

Post Rock Extension District Column
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Creating a Plan for Healthy Weaned Calves

Weaning is a necessary management strategy to transition our calves from the cow herd to the next stage of production. This transition can be stressful for young calves and ranchers. Preparing not only the cattle, but also the operation for weaning can greatly reduce the strain that can occur especially if the calves are going to be weaned and maintained on the operation. Weaning should be a planned strategy of the yearly herd cycle, rather than a spur of the moment event. The goals are to prepare the calf to minimize health issues such as BRD (Bovine Respiratory Disease) after weaning, as well as prepare them for a new environment without their mother.

Understanding the calf's immune function during this time is important. A calf's immune system takes several months to provide complete protection. The intake of colostrum shortly after birth provides passive immunity and antibodies that provide the immune protection early in life. Until 2 to 4 months of age, maternal antibodies from colostrum are the key players in the calf's immune protection. These maternal antibodies play a role in how the young calves will respond to immune challenges such as vaccines. When these maternal antibodies start to decrease, it is a prime time to initiate a vaccine protocol to help boost the active immune protection of the calf. This period often coincides with typical branding times. Working with a local veterinarian can help make product selection during different periods of a calf's life simple. While every calf may not fully respond to vaccines at branding, vaccination primes the immune system memory for a booster later in life. Vaccines to consider for branding-aged calves would be a multi-strained respiratory viral vaccine (IBR, BVD 1&2, BRSV, PI3), and a multi-strained clostridial (7-way or more). Once the calf is closer to weaning, planning a booster vaccination will help bolster the calf's immune function prior to the stressors of weaning. The vaccine booster targets the same pathogens as the initial branding vaccination with the addition of respiratory bacterin vaccines against the bacteria that cause pneumonia and should be administered 3-4 weeks prior to weaning. Animal health procedures conducted prior to weaning will help ensure calf health through the transition of weaning. The booster vaccinations could be held until the day of weaning, but that offers yet another challenge that the calf must overcome post weaning. The aim is to have two rounds of vaccination prior to or at weaning.

Multiple stressors compounded on each other, and decreased health go hand in hand. Painful procedures such as castration, dehorning, and branding should be conducted well before the day of weaning, preferably in the first few months of life. Due to other constraints on an operation, it may not always be feasible. If initial vaccination and management procedures such as castration were not conducted early in life, they should be conducted 3-4 weeks prior to weaning. This will help spread the stressors out over time to limit the strain on the calf's immune system. During this period, control of other stressors such as external parasites and internal parasites can be initiated. External parasites of concern are mostly flies during the late summer

months. Internal parasite control should target gastrointestinal nematodes (worms) as well as coccidiosis during this stressful time.

In terms of management preparation, consult with your local veterinarian to establish a treatment protocol to use if calves get sick. Do not wait until the last minute to have this discussion. Antibiotic product choice, and timeframes can all be discussed to be fully prepared for any anticipated health insults. Facilities are imperative if calves are to be weaned and maintained on the ranch. Fences, handling and feeding areas should all be inspected, and any routine maintenance be conducted prior to weaning. Developing a plan to control inclement environmental concerns such as heat (or cold), mud (or dust) can be very helpful in ensuring overall health, performance, and welfare of these calves. Pen preparation, manure hauling, sunshade, wind-fences, and checking the water source are all potential control areas. You should consider a soft weaning strategy to minimize stress. Fence-line or 2 stage weaning might be an option. Acclimation of calves to their new environment and feed can also be a way to minimize the stress. This would entail bringing cow/calf pairs into the weaning environment for several days then removing all the cows. This gives the opportunity for calves to clearly identify their new surroundings. And lastly, nutrition is key during weaning, whether onto pasture or into a dry lot. Feedstuff inventory, feeding equipment maintenance, and a nutritional consultation should all be conducted prior to weaning to ensure reliable feed deliver, intake, and performance.

Thanks to A.J. Tarpoff, Beef Extension Veterinarian, for sharing information related to weaning calves and for further information, contact me at any Post Rock Extension District Offices in Beloit, Lincoln, Mankato, Osborne, or Smith Center.

Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Mitchell, Osborne, and Smith counties. Blaire may be contacted at blairet@ksu.edu or by calling Beloit 738-3597, Smith Center 282-6823, Lincoln 524-4432, Mankato 378-3174, or Osborne 346-2521. Join us on Facebook at "Post Rock Extension" along with our website www.postrock.ksu.edu.