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### **Introduction and Meat Yield in Carcasses**

Although not a new face to Meadowlark Extension District, but I am new to the Livestock and Natural Resources position. This is my first news column in this Agriculture role, so here's my quick bio and then we'll dive into the topic. I'm originally from Bern, Kansas and currently live three miles from where I grew up, with my wife Tonya and our three children - Maddy, Lane and Lindy. After completing an Animal Science degree at Kansas State, I was hired as the Agriculture agent in Washington county, moved into the River Valley District Livestock agent role and have served as the 4-H Youth Development Agent in Meadowlark District for the past twelve plus years. I'm excited to work with livestock producers across the District, while my office remains in Seneca.

Today I'll tackle a natural, timely, topic that transitions from 4-H to livestock for me. With county fair rapidly approaching, many 4-H and FFA members offer livestock projects for sale as freezer meat. Consumers who buy a live animal from a local producer or 4-H member for custom processing, are often surprised by the amount of meat they receive, the amount of freezer space needed and that they did not get back the entire live weight of the animal in retail cuts. This example is with beef, but typical dressing percentages for the other species are listed and the calculations will be similar from that point on.

Dressing Percentage is an important term to remember as it represents the portion of the live animal weight that is converted into the hot carcass weight. Dressing percentage is calculated as:  $(\text{hot carcass weight} \div \text{the live weight}) \times 100$ . The hot carcass weight (HCW) is the weight of the unchilled carcass in pounds after the head, hide and internal organs have been removed. For most cattle, the HCW will be approximately 60 to 64 percent of live animal harvest weight, with 62% being average. Dressing percentage ranges for other species are: Sheep & Goats - 44 to 56 with 50% an average, Swine 68 to 72 with 70% an average and meat poultry are typically close to 70% as well. For example, a 1400-pound animal with a hot carcass weight of 880 pounds has a dressing percentage of approximately 63%.

It is not uncommon for the buyer of a live animal to question "if the HCW is 880 pounds and I take home 550 pounds in retail product, where is the rest of my meat?" The hot carcass weight includes bones, excess fat and moisture loss that will not be packed and wrapped for home consumption. Roughly one third of the hot carcass weight gets removed, such as excess fat, bone and other trim. Additionally, carcasses are composed of 70 to 75% water, so as they chill, evaporation will cause the carcass weight to decrease 2 to 5%. Our example 880-pound carcass could lose nearly 40 pounds solely due to water loss by evaporation!

In summary, the amount of meat that is cut and wrapped for consumption will be much less than the live weight of the animal. In our example the 1400-pound beef animal will yield a hot carcass weight of approximately 880 pounds (840 pounds cooled). When deboned and trimmed, there will be approximately 570 pounds of product to fill your freezer. Keep in mind, a quarter of beef takes an approximately 4.5 cu. ft. of chest freezer. A side (half), requires around 8 cu. ft. of space, while a whole beef will need 16 cu. ft.

Supporting locally grown animals, especially youth livestock projects at fair time, is an excellent way to fill your freezer with wholesome, quality products; just be prepared with reasonable expectations for meat yield. Sources include publications from the University of Tennessee Extension and South Dakota State University.