

Becoming indispensable by making what really matters what really matters

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Abstract

In the name of being good service providers, many food animal practitioners focus mainly on the tasks they are asked to perform by a client. Meanwhile, many things occur on cattle operations that can adversely affect animal welfare and productivity, but the producer fails to recognize their importance or the possibility that the veterinarian could help improve them. Such problems can be overlooked by the veterinarian because the veterinarian is not asked to intervene. A pathway to becoming indispensable is to identify and improve such issues, working as a collaborator on the operation rather than simply as a service provider, striving for optimal animal health and productivity. Examples include evaluating and assuring animal welfare, evaluating why cows fail as a means to prevent failure, and educating to improve worker performance. Working on these issues may require using other methods to accomplish the technical tasks and changing the focus of the veterinarian. This presentation will discuss some of the urgent needs for veterinary attention in cattle production and ways to get them done, which in turn make the veterinarian indispensable.

Key words: paraprofessionals, vet technicians, practice management

Résumé

Se considérant comme des fournisseurs de bons services, plusieurs praticiens vétérinaires mettent seulement l'accent sur les tâches que le client demande. Toutefois, plusieurs choses dans un élevage bovin peuvent avoir un impact négatif sur le bien-être et la productivité sans que le producteur reconnaisse leur importance ni la possibilité que le vétérinaire puisse aider à les changer. De tels problèmes peuvent être négligés par le vétérinaire car on ne lui demande pas d'intervenir. Une piste pour se rendre indispensable commence par l'identification et l'amélioration de tels problèmes en travaillant comme un collaborateur de l'élevage plutôt que comme un fournisseur de services dans l'optique d'optimiser la santé et la productivité. Cela inclus par exemple l'évaluation et le maintien du bien-être, l'évaluation de l'échec de certaines vaches et comment y remédier et la formation pour améliorer le rendement des travailleurs. Travailler sur ses questions peut nécessiter l'adoption de méthodes alternatives pour accomplir les tâches techniques et un changement

dans l'optique du vétérinaire. Cette présentation discutera de certains des besoins les plus criants nécessitant l'attention des vétérinaires en élevage bovin et des façons d'y répondre pour faire en sorte que le vétérinaire soit indispensable.

Introduction

Becoming indispensable is a noble idea that should motivate any of us in both our personal and professional activities. We should all aspire to be key contributors whose activities and accomplishments are critically important to our families, friends, colleagues, and clients. Within the field of bovine veterinary practice there are almost countless ways we can positively influence cattle health and well-being, which in turn also improve animal productivity and producer well-being. In order to do this, we need to think about what factors significantly influence cattle health and welfare. Then we need to make what really matters, what really matters.

Over many years of teaching veterinary students and working with producers and veterinarians, I am struck by how focused many people are to learn techniques and procedures. In the historical model of bovine practice there has been great emphasis on how to diagnose and to treat animal diseases and physiological conditions. These would include the methods of reproductive evaluation, disease diagnosis and treatment and medical and surgical procedures. Indeed, these are very important skills, and they are classically the purview of the veterinarian. In this historical model the notion is that the animal owners know that they need help, call the veterinarian, and the veterinarian determines the animal condition and fixes the problem. This is a classical service model and it works well and is very rewarding to the owner and the service provider in certain situations, not unlike being a plumber or an auto mechanic.

However, this service model also has several liabilities. If the service requested is relatively straightforward, such as reproductive evaluation, and can be performed by a well-trained person, then the veterinarian can be replaced by a farm worker. Alternatively, a new technology may perform the same function. In these cases the only question is whether the outcome is satisfactory from the owner's point of view, because typically it will be less costly.

An additional concern is that many of the procedures and tasks performed by veterinarians involve fixing a problem. Therefore, by definition, the problem has already occurred, animal health and welfare are already compromised,

and the best outcome to be expected is to minimize the loss. Depending on the cost of intervention, and its likelihood of success, it may actually increase the loss. Consider for example, a down cow that is eventually euthanized following veterinary treatment. In virtually all of medicine, the old adage stands that an ounce of prevention is worth a pound of cure.

