

# A veterinarian's role in creating more days with 0% lameness

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## Abstract

There is an opportunity for veterinarians to get involved in foot health management as part of a team of dairy industry stakeholders. As veterinarians, this requires acknowledging that we might not be the most knowledgeable stakeholders on the team. Given the complexity of lameness and the variety of stakeholders involved, this also means we, as veterinarians, will need to become skilled at understanding communication strategies and behavior change paradigms. When our increased knowledge about lameness and communication is combined with the typical performance medicine veterinarian's skill sets in records analysis, protocols and training of employees, foot health management should be seen as a key opportunity to increase involvement on our clients' dairies. Over time, this will result in more days with zero lame cows and improved welfare of cows.

**Key words:** lameness, communication, barriers

## Introduction

As the dairy industry evolves, the role of the veterinarian continues to change with it. Traditionally, veterinarians have training in many basic and advanced clinical skills, yet these types of veterinary tasks are increasingly being performed by on-farm staff. As a veterinary profession, we have reacted to this shift by providing more consultative services. To provide these services successfully, Nordlund described several characteristics of successful veterinarians.<sup>8</sup> According to Nordlund, successful veterinarians have intricate knowledge of herd data and, instead of having all the answers, position themselves as part of the management team so they can play a significant role in evaluating and implementing outside advice.<sup>8</sup> Not surprisingly, veterinarians have gravitated towards providing services in areas that they have both interest and sufficient clinical skills. Typically, these areas of interest have included treatment and reproductive protocols, nutritional and feeding management, young stock management and milking management, to name a few. Veterinarians are not alone in providing consultative services in these areas, as there are many other stakeholders that provide similar, competing services. One area that has received very little attention from practicing veterinarians and has fewer competing stakeholders is foot health management. This lack of attention is somewhat surprising as lameness is a painful, costly disorder that affects the productivity of cows through its effect on milk production, culling and reproductive performance.<sup>1,2,5</sup> In addition, lameness is a major animal welfare concern as it is prevalent and highly visible to the consumer.<sup>7,12</sup> As such, farmers also expect veterinarians to broach animal welfare topics on their farms in a similar fashion to how they approach other perceived problem areas on farms.<sup>6,14</sup> As a complement to specific advice given in earlier AABP conference papers the objective of this paper is to highlight current barriers to and opportunities for veterinary involvement in improving on-farm foot health management.<sup>3,4</sup>

## Barriers to involvement

From an individual animal and technical skill perspective, barriers that preclude more veterinary involvement in foot health management include a lack of knowledge and access to appropriate and safe equipment. Even though there is a lack of knowledge about effective trimming and treatment strategies,<sup>9</sup> this is changing rapidly as the amount and breadth of available research increases. Furthermore, a variety of online resources exists, such as <https://thedairylandinitiative.vetmed.wisc.edu/home/lifestep-lameness-module/> and <https://dairyknow.umn.edu/topics/lameness/>. These resources will not give the veterinarian the necessary technical skills to be as proficient as a professional hoof trimmer, but will give them an increased knowledge base.

The present lack of hoof health management knowledge by veterinarians impacts the farmers' reliance on veterinarians as a source of lameness knowledge, with a recent qualitative study demonstrating that farmers turn to hoof trimmers – not veterinarians – for lameness support.<sup>14</sup> This same study also illustrates that there is, at times, an adversarial and skeptical relationship between hoof trimmers and veterinarians. This leads to both parties questioning the other's knowledge base and intentions. Whilst in this study both sides expressed a desire to work together, doubts were expressed about the effectiveness of such a partnership and how differing personalities would react to other stakeholders asking questions about their areas of expertise.

If one adds to this perceived or real lack of knowledge the fact that lameness is a complex and multifactorial problem, the task of providing simple and practical consultative advice becomes difficult. Among farmers, this complexity can lead to the normalization of lameness and a feeling that it is inevitable.<sup>14</sup> This further complicates the ability of veterinarians and other stakeholders to get involved and requires specialized communication techniques such as motivational interviewing and awareness of socio-psychological factors and constructs such as the health belief model and theory of planned behaviour.<sup>10,11</sup> The use of these communication techniques in a team-based approach involving hoof trimmers, nutritionists, farm staff and veterinarians is likely to result in more sustained change.<sup>13</sup>

## Opportunities

In the previous proceedings, the details on how veterinarians can get involved at a technical level in detecting and treating lame cows and in routine hoof trimming were discussed. As a veterinarian, gaining these skills is difficult. However, veterinary involvement in areas such as problem identification, monitoring and training is more easily achieved. Farmers are increasingly seeking out – if not expecting – veterinarians who can aid in these areas on-farm and see the fulfillment of these more novel services as additional value that veterinarians can bring.<sup>6,14</sup>

The specifics of setting up a recording system for lameness monitoring can be found in the previous proceedings or online at <https://z.umn.edu/lamenessmanager>. Having data to make decisions related to hoof health is paramount to the evaluation of current preventive practices and in the implementation of new ones, such as strategic trimming programs or changes in footbath programs. Given current developments in both the dairy management and hoof health software industries, communication between these programs is now possible. Veterinarians are ideally suited to take advantage of these technological developments due to their existing knowledge of how to approach record analysis from other areas of the dairy.

Having a functional monitoring program starts with having quality data collected by either in-house hoof trimmers or professional hoof trimmers. This requires veterinarians to have an ongoing relationship with these stakeholders. If a dairy is using in-house hoof trimmers, the greatest opportunity for veterinarians to get involved in hoof health is for them to provide training and monitoring programs for on-farm staff. There is a significant need for veterinarians to get involved in the training of staff, especially considering the turnover of employees and the paucity of follow-up monitoring and, if needed, retraining after the completion of the initial training programs. Whilst most veterinarians might not have the detailed technical expertise to be a hoof trimming trainer, they can be the eyes and ears for people providing the initial training and provide follow-up advice and feedback to both the trainee and trainer. To do this, the veterinarian would attend the training session alongside the farm staff to gain the basic knowledge and to know exactly what the expectation that has been set is.

