

Interactions with producers to manage BRD.

2024 BRD Symposium

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As a consulting veterinarian, providing individual and group animal care is done through the vehicle of cattle producers and their employees. While many times this is a very rewarding scenario when high-level executors take care of business and create positive results; it can also be quite frustrating with a multitude of hurdles that must be overcome in some operations. What I intend to convey with this presentation are my opinions generated by my experience in the consulting business. It does not necessarily reflect the opinions of any other associates of Veterinary Research and Consulting Services, LLC. There are 3 primary responsibilities to my clients that I have as a consultant:

1. Generate and propagate legal, medical, and production information needed for their job. This can include conducting well-designed and monitored research trials, attending CE meetings, staying current on peer-reviewed publications as well as knowing the most recent FDA Guidance documents. The propagation comes from sharing in a presentation format but is also incorporated into many SOPs and protocols generated for the client.
2. Train the people actually doing the hands-on work. Getting manure on the shoes is critical to convey to people how important their jobs are. Whether washing tanks, riding pens, or treating and processing cattle. This is how I monitor how well we are following protocols discussed above as well as properly administering products, properly handling cattle, and providing superior animal husbandry to cattle. I feel it is also important to dangle a carrot. Even if a crew is doing well, I like to tell them they are doing great but also provide 1 or 2 things that could be just a little bit better. Laughing, joking and encouraging are important with these interactions. When appropriate of course. For many people, the time they have each month with the vet is something they look forward to and maybe even the highlight of their month. Obviously, this isn't always the case. There are definitely vet haters out there. Identifying personalities and demeanors, and adjusting is just part of the gig.
3. Show them their data. Most managers like to see data. Depending on the degree of red vs blue in their personality profile can determine how much time is spent diving into this. Benchmarks can really help drive competitiveness and their desire to do better.

The assignment for this talk was “What is important for you to manage BRD in a feedlot and how do you communicate that with your client.” I will attempt to touch on all 3 responsibilities listed above on the items I feel are important for BRD management.

We will begin with the easy stuff, i.e. things that come through a needle. Convincing a producer to try a new or different vaccine or antibiotic is usually fairly easy. Especially if their health results are poor. It does not require much thought on logistics or extra work on behalf of management or front-line personnel. The only real challenge lately is the availability of certain products.

- Vaccination against viral +/- bacterial pathogens is important for managing BRD.
 1. MLV vaccination has become pretty well standard practice. The key information to educate producers on is which brands can be commoditized on different risk categories of cattle as well as appropriate time of administration. Information on the use of commercially available Mannheimia vaccines is also present in peer-reviewed literature and can be shared with producers as processing protocols are established.
 2. Training crews how to manage and administer products is critical. Temperature management, proper mixing, proper needle size, proper injection location and depth are all very critical to make sure cattle are properly immunized. Keeping clean, sterile injection systems and discarding unused product at the end of the day (when appropriate) are other items that need to be checked.
 3. Though not necessarily data, observing which products are utilized and ensuring they are following protocols based on cattle type and risk is an important spot check. Inventory reconciliation can also provide data on proper administration and dosing. We expect shrink on MLV vaccines due the need to discard leftover product.
- Providing individual animal therapy for BRD.
 1. There are a multitude of studies, reviews, and meta-analyses done comparing various antimicrobials against each other and negative controls. Sharing this data and working with producers to establish a fixed BRD regimen by cattle type, BRD risk, and clinical severity is the best place to start. Agreeing on this sets the stage to allow proper accountability and outcome monitoring.
 2. Providing and empowering treatment crews with knowledge of the products, clearly conveyed protocols and record keeping methods are necessary to ensure cattle are properly treated and the food supply is kept safe. Proper injection techniques along with educating routes of administration for each product are also important here. Location can be even more critical because of specific

products designed for administration in part of the animal that goes to offal. Improper use of this product in the neck elicits a mandatory withdrawal that is significantly longer than label.

3. A review of treatment records can show how well protocols are being followed (or at least theoretically). It is also very important to track treatment success and case-fatality of products used for BRD therapy. I actually like to benchmark these across various clients. Sharing this data with the producer will allow them to see the protocol is working and concerns over deathloss are originating from other issues OR maybe they show that we need to look at trying a different protocol OR maybe something is afoot.
- Reducing other pathogenic entities that reduce immune status.
 1. Treating cattle on arrival to reduce parasite burden is important to maximize the ability of the immune system to respond to vaccination as well as combating disease challenges. Multiple studies have shown performance benefits to dual-deworming programs in the feedyard.
 2. Proper dosage can be difficult as individual in-weights vary quite a bit within processing lots. Making sure crews set up processing orders and syringes to reasonably cover the weight variation is an important training point. Draw-off syringes for injections and oral drenches are a great tool to ensure efficient processing. However, these tools even when set correctly can administer incorrect dosages. Periodically checking the dosing and ensuring working order of these syringes can help inventory control.
 3. Periodically checking FECR on prominent origins of cattle may be a good tool to monitor efficacy and proper administration. Period-end inventory reconciliations can validate dosages are being recorded and administered similarly.

Now we will step up into items that require more thought, more logistics and more work. These are of course things that provide better animal husbandry to cattle. It does not take much genius to cram cattle into a pen and feed them.

