

Beef Logic

by Bob Long



Weighing conditions important

The majority of commercial cattle are bought and sold on the basis of weight. The weight of an animal during any 24-hour period can vary greatly and is affected by many different factors. Therefore, the weighing conditions agreed upon by buyer and seller are very important in any cattle "deal."

Probably the most important factors affecting weight are water and feed intake and time of consumption. A 1,000-pound (lb.) steer can and will drink 8-10 gallons (gal.) of water at a time. At 8 lb./gal. of water and a selling price of \$70/hundredweight (cwt.) as much as \$50/steer can be involved. Further, a steer can eat 20 lb. of feed in a short time as well.

Time of day can make a difference in weight. For example, cattle on full feed usually eat and drink more during the morning hours. Under normal conditions they will weigh more around noon than at any other time of day. However, extremes in temperature or wind chill can change this eating pattern.

Just as "fill" (water and feed intake) greatly increases weight, "shrink" (loss through excretion of urine and feces) decreases weight. Excretory shrink can vary tremendously. Any increase in activity, movement to strange surroundings, fright or pain results in rapid weight loss. The greatest contributor to shrink is loss of fecal material.

Normally, undigested feed accumulates in the large intestine and colon, where large amounts of water are absorbed and the relatively dry feces is held for a period of time and then eliminated a few times daily. However, if cattle are upset in any way, the

adrenal gland secretes adrenaline, which initiates the so-called "fight or flight" syndrome. This hormone stops the absorption of water from the intestine and increases the frequency of defecation, resulting in profuse diarrhea and increased weight loss.

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Another contributor to shrink is disposition. Wild or aggressive cattle shrink much more than others—a fact which points out the need to include disposition in any seedstock selection program.

The type of feed cattle have been receiving affects weight loss. Cattle receiving diets high in moisture, such as lush pasture or silage, shrink much more than those on high-concentrate rations.

"Trailing" or shipping cattle also results in weight loss. The longer the time en route, the greater the shrink. In trucking, the first two to three hours will result in a loss of 4-5% and the next 15-20 hours an additional 4-5%. Also, cattle lose more during a jerky ride on slick floors than during a well-bedded, smooth ride.

To help reduce shrink, always handle cattle slowly and quietly and in the same manner. If horses and/or dogs are used, they should always be used.

An accurate set of scales and a well-designed set of pens and holding paddocks that are in good repair are sound investments for any cattle operation. At market time, the cattle are held near the scale and at the agreed upon weighing time, the cattle should be weighed as quickly and quietly as possible. The experienced cattleman says, "Get 'em weighed before they get their tails up."

In most marketing programs weight loss is due to "excretory shrink" (loss of urine and feces). However, if cattle are held off feed and water very long, additional losses occur from "tissue shrink." In this case there is actual loss of water, fat and protein from the carcass. Excretory shrink is rather rapidly and cheaply replaced, but losses from body tissues require more time and money to restore.

Cattle sale negotiations can include such items as when the cattle will be taken off feed and water, when and where the weighing takes place and whether there is a "pencil shrink." Regardless of whether you are a buyer or seller, the more knowledge you have about the factors that affect weight loss, the more advantageous will be the weighing conditions you are able to arrange.

Commercial producers should not be intimidated by dealers and packer buyers who complain, whine and stamp their feet arousing the cattle and killing time while the cattle lose weight. However, once they have made a deal and closed it with a handshake, they must stick to it if they expect to stay in the cattle business.



We Welcome Your Input!

Our Beef Improvement section has been expanded to include more information for today's performance-minded breeder. Both "Beef Logic" by Bob Long and the "What's Your Beef?" columns serve as a forum for Angus breeders and industry experts to express their opinions on current issues and topics of breed improvement and performance programs.

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