For dairies using professional hoof trimmers, the opportunity for veterinary involvement is different, but still needed. However, as previously discussed as a barrier to veterinarian involvement in foot health management, this relationship can be tenuous at times, with much of this uncertainty rooted in a lack of communication with the other party and a lack of understanding regarding their approaches and intentions. An example of how this can be addressed comes from a recent study in which hoof trimmers, veterinarians and nutritionists were encouraged to hold on-farm team meetings after having participated in a half-day workshop and provided a risk assessment, communication between parties was found to improve – especially between hoof trimmers and veterinarians.<sup>13</sup> From this it is clear that veterinarians should have an ongoing relationship with all professional hoof trimmers servicing their clients. This relationship should include more than just a brief visit to the trim chute or the referring of lameness cases. The sharing of relevant reports and data would allow the delivery of a more cohesive and aligned message to the farm from all stakeholders.

## Case example

To illustrate how these opportunities can be implemented by veterinarians, the following example might be helpful. On a recent herd check, the herds person asked you about an article they read that discussed strategic hoof trimming instead of blanket hoof trimming every cow twice per lactation. Mindful of both your lack of expertise in lameness and your role as a trusted advisor on this farm, you suggest setting up a meeting with the professional hoof trimmer to discuss this further. The farm agrees and is willing to pay both you and the hoof trimmer for the meeting time.

During the meeting you are surprised to learn that the hoof trimmer uses an electronic lesion recording software program. You are surprised as you are well versed in the dairy's herd management software and know that no lameness data is entered in it. Currently, the farm uses the paper printouts to look for recheck cows just before the next hoof trimming visit, but makes no other decisions based on this data. The hoof trimmer has a general impression about the level of lesions on the farm and uses the data to flag repeat offenders and guide their therapies. Given the data that the hoof trimmer has, you ask for 2-3 years' worth of data to look at some trends. After running some basic descriptive stats and graphs, you share with the hoof trimmer that, on this farm, it is mainly 3rd lactation cows that get lesions and that most of these lesions are identified at the time of a cow's mid-lactation or dry-off hoof trimming. You were also able to determine that almost half of the cows with lesions in the 3rd lactation had a history of lesions. This confirms the hoof trimmer's suspicions as, in his mind, the farm has too many cows that present with advanced hoof lesion cases that they struggle to cure.

Together, you and the hoof trimmer decide that another farm meeting is warranted and this time it should involve the nutritionist and some key farm staff. During this meeting, after you and the hoof trimmer share the data, the herds person states that, based on the information presented, the farm should stop hoof trimming at mid-lactation in 1st and 2nd lactation cows, as those cows do not get lesions. Both the hoof trimmer and nutritionist are hesitant of this approach, but you feel it might have some merit. As the discussion proceeds, it becomes clear that the farm has no real mechanism for lame cow detection or tracking cows in need of hoof trimming. Both the nutritionist and hoof trimmers were aware of this and feel that this precludes making changes to the blanket hoof trimming program. Given that you, as the veterinarian, are on the farm on a weekly basis, you suggest that you would be willing to work with key farm staff to train them on lame cow detection and set up the dairy management software program to automatically enter the hoof trimmer's lesion data and create lists of cows in need of trimming.

The farm agrees to this approach and, after a year passes, you re-evaluate the data and notice that the number of cows that have lesions no longer peaks at the time of the mid-lactation hoof trimming. Upon sharing this data with the hoof trimmer, they agree that things seem to have improved and cows seem to cure better since the last meeting. They are still reluctant to change the hoof trimming program, as they have some concern about losing income and believe the reason that the 1st and 2nd lactation cows have fewer lesions is because of the mid-lactation hoof trimming.

You arrange another farm meeting with the hoof trimmer, nutritionist, and key farm personnel. You share the positive changes in the data and congratulate the farm personnel on their efforts. With the new information, the herd person feels more empowered to try a strategic hoof trimming program and only the hoof trimmer remains skeptical. The hoof trimmer's main concern is the fear of creating more lame cows due to the lack of preventative trimming at mid-lactation. Acknowledging this risk, you wonder if it would make sense to start doing this in 1st lactation animals only. The hoof trimmer agrees that this might be a good way to test strategic trimming. They also suggest that it might make sense to hoof trim cows with a history of lesions more frequently to reduce the number of cows that become lame. You quickly check the data and see that cows in 3rd

lactation with a history of lesions seem to show up lame 100-120 days after their last trimming. Armed with this new information and with the team's agreement, the farm decides to implement a new trimming program where they only hoof trim 1st lactation animals at dry-off, hoof trim any cow with history of lesions every 90 days and hoof trim 2nd and 3rd lactation cows at mid-lactation and dry-off. They request that you continue to work with their staff on identifying lame cows to ensure newly lame cows are quickly identified and treated. The team agrees to fully evaluate the program in 12 months with both you and the hoof trimmer tasked to do an intermediate evaluation in 6 months.

## Conclusion

There is a huge opportunity for veterinarians to get involved in foot health management as part of a team of stakeholders. As veterinarians, this requires acknowledging that we might not be the most knowledgeable stakeholder on the team. Yet, this does not preclude our involvement and given the typical performance medicine veterinarian's skill sets in records analysis, protocols, and training of employees, these areas should be seen as key opportunities to increase involvement on clients' dairies. Over time, this will result in more days with zero lame cows and improved welfare of cows.

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