Weaning Calves onto Forage

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Weaning calves off the cow is a somewhat delicate matter. Health problems, digestive upsets, and dehydration are typical problems that go along with teaching a calf to be independent from its mother. In cow-calf operations around Minnesota, calf death loss following calving runs around 6.4%; it is expected about 2-3% of that occurs at weaning. These problems are, however, mostly management issues that can be easily addressed.

Stress is the primary management issue when dealing with freshly weaned calves. Stress leads to a whole range of problems which ultimately affect calf health. Stress leads to under-performers, chronically poor-doers, or death; managing stress immediately following weaning is critical to avoiding these problems. Therefore, managing the causes that lead to stress and the problems that go along with it are key. There are many causes in freshly weaned calves, but the primary causes that can be easily managed (but often are not) include: major changes in physical environment, diet changes, and dehydration. The result of any one or all of these will inevitably lead to health problems in at least a portion of any weaned calf group.

Those who precondition calves on the ranch before sending them to a sales barn or direct ship to a backgrounding yard typically precondition freshly weaned calves directly into a dry-lot where they are started on a relatively dry, high roughage diet. The three criteria to create stress in the calf are all met by this management practice. One of the key things a calf manager can do to avoid calf stress at weaning is to graze weaned calves on forage rather than placing them directly in a dry-lot. Grazing freshly weaned calves nearly eliminates the causes of stress that lead to problems.

Calves raised with their mother over the summer on pasture are not used to all of the sights, sounds, and smells that come with being up-close to the center of operations where the dry-lots are usually located. All of these new sensory changes can create a significant amount of stress in calves placed in the dry-lot immediately after they are pulled from the cow. Alternatively, maintaining these calves on grass, as they were when they were with their mother, keeps their physical environment very similar and reduces those stressors until the calf is fully weaned and used to living on its own.

One of the biggest changes for a freshly weaned calf going directly into a dry-lot is diet. A typical calf, prior to weaning is consuming milk, pasture grass, and in some cases a little creep feed with a moisture content of 60-70%. Once weaned and placed in a dry-lot where the calf is fed a high roughage diet, moisture content may drop to 20-30% or lower, and some calves may not immediately recognize the balance of water they need. It is in these calves that the symptoms of dehydration appear quickly. Calves weaned onto green forage for 30-45 days will maintain a similar diet structure, with a similar protein and moisture content. This situation will eliminate the digestive upsets and dehydration that are often seen in dry-lotted calves. Once calves acclimate to living independently, they will be better able to tolerate changes in their physical environment and diet transitions, and dehydration will be less of a threat.

Forage types best suited to a pasture-weaning scenario are highly digestible, will have a moderate to high moisture content, and produce a moderate level of crude protein (CP). Forages with relatively low moisture content typically will have high fiber content and will reduce intake by the calf resulting in low nutrient intake as the rumen is not quite ready to handle high fiber concentrations. Furthermore, if CP is too high (>20%), calves run the risk of digestive upsets (i.e., bloat). If CP is too low (<12%), calf intake will be reduced and it may not get the nutrients it needs to maintain a high immunological status.

The primary goal of the forages used in a pasture wean situation are diet stabilization and dehydration management. Absolute calf performance (i.e., average daily gain) is secondary for the next 30 days. In reality, young calves do not gain very well on lush, green forage because the moisture content is too high; so producers should not be disappointed if they see <1.0 lb/day gains for the first 30 days. Once the calf's rumen acclimates, calf performance will pick up dramatically.

Cover crops, cereal grains, and some annual grasses typically are desirable forages to use in a pasture-wean situation. They grow fast, have good moisture content, and have moderate CP levels. Cover crop species like turnips, radishes, rape, and Winfred brassica generally should be planted in a mixture with cereal grains to moderate moisture and CP content of the grazed diet. Cereal grains like oats, rye, barley, and triticale work well as a straight seeding or in mixtures with cover crops. Annual ryegrass also works very well for a pasture-wean situation.

Other annual crops like millet, forage sorghum, and sorghum-sudangrass hybrids do not tend to work as well for pasture-weaning calves. These species tend to have lower moisture contents, higher fiber concentrations, and are a little clumsy for calves to graze if they do not have prior experience with high yielding forages. Once calves are past the weaning stage, however, these forages can be excellent sources of grazing (>30-45 days) and can produce phenomenal performance gain (2.5-3.0 lbs/day) as well as incredible forage yields.

Managing stress in calves at weaning will pay major dividends on the back end. For great results, consider incorporating a pasture-wean system this fall.