The biggest problem with the traditional veterinary service model is that it assumes the producer knows what help is needed and knows the veterinarian can provide that help. This is certainly true when an animal is sick and needs diagnosis and treatment. It is true when a producer needs to know reproductive status. However, there are many areas of cattle welfare that for numerous reasons are difficult for a producer to see. For example, can a producer know what causes cow death loss and understand whether those deaths were indicative of a problem that is also affecting cow health and welfare in non-lethal ways? Many aspects of animal health and well-being are not immediately obvious to a producer, but very important to the animals and their welfare and productivity.

What Makes a Veterinarian Indispensable?

I believe that bovine veterinarians are not indispensable simply because of their skills and techniques. These can be taught and performed by other service providers, even when the veterinarian or a technician working with the veterinary practice might be able to do the best job. Rather, the veterinarian is indispensable because of the educational background and knowledge base that they can use to explore aspects of animal health and welfare that the producer cannot otherwise see. In other words, finding features of animal care and management that really make a difference to the animals, helping the producer see them, collaborating on processes and management that can improve animal welfare, and then implementing these preventive measures to assure optimum animal welfare.

Numerous potential veterinary services are currently pursued only marginally in most bovine practices. There are reasons that veterinarians have not typically made these activities part of their routine practice. Many practitioners presume that producers won't pay for these services. It is certainly true that producers will be reluctant to pay for a service that does not seem beneficial. In a nutshell, this is exactly the problem with a service model that requires that the producer has to identify the problem first. I will suggest that veterinary investigation can demonstrate problems to producers that they could not see independently, which is exactly what makes the veterinarian indispensable.

A second problem is that veterinarians are already very busy with the service demands the producer can readily identify. I believe this underscores an important problem faced by many bovine practices. Namely, that we spend too much time doing the things we are asked to do and have difficulty finding time to do what needs to be done. To solve that

problem, I believe we need to rethink the common bovine practice business model.

Animal Welfare

Animal welfare has become an area of high concern on livestock operations. It's unfortunate that welfare concerns have become one of the polarizing issues in our society. I find it very understandable that dairy and beef producers can be defensive and antagonized by some of the public discourse that surrounds livestock production. But I also believe that bovine veterinarians have a key role to play in helping producers deal with welfare concerns. Rather than shying away from welfare discussions with producers, a trusted veterinarian is in the perfect position to help.

Animal health issues figure prominently in any discussion of cattle welfare, because health and welfare are intimately associated. Examples can easily be found in rates of dystocia, stillbirth, calf death loss, lameness, down cows, and adult cow death losses. This being true, it seems obvious that veterinarians are well positioned to positively impact cattle welfare via their role as health care providers and consultants. Veterinarians have opportunities to investigate health events and evaluate the impact of nutrition and housing management on animal well-being. Veterinarians can establish treatment and culling protocols, educate workers in animal handling and treatment procedures, and provide producers and managers with objective assessments of current welfare status plus goals and methods for improvement.

It is easy to identify numerous challenges to cattle well-being. Some of these occur in any cattle production enterprise. Examples would include the following challenges to good animal management:

- Concerns about pain management associated with surgical procedures such as castration and dehorning
- Design and management of restraint and movement facilities such as chutes and alleyways that both facilitate handling and promote safety
- Animal handling methods that promote safety and health
- Transportation methods that minimize trauma and stress
- Housing and management that minimize environmental challenges such as heat or cold stress.

Other welfare concerns can become more prominent as operations grow in size and complexity and as production systems become more intensive. Some examples of such concerns in the dairy industry include:¹

- Cow comfort, exercise, and housing design in confinement housing structures
- Management of downer cows
- High rates of infectious diseases such as salmonellosis, Johne's disease, neonatal enteric infections
- Calf management issues such as colostrum administration, neonatal care, preweaned calf housing, calf

- feeding, and nutrition
- Bull calf management issues
- Birthing and calf delivery issues with high rates of dystocia and stillbirth
- High rates of forced culling due to disease and trauma
- Increasing mortality rates of adult cows

How many bovine veterinarians make it a primary focus of their work to assure that their clients are well appraised of welfare issues on their operation and taking steps to improve them? How many veterinarians are actively involved in evaluating cull cows before shipment as a window into why cows leave the dairy and a means to improve cow failure rates or assure cows going to slaughter are high quality? How many veterinarians can say that all the workers on an operation are educated on methods of animal handling, down cow management, appropriate euthanasia or for mitigating painful procedures?

