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Research and Extension



How Much Meat to Expect from Your Animal

Have you ever taken your steer to the butcher at 1,300 pounds and been confused when you were only returned 500 pounds of cut and packaged beef? Like many consumers, you may be unaware of the steps in animal processing that result in changes in product weight. Some changes occur in converting the live animal to a carcass, and more before the animal becomes packaged meat. This guide explains the process and provides tools to help you determine the amount of meat to expect when you have an animal harvested.

From live animal to carcass in the cooler

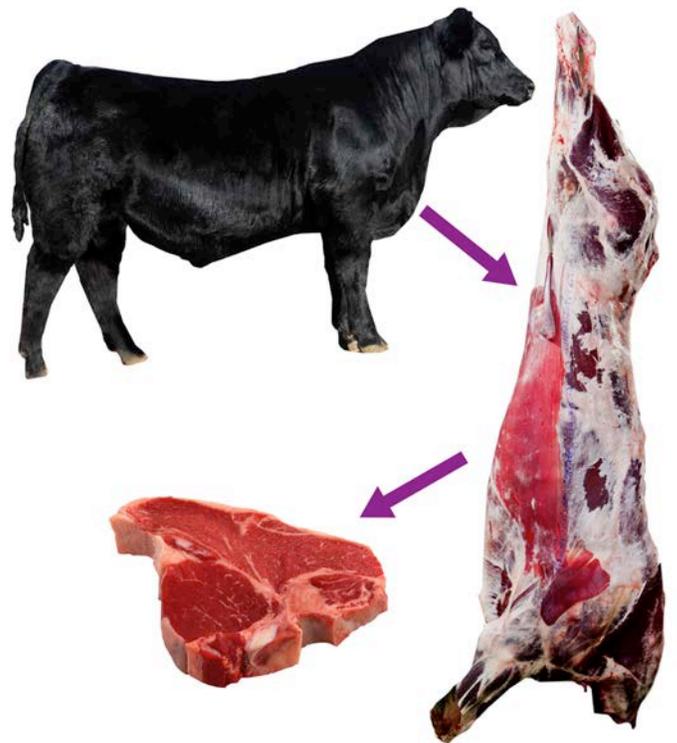
The first step is to convert the live animal to a carcass. The amount of the live animal's weight represented by the carcass, or *dressing percentage*, can be calculated as follows:

$$\text{Dressing percentage: } (\text{carcass weight} \div \text{live weight}) \times 100$$

Next, the animal's blood, hide, and internal organs are removed, which results in weight loss. The amount of weight lost is highly variable and can be affected by many characteristics, including:

- Mud or manure on the hide of the animal
- The amount of food in the animal's stomach (gut fill)
- Bruises that must be trimmed from the carcass

- Hide or wool weight
- Horns
- Animal muscling and fatness



Species differences

The dressing percentage varies for each species because animals carry body weight differently. Pork has the highest dressing percentage (70-75%) because skin and feet remain on the carcass, and because hogs are monogastrics with single-compartment stomachs. Lambs have the lowest dressing percentage (54-59%) because of heavy hides and less muscling on the carcass. The beef dressing percentage (60-64%) falls between pork and lamb.

Average dressing percentage for the three major meat species

| Species | Average dressing percentage (%) |
|---------|---------------------------------|
| Pork | 70-75 |
| Beef | 60-64 |
| Lamb | 54-59 |

From whole carcass to retail cuts

Estimating the carcass weight of an animal is fairly easy because the process is standard across the industry. Predicting the weight returned as cuts of meat is much more difficult. A carcass can be processed into cuts (steaks, roasts, and ground meat) in multiple ways. The final weight varies depending on the processing style and cuts requested. Customers have many options and may be able to customize their order, adding even more variability to the equation. Here are a few choices that can affect the weight of the finished product:

- **Bone-in vs. boneless cuts:** Removing the bone results in less weight returned as product.
- **Fat percentage in the ground product:** A leaner product produces fewer pounds of ground meat.
- **Aging:** Longer aging periods improve meat tenderness but lead to moisture loss and less weight returned.
- **Type of aging (dry-aged vs. wet-aged):** Dry-aged products result in more moisture loss due to dehydration and additional trimming losses due to surface crust removal.
- **Further processing:** Having cuts processed into cooked sausages, hams, bacon, corned beef, and similar products results in fewer pounds of returned product because of the moisture lost during the cooking process.

The amount of meat returned after harvesting an animal varies. The following examples should help consumers understand where the weight of the live animal goes and guide expectations on the approximate amount of meat to expect. Other fact sheets in this series describe processing options for individual species.

Example for beef:

Live weight = 1,290 lbs
Actual dressing %: 62%
Carcass weight = 800 lbs
Bone-in option: 65-70% of carcass weight
Boneless option: 55-60% of carcass weight
Approximate bone-in meat returned = 520 lbs
OR approximate boneless meat returned = 440 lbs

Example for pork:

Live weight = 285 lbs
Actual dressing %: 72%
Carcass weight = 205 lbs
Bone-in option: 75-80% of carcass weight
Boneless option: 65-70% of carcass weight
Approximate bone-in meat returned: 154 lbs
OR Approximate boneless meat returned = 133 lbs

Example for lamb:

Live weight = 132 lbs
Actual dressing %: 55%
Carcass weight = 70 lbs
Bone-in option: 70-75% of carcass weight
Approximate bone-in meat returned = 50 lbs

References

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Prepared by:

Alaena Wilfong, 4-H/Youth Development Extension Educator, University of Idaho

Travis O'Quinn, Ph.D., Assistant Professor, Kansas State University

Reviewed by:

Kara Mayer, Agriculture and Natural Resources Agent, K-State Research and Extension - Wabaunsee County; **Lexie Hayes**, Youth Livestock Coordinator, Kansas State University

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