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Calf Shrink at Marketing

Dr. John Arthington
University of Florida/IFAS
Range Cattle Research and Education Center

For questions or comments regarding this publication contact
Dr. John Arthington

Shrink is an important aspect affecting the value of calves on sale day. For freshly weaned calves, the time span from weaning to determination of sale weight can be considerable, often 12 hours or more. In this period of time calves can loose as much as 3 to 10 % of their initial weight. This weight loss translates into considerable loss in value back to the owner at the time of sale. Nevertheless, shrink is an inevitable factor that all cattlemen must deal with. Understanding shrink and the factors that affect it is an important consideration to increasing the value of our feeder calves.

Research from the Range Cattle Research Center showed that 500 lb calves lost nearly 5% of their body weight when held 6 hours after weaning without feed and water. These calves were not shipped. Being moved on a truck will increase shrink. Research from the University of Wyoming showed that trucking increased shrink by 2% compared to calves held for the same period of time in a drylot. Minimizing standing time in the drylot and especially time on the truck will decrease shrink and increase the amount of body weight at the time of sale.

Pre-weaning calves prior to shipping is a popular management system for improving calf health. It is important to realize, however, that pre-weaned calves will likely experience a greater percentage of shrink compared to freshly weaned calves. This is probably due to a greater capacity for gut-fill in the weaned versus non-weaned calf. A recent study at the Range Cattle Research and Education Center compared the effect of previous calf management on shrink. Three treatments were compared, including 1) creep feeding for 45 days prior to weaning, 2) pre-weaned and supplemented on pasture for 45 days prior

to weaning, or 3) freshly weaned. All calves were loaded onto a commercial livestock trailer and transported for 24 hours. Calves were weighed prior to loading and again immediately after unloading. Creep-fed and pre-weaned calves gained approximately 15 additional pounds over the 45 days prior to weaning compared to calves left with their mothers and provided no supplemental feed (average weight gain during the 45 days prior to weaning and transport = 53, 67 and 69 lb for freshly weaned, creep-fed, and pre-weaned calves, respectively). Calf shrink following transport was greatest for the pre-weaned calves (9.6 %) compared to the creep-fed calves (6.9%) and freshly weaned calves (7.2%).

The time at which calves are gathered in the morning of the sale will also impact shrink. Traditionally producers attempt to gather calves in the early morning hours to facilitate trucking times and to avoid the hot afternoon temperatures. Calves gathered in the morning are unable to participate in early-day grazing. Research has shown that the majority of total daily forage intake occurs in the morning hours. A study from Kansas State University showed that calves gathered at 6 AM shrink nearly twice as much as cattle gathered at 9 AM when a standard sale weight was collected at 3 PM (6.2 versus 3.3% shrink for cattle gathered at 6 AM and 9 AM, respectively).

In conclusion, there are no methods that allow cattlemen to completely avoid shrink. This loss in saleable calf value is shared among both the seller and buyer. However, understanding the factors that affect cattle shrink and designing management strategies to lessen the magnitude of shrink will improve the total pounds of calf offered at the time of sale.