

# HEALTH & HUSBANDRY

## Preparing calves to transition

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Change is never easy. Moving from high school to college involves changing social structures, learning a new environment and adapting to a new way of eating.

Preparation for this transition reduces stress and eases the adjustment to the new environment.

Calves have similar challenges when moving from the ranch of origin to a new operation. Preparation is important, and often focused on building immunity and adapting to a new ration. Planning for the transition is important, but how we manage the process and the actual transition time can affect the overall outcome.



Stress causes the release of cortisol, a steroid hormone that can suppress immune response to vaccinations.

PHOTO BY BECKY MILLS

alley width, and creating a low-stress environment can go a long way to get the desired effect when trying to build immunity.

High-stress environments contribute to shrink and decrease the value of preconditioning procedures. Stress causes the release of cortisol, a steroid hormone that can

suppress immune response to vaccinations. If we are going to the effort of vaccinating calves prior to sale, we want to be sure we get the best response possible, and stressed calves do not respond as well.

One of the cattle-processing adages I like is the phrase, “move slow to go fast.” In other words, set a working pace that allows both the processing

crew and calves to complete their jobs in a timely fashion, but that does not feel rushed. Success is not gauged by how quickly we vaccinate all the calves, but rather by how well we performed these procedures. The end goal is improving calf immunity and preparing them for future disease challenges.

Remember, how we performed the procedures can be just as important as which procedures we performed. For further information on facility design, cattle handling and proper vaccine administration techniques, the Beef Quality Assurance (BQA) program ([www.bqa.org](http://www.bqa.org)) is a great resource.

### Managing sale day

Adjusting to new environments and areas is challenging, but previous exposure can help mitigate stress. When preparing for calves to leave the operation, consider the process that will be required to capture and transport the cattle to the next facility. Feeding in the catch pens helps signal to the cattle that this is a safe environment. It can also help with the animal gathering and transition process. Then when calves are held in the facility prior to sale, they are in an environment where they will feel

### Managing low-stress cattle handling

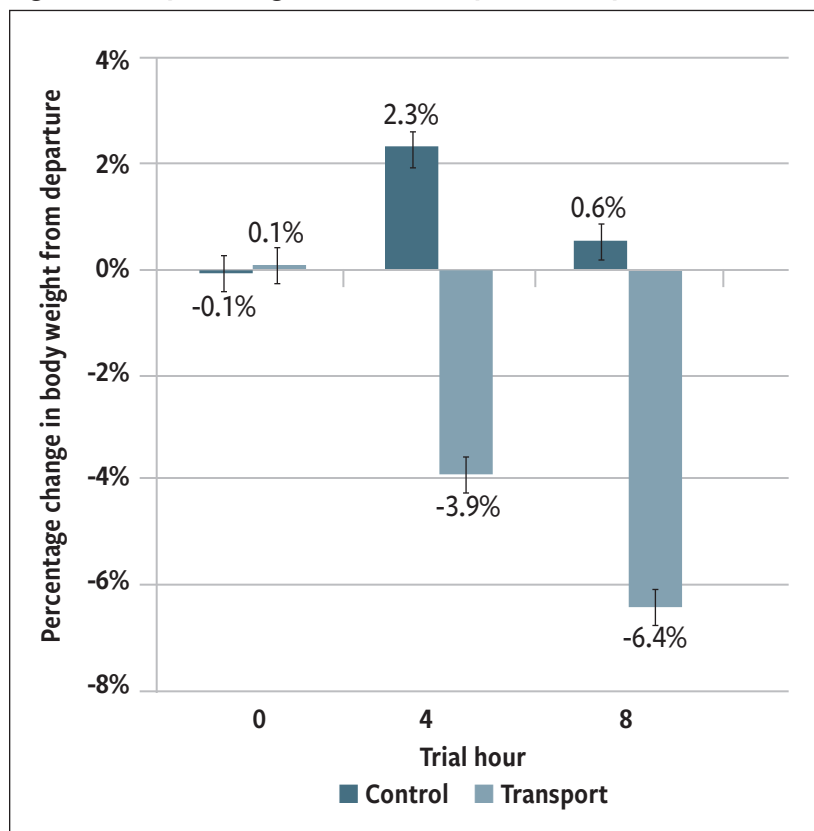
Preparing cattle for the postweaning phase involves vaccinations to generate immunity that helps ward off disease challenges. Matching a vaccine program to your needs is critical, and this is a good opportunity to visit with your veterinarian regarding the best vaccines for your herd.

