



# Vet Call

► by **Bob Larson**, professor of production medicine, Kansas State University

## Weaning calves

*In the life of a beef animal, the risk of sickness and death around the time of weaning is second only to the risks at calving and during the first few days of life. This is particularly true if the calves are transported shortly after weaning. Several major changes can occur at weaning, including removal of milk from the diet, removal from the care and attention of the dam, and placement into a new lot or pasture environment.*

### Unfamiliar environments

The traditional method of weaning involves moving the calves to a drylot — out of contact and sight of their dams — and starting them on a high-quality hay and palatable starter-pellet diet. In these situations, even though by traditional weaning age, forage grazing has replaced suckling milk as the primary component of the diet, calves are not accustomed to eating hay or concentrate from a feedbunk; and depending on their water source while paired with their dams, they may not have been exposed to water tanks where the water is not at ground level. In addition, the social bond between calves and their dams is still very strong at this age, and the calves will walk and bawl in response to being out of contact with their dams.

In an effort to reduce most of the health risks associated with weaning, ranchers and researchers have devised several methods to diminish weaning stress by removing one or more of the new experiences traditionally associated with weaning. One method is to expose calves to eating feed from a feedbunk in a creep-feeding situation while still in the pasture with their dams. This strategy will remove the unfamiliarity of new feeds and feed presentation at the time of weaning, but it does not alter the stress of separation from their dams.

### Fenceline

Some research work done in California and repeated in many different locations has investigated the potential to 'fenceline' wean, separating calves from their dams by leaving calves in their home pasture and moving cows to an adjacent pasture or across an electric wire fence. With this strategy, the calves are left in a familiar pasture and can continue to graze the same forage and drink from the same water sources, while the milk component of their

diet is removed and the physical contact with their dams is limited to lying near to her across the fence.

Within a few days, the calves are no longer seeking to be near their dams and will effectively wean themselves from both the milk and the social bond with their dams. This strategy has been shown to greatly improve weight gain and decrease the amount of time spent walking and bawling compared to traditional weaning methods.

### Weaning rings

Another strategy involves clipping a metal or plastic device with a wide disk about the size of the calf's nose into the nostrils. This device is left in place for a few days. When the calf's head is elevated into the suckling position, the device will prevent the calf from grasping the dam's teat. The device swings out of the way to allow grazing and drinking water when the calf's head is lowered.

This strategy allows the calves to still be physically present with their dams and to remain in a familiar pasture with familiar feedstuffs, but it removes milk and the act of suckling.

Because many beef cows are producing a relatively low amount of milk (or no milk) this many months since calving, I suspect that the primary change is not the removal of milk from the diet, but the removal of the suckling act. A recent report from Canadian researchers who investigated this approach found that the calves with the devices in place had the same weight gain as calves in the pasture that did not have the devices. Neither the calves with the devices nor the calves without the devices expressed aimless walking or bawling while with their dams.

After a few days with the devices in place, the calves could be fully weaned and placed out-of-sight of their dams and they did not

exhibit the searching behaviors of walking and bawling, while the calves without the suckling-prevention devices walked the fences of the weaning pen and exhibited the near-constant bawling as would be expected with traditional weaning.

### Gradual separation

Another strategy to reduce the stresses associated with weaning is to allow the calves to gain familiarity while they are younger with some of the changes that they will experience at weaning. This could include quietly separating calves from their dams and holding them in a drylot or catch-pasture overnight with access to hay and water before doing castrations and giving calf vaccinations at pasture turnout (about 2 to 3 months of age). The calves are then allowed to go back with their dams and are not handled again until preweaning, when again they are quietly separated from their dams and held overnight in a catch-pasture with access to hay and water and then given preweaning vaccinations the following day. The calves are then turned back with the cows. Finally, on the day of weaning, the calves are quietly separated from their dams (they know the drill by now) and held in a catch-pasture with hay and water and permanently separated from their dams. This strategy allows calves to become comfortable with human handling, separation from their dams and new feedstuffs.

A number of weaning strategies have been developed to improve upon the traditional abrupt removal of milk, mother, and familiar feed and surroundings. All of the alternate methods involve a change in how labor and facilities are allocated for the weaning process, but this change is not necessarily a greater investment in labor and facility. By considering your current or potential facilities and labor resources, you can use one or more of these strategies to greatly reduce the stress and health risks associated with weaning.

A handwritten signature in black ink that reads 'Bob Larson'.

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