



CATTLE SENSE

Information that makes sense helping you make cents

No. 125 March 2011

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Healthy Herd Habits

It goes without saying that cattlemen care about the health of their herds. That concern is based first on the welfare of the animals themselves, but we also know that healthy cattle are more productive, more efficient and less costly to raise, and they produce higher quality beef.

But while it is easy to recognize the value of disease prevention, studies continue to highlight areas where the average producer could (and should!) take steps to improve their herd health program. Recognizing and adopting these key 'healthy habits' can have lasting benefits for cows, calves, and the bottom line.

Dr. Who?

Your vet's role should be more than just emergency responder. Develop a true veterinary-client relationship, and use their expertise and local experience to help design your preventive health program. As Dr. Bethany Funnell emphasized during the recent University of Minnesota Cow-Calf Days, risk and needs are site specific. A vet who knows your operation can make informed recommendations for vaccines and parasite control, and for effective treatments when needed. Remember, too, that this relationship is a legal prerequisite for dispensing many drugs, especially if any off-label use is justified.

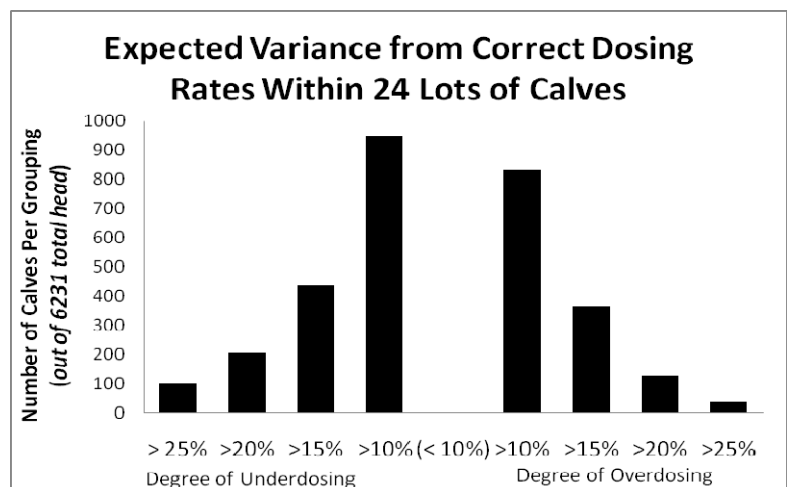
Timing is Still Everything

When it comes to animal health, convenience always needs to take a back seat to efficacy. In particular:

- ✓ Base fly control and deworming efforts on the life cycle of primary pests, for maximum impact. If that does not coincide with other animal-handling events, consider alternative strategies such as feed-through products that can be delivered through supplement.
- ✓ Avoid vaccinating during times of high stress, such as weaning.
- ✓ Allow adequate opportunity for needed booster shots.
- ✓ Vaccinate calves for high-risk diseases *before* their initial passive immunity (that received from their mother) is completely gone.

Dosing Details

While most vaccines are administered at a set amount per animal, antimicrobials and anthelmintics are dosed by body weight. An interesting report from Kansas State University evaluated the potential impact of real-world dosing based on average weight. Using historic records for 6231 calves, representing 24 lots, they graphically illustrated the variation in individual weights (see chart). If these animals were medicated with the right dose for their lot's average BW,



a notable portion were significantly under-dosed (meaning they may not have received enough drug to be effective) or over-dosed (significantly increasing cost, as well as possible residue risk). This same principle would be very applicable in many cowherds, where animals can easily vary in weight by several hundred pounds.

Handle With Care

A too-common scenario: a producer invests time, labor, and dollars in a vaccination program, but gets no value from his investment (i.e., no immune response in his cattle) simply because the vaccine was ruined before it got into the animals. There are several potential routes to this fiasco:

- Using out-of-date product;
- Exposing vaccine to direct sunlight;
- Reconstituting more vaccine than can be used within the window of activated efficacy (can be as little as one to two hours);
- Allowing disinfectants to come in contact with modified-live vaccines;
- Exposure to temperature extremes.

Vaccines must *always* be kept at the temperature shown on the label – usually 35-45°F. Both freezing and heat can render these products ineffective. Yet a study recently funded by the Idaho Beef Council found that while most ranchers utilized a refrigerator in some fashion, two-thirds failed to keep vaccines at the right temperature 95% of the time. Some fridges leaked and got too warm; many allowed product to freeze when outside temperatures plunged. Other concerns revolved around handling during transport and use. Even worse, they found just as many problems at retail outlets. To avoid this scenario:

- ✓ Utilize coolers, etc. to maintain proper temperatures during transport and while working cattle;
- ✓ Ask questions of your retailer;
- ✓ Place all mail orders on Monday, to avoid weekend delays;
- ✓ Keep a thermometer in the storage refrigerator, and check in regularly;
- ✓ Be aware of temperature variation *within* your fridge.

Setting the Foundation

Preventive health programs, like most management practices, need an underlying dose of common sense to be effective. Good nutrition and low stress go a long way towards maintaining healthy animals. Cows receiving adequate diets (as reflected in body condition) have enhanced immune function, exhibit better response to vaccines, produce more colostrum, and are less likely to have difficult births and weak calves. The value of colostrum quantity and quality cannot be overstated; work done at USDA-MARC tied inadequate passive immunity (which a calf receives from colostrum) to a 5.4X increase in pre-weaning death, a 3.2X increase in pre-weaning sickness, and a 3-fold increase in morbidity *after the calves entered the feedlot*.

Stress can come from the environment, facilities, handling, and parasites. It takes a toll two ways: direct energy costs from responding to the situation, and a cortisol-driven shift of biologic resources towards crisis mode . . . and away from the immune system. Well-designed and maintained working facilities, low-stress handling methods, and protection from weather extremes should be important goals for all cattle operations.

Another key area to manage is exposure to pathogens. Separate sick animals, use sanitation and pest management schemes to limit the presence of disease vectors (flies, ticks, rodents, etc.), work with your veterinarian to identify possible carrier animals, and follow basic BQA principles. That includes using separate syringes for each vaccine, never using bent needles, and switching needles every 10-20 head.

Get in the habit of embracing these practices, for healthy cattle and a healthier bottom line.