While building immunity is important, be sure to consider the methods of animal handling while vaccinating calves prior to sale and loading cattle for transport. Good working facilities minimize stress, which makes the overall process more productive.

The calf-processing facilities may have been infrequently used over the last few months. Now is a good time to walk the holding pens and alleyways to identify any needed repairs. Remember that section of alleyway you were going to fix the last time you worked cattle? Now is the time to make sure all areas are solid and safe for both the people and the cattle.

Low-stress handling is key to minimizing problems prior to cattle transition. If gathering cattle causes a raised heart rate (in cattle or people), consider evaluating the process. Proper placement of gates, adjusting working

**Fig. 1: Shrink percentage of calves transported compared to controls**



comfortable eating and drinking while waiting to be transported.

Inspect loading facilities and transport vehicles prior to hauling the cattle to the next operation. Walk the facilities to find potential weak spots or areas cattle could be injured while walking onto the trailer. Be sure the trailer is ready for transport, with good tires and solid footing.

Both the loadout alley and the trailer should have nonslip footing. As many cattle may not have been loaded before, they may be moving rapidly. Proper footing helps prevent accidental falls.

## Minimizing shrink

Feeder-calf buyers and sellers are familiar with the term “shrink.” It’s the amount of weight cattle lose between leaving the farm and the time of sale. Shrink can be divided into transient shrink and true tissue shrink. As cattle are loaded for transport, one of the first actions is to urinate and/or defecate. This resulting loss in body mass is transient shrink that will be corrected the next time they eat or drink. A longer journey may induce tissue shrink based on dehydration or small losses in muscle mass. More time is needed to recover this body weight.

The effect of shrink on the pay weight can be important to consider. For example, in a study we did a few years ago, hauling cattle four hours reduced their

body weight almost 4%. Hauling them another four hours reduced body weight by more than 6% (see Fig. 1).

These cattle were compared to control animals from the same group that did not travel, that actually gained weight four hours after transport started. Interestingly, by 48 hours after the transport time, both groups of calves were back to the same weight, indicating that most of the shrink was body weight lost by transient factors.

Studies have shown that greater shrink increases the risk of disease in the postweaning phase, and greater weight loss prior to sale certainly reduces the paycheck for a group of calves. Shrink is unavoidable, but it can be managed to minimize the effect on your ranch. One of the greatest contributors to shrink is how we manage calves immediately prior to sale.

For example, imagine my local feeder-calf sale is on Wednesday. I would like to deliver the calves on Tuesday, and I’ll get them into the catch pens on Sunday or Monday (to

give me a day to make sure I’ve got all of them). Sound familiar? This means I have made the calves change environments, and often feed and water sources, immediately prior to sale, which can contribute to shrink. A stressful last-minute gathering may not be helpful, either.

One of the best ways to minimize shrink is to adjust cattle over a period of time to the new environment, then transition, and use a low-stress loading procedure with sale soon after the cattle arrive. There is no single best way, but spend some time planning the best method that makes sense for your operation.

## Conclusions

Preparing calves for the next phase of life involves building immunity and providing them the tools to adjust to a new environment. Selecting the specific procedures for preweaning calf health management is important, but how these procedures are applied can be just as important. Prepare to have an efficient processing and loading system, which minimizes shrink to help cattle get off to a great start at the next operation. |

Editor’s note: Author Brad White is on faculty at Kansas State University College of Veterinary Medicine and serves as director of the Beef Cattle Institute. To learn more on this and other beef herd health topics, tune in to the weekly Beef Cattle Institute *Cattle Chat* podcast available on iTunes, GooglePlay or directly from [KSUBCI.org](http://KSUBCI.org).