

GROWING BEEF



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Early weaning may help with tackling high feed costs

Different methods of weaning impact calf performance

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As producers plan to manage pasture and stored feed resources in this day of high feed costs, one strategy to consider is early weaning. Weaning calves at 120-160 days of age rather than 180-210 will reduce the amount of feed needed by the cow dramatically and allow her to regain body condition with marginal quality feeds. If calves are weaned and confined to a drylot, more pasture could be used to stockpile forage.

Early weaning could reduce dry matter grass consumption 20-35%, while decreasing the energy and protein requirements of the cow's diet. If the cow continues to graze good quality pasture she could gain 1.25 to 1.4 lb. per day, or add .4 to .5 body condition score in one month. If the cow is fed a typical hay ration it could reduce the daily cow feed bill \$.30 to \$.50 per head. The added body condition will also pay dividends in reduced winter-long energy requirements and improved reproductive performance.

The method of weaning you choose has an impact on calf health and performance. Multiple studies demonstrate that weaning on pasture can be a benefit to weaned calf health and performance. This requires readily available, high quality forages for calves familiar with fences and using pasture source. If you choose to early wean in the feedlot, clean water and

End weight	Start weight					
	400	450	500	550	600	650
1200	38	22	13	9	9	Base
	19.21	19.38	18.15	10.94	4.29	
1250	34	18	9	6	8	Base
	22.77	22.41	20.66	12.49	4.96	
1300	30	14	5	4	7	Base
	26.43	25.53	23.25	14.09	5.65	
1350	25	9	2	1	6	Base
	30.18	28.74	25.91	15.73	6.36	
1400	21	5	-2	-2	4	Base
	34.04	32.02	28.64	17.42	7.09	

Difference in cost of feed & yardage \$/hd

Net premium to calf value \$/cwt

quality feeds are essential and placement of feeders and water locations should reduce pen walking and dust. A study conducted by Ohio State University compared confinement weaning and pasture, fenceline weaning. Steers from the drylot weaning strategy lost 1.32 lb./day the first week in the feedlot, whereas steers from the pasture weaning treatment gained .88 lb./day. Only 15% of the pasture weaned calves required treatment for respiratory disease, but nearly 40% of the calves weaned in a drylot were treated. Regardless of the weaning method, it is critical to have calves immunized against respiratory and other calf diseases prior to weaning and then boosted at weaning.

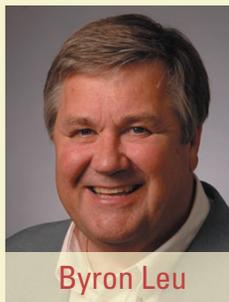
Early weaning will also impact feed

conversion in the feedlot, and with increasing feed prices cattle feeding margins are more sensitive to feed efficiency. The age and weight of a calf when it is weaned, placed on feed and ultimately harvested all impact the rate of growth, degree of finish and carcass value. When an animal is placed on a concentrate-based diet earlier in life, the rate of marbling improves and a finished body condition is usually reached sooner. **Table 1** gives an example of how early weaning might impact the profitability of finishing younger and lighter calves. Accounting for changing cost of gain, premiums, discounts, and time on feed, this example identifies the premium that could be justified by placing lighter weight calves.

IOWA STATE UNIVERSITY
University Extension

Helping you become your best.

Getting to know an IBC beef specialist



Byron Leu

Counties served: Mahaska, Keokuk, Washington, Louisa, Des Moines, Lee, Van Buren, Henry, Jefferson, Davis, Wapello, Monroe, Appanoose

What do you enjoy most about your position as beef specialist?

Livestock field specialists receive a diverse variety of livestock questions and requests that require a broad knowledge base – plus these requests vary depending on the specific operation and its goals and direction. This variety makes the position both fun and challenging – plus it keeps your “feet solidly on the ground”! Expect the unexpected...

What sort of activities are you involved in and which ones do you enjoy the most?

Topics presented and addressed vary from year to year due to market changes, environmental issues, feed quality and quantity, and so on. Over time, I have enjoyed working with producers to develop their beef “system” – including development and coordination of genetic selection, ration and feedstuff management, grazing systems, and the operation’s marketing approach.

What activities do you think producers benefit from most when they attend?

Challenging producers to modify their existing operation and consider implementing new technology or ideas that can improve their current and future bottom line is a common goal for many of our extension livestock staff. It is my goal to provide that type of information so producers are aware of the industry changes that are occurring and how best to adapt these concepts to remain cost competitive.

Weaning research focuses on promise of fenceline method

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New studies recently published on calf weaning may shed light into this topic. The data presented here look at the timing and methods of weaning.

A study conducted by [Buskirk, et al.](#), from Michigan and summarized in the *MSU Beef Research Update* evaluated weaning methods. Compared were abruptly weaned calves, fenceline weaned calves and two-step calves that were left with the cows for five days prior to weaning but fitted with plastic nose flaps. The fenceline weaned calves gained more for the first 14 days post weaning, but there were no differences in the 42-day post weaning period. Blood levels of a stress hormone were also lower for the fenceline weaned calves at day 14, but not at other days. There were no differences in feedlot performance in the 207-day post weaning feedlot period.

An Ohio State study published by [Boyles, et al.](#), also evaluated fenceline weaning. Their treatments were weaned at trucking, weaned 30 days before trucking and fed in a feedlot and weaned 30 days before trucking and kept in a pasture with fenceline contact with their dams. Calves in the drylot lost weight the first week where the other treatments gained weight. There were no differences after three weeks. The fenceline weaned group had less respiratory disease.

A joint study conducted by Kansas State University and Mississippi State University looked at the length of time between separation



Studies show that fenceline weaning, where cow and calf are not completely separated from each other, reduces stress on the calf.

from the dam and shipment to the sale barn ([Bolte, et al.](#)). The days of separation were 0, 15, 30, 45 and 60. Calf ADG in the 60 days prior to shipping increased with longer weaning periods. Incidence of fever during this time was greater for the calves weaned 60 days than the other treatments. Body weight of the calves 30 and 60 days after shipping increased with longer weaning periods, however ADG did not change. Incidence of fever after shipment was greater for calves with shorter weaning periods. Timing of weaning and the stress involved with weaning changed when the cattle were likely to get sick.

The bottom line: Fenceline weaning may reduce stress for the first week or two of weaning and is a viable weaning option. The KSU-MSU study supports the practice of weaning 30-45 days prior to shipment in common preconditioning and verified health programs as a way to reduce stress and improve the health of beef calves.

—timely tips— Nutrition and calf weaning

- # 1** Slowly adapt newly weaned calves to new feed.*
- # 2** Offer enough space in feedbunks for all calves to eat at once.
- # 3** Work with a nutritionist or vet to determine the right feed additives for your calves.

*For more information on nutrient management of weaned calves, check out

<http://www.iowabeefcenter.org/content/feedlot/Loy4state2003.pdf>

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