

Not Ready Yet: Unfinished Beef

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There is a whole new world of beef producers selling local and even regional beef since 2020. It is remarkable to see the dramatic change that this landscape has taken since that year. Although there are a lot of producers that are doing a good job and know what they are doing regarding selling finished beef, my discussions with regional and local processors have made it apparent that there is still a noticeable issue for some areas. It seems that many producers are still sending light and/or unfinished cattle to be processed. This impacts both the producer wanting to capitalize on this marketing opportunity, but also the beef industry at large. These incidents often turn away a would-be beef enthusiast. In other words, the consumer got burned and won't be back for a while.

The demand for local beef has been good, and as expected there have been quite a few folks jumping into the game wanting to capitalize on the potential for increased revenue and no one can blame them. However, it seems there may be some that are ready to take just about whatever they can find in the pasture to the local processor. There are numerous reasons why this is a bad approach. Sticking with cattle less than 30 months of age, here are 3 general reasons why cattle that are either light and/or lack appropriate finish create problems for the producer, processor, and consumer.

1)Low Dressing Percentage: (lost revenue)

- a. Some producers are sending light weight animals that will have more fill relative to carcass product than is ideal. Thus, there will be less product produced per pound of live weight. Industry average dressing percentage has been 63%. Lighter weight and underfinished cattle will easily be below 60%. (This is not to be confused with retail yield.)
- b. Dressing percentage increases with increased weight, increased fat thickness, and increased muscle. Thus, heavier animals yield more product on a percentage basis, and therefore, they should be more profitable.



2) Higher Cooler Shrink (lost revenue)

- **a.** Carcasses are generally hung in a cooler for 14 days for improved tenderness. This is an important aspect to beef processing and quality. However, if a carcass does not have sufficient external fat thickness of at least 0.25 inches, it will begin to lose water and dry out due to the lack of insulating protection from external fat. This will further reduce the amount of product produced and further reduce yield.
- **b.** Not only will there be reduced product weight with a lack of external fat thickness, but there may also be damage to the product making it less palatable through cold shortening. Cold shortening of muscle fibers creates a tougher product. There will also be some beef that will just be tossed out and counted as waste due to dryness.

3)Low Product Quality: (lost revenue now and future)

a. Lower product quality may be the first item we think of regarding beef carcasses with insufficient external fat. External fat cover is an age-old standby for guessing product quality. Cattle tend to deposit fat externally to a relative degree before they deposit the intramuscular fat known as marbling. In other words, if cattle do not have ideal external fat cover, approximately 0.4 to 0.5 inches, there is likely going to be less marbling and consequently, poorer eating satisfaction.

Light weight and thin finished cattle bring about a poor beef product compared to a beef that has sufficient fat covering. So, what does a steer or heifer look like with ideal external fat covering? Let's look at the common visual indicators.

This steer (see Figure 1 below) had an overall average daily gain (ADG) of 4.0 lbs. over a 6-month feeding period weighing up 1,273 lbs. at harvest. It was estimated that it took 6.5 lbs. of feed per pound of gain. With that live weight, I would have expected this steer to be closer to 63%. However, he is just average for ribeye area and is at the minimum on what I would consider acceptable fat cover for any hope of grading choice. This steer was harvested in 2018. We can well imagine that current genetics would have helped this steer move from select to choice pretty handily.



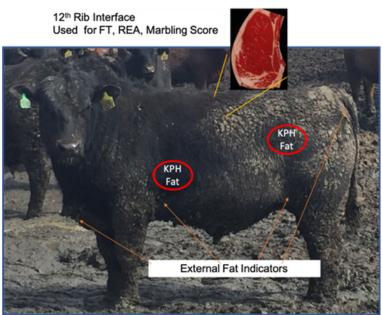


Figure 1: GA Beef Challenge Steer in Iowa, 2018

| HCW, | Dress | 12 th Rib | Ribeye | КРН, % | Yield | Marbling | Quality |
|------|------------|----------------------|-----------|--------|-------|-----------|----------|
| lbs | Percentage | Fat, in | Area, in² | | Grade | Score | Grade |
| 765 | 60.1 | 0.40 | 12.2 | 2.0 | 2.9 | Slight 82 | Select + |

The orange arrows in **Figure 1** point to the most common external indicator sites for visual fat appraisal. From left to right the brisket, forerib, flank, and pins are quick references for external fat thickness that a fed steer or heifer may be carrying. The steer in the picture has 0.4 inches of external fat thickness. This is the recommended minimum for most finished cattle, in general. The steer in the picture is noticeably smooth and filled in somewhat through those external indicators but not overly so.

- 1) In general, cattle fatten from front to rear. A finished brisket will have noticeable fullness with width and depth of fat deposited.
- 2) Cattle will continue to fatten from brisket to forerib and back to their flank. They will continue to deepen through their lower body from brisket to forerib and then to flank.



Cattle that are "dropping" or developing flank are getting closer to a finished look. See Figure 2 for an example of no lower body finish through the brisket and flank.

3) When British or British cross steers are getting close to market ready, they generally have a spongy covering of fat over their pins which is commonly called a fat pone. This is a good indicator that these cattle are covered with approximately 0.4 inches of fat over their 12th rib.

Continental breeds such as Charolais and Simmental may not exhibit a fat pone due to genetic differences in how they deposit fat. Still, looking for fat deposit in the flank and cod are often sufficient signs. Depending on how cattle are castrated, a fat deposit in the cod will start to fill out to approximately softball size when cattle are getting closer to a more ideal external fat thickness.



Figure 2: Example of steer with no lower body finish through the brisket and flank.



The steer in Figure 2 has the minimum external fat thickness of 0.25 to hopefully avoid cooler shrink and cold shortening. However, it is evident that this steer needs more days on feed. There is no appreciable fat developing in the lower body and obviously no fat pone developing. This slick haired steer shows almost no developing fat cover over its top. A steer like this would often yield a low-select or standard carcass. The light weight, under-finished cattle coming to processors are most often the lowest quality grade for young beef known as "standard". Standard grade beef in the industry is basically shunned in almost every way, receiving heavy discounts and almost no demand.

Consumers want two overarching things: quality and consistency. A good portion of quality can be summed up in palatability. Palatability refers to the combination of flavor, tenderness, and juiciness. It takes a carcass that has developed an acceptable degree of fat cover within an appropriate weight range to have the best outcome regarding carcass quality and the consistency that beef customers are expecting. It is always recommended to talk with your processor to understand what they feel works best for their set up regarding weights. The goal of this article is to encourage people to stop bringing 800 to 900 lbs. steers to the processor. Let your goal be 1,250 lbs. for steers and 1,150 for heifers. Everyone, including the processor, will be much happier, and believe it or not, the producer should make more money and develop a much stronger business. Please feel free to reach out with any questions you may have.