Death Loss Analysis

Adult cow death loss is an issue that should be very important to producers and veterinarians, but historically the careful tracking of causes of mortality on dairies has not been a high priority. This makes sense when losses are very infrequent and appear to have little to do with the health of the remaining herd. For a herd where 5 to 10% of standing inventory is lost to death each year, accepting death losses as inevitable no longer makes sense. It's important to recognize that if a cow dies or is euthanized due to a problem that could have been better managed, there are risks for other cows in the herd to face similar problems. Uncovering the nature of those risks is important for optimizing cow health. The first step for evaluating the impact of death losses on an individual dairy is to look closely at overall death losses and determine if they are high or low.

For adult dairy cows, there is no single predominant life-threatening disease. On an individual dairy, there are times when a unique problem manifests and may lead to a series of illnesses and deaths. Beyond such episodes, however, there is no simple explanation of cow losses. Our studies show that it is relatively easy to find 30 or more different causes of death on dairies. Reviewing on-farm records, most producers list at least 8 to 10 and up to 20 different causes of death.⁶

Almost all record entries are performed by farm personnel with little or no veterinary input. We have been interested in causes of on-farm cow death for some time now and have compared veterinary assessment vs producer-attributed cause of death. Not surprisingly, we find that producer records are only accurate about half of the time. This is most likely because cause of death can be complicated and is hard to assess without a real investigation.

We have constructed a paradigm for assessing mortalities that can help define underlying reasons for poor cow outcomes, and identify management improvements that benefit cow health. The first step is tracking mortalities

and increasing awareness of their impact. Second is more carefully investigating cause of death, commonly, but not always including necropsy. Third is rationalizing the reasons that proximate cause of death occurred, such as transition cow management problems, or poor disease recognition or treatment, or poor maternity and dystocia management. And fourth is tracking causes of death and addressing management deficiencies that contributed to the loss.²⁻⁵

Worker Education

In many cases it is not the owner who identifies and manages individual animals. Increasingly cattle are handled and managed by employees. In turn, these employees frequently do not have the same background, training, or perceptions of the owner. Even family members will often fit this description. In such circumstances it is easy for producers to believe that observations are made, and actions are taken as they would personally do them. In reality it is not the case.

For any animal health or management issue we can derive information from statistics that describe the population. But individual animals make up the population, individual animals are affected, and individual animals require care. There is a profound influence on the animals that comes from the people who actually provide their care. One of the most important challenges to improving animal welfare in cattle operations relates to the problem of dealing with individual animal welfare on operations of increasing size. On smaller operations it is equally important that the animal caregivers are prepared for their tasks.

For routine animal care procedures such as colostrum administration, calf feeding, calf dehorning or castration, or animal movement on or off the operation, there are methods that specifically enhance animal well-being and maintain good health, or improper methods that diminish animal welfare. Some reasons that substandard practices are commonly employed include lack of knowledge or tools to deal with the problems, lack of recognition that a problem exists, and perceived conflicts between economic constraints and ideal management practices.

Few operations have active worker programs that empower the workers to continually improve animal welfare. For this purpose workers often need education about key principles of livestock care, and then follow-up with evaluations of performance at periodic intervals. In many cases the owner and the worker may not communicate well because of language and cultural barriers. One of the most important means of improving animal welfare is the development and implementation of effective worker training and education programs.⁷

In recent years it has become popular to develop protocols for various tasks. Many people look at worker training programs as the means to assure that the workers have been taught to do their jobs properly and follow protocols. Beyond task-specific training, workers need to be able to evaluate situations and apply judgment about when to take

certain actions and whether the goal is being accomplished, or when to change course and try something different. Beyond training, workers need education about why and when certain actions are taken in order to help develop judgment and critical evaluation of circumstances.

What the vast majority of information and training sources lack is opportunity to follow up with workers on a consistent and repeated basis. Consistent follow-up is necessary to reinforce the training, identify misunderstandings and knowledge gaps, critique performance and educate workers about when, where and why protocols are followed. Lack of follow-up leaves workers on their own to develop judgment and advance their understanding of nuances that significantly affect outcomes. Who are the people in the best position to provide ongoing feedback and critique of worker performance? Who can help educate workers beyond the simplistic level of being told to follow a protocol? These people are the owner or manager of the dairy and the herd veterinarian.