- Risk assessment and metaphylaxis
 1. Data analytics and historical experiences drive a lot of these type of decisions. Conveying information to producers can help them with this task. Showing specific economic and health benefits/detriments to assist in these decisions can be helpful. Conducting and sharing research trials that compare various options for metaphylaxis allow us to offer recommendations of product use for various populations. One of the most important things we can provide is a list of which products can be commoditized so each producer can then navigate the various

program targets manufacturer's rebate programs available to them to reduce costs.

2. Properly categorizing risk and administering metaphylaxis when appropriate can be a very stressful part of a cattle manager/receiving manager's job. There are so many factors to consider: historical data and experiences, arrival condition of the cattle, arrival condition of the environment, and labor resources at the feedyard. Training feedyard teams to recognize all these things collectively to make good decisions is something that needs discussed every visit.
 3. Reviewing lots on the yardsheet with several DOF (100+) can be a good way to see what morbidity and mortality averages are for each of the risk categories. If single lots stand out, from cohorts; we have the ability to learn and make adjustments going forward or identify a trigger caused by management.
- Pen checking
 1. For this topic, items 2 and 3 are the mainstay, but as consultants we get to see a wide variety of how things get accomplished on feedyards and can offer alternatives or options depending on the current situation. As an example, if a facility is very short-handed on pen riders, offering perspectives on walking pens is something that can help them make management decisions.
 2. Working with crews to identify various morbidities is a never-ending task. Employee turnover, organizational drift and procurement cycles offer new items for discussion every visit. Classroom training can be a good way to empower crews and show them we are dedicated to their learning and education. Walking or riding pens with the team allows more one-on-one time where specific questions can be asked without worrying about their peers. Beyond identifying sick ones, proper handling of cattle is another topic that can be observed and improved when working in the field. Making a plan for moving a pen, pressure and release, settling cattle, exercising cattle, proper Bud box and tub use, setting of no-backs, etc. are all things that observations can provide teaching moments.
 3. Providing stats and metrics to people checking pens has become a mainstay during my visits. Monitoring the percent of pulls with a fever, the number of missed opportunities, number of deaths and number of pulls are all items that can easily be tracked and scoreboarded to provide feedback to crews on their performance. Explaining the metrics and providing guidance to employees that have drive and want to do good really benefit from these interactions.
 - Space, water, feed and hay availability

1. Having a research trial that clearly answers questions and husbandry items and will produce a consistent benefit or detriment in all cattle and all facilities will never exist. There are simply too many variables. We therefore draw on experiences, common sense and observations to determine the “right” way to pen and feed cattle.
 2. Spending time driving the feedyard and just looking can often uncover problems beyond what is on paper. Driving the yard with a member of the management team gives you some one-on-one time to develop relationships and get to know them in addition to spouting off random knowledge that will help them with their job. Showing them a moss-covered tank, pointing out a pen of receiving cattle that is sitting on 2” of bunk space, on and on. Always making husbandry a part of the conversation and a point that is stressed during wrap-up meetings will drive the importance of these items regarding overall health. These tasks are not always easy. Many times it takes a lot of planning to ensure cattle are unloaded and the bunk is prepped for them or cleaning pen A23 at 8:00 am cause they will be getting re-implanted then. Husbandry items require a concerted effort from every department on the feedyard so good communication and teamwork are pinnacle.
 3. Many times, we can identify deficiencies in husbandry with some Monday morning quarterbacking. Diving into lots with higher than expected health issues may uncover something we could have managed better. Maybe cattle got moved 4 times before they were 20 DOF, or why didn’t we put bedding out for the 4-wt cattle that arrived during a blizzard. Common sense can really go along way for cattle health.
- Necropsy Training
 1. Necropsy is the foundation for many of the data driven decisions we make. A proper necropsy can close the book on why an animal didn’t respond to therapy and can help answer the question as to why an animal died untreated in the pen. It can be frustrating for teams to perform these tasks as the task is a big safety challenge for personnel and can be a very “gross” task for many employees. However, if trained properly, this can be a very rewarding job for some employees. With the current technology with smart phones, taking pictures of questionable cases is a great way for interaction between visits.
 2. In general we want the team to be able to put findings in one of four categories – BRD, Bloat, AIP, and Other. In some geographic locations we will break out Heart Failures as a fifth category. Proper bloat diagnosis can be considered the most valuable diagnosis. If overdiagnosis of bloats is occurring, the feedyard might

make some drastic changes at the feedmill that could cost quite a bit of money in the form of poorer feed conversion and ADG. Necropsy ensures better stats for BRD diagnosis. If BRD is over diagnosed or under diagnosed, this will impact treatment response, case fatality rates, and pen rider stats mentioned above.

3. Necropsy can also help us identify some of our processing and treatment executions. Opening up the trachea could help see how IBR is being controlled with processing. Injection site lesions can be identified, the larynx can yield insight on quality of oral medications, ears can be checked for implant quality, etc.

Closing items:

- Make it a point to break away from the fire engine at each visit. Try to spend some time looking ahead at upcoming challenges. Heat stress is a big one that we need to start harping on in April/May to get the teams tuned in.
- It's mostly about the people because they are the root of everything. Knowing them and gaining trust will bring a wealth of information regarding what's happening on a daily basis.
- Language barriers are becoming a bigger and bigger hurdle for English-only speaking veterinarians to overcome.