyer, Ph.D., Livestock Waste Management Specialist, UC Davis, Department of Animal Science, UC ANR

Choppers are going full throttle. That means it's time to record harvested forage weights and sample forages from each field where manure was applied. These records and sample results determine how many pounds of nutrients, specifically nitrogen, were removed from each field. Obtaining a representative sample is essential to determine your field nutrient balances.

Use a consultant? Have a conversation with the individual doing the sampling. Understand how your samples are taken. Then, determine if you want the process to change, since good sampling is essential to nutrient management and critical to achieving accurate nutrient balances. Multiple grab samples taken throughout the day will contribute to a more representative composite sample. Each grab sample should be stored in a cool place, out of sunlight. A composite sample is made by mixing all the grab samples and quartering the mass until the desired sample size is achieved.

Weigh all trucks. That's the first big step for your precise data. Next, collect a representative sample from each field. That means grabbing multiple handfuls of chopped forage from many trucks.

Once corn, sorghum, or sudan is removed, then it's time for solid manure to be applied to fields. As with forages, the quantity (weight) of manure applied to each field is required. Sampling is also required. Multiple sources of solid manure may exist on your facility. Check your Sampling and Analysis Plan to refresh your memory on the sources of manure to sample (lactating cow corral solids, heifer corral solids, separator solids, etc.). As with forages, multiple grab samples are needed (10 or 20) to collect material for the composite sample.

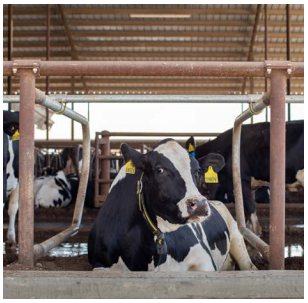
As you know, dried manures vary tremendously from the outside 18 inches to deeper than 18 inches. That's why so many grab samples are needed to represent what is applied. Pay particular attention to obtaining most of the samples (70 to 80%) from the inside of piles. Keeping good records of harvested forage and manure application weights makes it easier and more precise to track your nutrient management information. All sample data are used along with weight data to determine total nitrogen applied to and removed from each field.

May the cooler days ahead come with rain!

FARM Animal Care Evaluations Are Resuming

Here's what California producers can expect...

By Dr. Michael Payne, UC Davis, School of Veterinary Medicine and Director, CDQAP



Every three years the National Dairy FARM Animal Care Program checks in with California producers (via local cooperative/processor staff), opening discussions on how to maximize cow comfort. Not surprisingly, 2020 – 2021 saw program evaluations reduced because of COVID, but beginning this fall the program is back up to full steam. While curtailed in the first two quarters of 2021, processor and other industry evaluators still completed more than 5,000 FARM visits, giving us a good idea of what the most common challenges were.

A review of FARM visits conducted in the first half of 2021 revealed that the vast majority of needed improvements had nothing to do with substandard care, abuse or neglect. Instead, the most common areas needing attention simply related to documentation. Putting it another way, cows were being treated and employees were being trained, but there were sometimes gaps in how these practices were documented.

Areas to Focus On

Following any FARM Animal Care Evaluation, action items are typically classified as either a Mandatory Corrective Action Plan (MCAP) or a Continuous Improvement Plan (CIP). MCAPs should be completed in nine months following the evaluation, while the CIPs need to be addressed within three years. Tabulated from farm visits across the country, here's some of the most common issues reported back from evaluators:

- Roughly 18% of farms hadn't reviewed and documented changes to their written Herd Health Plan, with their herd veterinarian.
- About 17% of herds were still using grease-boards or other non-permanent treatment records.

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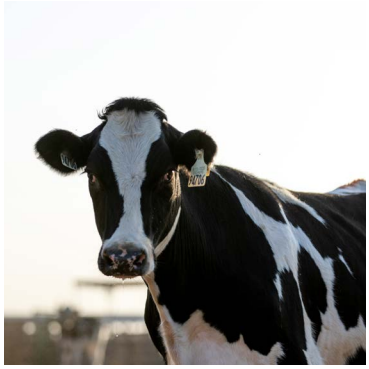
FARM Animal Care Evaluations Are Resuming *continued*



- About 15% of farms hadn't documented the newly required annual euthanasia training for family employees.
- About 14% of farms hadn't had their herd veterinarians re-sign their annual Veterinary Client Patient Relationship (VCPR) form.
- About 12% of farms hadn't developed the newly required pain management program for disbudding with their herd veterinarian.
- Roughly 5% of farms hadn't documented annual stockmanship training for general employees or annual specialty training for calf raisers.
- About 5% of farms didn't have current signatures for employee's Cattle Care Ethics Agreement.