Revising the Bovine Veterinary Business Model

What I hope the preceding text has demonstrated is that there are numerous places that veterinarians can invest time and energy that can benefit animal health and welfare, and the list I provided is not exhaustive. Further, that these activities are not commonly pursued at present, or are pursued at a suboptimal level. Investing in these activities at a level that really improves animal welfare and productivity would make a herd veterinarian an invaluable collaborator with the owner. As I mentioned in the introduction, these activities require the investigation, knowledge base and skills that ideally fit a veterinarian.

So why are these activities not among the most common things a bovine veterinarian does? I believe it is because we get busy doing many things that we are asked to do, but that could easily be done by a non-veterinary worker, even if that person might have substantially less education. How would a veterinarian spend time on these other, arguably more important issues?

Human medical practices have long employed paraprofessionals as critically important participants in health care delivery, working within the context of a medical practice and integrating services with those provided by doctors. It is time for veterinary medicine to consider similar models.

There are many places that we could employ animal health paraprofessionals, much as our colleagues in human medicine do, and substantially improve the delivery of livestock health care. We need to reconsider the roles of veterinarians and the roles of paraprofessionals and develop a system to deliver this care.

What could paraprofessionals do in the intensive dairy and feedlot industries? Currently many of these animal health needs are met by untrained or poorly trained workers. Many of the issues that arise with animal health and well-being stem from inadequacies in diagnosis and treatment or other decision-making processes. A considerable amount of veteri-

nary effort is expended in correcting problems that may not have arisen if addressed properly from the start. The industries, however, will employ non-veterinarians for these roles because it appears to be more cost-effective. What would happen if we worked with these industries to encourage a model that includes the equivalent of human nurse practitioners? Would they be employed by the operation? Would they be employed by the veterinary practice and assist in the delivery of lower-cost care? Could we develop a business model that delivers optimal care while placing the veterinarian in a role that oversees multiple aspects of animal well-being that are currently underserved? Shouldn't a well-trained paraprofessional be far preferable to poorly trained laborers in the conduct of diagnostic sampling, on-site diagnosis, necropsy examination, some surgical procedures, reproductive manipulations, calf delivery and postpartum care?

What could paraprofessionals do in a rural diversified mixed animal practice? Have we ever considered the advantages of the physician's assistant model in human medicine? In many regions paraprofessionals run satellite clinics that provide local health care and cooperate with physicians to cover a broader geographic range than can be managed from a single clinic. Is there room for such individuals in the world of veterinary medicine? Is it reasonable to expect livestock owners to pay call charges and professional fees sufficient to cover the costs of a veterinary practice when many of the clients are more than a half-hour or one hour away? For what services will such a livestock producer call a veterinarian? Could we develop a business model that provides more optimum accessibility at a reasonable price by employing well-trained veterinary paraprofessionals who work with the veterinary practice?

Consider all the myriad places that knowledge of animal production, animal health, and veterinary perspective could be employed for the well-being of our livestock populations and our society. Have we been too protective of the role of a licensed veterinarian and not open enough to the potential roles of other animal health professionals? Is it really true that we need more food animal veterinarians, or is it more likely that we need to carefully think through different models for how animal health care is delivered and veterinary expertise is employed? I believe there are a large number of competent, intelligent, hard-working young people who may not serve best as veterinarians but in a different professional animal health care role. I also believe we could devise training programs that would develop skills and knowledge base necessary to fill these roles. To do this will require our profession to rethink its place in a changing world of animal health and food safety needs.

Conclusions

To become indispensable, bovine veterinarians need to offer services that collaborate with producers for optimum animal health and welfare and improved profitability. There

are many opportunities for veterinarians to investigate and intervene that specifically require veterinary knowledge and skills. Many bovine veterinary practices are very busy performing technical work as requested by the producer, while some of these other activities, such as animal welfare assessment and improvement, death and culling loss analysis, and ongoing worker education, are not commonly seen by producers as part of veterinary service. To explore these other opportunities and really become indispensable for cattle health and welfare, bovine practices should consider developing integrated health systems that employ paraprofessionals as contributors to the delivery of technical services. This would help make what really matters, what really matters.

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