

Producing High Health Calves

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I recently had the opportunity to attend the 2016 Cattle Industry Convention and National Cattlemen's Beef Association. I attended the Beef Quality Assurance State Coordinators meeting and Cattlemen's College®. The college was broken down into breakout sessions with six presentations to choose from; it was a tough choice. Tracks included Healthy Cattle, Healthy Business; Advances in Cattle Nutrition; Industry Hot Topics; Your Business, Our Industry; Evolving Beef Production; Creating the Future. I tried to pick and choose a variety for the three sessions available. This article will highlight the presentation, Producing High Health Calves with presenter W. Mark Hilton, DVM, Clinical Professor, Food Animal Production Medicine at Purdue University.

This is a subject important to all cow/calf operations, large, small, and everything in between. Sick cattle cost money; it costs to treat them, and they generally gain less and never catch up. He cited a 2014 study showing on average, cattle feeders lost \$119 on every animal that was treated for sickness one time. If an animal was treated twice, lost income increased to \$365. With increased attention to nutrition and management provided along the supply chain, treatment costs could be reduced.

Hilton noted studies on fetal programming and epigenetics (how genes are influenced by environment) that show the importance of cow nutrition in the last two months of gestation where 75% of fetal growth occurs. This impact on a cow impacts her, her calf, along with the next calf, since rebreeding is needed to be managed for. Studies have shown providing protein supplementation to deficient cows at this time increases calf weights, with more intramuscular fat (marbling) and overall body fat at harvest.

He recommends working with your veterinarian to develop a biosecurity plan. This includes vaccination and deworming program for the herd. Timing of vaccines and application method for dewormers is as critical as product choice. Many producers consider their herds 'closed', but Hilton estimates 99% are 'open'. At some point they bring in diseases on "four legs": bulls, heifers, or feeder calves. This opens the herd up to diseases. Many producers pay good money for disease!

Calf focus – start by not fighting nature. Work to optimize calving season for the time of the year that is optimal for the calf and optimal for rebreeding the cow. Hilton's rule of thumb for calving is 30-30-30: 30 minutes for birth, up in 30 minutes, then nurse in 30 minutes. His goal is no calf sickness. He also recommends the Sandhills Calving System. Here are the principles: Pregnant cows are grouped together. After one to two weeks of calving, the pairs stay in the first paddock with the remaining cows moved to a new paddock. After the next week, any cows still pregnant move to another paddock with pairs remaining. This continues on until all calves are born. After the youngest calves are 4 weeks old, the pairs can be recombined into one group. I actually wrote an article on this three years ago and can be found here: <http://nwnyteam.cce.cornell.edu/submission.php?id=179>.

Make sure calves are properly weaned and vaccinated. Vaccinate early, as necessary, and wean for 45 days prior to shipping. Use low stress management practices for weaning. Utilize fence-line weaning or nose flaps, such as QuietWean. Weaning stresses are more closely associated with the social aspects (separation) than the actual termination of nursing. Weaning may be more important than vaccination. Hilton calls utilizing both practices precondition plus. Build your reputation with these practices.

Don't forget crossbreeding benefits. This can increase weaning weights versus straight bred from 3.9 to 6.3%.

His last comments were, remember your BQA principles: low stress handling, less antibiotic use through better management and nutrition. Early castration is critical. He quoted Dr. Dan Thomson from Kansas State, "The longer the calves have testicles, the more attached they are to the testicles."

This is a summary of one of the great presentations. I would highly encourage you to find the time to attend the convention and college portion sometime. Next year's location is Nashville.