

BeefTalk: Herd Vaccination Protocols are Critical

A good herd vaccination program enhances herd health in all cattle throughout the year.

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Prepping calves for market next fall starts now with a herd vaccination program for cows, bulls and calves.

An annual operational goal should be 100 percent healthy cattle. As producers working with the living, we know, on occasion, that not all will make it to the day's end; however, we do the best we can.

Good managerial principles and use of the right tools to keep cattle healthy are critical. In that regard, no one would want to return to the days when the medicine chest was empty. Today's medicine chest has good options to help with herd health.

One of those options is a good herd vaccination program that enhances the preventive aspects of herd health in all cattle throughout the year. Yes, calves need vigor to withstand the stressors of weaning, but why not take advantage of good immunity while the calf is at home as well?

Finding a calf dead on pasture with no real reason is certainly a downer. Finding the second calf dead certainly would raise some questions. Granted, no program can assure the living tomorrow, but producers can decrease the potential risks and increase the odds of survival, given a pending arrival of a bad pathogen.

At the Dickinson Research Extension Center, cows, bulls and calves are maintained on an annual vaccination program recommended by the local veterinarian. All cattle producers should have a working, professional relationship established with a veterinarian as well.

Pre-calving, pre-breeding, post-calving, pre-weaning and weaning are all periods that should involve the implementation of a well-thought-out vaccination schedule. The herd health protocols, in conjunction with appropriate managerial practices that maximize herd vigor and health, are key. Facilities and labor are needed to work the cattle, but they come with the cattle business.

A herd vaccination program is proactive and implements vaccination products recommended by the local veterinarian to ward off known viral and bacterial issues in the area. This is not to be confused with treatment protocols that are implemented to treat disease once a disease is present in the herd.

As a beef producer, proactive is the camp in which one wants to be.

Images



Meet "J" - Your best friend and antibody!

What does vaccination do? From the onset, the process is very complicated, and years of research have opened only small pieces to our understanding, but those small pieces are critical. In fact, they save many lives. The decision to include or not include vaccination protocols in the herd is a producer choice, but not vaccinating limits proactive disease prevention and overall herd health management.

I wish we had a simple explanation, perhaps a chart or a few words that would explain the immune response to a vaccination adequately. The real answer is embedded in many layers of living cellular mechanisms. And even though the majority of the herd will respond to a vaccine with a strong immune response, some will not.

I can remember those long hours of molecular biochemistry that impressed upon me that, “There really is an immune response!” Think about it: If an immune response did not occur, the world population of living species would be much smaller or nonexistent.

One particular point always remained with me, and I called it the “J.” This was something simple I could take home but also something significant to our lives. The J adds diversity to how living organisms respond to the many pathogens that perpetually want to destroy us or, in this case, our cattle.

Several pathogenic classes of organisms - call them biological invaders - are simply not our cattle’s friends. The J represented the ability of individuals to respond to a diverse number of invaders.

The textbook “Biochemistry,” by Lubert Stryer, reveals several functional proteins called antibodies, more appropriately called immunoglobulins. Antibodies are not easy to visualize, but in very simplistic terms, they may look like the letter Y. The Y contains regions called the J genes that offer cattle and other living things the ability to develop a defensive position against disease.

But enough of that. Let’s just say the complexity of the herd’s response to a vaccine or exposure to a real pathogen is mind-bending. We just know that vaccination protocols work and save lives.

Sorry if this is confusing, but the bottom line is still true. Vaccinate your cattle so they can respond defensively to the handful of commonly known pathogenic invaders and then manage your calves such that they will prepare themselves to produce a good antibody response against all those known invaders, as well as those that are not named.

The world is not a simple place, but calves will survive, especially when all the right tools are in the toolbox and properly implemented. Ask your herd health professional for the right tools.

May you find all your ear tags.

For more information, contact your local NDSU Extension Service agent (<https://www.ag.ndsu.edu/extension/directory>) or Ringwall at the Dickinson Research Extension Center, 1041 State Ave., Dickinson, ND 58601; 701-456-1103; or kris.ringwall@ndsu.edu.

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Attachments



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