Importantly, on average about 80% of all correction actions needed were related to documentation, protocols, and training requirements. Again, this didn't indicate a lack of veterinary involvement or continuous employee training, but rather gaps in the paperwork documenting those practices.

Potential Solutions
A review of the latest farm visit reports offers some insight to how producers can head off problems in advance.

Herd Health Plan – By far the most common challenge seen during FARM visits was the annual review and signing of the farm's Herd Health Plan with the herd veterinarian. Producers' and vets' schedules are hectic so, it may be helpful scheduling a specific time when both will be on the farm, such as after a routine herd check. During the same meeting, vets can also sign the farm's VCPR. This is also a good time for producers to make sure that all employees have signed the farm's Cattle Care Ethics Agreement.

Non-Ambulatory Cows – Downer cows are a medical emergency. Muscle and nerve damage begin almost immediately in the compressed, down limbs. Even cows with treatable conditions, such as hypocalcemia, ketosis, or difficult calving, have less than a 50% chance of walking again if left on hard concrete for more than three hours. Because knowing how to gently and safely move a recumbent cow is beyond the skill level of an average employee, it's important to have several experienced, trained persons available to take charge of downer treatment. Excellent information on management and movement of non-ambulatory animals, complete with illustrations, can be found in Chapter Eight of the FARM Reference Manual. A template protocol for non-ambulatory cows is available. As described on CDQAP's webpage, Economics and the Non-Ambulatory Cow, involuntary culling of a downer cow may cost producers between $1,200 and $2,000, not counting failed treatment and labor costs.

Euthanasia – Similar to non-ambulatory cows, there is typically only one person trained and authorized to perform humane euthanasia on a farm. On those rare occasions when emergency euthanasia is warranted, if that person is away from the farm, it becomes difficult to provide timely euthanasia. An excellent review of euthanasia criteria and methods can be found in Chapter Nine of the FARM Reference Manual. Because of employee safety concerns, it's important that the farm's euthanasia protocol be reviewed annually with anyone involved. For California producers who choose to have veterinarians euthanize livestock with barbiturate, it's essential that the animal be marked with an orange "B" on their forehead and ensure that the carcass not be sent to rendering.

Stockmanship Training – The FARM program requires that all employees handling animals receive re-training annually. Solely from an economic standpoint, it's good to regularly remind ourselves that rough handling can have production consequences. Studies have reported that rough handling of cows can reduce milk yield by as much as 10%, increase retained milk by 70%, and reduce conception by 14%. CDQAP partnered with NMPF and CCA to collect references on how stockmanship training can improve your bottom line. CDQAP has also developed an example Stockmanship Training Drill that included a teaching outline and talking points.

Pain Relief for Disbudding – The latest version of the FARM program has a new requirement, to provide pain relief when disbudding horn buds by either hot iron or caustic paste. As described in a review by CDQAP of farms that have implemented pain relief programs, they are most often choosing to use nerve blocks and/or use of the oral human pain relief drug, meloxicam. CDQAP developed a comprehensive Dehorning and Economics webpage, which links to articles and videos that describe how to set up a program with your herd veterinarian.

Third-Party Validation
In order to reassure processor customers and demonstrate program integrity, FARM also performs third-party evaluations on a random sample of processor-inspected farms. The focus of these follow-up evaluations is not on the dairy, but rather to ensure that processor staff are performing evaluations consistently from one farm to the next. Every six months, the program schedules about 100 farms for re-evaluation by the third party, meaning that every one to two years a local processor evaluator can expect one of his farms to be seen and audited by a third party. The company performing these audits is Food Safety Net Services.