

Preparing Beef Calves for Market

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Preconditioning and Process Verification

The purpose of preconditioning stocker/feeder calves is to minimize the morbidity and mortality experienced by calves as they move from their ranch of origin into the beef production system.

Process verification is a systematic means of capturing and verifying (sometimes by a third party) the preventative health and management protocols administered to a well identified group of cattle.

Both steers and heifers are preconditioned. Most, if not all, current preconditioning protocols specify knife cut steers. Castration of bull calves before they are 90 days old is an industry-accepted, Beef Quality Assurance best management practice.

A preconditioning program is based on:

- a minimum 45 day weaning period
- a series of two modified live respiratory complex (IBR, PI3, BVD, BRSV) vaccinations 14-21 days apart. (Preferably, the second vaccination will occur at least 14 days prior to sale.)
- a series of two 7-Way Clostridial vaccines given on the same schedule as the viral vaccines mentioned above
- a Pasteurella (*Pasteurella multocida* and *Mannheimia haemolytica*) vaccine given during the first round of vaccinations
- treatment for internal parasites and external parasites.

(Note: Most preconditioned/process verified feeder cattle sales have well defined health and identification protocols for consignments. Consult the sale host for specific program requirements.)

It is recommended that the calves be held in the pen for a minimum of 3-5 days after weaning. A high quality preconditioning ration should be offered twice daily and cool, fresh, clean water should be available. Arrange feed bunks perpendicular to the fence so calves walking the fence will find the feed.

The remaining 40+ days of the weaning program will likely be most economical and efficient if done from a forage base in small pastures, grass traps or improved pastures. Supplementation with cubes, cake or a grain-meal mix may be necessary to achieve the desired gain of 1-1.5 lb/day.

[Tip: If possible/feasible, familiarize the calves with the preconditioning feed while they are still with their dams – calves will quickly learn how to eat feed by watching/mimicking their dams.]

Considerations:

1. Determine the market (breakeven) price required to cover the cost of production. If that value is more than \$5-8/cwt greater than the potential value of the calves at

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weaning, have a long visit with professional marketing personnel before proceeding with a preconditioning program.

Know where and how the calves will be marketed BEFORE the preconditioning process begins. Never consign preconditioned calves to the regular weekly sale at the local or regional auction market. They be the only preconditioned calves available that day and the marketing system cannot justify paying a premium and keeping them separate from non-preconditioned calves.

2. Realize that a preconditioning program will not change the muscle or frame score of feeder calves. If they are medium frame, #2 muscle score at weaning, they will still be medium frame, #2 muscle cattle on sale day. Accurate assessment of the quality of the calves is critical to predicting their performance in a sale. Perceptions indicate that as quality declines, so does the magnitude of the "premium" offered.

3. Sort off any calves that "won't fit" load lots of calves on sale day. Sell these at weaning. Whether it is color, quality, size, age, condition, weight, disposition, phenotype or tail shape, if they don't fit, sort them off. Calves not included in load lots and consequently sold as individuals at the end of the sale typically sell at a discount to their herdmates.

4. Realistically calculate what the preconditioning program will cost.

Vaccines + anthelmintic = a minimum \$12-20 per head (essentially, a fixed cost)

If you accept the minimum preventative health program cost above AND want to keep the total per head cost of the program (before pasture cost, interest, labor, capital equipment, depreciation, etc.) at or below \$25, you can spend no more than \$15 - 19 per head on pasture, hay, supplement and/or feed. That equates to spending less than 35¢ per head per day.

To put that in perspective, if a supplement (hay cost *not* included) is fed 45 days and costs \$300/ton, maximum daily per head allowance is 3.0 lb. Realistically, \$15-20 per head is the minimum a cattleman can expect to invest for feed or supplement. On a 500# calf, that is a \$3-5/cwt investment (not considering postweaning gain).

Accurately evaluate the magnitude of potential premiums. Feeder calf market prices influence the "premiums" that can be paid for preconditioned and process verified calves.

