



Why Wean Early?

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Early weaning is a management practice that has become more common in recent years due to drought conditions, but has continued to be a successful management tool in some situations as the benefits have been uncovered. Early weaning generally means weaning calves when they are 3 to 5 months of age as compared to the more common 6 to 8 months. There are several advantages to weaning early, but also some disadvantages.

- **Pasture Management** – When cows cease milk production their consumption decreases, providing less stress on pastures. During dry conditions this can create an opportunity to preserve what little forage remains or allow an increased stocking rate when it is not dry. Weaning calves can cut forage consumption by as much as 50%. If calves are not sold directly after weaning, there is a need for facilities where calves can be fed a concentrate.
- **Cow reproduction** – This is an area that can have the biggest economical returns, especially if cows are in poor condition or if you are trying to move up the calving season. Some studies have indicated that cows not being suckled will have increased fertility. Many studies have shown that cows in good body condition will rebreed sooner. If calves are weaned before the breeding season begins, cows will have a chance to gain some condition and potentially increase fertility. Recent research done at USDA's Fort Keogh Livestock and Range Research Lab, Miles City, MT has shown that pregnancy rates to a synchronized AI increased in all ages of cows, averaging 63% in cows that had been weaned at 80 days and 54% in cows weaned at 215 days. In this same study, the cows with calves that had been weaned early conceived, on average, 7 days earlier than those cows with calves that were not weaned early. Furthermore, the early-weaned cows were 122 pounds heavier than normal-weaned cows at the time of normal weaning. This study indicated several ways to off-set the cost of early weaning to perhaps create an economical gain in some cow herds.
- **Calf health** – Calves weaned early still have passive immunity from their mothers. Studies have indicated that if early-weaned calves are vaccinated one month prior to weaning and again at 6 months of age, they are healthier throughout the feeding period than conventionally-weaned calves. Calves should also be castrated and dehorned two weeks before weaning to reduce stress at weaning. Some studies have also shown that fenceline weaning decreases stress in young calves, which will help their immunity. Early-weaned calves will only reach this potential by being intensively managed.
- **Feedlot advantages** – Calves weaned early have an improved feed efficiency and similar yield grades as conventionally weaned calves. In a study conducted jointly by University of Florida and North Carolina State University, early-weaned calves (weaned at 89 days and maintained on pastures) had a better gain:feed ratio as compared to normal-weaned (weaned at 300 days)

calves (0.115 vs 0.136). The authors site lower stress hormones in the early-weaned calves as a probable cause. Early-weaned calves can also have improved meat quality, with a greater percentage grading low choice or better. These economic benefits can best be captured if ownership is retained through the finishing phase or if calves are sold at a premium. If you are providing calves that will make more money for the feeder it is important that you get paid more for them!

Another option is to consider early-weaning only part of the cow herd. Cows that make good candidates, such as thin cows, two and three year old cows, late calvers, and cows that will be culled in the fall, could be weaned while other calves remain on cows.

If you decide to wean early, planning ahead for space and feed for the calves will make the transition less stressful. If you keep calves on pasture, they should be fed a 14% crude protein and 70% Total Digestible Nutrient (TDN) diet. This could be as simple as a rolled oats and corn mixture. This same diet could also be offered as a creep feed before you wean. It might be best to limit feed smaller-framed, English breed calves but larger-framed, Continental breed calves can be given free choice. If you're putting calves in dry lots, sorting by weight can allow you to target diets a little more closely. These diets could consist of similar crude protein values, but up to 84% TDN for large-framed

calves. Pay attention to water quality, making sure sulfate levels do not exceed 1,000 ppm if you're using any byproduct feeds such as distillers' grains or gluten feed. The calf diets and management is where you will see an increase in cost but feeding these calves right from the time of weaning will help you capture the advantages seen in the feedlot with early-weaned calves.

Several studies have compared early-weaned calves with conventionally-weaned calves by measuring characteristics in the early-weaned calves at the time the conventionally-weaned calves were weaned to provide equal comparisons. In most studies, early-weaned calves had a similar or greater body weight and similar or higher ADG than conventionally-weaned calves. These studies have also shown that with early weaning, cow body condition improves, cows begin to cycle sooner, and pregnancy rates increase. Early weaning does require more management and attention to the weaned calves. It also adds cost initially, so these costs need to be captured elsewhere to make this economical. These costs can be gained back by the decrease in pasture pressure, the increase in fertility of cows, the improvements in feedlot performance or the gains in selling cull cows earlier. Early weaning may not work for everyone, but consider its advantages to see if it will work in your operation.

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