

Extra Pounds on Weaned Calves May Pay Dividends

By Shelby Filley, Ph.D.

Regional Livestock & Forage Specialist
Oregon State University Extension Service

Calf Facts

Gross income from calf sales depends on the total pounds of calf sold and dollars per pound received for that calf. Although it is true that calves in lighter weight classes sell for a higher dollar amount per pound, gross income is greater with calves in heavier weight classes due to more pounds sold.

The weight of the weaned calf depends on age at weaning, genetics, and nutritional resources prior to weaning, as well as health and other factors. This article discusses a nutritional management practice that affects calf weaning weight.

Typically, a calf's diet consists of 100% milk early in life and about 50% milk and 50% forage by the time the calf reaches three months of age. At weaning, the calf transitions to primarily an all-forage diet. On some years it may be profitable to add additional weight to your weaned calves by providing extra protein and energy to them prior to weaning in the form of a concentrated supplement. Providing a feed supplement does not decrease milk intake, but serves to provide an increase in total nutrients to the calf. These extra nutrients increase calf weight gain.

Creep-Feeding

One way to provide feed to calves while they are still nursing is through "creep-



Example Creep Feeder (Huffman Trailer Sales, Inc.)

providing supplemental feed to suckling calves while restricting access of older cattle. This is typically done using a feeder surrounded by a pen with narrow openings for calves. The goal should be to increase the weaning weight of calves. Depending on the cost of feed and the price of calves, this may or may not be profitable. A good rule of thumb is: the selling price per pound of calf should be greater than 10 times the cost per pound of the creep. It could take about 10 lb of feed per pound of gain.

There are many different rations that could be fed as the creep feed, but as a general guideline the feed needs to be primarily grain based (corn, oats, barley, etc.), with enough added meal-type feeds (cottonseed, soybean, or alfalfa meals, e.g.) to make a protein content of about 15%. Calves are usually fed for the last 3 months of the nursing period and typically gain 40 – 60 lbs of additional weight. Each calf will need approximately 3.5 lbs of creep per day during the first month, 5 lb/d for the second month and 6.5 lbs/d in the final month of creep feeding. For more detailed information on specific rations, see OSU publication EC 935, Creep Feeding Beef Calves

[\(http://extension.oregonstate.edu/catalog/html/ec/ec935/\)](http://extension.oregonstate.edu/catalog/html/ec/ec935/).

Don't get calves too fat. This is not efficient use of feed resources and may actually be detrimental to calf sale price. Buyers of stocker (weaned calves) and feeder cattle (yearling cattle) resist buying over-conditioned calves because those calves do not gain as efficiently in the next production phase as the thinner calves. Also, female calves destined to be replacement heifers should not be over-conditioned, as fat deposited in the udder lowers the amount of milk secretory tissue she develops and decreases her future milk production potential.

Remember not to feed expensive rations that do not allow you to put weight on the calves economically. You need to recover the cost of feeding by selling extra calf weight. Base purchase price of your creep-feed ingredients on cost per pound of nutrient (protein or energy) not total cost per ton for that feedstuff. See Pricing Protein and Energy Supplements Corrected for Moisture Content

<http://extension.oregonstate.edu/douglas/L&F/pdf/309.pdf>.

Another way to provide additional nutrients to calves is through "creep-grazing" on pasture. This is where the calves get access to the pasture before the cows so they can get the most succulent forages. This can be accomplished by use of breaks in the fence only large enough for calves to creep through or electric fence wire placed high enough for calves to scoot under, yet low enough to exclude cows.

Effect on Cows

Because creep-feeding calves does not decrease milk yield from the mother cow it does not lower her nutrient requirements. Therefore, supplementing the calves is not intended to help the cow with her body condition (energy reserves). What happens

is that calves continue to suckle similar amounts of milk, but decrease the amount of forage (hay or pasture) they consume to make room for the supplement. Research has shown that if the goal is to improve cow condition, it is more economical to increase cow feed rather than creep-feed calves.

If cows are extremely thin, you should consider early weaning of calves. A non-lactating cow has lower nutritional requirements than a lactating one. Early weaning helps cows improve body condition quickly so that they are able to support fetal development of a new calf, have less difficulty during calving, produce good colostrum and ample milk, and rebreed for the next calf in a timely manner. Although early weaned calves will have to be fed more forages and concentrates (grains and seed meals) to make up what they would miss with milk, this practice is economically beneficial over the long-run, especially in years when forage is very limited. Good reproductive efficiency (producing one calf every 365 days) is actually more important than calf weaning weight in the overall economic efficiency of beef production. See Weaning Beef Calves

<http://extension.oregonstate.edu/douglas/L&F/pdf/WeaningLF0503.pdf>.

Adopting the Practice

Successful creep-feeding is where income from increased calf weaning weight exceeds the cost of feed required to gain that weight. Be sure you formulate rations and calculate costs accurately. Response to creep-feeding depends on many more factors than included in this short article. If you are planning on using this management tool, please read OSU publication EC 935, Creep Feeding Beef Calves [\(http://extension.oregonstate.edu/catalog/html/ec/ec935/\)](http://extension.oregonstate.edu/catalog/html/ec/ec935/). Also, contact me for help on ration formulation or to discuss your plans. Good luck with your calves!