5. Evaluate the potential pitfalls.

Timing - The minimum acceptable weaning period is 45 days. Research indicates longer preconditioning periods are not necessarily more effective. Potential buyers

coming to the sale expect a 45 day weaning period and are not prepared to pay additional premiums for longer weaning programs. Days 46+ cost additional dollars and add to accidental death risks. Therefore, plan your program as close to 45 days as possible.

Precaution: Long weaning periods have the potential to move weaned calves into a 'yearling' (> 600 lb) market. There is very little (if any) demand for preconditioned yearlings.

Sickness - Calves weaned and backgrounded on the ranch where they were born seldom experience health problems. However, if sickness were to occur, the additional medicine costs and reduced performance could easily consume any potential premiums on sale day. Unexpected fatalities resulting from a broken neck, choking, strangulations, bloat, enterotoxemia, etc. can quickly eliminate the profitability of a preconditioning program. Facilities (corrals, pens) need to be in good working order BEFORE initiating a preconditioning program.

Note: Consider previous experiences with weaning and keeping replacement heifers. If illness, injury and death loss have been minimal, so should it be while weaning and preconditioning feeder calves.

Nutrition Program - Often the largest cost, yet offers the greatest opportunity. Most producers will tend to spend too much on feed, hay and supplement. The gain target over this 45 day period is 1.5 lb per day. Few producers can realize this gain on grass alone – thus supplementation is usually warranted. Contact an Extension Specialist or beef cattle nutritionist for assistance with development of a nutrition program.

General observations relative to nutrition:

- hay is expensive relative to its efficiency of use and the performance (gain) it yields
- confinement feeding on the ranch is seldom an economically feasible option, unless cost of gain can parallel current feedyard economics.
- calf performance on bermudagrass alone in late summer or fall is typically less than expected. Weaned calf average daily gains during this time will often be 0.40 to 0.75 lb/day.
- forage quality is of paramount concern - nutrient requirements as a function of body weight are at their lifetime high. Again, if calves are expected to average 1.5 lb per day gain for 45 days, supplementation will likely be required.

Freight - If the host commission company is not your traditional marketplace or is significantly further away, carefully evaluate the freight expense. Commission company personnel can be a huge help. Freight rates are less expensive (\$/head transported) for trucks than a pickup and trailer. Most cattle trucks have a 45,000 to 50,000 lb payload; pooling calves with a nearby producer could fill a load and reduce freight expense.

Shrink - Backgrounded calves typically exhibit less shrink than fresh weaned calves. Nevertheless, predict what that shrink will be and include it in your calculations. (Hint: Cattlemen who have always sold at weaning and never weighed a calf on the ranch may not understand the impact of shrink.) Check with the host commission company to understand how they will handle shrink.

The Sort - A heavy sort at the commission company can result in too many calves being sold individually, usually at a discount to the load lot price. Discuss your calves and the sorting procedure with the host commission company personnel.

Market slide - If the market is expected to fall during the 45 day preconditioning period, proceed with caution. Even small market declines of \$2-4/cwt, when added to the \$5+ per hundredweight investment in the postweaning program, can become significant profit stealers.

6. Capitalize on the benefits!

Those benefits include:

- selling in large groups (truck load lots) of like kind, weight, condition and quality. It is well accepted that calves sold in groups command a premium compared to those same calves if sold individually.
- building a reputation. Cattle buyers know where the good ones come from and they come back to get them time after time. What a pleasure - having someone ask for your calves. What a change from dropping them off and hoping someone will pay top dollar ...
- benefiting from the sort. Several comingled preconditioned feeder calf sales are available in Texas wherein cattlemen can consign 'smaller than load lots' of cattle that adhere to the host's management protocol. If variation within the offering would preclude them being marketed as a group, then selling through a comingled sale allows small numbers from individual consignors to sell for load lot prices.
- producing a better product. Preconditioned and process verified calves are less risk to the feeder or stocker operator. Calves that never get sick perform better in the feedyard, have a greater chance of achieving their quality grade potential and, most importantly, are more likely to produce a positive eating experience for the beef consumer.