

SHRINK

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In livestock terms, "**shrink**" refers to the loss of weight of a meat animal - whether it be a steer, hog, or rabbit - between the place it is reared and the time the meat is sold in the supermarket. This may occur during transport to the processing plant or in the coolers after slaughter. "Fill" is the water and feed that the animal takes in that may be passed as urine or feces during the antemortem period. Most of the shrink during transport results from loss of fill and loss of moisture in the air breathed out by the animal. There may also be some weight loss from body tissues because the animal has no access to food or water during transport so some of the body tissues break down to provide nutrients for the vital processes of the body.

Because of shrink, your rabbits will probably weigh less at the processing plant than they did when they left your farm. Since growers are often paid on the basis of the weight at the plant, shrink can cost money. It is thus important to know how much shrink you can expect and how to reduce it to an absolute minimum.

How Much Shrink is Normal?

Studies on transporting and/or fasting 8 to 10 week old fryers were carried out at Tennessee State University (Coppings et al. 1989). Two hours of transport in the back of a pickup caused loss of live weight in all animals. This ranged from 1.5% for rabbits that had full access to feed for the 24 hours before shipping to 8.6% for rabbits had not had feed.

Fasting increased dressing percentage from 45.6 to 49.3% but there were no differences in the carcass shrink in the cooler (mostly due to water loss) or the final chilled carcass weight. These carcass quality factors were, however, affected if the fasted animals were also denied access to water. The authors concluded that water had an important role in reducing live weight and carcass losses. Water thus should always be available to the rabbits before transport. Furthermore, the effects of transport were more serious in animals that were fasted. Thus, food in the gut may, in some way, protect the animals from some of the adverse effects of transport.

Factors Affecting Shrink

The amount of shrink can be affected by the period of time the animals are in transit from the farm to the processor, environmental conditions during the shipping period, and the condition of the animals when they are loaded to be transported to the processing plant.

As transport time increases, the total amount of shrink will also increase. However, a greater percentage of the shrink occurs during the early part of transport. This is especially true for animals that have had access to feed and water and thus have a

large amount of fill. For example, if a fryer drank before shipping, that water would be passed as urine within six hours or so. The weight loss from passing urine is shrink. Since the animal does not have access to more water, that shrink cannot occur again, A similar scenario holds with the weight loss because of the feed that was in the gut and is passed as feces.

With cattle and hogs, there are regulations that specify the length of time the animals can be transported before they must be unloaded, fed and rested. There are no such restrictions for meat rabbits.

Weight loss is higher in hot weather because the rabbits lose extra moisture when they pant to try to keep cool. In cold weather, there is extra weight loss because the rabbits use energy to keep warm., With more moderate weather however, the weight loss will be less. Environmental conditions during shipping also may include how the animals are handled. Rough handling with frequent stops and abrupt starts places stress on the animals. Stress causes increased shrink.

Condition of the animals when they loaded refers, among other things, to the amount of feed and water that they have taken in. If the animals are full fed and fully watered, it is evident that, because they will defecate and urinate more, the shrink will be greater than if they have had limited access to feed and water. Diseased or parasitized animals will be under more stress than healthy animals so will have greater shrink.

What is the Bottom Line?

Almost everyone has to transport their animals to get them to the processing plant. We can expect live weight losses as high as 10% during shipping. At times when it is very hot or very cold, when animals are on the truck for a long time, or when the animals have taken in large amounts of food and water, even greater losses may occur. Shipping at night in hot weather, wind protection in cold weather, and shipping only healthy, well watered, well fed animals in vehicles driven carefully will all help reduce shrink and help to increase profits from the rabbits.

References:

Coppings, R., E.J .Ekhtor and A. Ghodrati. 1989. Effects of antemortem treatment and transport on slaughter characteristics of fryer rabbits. J. Animal Sci. 67:872-880.

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