# Animal Science

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## Fence Line Weaning Reduces Stress During Weaning of Beef Calves


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Producers should try to reduce the stress of weaning to improve calf health and subsequent performance and to add value to the calves. The stress of weaning beef calves can be reduced by following a few simple guidelines.

Removal of a calf from its mother is second only to birth in creating stress. Weaning stress can be reduced by letting the calf become familiar with the area where the weaning will take place. This can be accomplished by moving the cows and calves into the weaning pen a few days before the weaning process begins. During this time calves can learn from their dams where the feed and water are located. Calves can also learn from their dams that it is alright to eat the feed and drink the water. At weaning, remove the cows from the weaning area to an adjoining pasture and leave the calves in place. The process of weaning calves while they can have limited contact with their dams is called fence line weaning. The fence should be adequate to keep the calf from reaching through to nurse its dam. Usually seven to 14 days are required for the weaning to be completed.

The stresses caused by the weaning process can also be reduced by using fence line weaning. Calves that cannot see or hear their dams undergo greater stress. A research trial on different methods of weaning was conducted by Price et al. Results of the trial demonstrating calves activities are presented in the following table.

Percentage of Observations That Calves Were Exhibiting Various Behavior During First Three Days of Weaning by Different Methods *

| Variable | Nonweaned (pasture) | Fence line contact (pasture) | Separated (pasture) | Separated, preconditioned to hay (drylot) | Separated, not preconditioned to hay (drylot) |
|---|---|---|---|---|---|
| | | | | | |
| Eating | 41.1%[a] | 37.3%[a] | 23.7%[c] | 28.9%[b] | 21.5%[c] |
| | | | | | |
| Walking | 8.6%[a] | 10.1%[ab] | 28.1%[c] | 9.6%[ab] | 14.8%[b] |
| | | | | | |
| Lying down | 22.9%[a] | 23.3%[a] | 16.0%[b] | 21.9%[a] | 20.6%[ab] |
| | | | | | |
| Vocalizations/h/10-calf group | 0.1[a] | 216.7[b] | 434.6[c] | 371.2[bc] | 518.2[c] |
| [a, b, c] Rows with treatment means with different superscripts differ P<0.05 | | | | | |

*Price et al. Journal of Animal Science 81:116.

As noted from the table, four different methods of weaning were evaluated. The observations indicate that calves weaned by the fence line method spent less time vocalizing (bawling) than calves weaned away from their dams. The fence line weaned calves also spent less time walking around in the pen than did those separated in a pasture and more time either resting or eating than those separated and placed in drylot. Common sense indicates that calves that are eating, resting and not bawling are having less stress. These calves will be better able to withstand disease challenges and will have greater gains.

Other things that can reduce stress at weaning are related to management practices. Management practices, such as dehorning and castrating, should be completed prior to weaning. Ideally these practices will be performed when the calf is just a few days of age when there is less sexual development and the horns are smaller, therefore creating less stress.

Vaccinations should also be completed prior to weaning. This will insure that the calves have acquired immunity prior to weaning. In addition the calves vaccinated prior to weaning will have already gone through the stress caused by the vaccinations. Although the stress caused by vaccinations is quite small, it does not need to be added to the others that occur during weaning.

Weaning should be combined with a minimum of a 45 day preconditioning program so calves can better handle the stress that will occur during shipping, backgrounding and finishing.

The key to reducing stress during the weaning process is utilizing those techniques that keep calves calm and eating. Fence line weaning is the best way to wean calves while keeping the stress level low.

Reference:

Price, E. O., J. E. Harris, R. E. Borgwardt, M. L. Sween and J. M. Connor. 2003. Fenceline contact of beef calves with their dams at weaning reduces the negative effects of separation on behavior and growth rate. Journal of Animal Science 81:116.